

**JOURNAL****OF INDIAN SCHOOL****OF POLITICAL ECONOMY****A Journal Devoted to the Study of  
Indian Economy, Polity and Society****Vol. XXXII****July-December 2020****No. 3&4**

---

Auto Fuel Pricing in India: An Empirical Study     D.C. Patra     351  
on Prevailing Price Level & Volatility

409

**DOCUMENTATION**

Prof. V.M. Dandekar, Articles published     410  
in 1959 to 1961

Reserve Bank of India, All-India Rural     V.M. Dandekar     473

Credit Survey District Monographs     G.J. Khudanpur

Bijapur (Bombay State)

Index of Volume XXXII (2020)     699

# Annual Subscription Rates

## Journal of Indian School of Political Economy, Pune

New annual subscription rates effective beginning with issues of Volume XXVII (2015) of the Journal:

	India (Rs)	Other Countries (US \$)
For Universities and Institutes other than Colleges	1000.00	100.00
For Individuals and Colleges	500.00	50.00

Payments should be made by Demand Draft or cheques, payable to *Indian School of Political Economy, Pune*, payable at par in Pune.

Please mail your orders/enquiries to

### Indian School of Political Economy,

‘Arthabodh’, 968/21-22, Senapati Bapat Road,

Pune 411 016 (India). Phones: (020) 25657132, 25657210. e-mail: ispe@vsnl.net

Editor's Note: University and college teachers and students of Economics, Political Science and Sociology/Social Anthropology are invited to send to us questions of wider interest on the subjects of their study. We shall endeavour to publish in subsequent issues of the journal answers to selected questions received by us. This will form a separate section of the journal. The authors of the selected questions shall receive complimentary copies of one year's issues of the journal, as a token of our appreciation.

<i>Subscription Category</i>	<i>Yearly Subscription</i>	<i>Three Years' lumpsum Subscription</i>
<i>Universities &amp; Institutes</i>	<i>Rs. 1000/-</i>	<i>Rs. 2400/-</i>
<i>Individuals &amp; Colleges</i>	<i>Rs. 500/-</i>	<i>Rs. 1200/-</i>

For more details write or send email to:

The Administrative Officer,

### Indian School of Political Economy,

‘Arthabodh’, 968/21-22, Senapati Bapat Road,

Pune 411 016 (India). Phones: (020) 25657132, 25657210.

e-mail: ispe@vsnl.net; Website: ispepune.org.in

### Bank Details:

**Bank Name: Vidya Sahakari Bank S.B. Road Pune 411016.**

**Account Name: Indian School of Political Economy**

**Bank Account No. 200403130004208**

**NEFT/RTGS No. SVCB0003004 IFSC Code: SVCB0003004**

# **AUTO FUEL PRICING IN INDIA: AN EMPIRICAL STUDY ON PREVAILING PRICE LEVEL & VOLATILITY**

D.C. Patra

*The consumer of auto fuel in the Indian market today is a price taker. The question is: are the oil marketing companies in India price takers or price setters and to what extent? Are there options at policy level to provide a moderate and reliable price level of auto fuels, when auto fuel prices by all measuring standards are ruling high? This paper is an economist's enquiry into the auto fuel price episode in India in recent times keeping the historical perspective in mind. This paper attempts to present some policy level options both from a consumer's point of view as well as from an economy manager's point of view.*

## **INTRODUCTION**

'Oil on the boil', flashes the Indian media on almost every alternate day in recent times. Oil prices are said to be very high now by historical comparison. Prices of petroleum products, particularly auto fuels and cooking fuels, are pinching family budgets during the COVID 19 crisis, when many families are suffering from erosion of income. In the din and cacophony of the social media, at times, even well-informed people are getting puzzled at the developments. Overall, it seems to be a mysterious affair. It, therefore, appears reasonable to ask: whether policy makers in oil and gas sector have hit a roadblock or there is a better way out?

This paper attempts to put the various issues in perspective, linking business knowledge with economics. It attempts to deconstruct petroleum product prices

in terms of methods (policy) and components (business). Then, the paper tries to zero down to the factors contributing to the almost continuous price rise. The underlying policy intent, stated and implicit, is attempted to be brought out. Finally, the paper comes out with options on the way forward.

## **The Problem**

It has been (and being) observed by consumers of auto fuels and public at large that the price of petrol and diesel have sky rocketed in the recent past. This has been happening for more than a year; prices going up virtually on a daily basis. This is seen to be happening at a time when international prices are known to be oscillating, high and low and the economy is struggling with the pandemic induced depression. The objective of this paper is to examine:

- a) Whether prices of auto fuels are indeed at a historical record level?
- b) If yes, how much is the rise, at what frequency?
- c) Is the price of petrol and diesel displaying volatility, as oil market is known to be?
- d) Is the selling price of petrol and diesel following the pattern of international oil prices?
- e) What are the factors responsible for the prices of auto fuels to rule at high level; petrol price crossing psychological level of Rs 100 a liter? and
- f) Given the situation and perhaps compulsions of having high level of auto fuel prices, what are the public policy options available?

It is generally understood that increases in auto fuel prices casts cascading effect on the economy. Diesel goes into production process of the economy as input. Petrol and diesel carry 1.60 and 3.09 weight, respectively, in the wholesale price index -2011-12. The feedback loop between oil price and inflation is not very clearly known, as the transmission channel gets established by behavior of market participants [Bouchouev, 2021]. However, the Reserve Bank of India, in their half yearly monetary policy report, considers fuel price (petrol, diesel and LPG) and tax on fuel (excise and VAT) as structural

impulse (shock) besides other variables like food price, exchange rate and some fiscal and monetary aggregates, which contribute to build up the inflationary process. RBI also considers petroleum product prices (including crude oil prices) as factors that helps to build inflation expectation amongst the consumers. While estimating inflation forecasts, namely, the exercise for the flexible inflation targeting framework. RBI considers oil prices as a risk factors. In RBI [2021a, p. 6], the Monetary Policy Report said, "There are a number of upside and downside risks to the baseline inflation forecasts. The major upside risks include supply chain disruptions persisting for a longer period, rise in global crude oil and other commodity prices beyond what is currently in the baseline, and stronger pass-through of input costs amidst improvement in demand conditions and return of pricing power."

### **The Evolution of the Oil Price Regime in India**

The prices at which petroleum products are sold to consumers is a subject of macro-economic significance. Petroleum products, besides being items of mass consumption, also are used in the manufacturing process as intermediate inputs. That is the way prices of petroleum products impacts consumer's

spending, real income and also the input costs of the production system in the economy. And that has been the reason why governments of most countries, irrespective of their economic philosophy and structure of the market, keep a tab on the prices of petroleum products. Additionally, for a net oil import dependent country like India, prices of petroleum products come significantly under the influence of the prices in the international market; variables of considerable significance being the price at which products get imported and the exchange rate.

The level of petroleum products prices influences revenue for the oil producing and marketing companies. While high oil prices remunerates the production and the marketing wings of the oil industry, low oil prices provides for cheer of consuming households and manufacturing plants. So, the upstream of the oil marketing value chain becomes poorer in situations of low oil price. From the pricing regime point of view, petroleum products can be classified into four groups, as presented in Table 1.

**Table 1. Application Based Classification and Quantum (%) Usage of Petroleum Products**

Class	Usage (Purpose)	Products	Percentage usage (approx.) (2020-21)	User's Profile
(1)	(2)	(3)	(4)	(5)
1.	Cooking fuel	LPG, Kerosene & PNG	15	All households
2.	Auto fuel (Liquid)	Petrol, Diesel	42	2 & 4 wheelers - personal and commercial
3.	Auto fuels (Gaseous)	CNG, LPG	3	3 & 4 wheelers - personal and commercial
4.	Industrial application, fuels and feed	Naphtha, Furnace Oil, Bitumen, LSHS, Pet Coke	38	Plants, Ships for bunkering
5.	Aviation Fuel	ATF	2	Airlines (domestic and foreign)

The petroleum product pricing methodology in India has evolved in tune with country's economic development and prevailing investment-ownership philosophy. The evolutionary process, while addressing India's contemporary issues, has kept India's long-term concern for energy availability, affordability and accessibility as primary set of operating objectives. All-out supply-side ingenuity has been adopted to meet the ever

growing demand. Supply and distribution line of petroleum products have remained alive to the need of the economy all the time and imports have been organised in situations of indigenous product deficit.

There are primarily 3 dominant phases of petroleum products pricing regimes in India, as they evolved over a period of time as indicated in Table 2.

**Table 2. Evolving Petroleum Products Pricing Regimes in India**

Period	Pricing Principles
(1)	(2)
1948 - 1976	Valued Stock Accounting (Import Parity Pricing as operated by multinational company)
1977 - 2001	Retention Pricing (Cost Plus)
2002 - till date	Import Parity Pricing for all products; Adjusted Import Parity for Auto & Cooking Fuels; Trade parity for auto fuels from 2006

We now consider the different regime sequentially.

#### **a) Period 1948 to 1976**

The pricing regime prior to 1977 appeared to be an extension of that in the era of multinational business practices that were prevailing in the pre-independence period. After independence, multinational companies were issued licenses to set up refineries and market petroleum products.

The market during this period was characterised by dominance of multinational oil companies, whose head offices were located at global centers like London and Houston. These multinational oil companies were vertically integrated for their worldwide business (had operation across the value chain, covering upstream, midstream and downstream) and were operating on principle of horizontal integration. This meant foreign oil companies operating in India were integrated as subsidiaries or associates of multinational oil compan-

ies. There were six companies into marketing of petroleum products in India, namely:

- i) Burmah Shell,
- ii) Standard Vacuum Oil Company,
- iii) Caltex (India) Ltd.,
- iv) Burmah Oil Company (India Trading) Ltd.,
- v) Western India Oil Distributing Company Ltd. and
- vi) Indo Burma Petroleum Company Ltd. Three of them; namely, Burmah Shell, Standard Vacuum and Caltex had put up refineries. Petroleum products consumed was 3.52 MMT in 1954, which increased to 11.77 MMT in 1968, registering a compound annual growth rate (CAGR) of 9% (during those 14 years).

Three refineries were set up by the foreign companies: i) at Mumbai by Standard Vacuum Oil Refinery Company in 1954; ii) at Mumbai by Burmah Shell Refinery in 1955, and iii) at Vishakhapatnam by Caltex in 1957 with combined refining capacity to process 5.1 MMT crude oil. The first Indian company after independence, Indian Oil Corporation (IOC) was set up as a public sector oil company in June 1959 and till end December 1960, they had only 2 terminals one at Mumbai with a capacity of 12 TMT and another at Kochi with a

capacity of 6 TMT. This was reflective of low scale of marketing operation by Indian company.

During this period, there was no control on the selling prices of petroleum products, though petroleum products came within the definition of 'essential commodity', under Essential Commodities Act 1955. Effective April 1, 1950, the basic selling price of major petroleum products, except Bitumen and Lubricants, came to be governed by an agreement known as Valued Stock Account (VSA) procedure, entered into by Burmah Shell and the Government of India. According to VSA formula, prices are determined by adding:

- (i) Free-on-Board (FOB) Ras Tanura (port on the Persian Gulf) price on the date of loading;
- (ii) ocean freight from Ras Tanura to the Indian port;
- (iii) marine and war risk insurance on insurable value;
- (iv) ocean loss;
- (v) remuneration at 10% on CIF; plus charges post CIF (excluding duty, rent and hire on facilities, rail freight and sales tax);
- (vi) import duty;
- (vii) interest on duty at 2.5 percent; and
- (viii) charges from CIF to ex installation / local pump. Other marketing companies had no agreement with

the Government, but continued to charge same price as Burmah Shell, following the market leader.

The values of the above mentioned eight components which actually determined the selling price at a particular time, were fixed by these companies in opaque manner. These companies, knowing the nascent state of market and import dependence, behaved in typical colonial fashion. In economic sense, this may be termed as monopolistic exploitation in an imperfect seller's market. There was an absence of free competition both in regard to prices of raw material (crude oil) and its products. Financial postings made in the valued stock account was not audited by anyone and could not be verified by committees set up by Government of India.

It must be noted that as part of the agreement the Government of India had with these oil companies for putting up refineries, the companies enjoyed freedom to source and ship their crude oil at the world market rate. This freedom was fully used by the companies by sourcing crude oil from their principal companies or subsidiary companies. The rate at which crude oil was purchased had no competitive basis. The Committee (Chairman: Shantilal Shah) [GOI, 1969] while dealing with the subject observed, "result of the integrated structure is that

a very large portion of the crude oil that enters into international trade is not sold by free competition, but is transferred from producing to refining and marketing affiliates in quantities that match the absorptive capacity of the markets for products and at prices that the respective markets can bear. Thus, the prices at which imports are arranged from tied sources can hardly be termed as the genuine market prices in the commercial sense." [GOI, 1969] (Page 33, para 5.7)

#### **b) Period 1977 to 2001 (post Nationalisation of Oil Companies)**

As the regime till 1977 operated for more than a quarter of a century post-independence, a number of high level Committees went into the issue of petroleum product pricing. These Committees [GOI, 1961; GOI, 1965; GOI, 1969; GOI, 1976] examined the operating system of petroleum products pricing as it prevailed then and came to conclusion that the system was no more working in the interest of our country. Shantilal Shah Committee observed, "The arrangements for the import of crude oils for all the coastal refineries bring out in old belief the primary motivation of the oil companies to secure an outlet for the crudes produced by their principals and/or their affiliates and their subsidiaries. To safeguard the Indian



interests, there is a semblance of obligation under the older agreements for purchases to be made at the prevailing world market rates and relatively new agreements provide for adjustment in prices to take account of variation in prices from other sources of supply, but the stipulation regarding comparability of circumstances, under which higher discounts are offered, would be difficult to fulfil. The history of the past transactions, however, shows beyond doubt that the full benefits of the prevailing rates of discount have not invariably and promptly been realised."

"The above account of the system for import of crude oil shows that each coastal refinery is tied to one or more foreign supplier, with which its operations are interlocked in one form or the other. As is well known, the international petroleum industry is dominated by the so called international 'majors', which own over half the world's crude production. Generally, these companies (or group of companies) are the top holders of a number of associated and subsidiary operating concerns. Each of them is a separate legal entity but their boundaries may often overlap those of others. Their important activities are well coordinated to mutual advantage. Each of these companies is vertically integrated, producing most of its own requirements of crude or buying it from another member

of the group on long term arrangements, owning or controlling most of its transport facilities on short or long term charters operating their own refineries in different production and consumption centers and distributing the end-products through its associated marketing companies in all parts of the world. Even separate 'Groups' are organisationally linked through joint ownership of subsidiaries or through long term supply or marketing arrangements. The result of the integrated structure is that a large portion of the crude oil that enters into international trade is not sold by free competition but is transferred from producing to refining and marketing affiliates in quantities that match the absorptive capacity of the market for products and at prices that the respective markets can bear. Thus, the prices at which imports are arranged from tied sources can hardly be termed as the genuine market prices in the commercial sense. The seemingly competitive prices offered by the new comers, as in the case of the Cochin, Madras and Haldia refineries, are mostly intended to secure a foothold in new markets or to increase their share in such markets." [GOI 1969, Pp. 32 & 33]

Some inherent pitfalls and operational fallouts of the previous [pre 1977] regime created such conditions that the regime had to be jettisoned. Summarising their

observations, it was clear that multinational oil companies were exploiting India's incipient oil market conditions. The market was not only import dependent, it was capital scarce, investment shy and technology starved. The multinational oil companies used the import parity pricing method as an opaque cover to charge oligopolistic rent from the Indian consumer. As the benchmark price (or reference price) was of the global market (a regional international market), the assessment and reporting of that price was done by Platts. Platts is an independent price assessing agency for petroleum products world over. The foreign oil marketing companies were not transparent while quoting values from the Platts publications. For example, discounts on posted price of crude oil was not accounted while calculating the selling price, even as they availed the discount. Secondly, Indian policy makers refused to accept that the price formation in (global) regional market which was used as reference for calculating the import parity price was the outcome of competitive process. They held opinion that international crude oil market was dominated by oil majors, who manipulated the market conditions to suit their interests. Therefore, they did not see logic to tie up Indian selling price to a market which was perceived to be an unfair market. Linkage to that market always kept landed cost

price in India higher than the cost of producing the same products by Indian refineries. They found it hard to accept a pricing principle having no regard to its overall costs in the context of the indigenous industry and entirely on the basis of extraneous factors that influenced import parity.

Shantilal Shah Committee observed, "The link up with the import parity, however, should not be carried to a point at which any adventitious variations in the assumed cost of imports becomes a basis for adjusting domestic prices. For example, a spurt in marine freight resulting from the Middle East crisis, which has no bearing on the cost of production in India, except for the cost of crude, should not become a basis for the oil companies to claim higher prices for their products. Unfortunately, at present import parity is being applied in a literal sense and a freight adjustment account is being maintained under which oil companies are allowed credit for the increases in freights of products which are never imported and to which debits are made for reductions in freights and consequent savings which are never realised." [GOI 1969, P. 48, Para 8.11)

Policy planners, at that time, were of the view that if import parity pricing were to be accepted for the products of refineries, then refineries would not be careful

to improve their operating efficiency, as their product would be priced by factors which were exogenous to their operation. One argument in favour of having the import parity pricing method was that it had the merit of valuating indigenously produced petroleum products both in terms of the principles of 'replacement cost' and 'cost of marginal supplies'. The application of import parity to indigenously processed products would obviate creation of dual pricing systems with its consequential complication. However, the policy planners were not impressed by these arguments. They countered the arguments by saying that cost of marginal import volumes can always be factored in the selling price, without having a dual price.

During the 1970s, India was import dependent to the extent of around 50% for the refined petroleum products. It was then estimated that 34 Million Metric Tonnes (MMT) was required as refining capacity in 1975 with indigenous crude oil production in 1975-76 was around 12 MMT.

By 1976, all the foreign oil companies were nationalised as it was felt that the oil and gas sectors played a strategic role in country's economy and, therefore, needed to be under State control.

The year 1977 could be considered to be a watershed one being the entry passage for a block period of a quarter century that followed during which the retention pricing method worked. Post 1977 can be said to be a period of expansion for oil and gas industry in India. This was also the period, when the whole of oil and gas industry was managed by the Government of India through state owned enterprises. Within the regulated market, the pricing system supported the Industry in terms of being able to negotiate a flourishing trajectory for itself, absorbing external shocks as and when those came, and, at the same time, supporting the economy that witnessed high growth and structural transformation.

Till 1993, the entire hydrocarbon chain in India was operating under extensive regulation and controls. Starting from exploration and production, refining, marketing, infrastructure and investment planning, pricing till distribution, the whole gamut of activities were centrally planned. The economic philosophy behind this centralised control was: self-reliance, import substitution, strategic control, social and distributive justice, promotion of heavy industries and state control of commanding heights of the economy. The Ministry of Petroleum and Natural Gas (MOPNG) was at the helm of control and the coordination was

carried out through: (a) Oil Coordination Committee (OCC) in the downstream sector and (b) Director General of Hydrocarbon (DGH) in the upstream. The process of privatisation ensued from 1993 onwards.

A new pricing scheme came to stay with effect from December 16, 1977 as recommended by GOI [1976]. The scheme addressed an important drawback of the import parity pricing scheme which was that the indigenous cost of production was totally overlooked while determining producer prices. That issue under the new mechanism was addressed through 'retention pricing', by which refiners were allowed to retain out of the sale proceeds, cost of crude, refining cost and a reasonable return on investment. The same mechanism of retention pricing was also extended to marketing companies. The Government of India was fixing the prices of finished products and the return of oil companies were de-linked from the price at which the goods were finally sold. This process of fixation of prices of finished products by the government coupled with the retention mechanism for refiners and marketing companies was referred to as the Administered Pricing Mechanism (APM).

The APM aimed to optimize the utilisation of refining and marketing infrastructure by treating facilities of all oil

companies as common industry infrastructure, the access to which was available to all oil marketing companies by product exchange arrangements, thus eliminating wasteful duplication of investment. The logistics of oil Industry worked to make available products at uniform ex-refinery prices, so as to minimise cross haulage of products and associated energy costs. Crude oil import was planned on a centralised basis by the OCC and actual import for all refineries were carried out by the Indian Oil Corporation (IOC), which ensured continuous availability of crude to refineries by recognising import needs wherever there were deficits in indigenous production. APM aimed to ensure that the returns to oil companies were reasonable and in line with operational efficiencies and ensured that sufficient resources were generated to enable industry to setup facilities to meet the growing needs. Overall, the objective was to ensure stable prices by insulating the domestic market from the volatility of crude and product prices by making products available at subsidised rates especially for the weaker sections of the society and priority sectors in the industry through cross-subsidisation. Because of the above reasons, the APM kind of pricing was also known as socially relevant price. The APM price structure details is provided in Figure 1 below.

**Figure 1. - Structure of Administered Pricing Mechanism**

Buildup of ex Refinery Prices		
Imported Crude Oil	Pooled FOB Price of Crude Oil	Indigenous Crude Oil
	+	
	Freight	
	+	
	Ocean Loss	
	+	
	Insurance	
	+	
	Wharfage	
	+	
	Auxiliary Duty	
	=	
Delivered Cost of Crude		
	+	
	Refining Cost (Chemicals, Catalysts & Utilities, Consumables, Salaries & Wages, Repairs & Maintenance / Overheads, Depreciation, etc.)	
	+	
	Return on Capital Employed	
	=	
Retention Price Per Ton of Crude Throughput		
	Multiplied by ( X )	
	Standard Throughput	
	Divided by ( / )	
	Standard Production X Indices of Each Product	
	Multiplied by ( X )	
	Index of Each Product	

(contd.)

Imported Crude Oil	Pooled FOB Price of Crude Oil	Indigenous Crude Oil
	=	
Retention Price per Ton of Product		
	Weighted Average Retention Price for Each Product on Industry Basis + Rs 25	
	=	
	Ex Refinery Price	
	+	
	Customs / Excise Duty	
	+	
	Marketing Margin	
	+	
	Surcharges	
	+	
	Product Price Adjustment	
	=	
Ex Storage Point Price at Refinery Point		
	+	
	RPO Charges / Surcharges for MS & HSD	
	=	
Ex-Retail Outlet Price Within Free Delivery Zone (Excluding Freight & Local Levies)		

The central feature of the 'retention pricing' method was that companies were allowed to retain the components of admissible costs and margin, at a rate which were fixed on certain average and uniform basis. For example, crude oil price admissible was calculated on the basis of pooled FOB price of imported and indigenous crude oil. This was uniform for all refineries, irrespective of whether they processed indigenous crude

or imported crude. Other costs of bringing crude oil to refineries were reimbursed at actuals. Some cost elements like ocean loss for imported crude were taken on the basis of an Industry norm. All imports of crude oil and petroleum products were canalised through the Indian Oil Corporation for the Industry in India.

Refining costs and returns (refining

margins) were also decided on a retention basis. Every three years, the Government used to determine the standard refining cost and return on capital employed for each refinery. The standard refining cost plus return on capital employed when divided by the crude throughput gave the retention margin per ton for that refinery. This used to remain constant for that refinery for three years period. However, certain types of annual escalations were allowed over and above the retention margin.

The retention price that was paid to refineries took into account the delivered cost of crude (the weighted average of the indigenous and imported crude price), refining cost and 12 percent post-tax return on the capital employed. The 12 percent post tax return on net worth was fixed based on weighted average cost of borrowing by oil companies during pre 1969 era. The delivered cost of crude was then allocated to each product by a set of indices. The index of kerosene used to be considered as 1 (one). The indices of other products were developed after taking into account factors like current and prospective demand and supply, ability of individual products to bear additional charges, their end use pattern, etc.

Product-wise uniform ex-refinery price was the weighted average of retention prices of all the refineries taken together for that product plus a uniform addition of Rs. 25 per selling unit (expressed in kilo liter or metric ton). This was the price at which the refineries used to transfer the product to the marketing unit (also referred to as refinery transfer price). The difference between the retention price and the ex-refinery price (or refinery transfer price) was surrendered to or claimed from the oil pool account. The pools were used to stabilise the prices of products, as and when required by way of cross subsidising the products.

Marketing costs and marketing margins were also decided on a retention basis. For the distribution and marketing of refinery products, prices were fixed by a cost-plus formula wherein marketing and distribution costs were fully compensated and a post-tax return of 12 percent was guaranteed on investment. Marketing margins used to be averaged out to compute industry margins for inclusion in the selling price. The oil marketing public sector undertakings (PSUs) were permitted to sell petroleum products as restricted by Sales Plan Entitlement (SPE). SPE was fixed by OCC for each oil marketing company in line with its historical marketing share. A

company exceeding its SPE had to surrender a portion of its marketing margin to a deficit company. Thus, the market shares of individual PSUs were controlled with a view to enable oil companies to utilise their infrastructure. The marketing margins used to be updated once in three years by OCC.

The concept of SPE owes its genesis to the need for regulated growth of the market where multiple players (marketing companies) of different sizes were brought under one administrative oversight by Government of India and a level playing field was required to be provided. GOI Gazette [1977] observed, "For the orderly growth of the oil companies in the public sector and for the full utilisation of the facilities with each of the oil companies, the marketing share of each company would be determined by the Government and a system introduced to govern sales volume and recovery of marketing margins." (Page iii, para 5.2)

GOI Gazette [1977] further observed in continuation, "The determination of retention prices of margins does not mean that all costs would be recognised and reimburse. There would be a built in mechanism whereby inefficiencies would be penalised and efficiencies rewarded. Any deterioration in marketing efficiency or shortfall in the volume

of sale from the levels anticipated, would not, *ipso facto*, call for any adjustment of retention margins." (Page iii, para 5.3)

The ex-storage point price consisted of the ex-refinery price, excise duty, marketing margins, various surcharges built into the price to cover specific under-recoveries due to charging uniform consumer price, irrespective of actual costs incurred plus an adjustment factor known as product price adjustment. Product-wise uniform ex-storage point prices at the refinery points were arrived at by averaging the marketing margins. The product price adjustment was designed to allocate cross-subsidy to ensure lower consumer prices for products like kerosene and diesel, which are used by the weaker and vulnerable sections of society. The prices of a few products such as petrol, was maintained at a higher level to compensate for the losses incurred from subsidising kerosene, liquefied petroleum gas (LPG), and diesel. Under the APM regime, an increase in price implied a hike in PPA and this had an impact only on the ex-storage point price and not on the ex-refinery price. Since retention prices used to remain unaltered, there was no major effect on the oil companies.

The dealer's commission was uniform and regulated by the government. The retail selling price of a product to the



consumer includes in addition to industry average costs and profits, notional rail-way freight, retailing cost, various surcharges, and government levies. The refineries were the primary pricing points and demarcated pricing zones were attached to these points. Irrespective of the company marketing the products and the locations from which the products were actually supplied, the price of petroleum products at all primary pricing points were considered as uniform.

As far as the consumer product prices were concerned, socially sensitive domestic consumption products like kerosene, Liquefied Petroleum Gas and diesel used for agriculture and mass transportation were heavily subsidised. Furnace oil, or naphtha used for fertiliser manufacturing were also subsidised. Subsidies were non-transparent as these were financed not by direct budgetary support but by a process of cross subsidisation.

The Pool accounts system, managed by Oil Coordination Committee, was the fulcrum on which the pricing mechanism revolved. In other countries, pool accounts are known as 'stabilisation fund'. The principal objectives of the Pool Accounts were to:

- \* Maintain stable and uniform prices throughout the country

- \* Provide cross-subsidy on some petroleum products.

Oil Pool Accounts were expected to be self-supporting over a period of time, as there was no budgetary support provided to these by the Government. Companies either used to surrender or withdraw from the oil pool accounts. Inflows to the oil pool account were from the collection of surcharges on sale of petroleum products, while outflows were aimed at meeting shortfalls in various elements of the standard cost of production. Though the number of pool accounts was more than fifty, maintained for various objectives, the major pool accounts in which the oil companies used to adjust their claims and surrenders were:

- \* Crude oil price equalisation (COPE) account
- \* Cost and freight (C&F) adjustment account
- \* Freight surcharge pool (FSP) account
- \* Product price adjustment (PPA) account

A deficit would generally arise in oil pool account under APM if:

- \* Domestic crude oil production fell so much that the country would have to import more crude at much higher prices

- \* International prices rose, thus increasing both crude and finished products import bills
- \* The rupee depreciated against the dollar, leading to an increase in the import bill in rupee terms
- \* Supply from domestic refineries lagged demand, leading to increase in import of finished products

### c) Post 2002 Scenario

In January, 1995, the Government of India appointed a Strategic Planning Group on the Restructuring of the Oil Industry ('R' Group; headed by Dr. Vijay L. Kelkar, then Secretary, Ministry of Petroleum) comprising eminent experts from the public sector and private sector, distinguished energy experts and academicians to make recommendations for restructuring the oil industry.

The 'R' Group recommended gradual phasing out of APM and introduction of free market mechanism while giving following reasons: [Rangarajan, 2006]

- \* APM could not generate sufficient financial resources required for investments in the upstream and downstream sectors.
- \* Private Capital as well as foreign direct investment would not be forthcoming in view of the inherent regulatory controls imposed by the government.
- \* APM did not provide strong incentives for investments in technological upgradations or for cost minimisation.
- \* APM was not completely successful in achieving the primary objective of ensuring a consumer friendly and internationally competitive vibrant petroleum sector, capable of global presence and to provide energy security to the country.
- \* Since all costs were reimbursed, there was hardly incentive to make profitable investments. Therefore, cost plus formula bred inefficiencies.
- \* With the entry of the private sector, the cost-plus formula encouraged 'gold plating' of the plant and inflated costs which the consumer would have to bear.
- \* The subsidies and cross subsidies resulted in wide distortions in the consumer prices and did not reflect economic cost of petroleum products, which were not being passed on to consumers automatically. This in turn led to inefficient use of precious fuels and large-scale misuse of highly subsidised products.

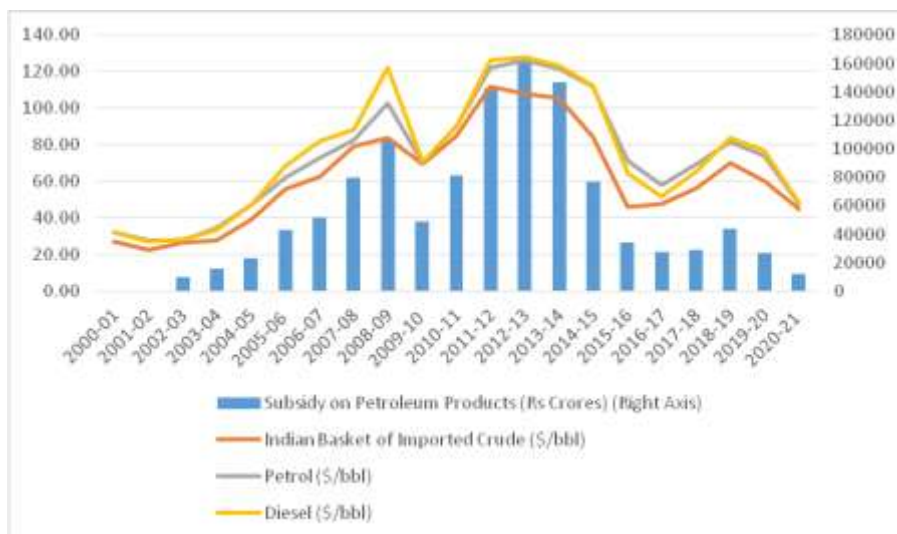
The APM, which was in vogue since 1977, was dismantled with effect from April 1, 2002. Following that, prices of all petroleum products, except four sensitive products, viz., petrol, diesel, public distribution system (PDS) Kerosene and

LPG for household consumption, were made market determined. Refinery Transfer Price (RTP) of four sensitive products, viz., petrol, diesel, PDS Kerosene and domestic LPG were calculated based on an Import Parity basis (IPP). At that time, these four products constituted 60% of total petroleum products consumed in the country. These four products were primarily auto fuels and cooking fuels, essential items in the life of common people, constituting 5.43508 weight in the prevailing wholesale price index (1993-94 = 100).

However, in view of high increase in oil prices in the international market since 2004 onwards and ballooning subsidy from the Government, it was required to modulate the retail selling prices of these sensitive petroleum products.

From Figure 2 given below, we observe how international prices of crude oil and two auto fuels, namely petrol and diesel began surging since 2003-04 and the subsidy amount in India moved in tandem with movement of International prices (FOB Singapore) of products, namely, petrol and diesel.

**Figure 2. Trend of International Price of Crude and Representative Products and Government of India Subsidy**



Note: 1. International crude oil price is represented by Indian Basket Crude Oil price, sourced from PPAC site

2. Subsidy on Petroleum Products includes under recovery incurred by oil marketing companies, data sourced from PPAC site

3. International price of petrol and diesel are FOB price at Singapore, data sourced from OPEC Annual Statistical Bulletin 2021.

In 2006, based on recommendations of Rangarajan Committee, RTP of petrol and diesel were shifted to a Trade Parity basis (TPP). Trade parity price is the average of Import Parity Price and Export Parity Price in the ratio of 80 to 20. [GOI, 2006]

Based on the recommendations of an Expert Group [GOI, 2010] headed by Dr. Kirit Parikh and decision taken by the empowered group of ministers (EGoM), the Retail Selling Price (RSP) of petrol was made market determined with effect from 26th June 2010. Since then, public sector oil marketing companies have been taking appropriate decision on the pricing of Petrol in line with the international oil prices and market conditions. Further, based on the decisions of Cabinet Committee on Political Affairs, (CCPA) on January 17, 2013, the Government authorised the Public Sector Oil Marketing Companies (OMCs) to: (a) increase the retail selling price of diesel

in the range of 40 paisa to 50 paisa per liter per month (excluding VAT as applicable in different State/Union Territories) until further orders; and (b) sell diesel to all consumers taking bulk supplies directly from the installations of the OMCs at the non-subsidised market determined price. Effective 19th October, 2014, the price of diesel was made market determined both at retail and refinery gate level for all consumers.

### **Economic Issues In Setting up Petroleum Product Prices**

Petroleum products prices, with their multiple economic ramifications and multi-pronged objectives, created hard situations at times, for which expert committees have been formed time to time. During 1984 to 2010, five experts committees examined the issues of petroleum product pricing, following the chronology presented in table 3.

**Table 3. Chronicle of Oil Price Review Committee**

Year	Committee	Headed by
(1)	(2)	(3)
1984	Oil Cost Review Committee	JS Iyer
1995	Hydrocarbon Perspective 2010	U Sundararajan
1996	'R' (Restructuring) Group	Dr. Vijay L Kelkar
2006	Committee on Pricing & Taxation of Petroleum Products	Dr. C Rangarajan
2010	Viable & Sustainable System of Pricing of Petroleum Products	Dr. Kirit Parikh

The Economic challenges which the Expert Committees dealt with could be summarised as follows:

- \* Domestic selling price of petroleum products needed to be stable.
- \* The volatility of international price would have to be cushioned.
- \* Government had to get adequate revenue from petroleum products.
- \* Subsidies to be minimised, better if they could be brought down to zero.
- \* Oil Companies needed to get adequate return on their investment and operating cost.

Each of the above objectives and their fulfilment through the oil pricing mechanism calls for different market conditions. Today's market (in 2020 and 2021) is best characterised by features of a free market with public sector dominance. We therefore see competition in market: competition in winning customers and seizing market share, supported by logistics and packaged customer service. However, the public sector marketing companies have been resorting to collusive pricing for auto fuels. The selling price is decided by Industry team based on trade parity price formula. Successive governments have used petroleum product pricing methods (policies and practices) as tools to meet these five objectives (under bullet points above), with varying degree of successes while placing alternate weights (priorities) on these.

## **The Basket of Petroleum Products**

An array of petroleum products form a heterogeneous group (basket), as each product meet specific user requirements. Table 4 presents the volume and share of each of the products for past 5 years.

Gas is not included in the above table for the sake of simplicity. Gas is used in gaseous form, but remains in liquid form at times for ease of transportation. Though gas is the same for any application, but its marketing is complex due to complicated pricing structure which is linked to sourcing.

Out of 12 types of petroleum products (Natural Gas not included), transport fuels, namely petrol and diesel, constitute a little over 50% of total petroleum products consumed. These two products, growing at annual average growth rate of 7.1% and 2.1%, respectively, over past decade, represent the mobility trend of the economy. It is observed that mobility and national income in India are strongly correlated. The users of petrol and diesel, both personal and institutional basis, are widely spread out across the economic strata of the economy, covering both the formal and informal sectors. Demand for these two fuels are price inelastic in the short run, thus making petrol and diesel ideal items for taxing purposes.

**Table 4. Volume and Share of Petroleum Products Consumption**

Volumes in Thousand Metric Tonnes (TMT)

PRODUCT	2016-17	% to Total	2017-18	% to Total	2018-19	% to Total	2019-20	% to Total	2020-21	% to Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
LPG	21608	11	23342	11	24907	12	26330	12	27591	14
Naphtha	13241	7	12889	6	14131	7	14268	7	14257	7
Petrol	23765	12	26174	13	28284	13	29975	14	27951	14
ATF	6998	4	7633	4	8300	4	7999	4	3705	2
Kerosene	5397	3	3845	2	3460	2	2397	1	1795	1
Diesel	76027	39	81073	39	83528	39	82602	39	72720	37
LDO	449	0	524	0	598	0	628	0	845	0
Lubricants & Greases	3470	2	3884	2	3668	2	3833	2	3539	2
FO & LSHS	7150	4	6721	3	6564	3	6302	3	5995	3
Bitumen	5935	3	6086	3	6708	3	6720	3	7118	4
Petroleum coke	23964	12	25657	12	21346	10	21708	10	18291	9
Others	6593	3	8339	4	11723	5	11365	5	10825	6
<b>TOTAL</b>	<b>194597</b>		<b>206166</b>		<b>213216</b>		<b>214127</b>		<b>194632</b>	

Source: Petroleum Planning and Analysis Cell website, accessed on 11.09.2021 Note: Consumption volume includes sales of private companies

#### **BUILDING BLOCKS OF PRICING METHODOLOGY OF PETROLEUM PRODUCTS - A BRIEF OVERVIEW**

Petroleum products as commodities are best classified under minerals and natural resources. These products come from crude oil, which once depleted cannot be replenished. This very feature makes the petroleum products a scare commodity, having intergenerational value. Today's users are required to pay the price for the stocks forgone for the future generations. This intertemporal

choice, of course, comes into consideration more for crude oil pricing in global market than petroleum product pricing. At times, however, this argument is put forth for product pricing within the country while citing the need for conservation and transiting to alternate fuels.

Any particular petroleum product, say petrol or diesel, is a co-product from crude oil refining. A spectrum of products, differentiated by respective distillation range, are produced from crude oil

by the process of refining. It is therefore not possible to attribute different cost values to different products based on cost of production principle. Therefore, petroleum products prices are linked to their use value and are determined by market forces. Conventionally, petroleum product prices are benchmarked to the nearest global market, as most of the crude oil and products in India are

imported. That is how import parity price has come to stay. Import parity price is also known as replacement price or opportunity price. That means, after exhausting domestically produced products, the marginal stock has to be imported from the most economical global market at price that prevails in that market.

**Figure 3. Alternate Sources of Origin for Availability of Petroleum Products into Indian Market.**



Refined petroleum products, irrespective of their above referred sources, is priced at import parity basis at either ex refinery or ex import locations, which are the primary pricing points.

Petroleum products at the marketing point has two alternate sourcing bases, subject to availability of handling infrastructure. One is refineries within the country and second is import (see Figure 3) Large consumers and marketing wings of the oil companies always keep these

two sources as alternate channels and make economic calculations of cost of sourcing, taking into account the respective logistics cost, etc. Therefore, from the value chain point of view, refinery transfer price is a logical reference point for retail pricing of products.

Refinery transfer price is the starting point for the price buildup of the retail selling price of petroleum products.

Table 5 presents a narration of each component of the price of major petroleum products like Petrol and Diesel.

**Table 5. Components of Price Build up Following Import Parity Price**

Components	Constituents	Status at the point
(1)	(2)	(3)
Landed cost (import)	Basic price at port of loading	Free on Board (FOB) in dollar
	Freight	FOB plus Freight is equal to Cost & Freight (C&F) in dollar, after applying Exchange Rate, the value is expressed in Indian Rupees
	Insurance	C&F plus Insurance is equal to Cost Insurance Freight (CIF)
	Ocean loss	Difference between quantity loaded (as per Bill of Lading ) and quantity received in receipt tank (as per stock out turn)
	Port dues	CIF plus ocean loss plus port dues
	Customs duty	makes the assessable value of the cargo received on which tax amount is calculated Adding customs duty make it landed cost of cargo imported
Marketing cost	Inland freight	When these 3 elements are added to landed cost, it becomes ex-storage point price.
	Marketing cost	
	Marketing margin	
Retailing cost	Excise duty	Duty paid stock
	Secondary transportation	
	Local body tax	
	Dealer's Commission	When these 4 elements are added to ex-storage point price, then retail selling price is arrived.

#### DATA AND ANALYSIS

The questions framed in the initial pages of the paper under the paragraph 'The Problem' have been empirically examined taking the nozzle-end selling price of petrol and diesel at Delhi for the

period April 2002 till October 2021. To recap, the questions are:

- Whether prices of auto fuels are indeed at a historical record level?
- If yes, how much is the rise, at what frequency?



- c) Is the price of petrol and diesel displaying volatility, as oil market is known to be?
  - d) Is the selling price of petrol and diesel following the pattern of international oil prices?
  - e) What are the factors responsible for the prices of auto fuels to rule at high level; petrol price crossing psychological level of Rs 100 a liter? and
  - f) Given the situation and perhaps compulsions of having high level of auto fuel prices, what are the public policy options available?
- change. The issues that have been analysed under 4 pricing conditions (3 samples and one population), as detailed below:
- i. April 2002 till October 2021 (Population data, Scenario 1)
  - ii. November 2014 till October 2021 (Sample Data 'a', Scenario 2)
  - iii. April 2020 till October 2021 (Sample Data 'b', Scenario 3)
  - iv. June 2017 till October 2021 (Sample Data 'c', Scenario 4)
- April 2002 till October 2021 (Population data, Scenario 1)**

Two sets of data for the period have been compiled. In data set 1, data points (price of petrol and diesel per liter at current price) that have been captured are the points of revision in selling price, of either petrol or diesel or both. Which means, there is no fixed interval with respect to time (on the X axis). In the 2nd set of data, prices are plotted for every fortnight. Here, fortnightly time interval is maintained on X axis. So the price curves follows a time scale.

The period under study has been split into 3 time zones, each time zone beginning with a change in pricing condition. Each time zone is marked by a specific policy with some objectives. Samples have been selected for different periods, coinciding with pricing regime

This period of 20 years, beginning with April 2002, comes under the Import (Trade) Parity pricing regime. Effective 01.04.2002, prices of all petroleum products were deregulated except 4 products, belonging to auto fuels and cooking fuels category. The exception products were: petrol, Diesel, LPG for household cooking and Kerosene sold under public distribution system. It was then planned that prices of these four products would be deregulated in phased manner.

This period constitutes the whole period for this study; population data. Prices of petrol and diesel have been compiled for the whole period in time series, whenever there is a revision in

price. The time series reflects the level of price with respect to its previous levels. For some time, prices have been changed on a daily basis, sometimes on a fortnight basis and sometimes not changed for a long period of time.

**Figure 4. Prices of Petrol and Diesel on the Days of Revision (Rs per Liter at Delhi)**

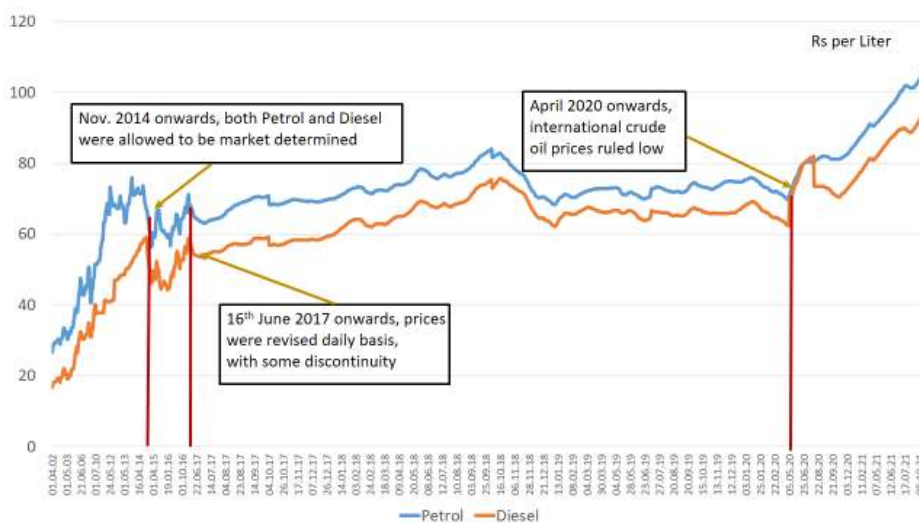


Figure 4 presents a scene of consistently rising price (at current prices), a positive upward trend, marked by volatility; starting at Rs 26.54 and Rs 16.59 a liter of petrol and diesel in April 2002 and ending at Rs 106.54 and Rs 95.27, respectively in October 2021; reflecting CAGR of 7 and 9 percent, respectively. Each curve plots 1151 data points, which constitute the population (data) for this study in data set 1 which

captures the price revision data. This period in data set 2, which captures fortnightly prices, has 466 data points for each product, namely, petrol and diesel.

### **November 2014 till October 2021 (Sample Data 'a', Scenario 2)**

Auto fuels were not deregulated until 26th June 2010 for petrol and 19th October 2014 for diesel. Prominent

amongst the economic reasons for the deferment of reform in prices of petrol and diesel was to keep the domestic market price insulated from the high international price level. Ever since dismantling of APM in April 2002, particularly from 2004, prices in the global market prevailed at high levels. The choices for the Government of India was either to pass on the global price to the domestic market thereby creating condition for buildup of inflationary pressure, or to absorb the high international prices which would result in unrecovered costs for the oil marketing companies. The financing the unrecovered costs for oil marketing companies has its consequences in terms of fiscal deficit and erosion of the bottom line of the oil marketing companies. If unrecovered costs incurred by oil companies are compensated to them by Government of India, then these amount become budgetary expenditure, which may mean either extra taxes or fiscal deficit. Otherwise, oil marketing companies absorb those from their balance sheet, which adversely impacts their bottom line.

### ***Subsidies***

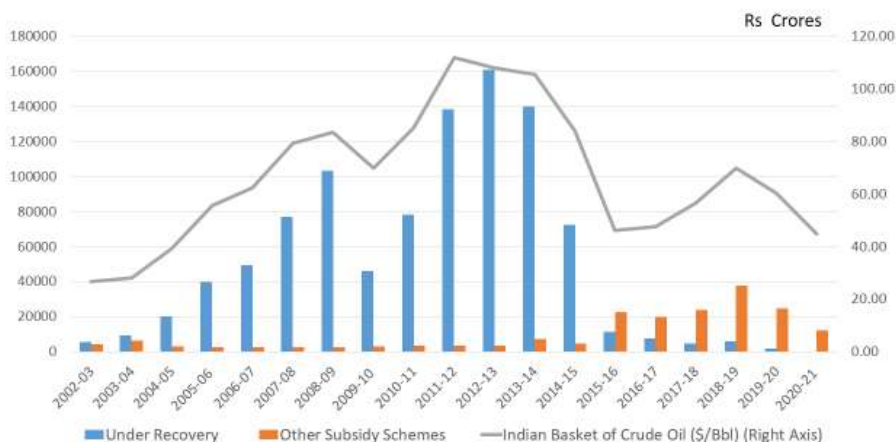
Subsidies became a burden, both for the industry and for the federal exchequer, in the Post APM era. From then till now, subsidy elements can be classified

under two types: One is in the form of under recovery to oil marketing companies arising from pricing of Petrol, Diesel, PDS Kerosene and Domestic LPG. Besides this, there are subsidies for specific purpose and package, as listed below:

- a) Subsidy for LPG under DBTL (Direct Benefit Transfer of LPG)
- b) Subsidy for LPG under PMUY (Pradhan Mantri Ujjwala Yojana)
- c) Subsidy for Kerosene under DBTK (Direct Benefit Transfer of Kerosene)
- d) Other subsidies which includes:

- \* PDS Kerosene and Domestic LPG Subsidy Scheme 2002
- \* Freight subsidy (for Far Flung Areas) Scheme, 2002
- \* Pradhan Mantri Gareeb Kalyan Package
- \* Natural Gas subsidy for North East

The quantum of subsidy and their increasing trend during the decade 2005-06 to 2014-15 presents an unusually burdensome fiscal phenomenon; subsidy amount was Rs 941,994 crores during the decade 2004-05 to 2014-15, maximum being Rs 164,387 crores in 2012-13. (See Figure 5 below) This was enough an event to cause alarm to policy planners and they indeed came out with unconventional though unsettling solutions.

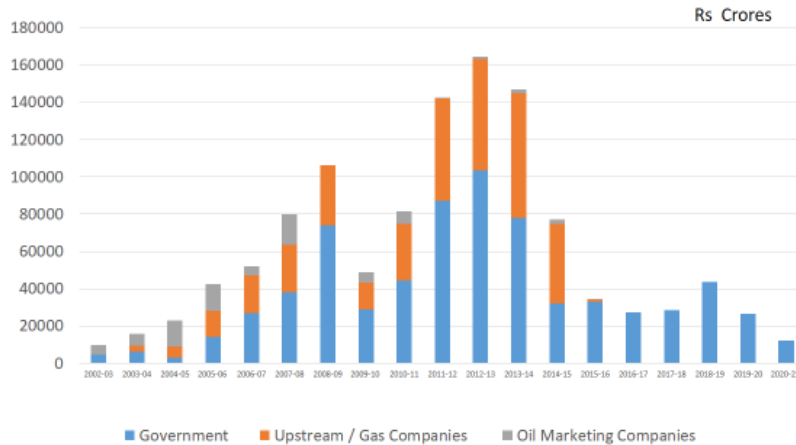
**Figure 5. Subsidy Amounts on Petroleum Products**

In order to protect the domestic selling price levels (and thereby the common consumer) from higher international prices, the Government of India distributed the unrecovered costs amongst stakeholders like: a) oil marketing companies, b) upstream companies like ONGC, OIL and GAIL and b) budgetary subsidy (financed by the Government of India). Figure 6 presents the sharing mechanism adopted during the high unrecovered cost period.

During this period, oil marketing companies officially enjoyed the free-

dom to set their selling price from November 2014 onwards. That meant, oil marketing companies estimated the price based on accepted formula, which is trade parity, and together decided to have a uniform price for the consumers, irrespective of the fact that she refills her vehicle with petrol and diesel from IOC, BPC or HPC. As the prices were linked to global price and full pass through was allowed, it was expected that domestic selling price would exhibit volatility.

This period has 1025 data points in the data set 1 and has 169 data in data set 2.

**Figure 6. Subsidy Burden was Shared**

### April 2020 till October 2021 (Sample Data 'b', Scenario 3)

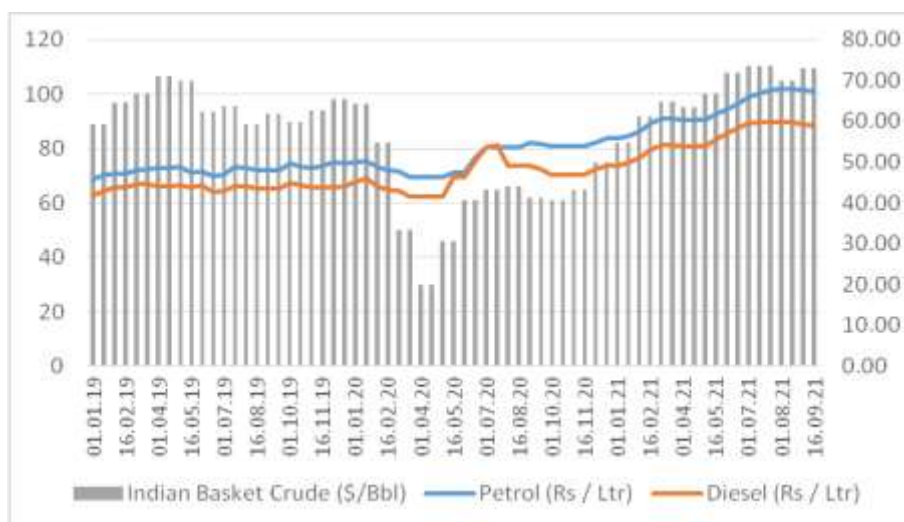
The data for the period is subset of the series under scenario 2 (November 2014 to October 2021). There are 182 data points in data set 1 and 39 in data set 2. Significance of this stretch is that this scenario represents a contrarian assemblage where low international oil price coexists with high domestic selling price, as shown in the Figure 7 below. International oil price is surrogated by the price of Indian basket of crude, as estimated by PPAC every month.

From Figure 7, it is observed that there is a sliding trend of price at which crude oil was imported into India from the level of \$54.63 per barrel prevailing in February 2020 to \$33.36 per barrel in March 2020, and touching a nadir of \$19.90 per barrel in April 2020. The Figure also reflects a scene where crude oil prices moved from a peak of \$71 per barrel in April 2019 to the same level in June 21 revealing a valley like trend during the 2 years. During this period, prices of petrol and diesel, however, maintained a creeping rising trend within the band of Rs 60 to Rs 100 per liter with petrol breaching the Rs 100 level July 2021

onwards. This relative cross movement of international price and domestic selling prices is counter intuitive and therefore is deemed to be the outcome of a serious policy intervention while passing through the COVID 19 induced

recession during quarter I & II of 2020-21. Quarterly GDP level at constant prices (2011-12) and growth from 2019-20 onwards is presented in Figure 8 below.

**Figure 7. Trend of Auto Fuel Selling Price vis-à-vis International Crude Price**



Note: International crude price is represented by Indian Basket Crude Oil Price on the right axis, estimated by PPAC monthly

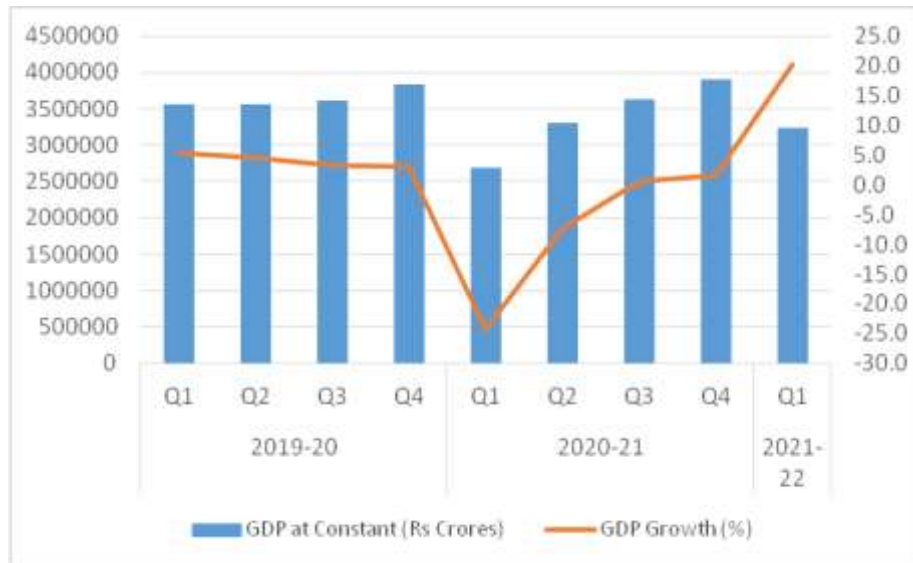
### **June 2017 till October 2021 (Sample Data 'c', Scenario 4)**

Effective 16<sup>th</sup> June 2017, prices of auto fuels were revised on a daily basis. This was in contrast to the practice of revising price on a fortnightly basis which prevailed till then. Fortnightly revisions were linked to import parity price, where

the current fortnight (FN 0) price in the domestic market was benchmarked to the average of the previous fortnight (FN -1) price on the international market. This was a way of maintaining a fortnightly price cycle in sync with the international price where prices are assessed on a daily basis.

**Figure 8: GDP around COVID 19**

Figure 8



Note: GDP growth rate is quarterly growth over the same quarter of the previous year, plotted on right hand side Y axis.  
 Source: Site of Ministry of Statistics and Program Implementation, Government of India; <http://mospi.nic.in>

The merit of making it average of fortnight was to avoid daily fluctuations and keep them to the recent past but with a fortnight lag. Daily fluctuations gets averaged out and only average variation of the fortnight gets transmitted to India's domestic market by way of price revisions. Statistically, an average of 15 days would be less dispersed than a daily average. Maintaining a stable price for 15 days also provides certainty to consumers, which, undoubtedly, has the merit, from the point of view, of providing a

stable economic environment to the consumers and thereby the economy. Otherwise, it would have been the average of the previous month (M -1), with a monthly cycle which would mean a lag of a month.

However, a daily revision of price aimed at transparency of price movement and dealer end stock valuation on a daily basis. The premise was that periodical revisions and revision especially by large values led to large changes in inventory

valuation, which carry the potential to affect either the company or the dealer adversely. Some dealers, with prior information of the international market might attempt to hoard and speculate inventory appreciation on the day of price revision. Daily price revision was possible by use of technology to remotely change the price of products in dealer's operating system by the oil marketing companies. Dealer has no control to manipulate the price. The dispensing unit prints the price as fed by the oil marketing companies on a remote basis.

This period is a subset of scenario 2 and sample data set 'a'. There are 966 data sets in 'data set no. 1' and 106 in 'data set no. 2'.

### **Analysis of the Research Questions**

The questions raised earlier have been attempted to be answered in the following paragraphs using time series data from 2002 to 2021 and under four scenarios. The same examination has been repeated for the 'data set no. 1' (price on dates of revision) and 'data set no. 2' (prices at fortnightly frequency).

The methodology adopted and statistical tools used are as follow:

#### **a) Objective test: Price Rise**

The question whether there indeed was a price rise on a historical scale has been measured by 2 tools; viz., by (i) (statistical) means and by (ii) slope of trend of price curve (coefficient of X variable in the trend equation). Larger the value of the coefficient, higher is the price. This exercise has been carried out for prices of petrol and diesel separately.

The variables are valued at current prices, as consumers spending is best measured at the relevant time of consumption. Second, petro products cast significant influence on consumer price index (CPI). Their combined weight in the WPI is 7.95 (2011-12 = 100). Therefore, the general price index (inflation) and the prices of petroleum products are self-reinforcing.

In Figure 9 below, we give the movements of prices of auto fuels in nominal and real terms (period April 2002 to October 2021).



**Figure 9. Prices of Auto Fuels in Nominal and Real Terms (period April 2002 to October 2021)**

We have deflated the current price of Petrol and Diesel, using the CPI index. Time series of CPI index (2015=100), monthly data, not seasonally adjusted, is sourced from Economic Research Division of Federal Reserve Bank of St. Louis, with cited source as OECD. (URL - [fred.stlouisfed.org/series/INDCPIALLMINMEI](https://fred.stlouisfed.org/series/INDCPIALLMINMEI)). It is seen that the prices of Petrol and diesel in real terms have remained within the band of Rs 16 to Rs 40 per liter. (See Figure 9) The price

movements within the band appear to have withstood the volatility of international oil price. But this seems to have provided support to escalating nominal prices, particularly since June 2020 till date as the Figure 10 given below would suggest. Figure 10 has been derived from Figure 9 to focus on our hypothesis that goes to suggest that during the COVID 19 period, prices of auto fuels have indeed been escalated, defying the depressing macroeconomic aggregates.

**Figure 10. Prices of Auto Fuels in Nominal and Real Terms (period January 2019 to October 2021)**



### b) Objective test: Volatility of Prices

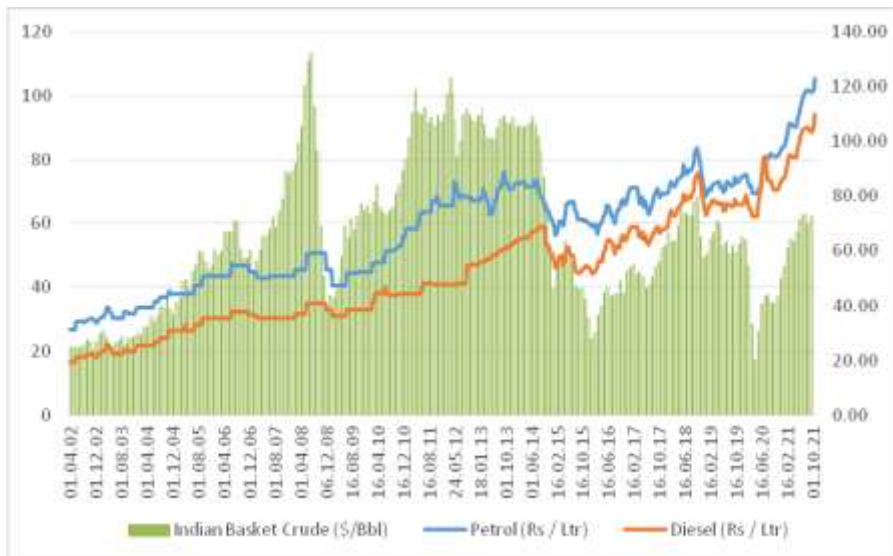
The volatility of prices of auto fuels created uncertainty and risk for the economic agents. The volatility of prices is measured by 2 indicators; viz., (i) (statistical) range and (ii) standard deviation. Higher is the value of these two variables, wider is the volatility in comparative sense with respect to the four time zones.

Both these two tests were done for the continuous data series; continuous with respect to price revision, captured in data set no. 1 and uniform with respect to

frequency for the fortnightly data. Further, the fortnightly price curves were pitted against the monthly Indian basket of crude prices. The Indian basket of crude price represents a derived numeraire comprising sour grade (Oman and Dubai average) and sweet grade (Brent) crude oil. This is taken to represent international product price for India. However, alternatively it is possible to take fortnightly average of price of Diesel in Arab Gulf and that of Petrol in Singapore to represent international prices of auto fuels. In one sense, a comparison of domestic selling price with the price of same product prevailing at nearest global

market makes the comparison more reasonable to examine their alignment. But that comparison may be less appropriate in the sense that those prices are not the ones at which entire volumes of products are actually imported into India. Figure 11 shows the domestic Selling Price on the backdrop of international oil price.

**Figure 11. Domestic Selling Price on the Backdrop of International Oil Price**



Note: International crude oil price is represented by Indian Basket Crude Oil price, sourced from PPAC site, unit is on the right hand axis.

#### SUMMARY OF TESTS

Table 6 and 7 present the values of tests of price rise and volatility for all the four

scenarios. The comparison of values of all the four scenarios helps to draw inference from the outcome of the tests.

**Table 6. Comparison of the Statistics for the 4 Periods, with Continuous Price Revision Data (Data Set No. 1)**

Petrol	Range	Mean	STD DEV	Slope of Trend	R2 Value	Data Count	Equation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Apr 02 - Oct 21	80.00	72.52	11.7	0.0260	0.5407	1151	$Y = 0.026 X + 57.56$
Nov 14 - Oct 21	50.05	74.87	8.6	0.0206	0.509	1025	$Y = 0.0206 X + 64.3$
Apr 20 - Oct 21	36.95	88.50	9.3	0.1716	0.9519	182	$Y = 0.1716 X + 72.80$
Jun 17 - Oct 21	43.48	75.60	8.2	0.0198	0.4513	966	$Y = 0.0198 X + 66.01$
Diesel	Range	Mean	STD	DEV		Data Count	Equation
Apr 02 - Oct 21	78.68	63.31	13.1	0.0325	0.6800	1151	$Y = 0.0325 X + 44.60$
Nov 14 - Oct 21	51.09	66.50	9.0	0.0246	0.6500	1025	$Y = 0.0246 X + 53.84$
Apr 20 - Oct 21	32.98	80.23	7.4	0.1167	0.6971	182	$Y = 0.1167 X + 69.55$
Jun 17 - Oct 21	41.94	67.40	8.3	0.0229	0.5988	966	$Y = 0.0229 X + 56.34$

Source: Author's estimates.

**Table 7. Comparison of the Statistics for the 4 Periods, with Fortnightly Price (Data Set No. 2)**

Petrol	Range	Mean	STD DEV	Slope of Trend	R2 Value	Data Count	Equation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Apr 02 - Oct 21	78.95	57.41	17.1	0.1192	0.8786	466	$Y = 0.1192 X + 29.57$
Nov 14 - Oct 21	49.00	72.63	10.7	0.1878	0.7303	169	$Y = 0.1878 X + 56.67$
Apr 20 - Oct 21	35.90	87.20	10.4	0.8941	0.9591	39	$Y = 0.8941 X + 69.28$
Jun 17 - Oct 21	42.40	77.99	9.9	0.2511	0.6067	106	$Y = 0.2511 X + 64.56$
Diesel	Range	Mean	STD DEV	Slope of Trend	R2 Value	Data Count	Equation
Apr 02 - Oct 21	77.63	44.39	17.7	0.1271	0.9278	466	$Y = 0.1271 X + 14.71$
Nov 14 - Oct 21	50.04	62.79	11.9	0.2242	0.8420	169	$Y = 0.2242 X + 43.74$
Apr 20 - Oct 21	31.93	78.47	8.6	0.6828	0.8116	39	$Y = 0.6828 X + 64.81$
Jun 17 - Oct 21	40.89	69.73	9.2	0.2501	0.6838	106	$Y = 0.2501 X + 56.35$

Source: Author's estimates

The mean and the slope values are highest during the period April 2020 till October 2021 for both Petrol and Diesel. Further, this period exhibits least values for variables which are symptoms of volatility, namely range and standard deviation. This is true for both the data sets. (Tables 6 and 7) This period is marked by features of low international oil price, coupled with demand destruction on global market, including India. From these observations coupled with the behavior of price curves, both domestic and international, one is led to conclude that domestic selling prices were maintained high during COVID 19 ravaged period (April 2020 to October 2021), irrespective of the international price

level. (Figure 13)

The period beginning June 2017 comes 2nd in terms of high price. The mean values are highest for both the sets of data. (Table 6 & 7) Looking at the figures reflecting the price behavior, it is observed that domestic selling prices have been consistently rising, notwithstanding the varying behavior of international price. (Figure 14). Both the above periods, one (April 2020 onwards) being subset of the other (June 2017 onwards), hint at a policy stance designed to maintain high domestic selling price of auto fuels.

**Figure 12. Price Behavior for the Period November 2014 Till October 2021 (fortnight data set)**

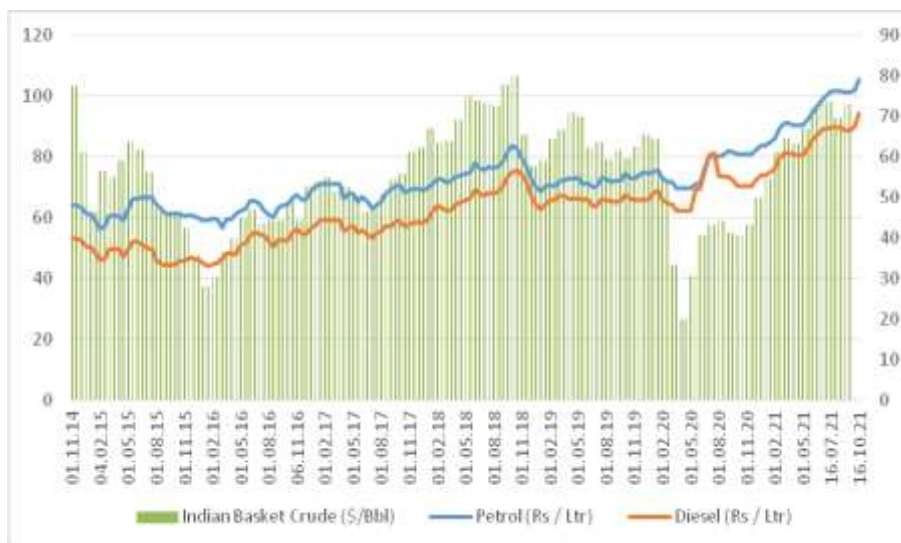
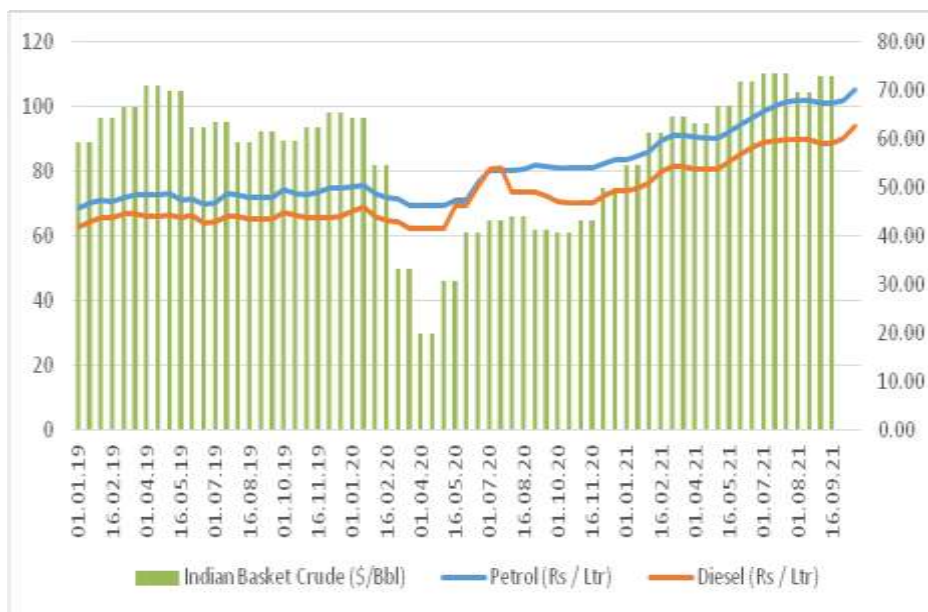


Figure 13. Price Behavior for the Period January 2019 Till October 2021 (fortnight data set)



Source: Site of Petroleum Planning & Analysis Cell: [www.ppac.gov.in](http://www.ppac.gov.in)

The components of price that contributed to its level are examined in the following section.

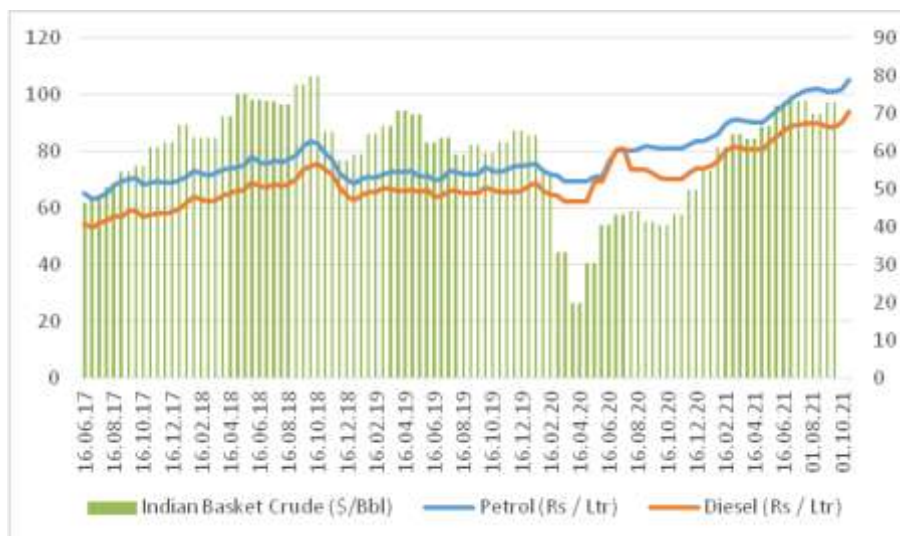
### Decomposition of the Selling Price of Petroleum Products

Following the principles of trade parity price, international oil prices determine the cost of the product as the base level (pre-tax) prices in the domestic market. The same amount is charged by all oil marketing companies to their dealers.

Three elements are added to that price; viz, a) excise duty, b) dealer's commission, and c) VAT. These 3 components, when added to the base level price (charged by oil marketing companies), end up as retail selling price (RSP). Components of the price build up as on 16.10.21 are presented in Table 8 below which shows that 55% of the petrol price and 50% of the diesel price comprised of taxes both federal and state taxes put together.

**Figure 14. Price Behavior for the Period June 2017 Till October 2021 (fortnight data set)**

Figure 14



Source: Site of Petroleum Planning & Analysis Cell: [www.ppac.gov.in](http://www.ppac.gov.in)

**Table 8. Components of Retail Selling Price, as on 16.10.2021 at Delhi**

	Petrol		Diesel	
	Price Component Rs / Liter	Share of each component Percentage	Price Component Rs / Liter	Share of each component Percentage
(1)	(2)	(3)	(4)	(5)
Base level Price (a)	44.37	42	46.05	47
Excise Duty	32.90	31	31.80	35
Dealer's Commission	3.88	4	2.61	3
VAT	24.34	23	13.77	15
Retail Selling Price	105.49	100	94.23	100
Out of which tax	57.24	54%	45.03	50%

Note: (a) Estimated cost of product, charged by oil marketing companies to the dealer

Source: Site of Petroleum Planning & Analysis Cell: [www.ppac.gov.in](http://www.ppac.gov.in)

Table 9 given below presents over 3 years to examine their components of the price build up behavior.

**Table 9. Price Buildup Component Series of Auto Fuels in Recent Years**

(Price @ Rs per Liter in Delhi)

Petrol								
	01.04.2018	01.04.2019	06.01.2020	01.04.2020	01.06.2021	16.08.2021	16.09.2021	16.10.2021
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Company's Selling Price	34.98	35.83	36.05	28.28	36.03	41.64	41.13	44.37
Excise Duty	19.48	17.98	19.98	22.98	32.9	32.9	32.9	32.9
Dealer Commission	3.6	3.56	3.6	3.54	3.79	3.85	3.84	3.88
VAT	15.67	15.49	16.1	14.79	21.81	23.52	23.36	24.34
Retail Selling Price	73.73	72.86	75.73	69.59	94.53	101.91	101.23	105.49
Diesel								
	01.04.2018	01.04.2019	06.01.2020	01.04.2020	01.06.2021	16.08.2021	16.09.2021	16.10.2021
	18	19	20	20	21	21	21	21
Company's Selling Price	37.21	40.04	40.26	31.78	38.53	42.38	41.29	46.05
Excise Duty	15.33	13.83	15.83	18.83	31.8	31.8	31.8	31.8
Dealer Commission	2.52	2.49	2.52	2.49	2.59	2.6	2.59	2.61
VAT	9.52	9.73	10.11	9.19	12.51	13.15	12.97	13.77
Retail Selling Price	64.58	66.09	68.72	62.29	85.43	89.93	88.65	94.23

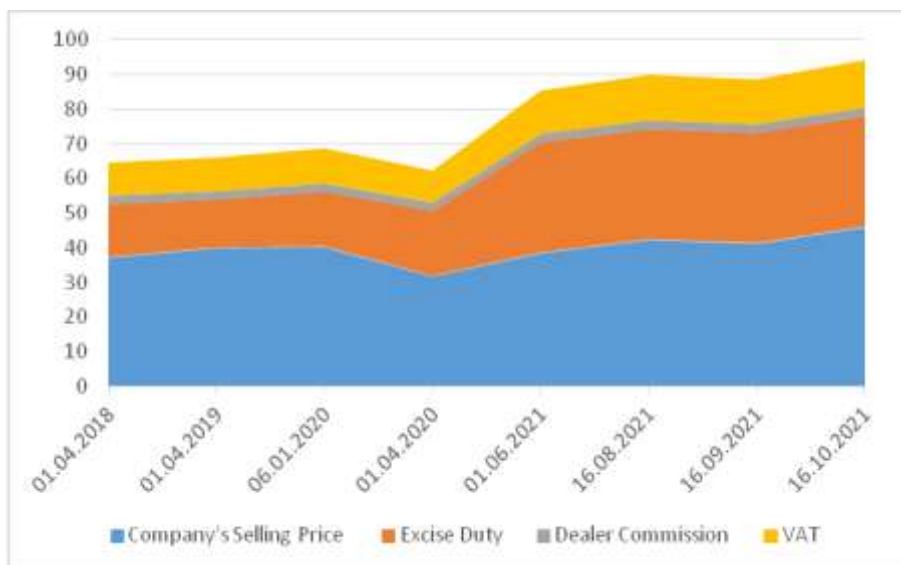
Source: Site of Petroleum Planning & Analysis Cell: [www.ppac.gov.in](http://www.ppac.gov.in)

Data given in Table 9 presented in escalations in both the components: Figures 15 and 16 below bring out viz., (a) base price (oil marketing that effective April 2020 and further company's selling price) and (b) higher in April 2021, there have been components of taxes.



**Figure 15. Petrol Price Build Up (Rs per Liter at Delhi)**

Source: Site of Petroleum Planning & Analysis Cell: [www.ppac.gov.in](http://www.ppac.gov.in)

**Figure 16. Diesel Price Build Up (Rs per Liter at Delhi)**

Source: Site of Petroleum Planning & Analysis Cell: [www.ppac.gov.in](http://www.ppac.gov.in)

The tax component has not been rate has been escalated as is accommodative (compensatory) to the presented in Tables 10 and Figure rise or fall of the base price. Tax 17.

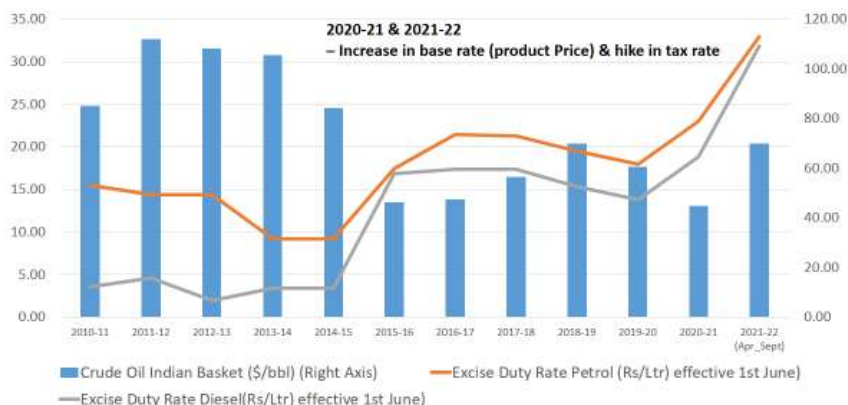
[Table 10. Rate of Excise Duty for Auto Fuels

	Crude Oil Indian Basket US \$ / Barrel	Excise Duty Rate	
		Petrol (Rs/ltr)	Diesel (Rs/ltr)
(1)	(2)	(3)	(4)
2010-11	85.09	15.50	3.60
2011-12	111.89	14.35	4.60
2012-13	107.97	14.35	2.00
2013-14	105.52	9.20	3.46
2014-15	84.16	9.20	3.46
2015-16	46.17	17.46	16.88
2016-17	47.56	21.48	17.33
2017-18	56.43	21.28	17.33
2018-19	69.88	19.48	15.33
2019-20	60.47	17.98	13.83
2020-21	44.82	22.98	18.83
2021-22			
(Apr-Sept)	69.80	32.90	31.80

Source: 1. Indian Petroleum & Natural Gas Statistics, various issues for old data

2. Petroleum Planning and Analysis Cell; [www.ppac.gov.in](http://www.ppac.gov.in) for current data

It therefore becomes evident that the stability of prices was not the objective of oil price management policy. The objective appeared to be tax mobilisation and fiscal consolidation. Tax mobilisation was attempted to meet the counter recessionary and income transferring expenditure undertaken during the COVID 19 period. Fiscal consolidation was attempted by removal of subsidy which was possible by transferring the escalating global price to the consumers and keeping oil companies free from unrecovered costs. [Jain, 2018, Pp. 242-249]

**Figure 17. Trend of Excise Duty Rates for Petrol and Diesel vis-à-vis International Oil Price**

Source: 1. Indian Petroleum & Natural Gas Statistics, various issues for old data  
 2. Petroleum Planning and Analysis Cell; [www.ppac.gov.in](http://www.ppac.gov.in) for current data

The excise duty structure in terms of effective April 2021 is presented in the sub components of the rate of duty Table 11 below:

**Table 11. Split of Excise Duty Rate (Rs per Liter)**

	Petrol	Diesel
(1)	(2)	(3)
Basic	1.40	1.80
Additional Excise Duty (Road Infra Cess)	18.00	18.00
Special Additional Excise Duty	11.00	8.00
Additional Excise Duty (Agri Infra Development Cess)	2.50	4.00
Total	32.90	31.80

Source: Petroleum Planning and Analysis Cell; [www.ppac.gov.in](http://www.ppac.gov.in); accessed on 25.10.2021

The excise duty on auto fuels is specific not *ad valorem*. However, basic excise duty prior to 2010-11 for both Petrol and Diesel was a mix of specific and *ad valorem duties*. The basic custom duty rate is *ad valorem*. Additional customs duty and countervailing duty rate are specific. Summarily stated, effective April 2020 and April 2021, there has been an unprecedented rise in the excise duty rate. That coupled with high basic rate since July 2020 onwards resulted in rate of liter of petrol and diesel exceed Rs 80 per liter and since July 2021, Petrol prices exceeded Rs 100 a liter.

The Government admits that they are raising funds for various schemes under which funds are getting transferred to weaker sections of people as stimulus to recover from the COVID lockdown induced slowdown. A section of experts are seen to advance arguments in favour of hike in the tax rate. The argument runs as follows: Auto fuels are good items for raising revenue through indirect taxes, due to the reasons as: a) wider tax base; b) inelastic demand; c) easy compliance; d) tax on externalities; e) penalty for preference for high carbon fuel over low carbon emission fuels like CNG & EV. Together with subsidy reform, this is seen as a set of packaged tax reforms.

## **The Stated Position of the Government**

The revenue generated by taxation on petroleum products is used in various developmental schemes of the Government like Pradhan Mantri Gram Sadak Yojana (PMGSY), Pradhan Mantri Ujjawala Yojana (PMUY), Ayushman Bharat, Pradhan Mantri Garib Kalyan Yojana (PMGKY) and also to provide relief to the poor especially during the pandemic under schemes like Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) under which free ration was provided to 80 crore beneficiaries during April, 2020 to November 2020 and May-June 2021, free vaccination against Covid-19, etc.

Over last 7 years, the length of the National Highway network has gone up by 50 per cent from 91,287 km (as of April 2014) to 1,37,625 km (as on 20 March 2021). Highway construction per day in India increased by almost 3 times from 12 km/day in 2014-15 to 33.7 km/day in 2020-21.

### **SUMMARY OF FINDINGS AND RECOMMENDED PATHWAY**

It is indeed evident that prices of auto fuels were at a historical high from April 2020 and further from April 2021 at current prices. It is also revealed that prices as high as this was not in consonance with international price levels

during this period. The rise of selling price was largely caused by high taxes, levied both by federal and state governments. It is therefore premised that the price level as maintained during last one and half year was a conscious outcome of policy induced action. The action has been justified by reforms in the space of taxation, ostensibly necessitated by welfare oriented public spending and to make subsidies a thing of the past.

The inflationary fallout of action of maintaining high price of auto fuels has been adverse, as reflected in the RBI statement that reads, "Consumer price index (CPI) inflation breached the upper tolerance threshold of 6 per cent in May and June 2021 driven by supply-side pressures in food, fuel and core inflation." [RBI, 2021b, p. 5] The Report further observes, "Overall, goods inflation is driving the core, with petrol and diesel (under the transportation and communication sub-group) registering double digit inflation consecutively since July 2020. Even as the one-off effects of indirect taxes instituted in the post lockdown period waned from June 2021, the sustained increase in international crude oil prices - by around 104 per cent between end-May 2020 and end-August 2021 - has kept petrol and diesel inflation firm at 23.8 per cent in August. This was starkly evident in the WPI which excluded indirect tax effects; WPI petrol

and diesel inflation was at 54.2 per cent in August. Petrol pump prices were at historic highs in early 2021 and breached Rs 100 per liter by July 2021, with attendant implications for overall cost conditions in the economy." [RBI, 2021b, p. 27]

The monetary policy statements for the last one and half years has been maintaining accommodative stance, keeping revival of economy as primary objective. Fiscal policy also aimed the same *albeit* through public spending. But fiscal policy targeted fossil fuel prices for revenue generation disproportionately, riding on motely arguments that favors taxing fossil fuel for the externalities and reduction of carbon footprints. Reforms in the oil sector have been attempted by way of subsidy removal. It appears that the inelastic demand for auto fuels have been relied on to an unsustainable stretch. Revenue generation (fiscal stability) has taken precedence over the objective of having stability in the prices of auto fuels as a macroeconomic objective.

Abnormally high international oil price normally bring shock to domestic selling price. Tax rate is expected to counter such price variation. This may mean implicit subsidy by way of foregone revenue. This is argued in the interest of maintaining stability in the price level.

There is, therefore, a need to reassess how much of an incidence of taxes can be imposed on consumers of auto fuels, knowing the nature of items, as explained in the earlier part of this paper. It would be a good idea to put a ceiling on the selling price of petrol and diesel. This would mean adjustment in taxes and also mapping of basic prices of oil (pretax amount, charged by oil marketing companies to the dealers) with respect to general price index. Government of India, if required through enabling legislation, may fix the ceiling price once a year, coinciding with the annual budget timing. This will have impact on tax mobilisation as well as on fiscal subsidy. Overall tax mobilisation through indirect taxes by Government of India and the State Governments will have to be managed, adhering to the ceiling price of auto fuels. This will signal the much required stability to the managers of the economy as well as to the market. The ceiling retail selling price of auto fuels may be set at, say, Rs 95 and Rs 85 per liter for petrol and diesel, respectively.

The ceiling price of auto fuels as recommended above at the current rate structure would mean reduction of specific tax rate approximately by Rs 11 and Rs 10 per liter, respectively for petrol and diesel. The assumption with respect to international price of crude would be \$76 to \$78 per barrel. The reduced tax

rate would then be approximately Rs 22 per liter for both petrol and diesel. At 2020-21 volume of consumption, this reduced rate would imply loss of revenue by Rs 100,000 crores, which is 4.5% of budgeted tax revenue of Government of India for 2021-22. Increase in consumption of petrol by 3% and that of diesel by 5% in a year has the potential to mobilise additional revenue of approximately Rs 10,000 crores (at reduced rates of taxes). These calculations point to the fact that the recommendation for ceiling selling price is not revenue neutral. Therefore, loss of revenue to the exchequer needs to be compensated from other sources of revenue.

Another recommendation for a way forward is that each refinery should quote their own prices for products. That price can be market (competition) related or cost based. There will be a price differentiation in the same market which may be linked to differentiated products, services and packages. This will be a likely scenario where Government keeps off the pricing of auto fuels.

A further recommendation, speaking at an overall level, would be to enable competitive forces to operate in the oil industry's operating space- an antidote to high oil prices. To a large extent, this has been progressively happening in the oil and gas industry in India. The auto fuels

sector till now has been kept outside the liberal market framework. The issue, therefore, remains as to how the scope of competition can further widened while, at the same time, providing regulatory safeguards. The down (risk) side of this pricing freedom is that there will not be a shock absorber, available to country (to the consumer) in situation of runaway international oil price. In free markets, it is observed that the prices of petroleum products increases at a faster rate with the rise in crude oil prices while decreases occur at a slower rate in response to drop in crude oil prices. This is said to be the 'rockets and feathers' phenomenon 'Rockets and feathers' analogically portrays petroleum product prices accelerating like rockets in response to rise in crude oil prices, but drops like a feather, as price corrects slowly and in smaller magnitude with decrease in crude oil prices. This asymmetry in behavior of prices of petroleum products has something to do with the market structure and with consumer behavior. [Pal, *et al.*, 2016, Pp. 314-328] It is also to be pointed out here that the Indian financial system has not provided so far insurance and hedging instruments to consumers to mitigate the risk arising out of input price volatility. Literature provides theoretical and practical experiences of other countries where these instruments are available. [Federico, *et al.*, 2001]

Finally, we feel that if the current policy stance of using tax (and price) as a lever for demand side intervention which could force the consumer preference away from liquid fossil fuel towards of cleaner fuel, then the status quo may continue. But the consequences are too grave to leave unattended. It would be a tradeoff between consumption of petrol and diesel and transition to cleaner fuel, namely Power (Electric Vehicle- EV), and Compressed Natural Gas (CNG) with their attended consequences in terms of output and growth. Being aware of the infrastructural constraints on the supply side of EV & CNG on Pan India, the time is perhaps not considered ripe for justifying continuance of the high price with the above stated objective of using tax as a leeway.

## CONCLUSION

There can be a ceiling on the selling prices of auto fuels for one year, to begin with. The prices may be fixed by an executive order or by legislation coinciding with union budget. Alternatively, each oil company may be given complete freedom to quote their price. Competitive market forces will adjust both demand and supply side and the financial market will be able provide hedging solutions. If the present system continues, then tax rates have to be accommodative to impart stability and certainty with respect to oil price levels.

## REFERENCES

- Bandopadhyay, K.R., 2009; 'Petroleum Pricing in India: Transition from APM to MDPM', Asian Institute of Transport Development, MPRA, <http://mpra.ub.uni-muenchen.de>
- Bhattacharya, B.B. and A. Batra, 2009; 'Fuel Pricing Policy Reform in India: Implications and Way Forward', *Economic & Political Weekly*, July 18.
- Bouchouev, I., 2021; Is the Oil Price Inflation Relationship Transitory, The Oxford Institute for Energy Studies', August, [www.oxfordenergy.org](http://www.oxfordenergy.org)
- Federico, G., J.A. Daniel, and B. Bingham, 2001; Domestic Petroleum Price Smoothing in Developing and Transition Countries, IMF Working Paper, WP/01/75, [www.researchgate.net](http://www.researchgate.net)
- GOI, 1961; Report of the Oil Price Enquiry Committee (Chairman: K.R. Damle), Ministry of Steel, Mines & Fuel, Government of India, New Delhi.
- GOI, 1965; Report of Working Group on Oil Prices (Chairman: J.N. Talukdar) Department of Petroleum, Ministry of Petroleum and Chemicals, Government of India, New Delhi.
- GOI, 1969; Report of the Oil Prices Committee (Chairman: Shantilal Shah), Ministry of Petroleum and Chemicals and Mines and Metals, Government of India, New Delhi.
- GOI, 1976; Report of Oil Price Committee (Chairman: K.S. Krishnaswamy), Ministry of Petroleum and Chemicals, Government of India, New Delhi.
- GOI, 1977; The Gazette of India, Resolution No. P.20028/3/77-PPD (Vol II), Ministry of Petroleum, Government of India, New Delhi, December 16.
- GOI, 1984; Report of Oil Cost Review Committee (Chairman: J.S. Iyer), Ministry of Petroleum and Natural Gas, Government of India, New Delhi.
- GOI, 1997; The Gazette of India, Resolution No. P.20012/29/97-PP Ministry of Petroleum and Natural Gas, Government of India, New Delhi, November 21.
- GOI, 2002; The Gazette of India, Resolution No. P.20029/22/2001-PP Ministry of Petroleum and Natural Gas, Government of India, New Delhi, March 28.
- GOI, 2006; Report of the Committee on Pricing & Taxation of Petroleum Products (Chairman: C. Rangarajan), Ministry of Petroleum and Natural Gas, Government of India, New Delhi, February.
- GOI, 2010; Report of the Expert Group on a Viable and Sustainable System of Pricing of Petroleum Products (Chairman: K.S. Parikh), Ministry of Petroleum and Natural Gas, Government of India, New Delhi, February.
- GOI, 2013; Report of the Expert Group to Advise on Pricing Methodology of Diesel, Domestic LPG and PDS Kerosene (Chairman: K.S. Parikh), Ministry of Petroleum and Natural Gas, Government of India, New Delhi, October.
- IISD & CEEW, 2021; Mapping India's Energy Subsidies 2021: Time for Renewed Support to Clean Energy, International Institute for Sustainable Development & the Council on Energy, Environment & Water, [www.ceew.in](http://www.ceew.in)
- Jain, A.K., 2018; 'A fine balance: Lessons from India's Experience with Petroleum subsidy Reforms', *Energy Policy*, 119, Elsevier, [www.sciencedirect.com](http://www.sciencedirect.com)
- Pal, D. and S.K. Mitra, 2016; Asymmetric Oil Product Pricing in India: Evidence from a Multiple Threshold Nonlinear ARDL Model, *Economic Modelling* 59, <https://ideas.repec.org>
- RBI, 2021a; Monetary Policy, April 2021, Reserve Bank of India, Mumbai. [www.rbi.org.in](http://www.rbi.org.in)
- RBI, 2021b; Monetary Policy, October 2021, Reserve Bank of India, Mumbai. [www.rbi.org.in](http://www.rbi.org.in)



**Annexure 1**

Replacement of then prevailing practice of 'import parity' pricing method adopted by foreign oil companies (during 1948 to 1977) by 'retention pricing' method was done by Government of India resolution no. 20028/3/77-PPD (vol II) dated 16.12.1977. The resolution contains detailed policy level guidelines with regard to fixation of prices of petroleum products. The same resolution is reproduced below:

The retention pricing method was in vogue from December 1977 till March 2002. The policy architecture was based on recommendation of Oil Price Committee (OPC) 1976, headed by Dr. K.S. Krishnaswamy. Another committee known as Oil Cost Review Committee (OCRC), 1984 headed by JS Iyer recommended some changes in the policy. Changes were mostly concerned with admissible return on investment made by oil companies. Government of India by order no. P-20012/48/84-PP dated October 23, 1986 brought about some amendment.

Resolution no. 20028/3/77-PPD (vol II) dated here)  
16.12.1977 (1977 Resolution Gazette to come

**ANNEXURE IV**

No. 20028/3/77-PPD (vol II) GOVERNMENT OF INDIA (Bharat Sarkar), MINISTRY OF PETROLEUM (Petroleum Mantralaya), New Delhi, dated 16th December, 1977.

**RESOLUTION**

The Government of India set up Oil Prices Committee (hereinafter referred to as the OPC), under the Chairmanship of Dr. K.S. Krishnaswamy, Deputy Governor, Reserve Bank of India to recommend general principles of pricing policy of petroleum products and on other connected matters, in its Resolution dated the 16th March, 1974. The OPC submitted its Interim Report in January 1975 and the decisions of the Government were contained in the Government Resolution dated the 14th July 1975. The OPC submitted its final report in November 1976. This has been considered and the decision of the Government on the major recommendations, insofar as they modify the earlier decisions or cover new ground are given below:-

2. The principle of "import parity" has been discontinued as a basis for the pricing of indigenous crude oil and refined petroleum products.

3.1. A price of Rs. 41.44/bbl. of indigenous (onshore) crude oil of 34 API subject to gravity escalation, and inclusive of the increased royalty and the oil development cess, has been approved, taking into account the data on the cost of production updated by the OPC. A price of Rs. 58.84/bbl. of indigenous (offshore) crude oil (Bombay High) has been approved, inclusive of the increased royalty on indigenous crude and the oil development cess. In approving these prices, Government

has kept in view the facts that a sizeable portion of our requirements of crude oil and deficit products, the prices of which are rising, are still imported and the need to maintain the priceline to the maximum extent.

3.2. It has also been decided that fluctuations in the rate of dollar/rupee exchange would not affect the prices, although gravity escalations would be allowed.

4. A system of retention prices for each product and for each refinery has been introduced with effect from 16th December, 1977 on the basis of the latest cost data available, including a revised pool price of crude oil and norms and parameters worked out by the OPC. In calculating the retention prices a return of 15 per cent (gross) on the total capital employed (Income-tax depreciated net fixed assets plus working capital) has been allowed.

5.1. For the oil marketing companies, the Interim Report had employed the traditional method of the weighted average of the marketing and distribution costs of the major units to determine the marketing and distribution margins for the industry as sufficient data was not available at that time. In the final report, the OPC has recommended that the concept of retention margins being followed for refinery companies should be extended to the marketing operations as well. This recommendation has been accepted. The retention marketing margins for each product for the individual oil companies have been worked out after taking into account their latest cost and other operating data. The weighted average has been included in the price build-up so that prices to consumers would be uniform whether sold be one company to another, and the difference between the retention margins due to each individual oil company and those included in the price of a petroleum product would be adjusted through the pool accounts.

5.2. For the orderly growth of the oil companies in the public sector and for the full utilisation of the facilities with each of the oil companies, the marketing share of each company would be determined by the Government and a system introduced to govern sales volume and recovery of marketing margins.

5.3. The determination of retention prices of margins does not mean that all costs would be recognised and reimbursed. There would be a built-in mechanism whereby inefficiencies would be penalised and efficiencies rewarded. Any deterioration in marketing efficiency or shortfall in the volume of sale from the levels anticipated, would not, *ipso jacto*, call for any adjustment of retention margins.

5.4. In working out the retention margins, a return of 15 per cent (gross) on total capital employed (Income-tax depreciated net fixed assets plus working capital) has been allowed.

6.1. Pool accounts are being maintained to ensure that an arrangement based on retention price/margins, various units are reimbursed costs as experienced by each, subject to certain norms based on the final report of the OPC, the scope and content of these accounts would be determined.

6.2. It has been decided that pool funds would be kept in the Public Account of India in place of the present practice of keeping them as deposits in commercial banks. This will ensure the audit of the pool accounts by the Comptroller and Auditor General of India.

7. The decision of the Government on dealers' commission on motor spirit, high diesel oil kerosene oil and light diesel oil are already contained in Resolution dated 22nd June, 1976. The rates of commission and slabs were subsequently revised on the basis of the final report.

8.1. Lube base stocks are the principal raw material in the manufacture of finished lubricating oils and greases. A system of retention prices of lube base stocks for individual lube plants on the basis of the latest cost data available and revised norms and parameters will be introduced as in the case of finished petroleum products. Uniform ex-refinery prices have been determined on the basis of the weighted average retention prices of lube plants for all lube base stocks classified into three categories, viz., LVI base stocks, HVI Bright stocks and Turbine oils. As in the case of fuel products the difference between the ex-refinery and retention prices would be adjusted in the pool accounts.

8.2. There has been no price formulation, so far, for finished lubricants and greases, prices of which have been controlled under the system of lube "block control", as recommended by previous pricing committees. In this system, the oil companies recovered the actual costs themselves and fixed selling prices of individual products in such a manner that taking all grades together, their recovery towards marketing/distribution charges and profits during a financial year did not exceed the ceilings laid down from time to time. In the changed situation, viz., that the supply of additives packages and almost the entire oil industry is now in the public sector, it has been decided to determine ceiling selling prices for automotive lubes and non-additive secondary grade lube oils, which account for about 70 per cent of the total sale of lubes and greases in the country. This would bring down the selling prices of the commonly used automotive lubes, although there would be some marginal increases for superior grade lubes.

8.3. For the balance of about 30 per cent of lubes and greases, which are mostly industrial grades, the prices will for the time being stand at the existing levels and will be operated through a modified and improved form of block control mechanism providing, *inter alia*, new norms and parameters to the extent possible for certain elements of cost such as blending charges, marketing margins, packaging, etc.

9. On the recommendation of the interim Report, a number of products were, for the first time, brought under the pricing scheme. Certain other special products such as low sulphur heavy stock (LSHS), hot leavy stock (HHS), refinery gas, aromex, iomex, waxes, raw petroleum coke, calcined petroleum coke, carbon black feed stock, phenol extract, benzene and toluene will also be brought within the pricing scheme. It has been decided that these products would also hereafter be included like other products in the pool accounts pertaining to crude oil. The recommendations of the OPC on the selling prices of these products would be considered in due course.

10. The Committee has observed that several State Government have levied sales taxes and surcharges which cannot be recovered from consumer prices and would, therefore, seriously affect the financial viability of the oil companies, when prices of their products are based on costs. Government has noted these observations, and is of the view that State Governments should discontinue such levies and may levy only recoverable levies. Until this is done, the various surcharges being added to the selling prices in the States concerned to compensate the oil companies, may continue and their rates reviewed from time to time.

11. The OPC has recommended escalation and adjustments in the pool accounts due to variations in actual costs over the norms and parameters included by them in the pricing structure. Besides, other items of adjustment have also been spelt out such as capital cost and operating cost thereon for expanding facilities for supply of essential commodities such as Taluka Kerosene Depots and Farm Fuel Outlets, investment for minor projects towards improving the pattern of production and/or reducing the incidence of own consumption of fuel and loss, etc. These recommendations have been accepted for adjustments in the pool account subject to the approval of Government.

12. The decisions herein contained will come into force with effect from 16th December 1977 and will remain in force until farther orders.

13. In regard to some of the other recommendations of the Committee, the decision of Government will be announced in due course.

S. KRISHNASWAMI,  
*Secretary to the Government of India*

### **ORDER**

Ordered that a copy of this Resolution be communicated to all the State Governments/Union Territory Administrations, Lok Sabha and Rajya Sabha Secretariat and the concerned Ministries and Departments of the Government of India. Ordered also that the Resolution be published in the Gazette of India for general information.

NEW DELHI,  
THE 16th December, 1977.  
MGIPRRND-S/6 M of Pet./77-TSS II-23-12-77-3,000.

S. KRISHNASWAMI,  
*Secretary to the Government of India*

## Annexure 2

Dismantling of APM and launching of market determined pricing mechanism (free pricing) was a significant development in the history of petro product pricing regulatory system in India. This went together with reforms in oil and gas sector, which brought about structural changes in the market, involving new players, new marketing strategies, and new market forces. Market moved from typical oligopoly towards competition. The process was preceded by the following milestones:

Sundararajan Committee was formed in 1994 to prepare a roadmap for bringing about reforms in oil and gas sector. That committee report submitted in 1995 formed the ideation for dismantling the APM and introduction of market determined pricing system. Government set up in 1995 a strategic restructuring group (R-Group) comprising of government representatives, economists and experts from industry to laydown action plan for complete deregulation of hydrocarbon sector which would be financially sound and internationally competitive. The committee was headed by Dr. Vijay Kelkar, Secretary, Ministry of Petroleum & Natural Gas, Government of India. Government then set up an Expert Technical Group in June 1996 comprising representatives from various ministries like Finance (Department of Economic Affairs), Planning Commission, Bureau of Industrial Cost and Price. The committee recommended on pricing and tariff structure (both excise and customs) of petroleum products, in relation to other sectors.

Taking all these as inputs, Government came out with the following two notifications which paved the path for phased reforms in pricing of petroleum products. Both these notifications are reproduced here for their historical and academic significance.

### **MINISTRY OF PETROLEUM AND NATURAL GAS RESOLUTION New Delhi, the 21<sup>st</sup> November 1997**

No.P-20012/29/97-PP - The existing system of pricing of petroleum products is based on the recommendations of Oil Prices Committee, 1976 as approved by the Government of India, Ministry of Petroleum vide its Resolution No P-20028/3/77-PPD (Vol II) dated December 16, 1977 and as amended by the Government of India, Ministry of Petroleum and Natural Gas vide order No P20012/48/84-PP dated October 23, 1986 based on the recommendations of the Oil Cost Review Committee, 1984. Under the present system, Oil refineries, marketing companies and pipelines are compensated based on the retention concept and are allowed a return of 12% post tax on net worth. The price of indigenous crude oil is also based on cost plus formula wherein the PSU Oil producing companies are allowed operating cost and 15% post tax return on capital employed.

2. The Government of India, Ministry of Petroleum and Natural Gas vide its order No P-20029/21/94-PP dated January 18, 1995 had appointed a Strategic Planning Group on Restructuring of the Oil Industry ('R' Group) comprising of eminent experts from the Public Sector & Private Sector, distinguished Energy Experts and academicians to make recommendations to meet the policy objectives and initiatives required for restructuring the oil industry. The 'R' Group had recommended

the gradual phasing out of APM and introduction of free marketing mechanism. The Government had decided on 1.9.97 to dismantle APM by introducing reforms in a phased manner based on the recommendations of the 'R' Group.

3. The Government of India, Ministry of Petroleum and Natural Gas vide its order No P-20029/21/95-PP dated June 25, 1996 had also appointed an Expert Technical Group to examine the impact on various sectors at different levels of duty structure in case of dismantling of APM. The Expert Technical Group has submitted its report which was under examination of the Government. The report has dealt with phased movement to Market Determined Pricing Mechanism and rationalisation of Custom Tariff & Excise duty rates in respect of dismantling of APM along with its impact on various other sectors.

4. The Government of India has now decided the details of phasing of dismantling programme of administered pricing mechanism and the duty structure for the terminal year i.e. 2001-02, after taking into account the recommendations of Expert Technical Group. The details are given below.

- a) Dismantling of APM in the petroleum sector in phases as per sequence given in Annexure-1 starting from 1998-99.
- b) Cost-plus formula is withdrawn for indigenous crude oil producers, the price receivable by oil producers will be increased to international levels in a phased manner by paying a pre-announced increasing percentage of weighted average FOB price of actual imports of crude oil during the transition period.
- c) The system of retention pricing is abolished for all (existing and new) refineries, and pricing of petroleum products at the refinery gate level will move towards import parity, however, Refinery Gate prices of controlled products, viz., MS, HSD, SKO, LPG and ATF will be fixed at "adjusted import parity" prices for the existing refineries during the transition period, all other products will be sold by the refineries at market driven prices.
- d) Consumer prices of major petroleum products will be moved to market prices, price of HSD will be fixed on the principle of import parity pricing upto ex-storage point level with immediate effect, and prices of other major products, viz., LPG, ATF, SKO and MS, will be moved towards principle of import parity in a phased manner and pricing of Paraffin-Wax, Bitumen, Naphtha, FO and LSHS will be decontrolled.
- e) The transition period will be utilised for servicing and amortising the Oil Bonds worth around Rs.18,200 crores, proposed to be issued by the Government to the Oil companies, the price of crude and petroleum products as mentioned above will be fixed by OCC with enhanced autonomous powers.

- f) Imports and exports of all petroleum products, except crude (slop crude and crude condensate), NGL, ATF, MS and HSD will be decanalised during the transition period, however, sourcing and import of crude will be allowed to joint and private sector refineries under actual user licensing policy.
- g) Duties on crude and petroleum products will be rationalised in a phased manner.
- h) Investments in the refining sector will be encouraged by providing reasonable tariff protection and making marketing rights for transportation fuels, viz., MS, HSD and ATF conditional on owning and operating refineries with an investment of at least Rs. 2000 crores or oil exploration and production companies producing at least three million tonnes of crude oil annually.
- i) Cost-plus formula for shipping of crude oil is withdrawn and the rates will move towards market related rates.
- j) Freight subsidy on supplies to far-flung areas will be met through the fiscal budget and
- k) Establishment of a regulatory framework to oversee the functioning of and enforcing a competitive framework in the Hydrocarbon Sector.

5. The decisions herein contained will come into force with effect from 1.4.1998 onwards and will remain in force until further orders.

NIRMAL SINGH, Jt Secy.

### ORDER

Ordered that a copy of this Resolution be communicated to all the State Governments/Union Territory Administrations, Lok Sabha and Rajya Sabha Secretariat and the concerned Ministries and Departments of the Government of India.

Ordered also that the Resolution be published in the Gazette of India for general information.

NIRMAL SINGH, Jt. Secy.

### PHASED PROGRAMME OF REFORMS

Particulars	Model
Transition Phase Year I ( 1998-1999)	4 years
i) Removal of cost plus formula and payment to crude producers as percentage of weighted average FOB price of actual imports	75 per cent
ii) Products to be controlled during transition period.	MS, HSD, Kerosene, ATF and LPG
iii) Withdrawal of retention margin concept for the refineries and refinery gate prices for controlled products	Adjusted import parity prices to existing refineries and tariff adjusted import parity prices to new refineries.
iv) Products to be decontrolled	Naphtha. FO, LSHS, Bitumen. Paraffin wax
v) Exim Policy	Decanalisation of imports/exports of all petroleum products except crude (slop crude and crude condensate), NGL, ATF, MS and HSD
vi) Sourcing of crude	Sourcing of crude to be liberalised and import to be allowed for joint and private sector refineries under actual user licence
vii) Customs duties	Rationalisation done in a phased manner
viii) Increase in prices of: Kerosene (PDS) LPG(Domestic)	30 per cent of existing ex-storage point price 33 per cent of subsidy passed on.
ix) Freight and other under -recoveries	33 per cent to be passed on. in an equated manner
x) Shipping of crude oil	Withdrawal of cost plus formula for shipping of crude oil and move towards market related rates.



Particulars		Model
Year 2 (1999-2000)		
i)	Payment to crude producers as percentage of weighted average of FOB	77.5 per cent
ii)	Increase in prices of: Kerosene (PDS)	30 per cent of revised ex-storage point price at the end of year 1
	LPG (Domestic)	A further 33 per cent of subsidy to be passed on
iii)	Freight and other under- recoveries	A further 33 per cent to be passed on, in an equated manner
iv)	Rationalisation of duties	To continue
Year 3 (2000-01)		
i)	Payment to crude producers as percentage of weighted average FOB Price	80 per cent.
ii)	ATF	Deregulation of imports and pricing
iii)	Increase in prices of: Kerosene (PDS)	20 per cent of the revised ex-storage point price at the beginning of the year.
	LPG (Domestic)	Suitable adjustment in prices to reach subsidy level at 15% of import Parity.
iv)	Freight and other under - recoveries	Balance subsidy to be passed on, in an equated manner
Year 4 (2001-2002)		
i)	Payment to crude producers as percentage of weighted average FOB price	82.5%
ii)	ii) Increase in prices of Kerosene (PDS)	Suitable adjustment in prices to reach subsidy level at 33.33% of the import Parity
	2002 onwards	Full Deregulation
		Transfer of subsidy on SKO (PDS), LPG(Domestic) and freight subsidy on supplies to far Bung areas to the fiscal budget of the Government.

## MINISTRY OF PETROLEUM AND NATURAL GAS RESOLUTION

New Delhi, the 28th March, 2002

No. P-20029/2212001-PP.- The Government of India, Ministry of Petroleum & Natural Gas vide Resolution No.P-20012/29/97-PP dated 21<sup>st</sup> November 1997 had notified the details of phased programme of dismantling of administered pricing mechanism (APM). As a result, the consumer prices of all products except motor spirit (MS), high speed diesel (HSD), aviation turbine fuel (ATF), kerosene for public distribution (PDS kerosene) and LPG used for domestic cooking (domestic LPG) were decontrolled with effect from 1<sup>st</sup> April 1998. As a follow up of the aforesaid decision, the Government vide Ministry of Petroleum & Natural Gas Resolution No.20018/212000-PP dated 30<sup>th</sup> March 2001 decontrolled the pricing of aviation turbine fuel (ATF) with effect from 1<sup>st</sup> April 2001.

2. Pursuant to the decisions contained in the aforesaid Resolution of November 1997, the Government have now decided to dismantle the APM in the hydrocarbon sector with effect from 1<sup>st</sup> April 2002. The details of the decisions are given below:-

- (i) Consumer prices of motor spirit (MS) and high speed diesel (HSD) will be market determined with effect from 1<sup>st</sup> April 2002. Consequently, the pricing of petroleum products, except for PDS kerosene and domestic LPG will be market determined with effect from 1<sup>st</sup> April 2002.
- (ii) The subsidies on PDS Kerosene and domestic LPG will be borne by the Consolidated Fund of India from 1<sup>st</sup> April 2002. These subsidies will be on a specified flat rate basis, scheme for which will be notified separately. These subsidies will be phased out in the next 3 to 5 years.
- (iii) Freight subsidy will continue to be provided for supplies of PDS Kerosene and domestic LPG to far flung areas, scheme for which will be notified separately. The freight subsidy will be borne by the Consolidated Fund of India with effect from 1<sup>st</sup> April 2002.
- (iv) The price of indigenous crude oil of Oil and Natural Gas Corporation Ltd. and Oil India Ltd. will be market determined with effect from 1<sup>st</sup> April 2002.
- (v) The oil pool accounts will be wound up with effect from 1<sup>st</sup> April 2002. The cumulative outstandings of the oil companies against the pool account will be liquidated in the following manner:
  - (a) The Government will issue bonds to the extent of 80% of the amount equivalent to the provisional amount of the settled outstandings of the oil companies upto 31<sup>st</sup> March 2002.
  - (b) The pending claims relating to the APM period, including the updation of costs and margins for the fiscal year 2001-02, will be finalised as expeditiously as possible. The C&AG will be requested to do a special audit of the oil pool accounts. The whole of the balance amount due to the oil companies will be liquidated by issuing bonds for the remaining amount after the audit.

- (c) The contingent liabilities under the pending litigations, pertaining to the APM period, will be settled from the Government budget as and when such litigations are finally decided.
- (vi) The Oil Coordination Committee will be wound up with effect from 1<sup>st</sup> April 2002.
- (vii) A Cell, by the name "Petroleum Planning and Analysis Cell", will be created under the Ministry of Petroleum & Natural Gas effective 1<sup>st</sup> April 2002 to assist the Ministry. The expenditure on this Cell will be borne by the Oil Industry Development Board (OIDB).
- (viii) The new entrants, including private sector, will be allowed to market transportation fuels namely, motor spirit, high speed diesel and aviation turbine fuel as per the guidelines contained in the Ministry of Petroleum and Natural Gas Resolution No.P-23015/1/2001-Mkt. Dated 8<sup>th</sup> March 2002.
- (ix) Regulatory mechanism will be set up to oversee the functioning of the downstream petroleum sector.

SHIVRAJ SINGH, Jt. Secy.



## DOCUMENTATION

The purpose of this section is to make available to the readers official documents such as reports of committees, commissions, working groups, task forces, etc., appointed by various ministries, departments, agencies of central and state governments and international organisations, which are not readily accessible either because they are old, or because of the usual problems of acquiring governmental publications, or because they were printed but not published, or because they were not printed and remained in mimeographed form. We also present in this section, official documents compiled from scattered electronic and/or other sources for ready reference of the readers. It will be difficult and probably not worthwhile to publish the documents entirely. We shall publish only such parts of them as we think will interest our readers. The readers are requested to send their suggestions regarding official documents or parts thereof for inclusion in this section.

We are also keen to publish Papers, Notes or Comments based on the material included in this section. We invite the readers to contribute the same to our journal, which we shall consider for publication in subsequent issues of the journal, after the usual refereeing process.

In the present section, we publish:

1. Prof. V.M. Dandekar's Articles published in between 1959 to 1961
2. RESERVE BANK OF INDIA, All-India Rural Credit Survey District Monographs - BIJAPUR (BOMBAY STATE)

# NON-FARM WAGE RECEIPTS OF FARM FAMILIES

V.M. Dandekar

AN important finding of the All-India Rural Credit Survey which deserves greater attention, is that the farm business in India, generally speaking, depends to a considerable extent on the wages that the farm families earn by working outside their own farm businesses. The Rural Credit Survey points out that this dependence on the outside wages earnings is not confined to the small farms only, but that larger farms also show not much less dependence on similar earnings. These receipts of the farm families are earned partly by their doing wage work on other than their own farms. To that extent, the receipts do not come from outside agriculture or outside farm business as a whole, though they involve wage work on the part of the farm families. But, in part, these receipts also arise from wage work outside agriculture or in other words from non-farm wage work. To that extent, not only the several farm families but the entire farm business as a whole may be said to depend upon outside wage earnings. The purpose of the present paper is to examine the available data with a view to assessing the extent of this dependence. We shall chiefly draw on the data from the Rural Credit Survey (RCS) and the Agricultural Labour Enquiry (ALE).

There are two sets of wages data contained in the RCS. One is the wages received by the farm families; the other is the wages paid by the farm families. The RCS data regarding the wages received by the farm families are available in the Intensive Enquiry District Table 9 of the RCS Technical Report. There are two points to note about the cash data. Firstly, the reported receipts cover only the cash wages and thus exclude all receipts of wages in kind. We shall presume that the payment of wages in kind prevail mainly in farm work and that such payment would be small and negligible in non-farm wage work. In other words, we shall presume that the reported wage receipts cover (a) cash farm wages and (b) cash, and hence practically all, non-farm wages received by the farm families. The second point is that in the reported receipts, (a) and (b) above, are not distinguished and are not shown separately. To separate the two is our chief concern in this paper.

The other set of data contained in the RCS, namely, of wages paid by the farm families relates to the wages paid for farm work. We propose to examine it with a view to seeing whether it would furnish even a rough estimate of the (a) above, namely of the cash farm wages received by the farm families. The RCS data on

wages paid by the farm families appear in the Intensive Enquiry District Table 17 of the RCS Technical Report.

In this Table, the wages paid for farm work are shown under the following four categories:

- (i) (i) Wages in kind paid to labour for harvesting, etc. These are included in the item 'disposals in kind immediately after harvest' and are not shown separately in the published tables. Nevertheless an unpublished tabulation showing this split has been made available by the Reserve Bank of India on request.
- (ii) Wages in kind other than at harvest;
- (iii) Cash wages paid to hired labour; and
- (iv) Salaries paid to annual or permanent farm servants. These are included in 'other cash expenditure' in Intensive Enquiry District Table 17 and are shown separately in Intensive Enquiry District Table 7 which shows a split of the item 'other cash expenditure'.

In Table 17, there appears one more item of payment of wages, namely, 'cash expenditure on purchase of grain for payment of wages'. It should be noted

that this is not an additional item of expenditure on wage payment. The item is covered by category (ii) above.

Our present purpose of examining these data is to obtain, if possible, a rough and indirect estimate of cash farm wages received by the farm families. Hence we need not concern ourselves with the categories (i) and (ii) above, namely, of wages paid in kind. The category (iv), namely, salaries paid to annual or permanent farm servants is a little difficult to handle. The payments included in it are neither purely cash nor purely in kind. The RCS instructions on it are as follows: "Salaries paid to annual or permanent farm servants are often in grain. In such cases, the payments in kind should be evaluated and added to the cash payments actually made to them during the period. Free board and lodging and miscellaneous perquisites given to permanent farm servants should not be evaluated and included in this item." Therefore, we propose to exclude this item from our consideration for the time being though we shall refer to it later. Thus, among the farm wages paid by the farm families, we shall consider only the cash wages paid for hired, that is to say casual, labour. They are available in Intensive Enquiry District Table 17.

However, it seems that the category 'cash wages paid to hired labour' as appearing in Table 17 does not cover fully the cash wages paid for all farm work. It covers only cash wages paid for current farm operations or in other words for the cultivation of crops. In fact, in the RCS questionnaire schedule, the item was enumerated cropwise. There is obviously a great deal of farm work other than that directly concerned with the cultivation of crops for which casual labour is employed. Cash wages paid for such work do not appear in Table 17. For instance, a category of farm work not included in current farm operations appears under the heading 'capital expenditure in agriculture'. Particulars of this are given in Intensive Enquiry District Table 1 of the RCS Technical Report. The following items of capital expenditure in agriculture have been distinguished and listed: (i) Purchase of land, (ii) Reclamation of land (iii) Bunding and other land improvements; (iv) Digging and repair of wells; (v) Development of other irrigation resources; (vi) Laying of new orchards and plantations; (vii) Purchase of live-stock; (viii) Purchase of implements; machinery and transport equipment; (ix) Construction of farm houses, cattle sheds, etc. and (x) Other capital expenditure in agriculture. Of these, the items (i), (vii) and (viii) involve little wage payment. Items (ii), (iii), (iv), (v) would

comprise large components of wage payments and might even be regarded as comprising practically wholly wage payments. The remaining three items (vi), (ix) and (x) would involve partly wage payment and partly material costs. As a first approximation we propose to regard the entire expenditure shown on items (ii) to (v) and also on (vi), (ix) and (x) as comprising wholly of cash wage payment to casual labour, though this may involve a slight overestimation of the wage payment in capital expenditure. An overestimation may also be involved for another reason, namely, our presumption that the whole of the wage payment in capital expenditure went to casual labour, though in fact part of it would go to permanent or attached farm servants. However, from the manner in which the capital expenditure in agriculture was reported in the RCS, it seems unlikely that part wages paid to annual or permanent farm servants would enter into it. Hence though on both accounts (b) above may be an overestimate of the wages paid to casual labour for capital investment in agriculture, the error may not be serious.

We have thus two components of cash wages paid to casual labour for farm work. They are (a) cash wages paid to hired labour for current farm operations as appearing in the Intensive Enquiry District Table 17 of the RCS Technical



Report and (b) expenditure on certain items of capital expenditure in agriculture as appearing in Intensive Enquiry District Table 1 of the RCS Technical Report. It is hoped that (a) and (b) together cover the whole of payment of cash wages to casual labour for farm work. But this is by no means certain and it is possible that a few items involving payment of cash wages have escaped both (a) and (b), because they could neither be directly related to the cultivation of specific crops nor could they be called capital expenditure in agriculture. One reason for permitting slight overestimation under (b) is this doubt regarding the completeness of the joint coverage of (a) and (b).

It will be useful to bring together, for the 75 districts covered by the RCS, the payment of cash wages for farm work under (a) and (b) and compare them with the total receipts of cash wages by the farm families. This is done in Table No. 1. In the last column of the Table, the total wage payment for farm work is subtracted from the total wage receipts and the balance is shown as 'net receipts of wages'.

It will be seen that in about half the districts, the net receipts of wages are positive which means that these wage receipts are in excess of the wage payments. Actually, this is so in 38 out of the

75 districts covered by the RCS. However, on closer examination, it will appear that the districts with positive net wage receipts show marked regional groupings. Thus, out of the 22 districts covered by the RCS from the States of Uttar Pradesh, Bihar, Vindhya Pradesh and Orissa, 21 districts show positive net wage receipts. If to these we add three of the six districts from Madhya Pradesh, namely, the two eastern districts of Bilaspur and Durg which are more akin to Orissa districts and the northern district of Sagar which is more akin to Vindhya Pradesh, we get a compact region covered by 25 RCS districts out of which 21 districts show positive net receipts of wages. There is a second group of 20 districts from the States of Himachal Pradesh, Punjab, Pepsu, Rajasthan, Madhya Bharat, Bhopal and the three remaining districts of Madhya Pradesh, out of which only 8 districts show positive net wage receipts. In Bengal and Assam, out of the 8 districts covered by the RCS, 3 districts show positive net wage receipts. Finally, in the south, comprising the 22 districts from Bombay, Saurashtra, Hyderabad, Mysore, Madras and Travancore-Cochin, there are only 6 districts which show positive net wage receipts. There is thus a clear regional grouping of the districts showing excess of wage receipts over wage payments,

there being, in general, a larger concentration of such districts in the north than in the south.

In those districts where the wage receipts of the farm families are thus in excess of the total wage payment they make for farm work, there is a clear evidence that the farm families in these districts have substantial wage receipts from non-farm wage work. This would be so even if we supposed that the entire wage payment that the farm families made for farm work was received by the farm families themselves as they did wage work on farms other than their own, or in other words, that no part of the wage payment for farm work went into the hands of the landless labouring families. In point of fact, this would not be so and considerable part of the wage payment for farm work would be received by the landless labour families and only a part would be received by the farm families themselves. To that extent, in the districts showing positive net wage receipts, the non-farm wage receipts of the farm families would be even larger than those indicated by the net wage receipts. For the same reason, even in those districts, which in Table No. 1 do not show positive wage receipts, there might emerge a balance of wage receipts which would be attributed to non-farm wage work. For

this purpose, it will be necessary to estimate the cash farm wages received by the casual workers from the landless labour families.

The RCS does not furnish any data on this point. However, there is enough relevant data contained in the Agricultural Labour Enquiry. We shall examine in the following how we may best utilise these data contained in the ALE in conjunction with the above mentioned data from the RCS.

There is an initial difficulty in the way of putting the RCS and ALE data together. The two refer to two different periods. The RCS Intensive Enquiry data refer to the period from April 1951 to March 1952. The ALE Intensive Survey data refer to that from March 1950 to February 1951. There is thus an year's gap between the two. However, we propose to ignore it hoping that the two sets of data would nevertheless be broadly comparable.

The ALE Reports on Intensive Survey of Agricultural Labour distinguishes four categories of agricultural labour families: (i) casual workers' families with land; (ii) without land; (iii) attached workers' families with land; (iv) without land. Table 6 of the ALE Intensive Survey Reports gives, for the four categories of agricultural labour families, their average

annual incomes from the following sources: (i) land (net income); (ii) agricultural labour; (iii) non-agricultural labour; (iv) occupations other than farming; and (v) other sources. Thus if we put together the income from (ii) and (iii), we get the income of the agricultural labour families, from wages, both agricultural and non-agricultural.

In order to make these wage receipts of the agriculture labour families comparable with the wage receipts of the cultivators as reported in the RCS, we must obtain their cash component. This is not directly available in the ALE. No split is available into cash and kind in respect of the (iii) above, namely, wage receipts from non-agricultural labour. We shall therefore presume that the entire wage receipts from non-agricultural labour are in cash. It will be remembered that a similar assumption, though in an inverse form, was made in respect of the RCS data. In the RCS, we have information only regarding cash receipts from wages and we have presumed that the reported receipts cover fully the receipts from nonfarm wage work, on the assumption that in the latter the wages in kind would be small or negligible.

As for the item (ii) above, namely, income from agricultural wages, the ALE gives its split into cash and kind, but not directly. Table 5 of the ALE Report on

Intensive Survey gives "average daily wage together with value of perquisites of casual workers under different modes of wage payment in agricultural operations." In this Table, both the categories of families of casual workers, namely, those with and without land are included. The following modes of payments are distinguished; (i) cash; (ii) kind and (iii) cash and kind. Each of the three modes is further distinguished into two categories, namely, with perquisites and without perquisites. The number of man-days Worked by men and Women casual workers are shown divided according to these modes of wage payment. The number of man-days worked by children is small and usually constitutes around 5 per cent of the total man-days of casual workers. Their split by mode of payment is not shown. For the man-days worked by men and women casual workers, in each mode of wage payment, the average daily wage is shown split into two components; (i) cash or cash equivalent; (ii) value of perquisites. We shall adopt the following procedure to estimate the cash component in the agricultural wage receipts of the casual workers' families.

By multiplying the number of man-days worked for 'cash with perquisites' by the cash component of the average daily wage, and the number of man-days for 'cash without perquisites' by the average daily wage, and adding the two,

we get the cash component of the wage receipts. Similarly, by multiplying the number of man-days for 'wages in kind with and without perquisites' by the corresponding average daily wages, and adding to it the value of perquisites earned on man-days worked for 'cash with perquisites', we get the 'kind' component of the wage receipts. We find these two components for the men and the women workers separately, and putting the two together find what proportion the cash component bears to the total wage receipts of the casual workers. It will be noticed that in the above, we have neglected the man-days worked by the men and women workers for wages partly in cash and partly in kind. The number of such days is small and usually accounts for about 5 per cent of the total man-days worked by casual workers. As earlier mentioned, we have also neglected the man-days worked by children which also account for about 5 per cent of the total man-days put in by the casual workers. Thus our estimate of the cash component in the agricultural wage receipts of the casual workers is based on about 90 per cent of the wage receipts. This should be quite satisfactory.

We have no basis to judge the cash and kind components in the wages received by the attached workers. This category of workers in the ALE corresponds to what

have been described in the RCS as permanent or annual farm servants. It will be recalled that we decided to exclude from our consideration the salaries paid to them by the farm families on grounds that the cash and kind components thereof were not known. The same difficulty presents itself regarding the ALE data on wages received by these workers. It will therefore be appropriate to exclude them from our present consideration.

For the purpose of the ALE, the country was divided into 72 regions and apparently the data have been tabulated separately for these regions. However, the published data of the ALE are available only for 20 States. Hence for purposes of comparison and combination with the ALE data, the RCS district data have to be combined to give the State figures. This is done by appropriately weighting the RCS district data by means of the estimates of total rural families or the total cultivating families in those districts. Furthermore, in some of the 20 States, the RCS had none or only one or two districts, so that the comparison of the RCS and the ALE data in those States would not be satisfactory. Hence, 7 such States have been combined with the neighbouring States, leaving only 13 States or groups of States. These will form the basis for comparing and combining the RCS and the ALE data. It

should be understood that the States being mentioned are the old States as they existed in 1951.

As a preliminary, let us check the RCS and ALE wages data mutually on a couple of points. One point on which the two data may be checked is the proportion that the cash wages bear to total farm-wages paid to casual labour. As earlier mentioned, the RCS data, on wages paid by the farm families for current farm work, give the necessary details to work out this proportion. In the above, we have also described how the proportion may be estimated for the ALE data. In Table No. 2, below, we compare these proportions for the RCS and the ALE data for different States or groups of States. It should be mentioned that the RCS data cover all farm wages paid to hired casual labour coming either from the cultivating families or the landless labour families while the ALE data cover only that part of the farm wages which is received by the casual labour families. Nevertheless, it is obvious that a certain correspondence between the two sets of data is to be expected.

The two sets of data are seen to be in reasonably close agreement in Assam, Rajasthan, Hyderabad and Madras. In the remaining 9 States or groups of States, except in three really bad cases, the

agreement is not so good but is nevertheless tolerably satisfactory. In most of these cases, the RCS shows a somewhat higher proportion of cash wages than the ALE. The three really bad cases are those of Bihar, of Madhya Bharat group including Bhopal and Vindhya Pradesh, and of Orissa. In all the three cases the RCS proportion of cash wages is altogether too low in comparison with the ALE proportion. It is difficult to decide which one is closer to the truth.

Another point on which we might check the RCS and ALE data mutually is the average receipts of cash wages by the farm families in the RCS and by the agricultural labour families in the ALE. We should ordinarily expect that the average wage receipts of the farm families should be smaller than those of the labour families. We hope to do no more than check on this point and satisfy ourselves that there has not been any obvious overstating of wage receipts in the RCS or their understating in the ALE. Nevertheless, we propose to compare the two sets of data in a slightly greater detail. The RCS data on cash wage receipts of the farm families are available separately for two groups of farm families denoted in the RCS tables as 'cultivators of the first five deciles' and 'cultivators of the last five deciles'. Briefly told, the cultivators in each village were arranged in a descending order of the size of their

cultivated holdings and divided into two numerically equal groups. Hence, the RCS cultivators of the 'first five deciles' represent the first half consisting of the larger cultivators, and those of the 'last five deciles' represent the second half consisting of the smaller cultivators. We shall briefly refer to them as the larger and the smaller cultivators. We should ordinarily expect that the wage receipts of the larger cultivators would be smaller than those of the smaller cultivators. As previously described, the ALE also distinguishes the casual labour families into two groups namely those with and those without land. We should expect that the wage receipts of families with land would be somewhat smaller than those of the labour families without land. Finally, it should be noted that, as a class, the casual labour families with land, of the ALE form a part of the class of the cultivators of the last five deciles of the RCS. We might therefore expect a somewhat closer correspondence between the wage receipts of the smaller cultivators of the RCS, and of the casual labour families with land of the ALE.

In Table No. 3, we set out the wage receipts from the RCS and the ALE for the categories of families described above. The RCS data of wage receipts cover all cash wages, both farm and non-farm. Presuming that wages in kind would be small in non-farm wages, we

may say that the RCS data cover all cash farm wages and practically all non-farm wages. In the ALE, as described earlier, the wage receipts from agricultural and non-agricultural wage work are shown separately for the two classes of labour families. We have also been able to derive the proportion of cash wages in the agricultural wage receipts, though jointly, for the two classes of labour families. By applying this proportion to their respective receipts of agricultural wages, we may obtain estimates of the cash farm wage receipts of the two classes of labour families. In Table No. 3, only cash component of the agricultural wages so derived is included. The cash component of the non-agricultural wage receipts could not be so derived and hence the whole of them are included. Presuming that the non-agricultural wages would be mostly cash, the two sets of data as given in Table No. 3 are thus comparable.

It will appear from Table No. 3 that the RCS and ALE data, on wage receipts, are internally consistent and generally not in conflict mutually. In the RCS data, the wage receipts of the smaller cultivators are everywhere larger than those of the larger cultivators, though in some states like Madhya Bharat, Bhopal, Vindhya Pradesh and Orissa, the difference in the wage receipts of the two groups of cultivators does not appear sufficiently

marked. In the ALE data too, the wage receipts of the casual workers' families without land are generally larger than those of the workers' families with land, though here the distinction between the two groups of families of workers appears much less marked than that between the two groups of cultivators in the RCS. Moreover, Bihar appears as a notable exception, where the wage receipts of the workers' families with land are considerably larger than those of the workers' families without land.

The wage receipts of the workers' families with land, in the ALE are generally larger than the wage receipts of the smaller cultivators in the RCS, though there appear two important exceptions of Madhya Pradesh and Madras. In both these States, the wage receipts of the smaller cultivators of the RCS are larger than those of the ALE workers' families with land. In both these cases the RCS figures appear rather large. In all other States, the wage receipts of the smaller cultivators of the RCS are well below the wage receipts of the casual workers' families of the ALE, and there is no indication that the wage receipts of the cultivators in the RCS were anywhere overstated.

Let us now attempt to put together the data from the RCS and ALE. This

involves a statistical exercise which follows from the respective statistical designs of the two enquiries. Both the enquiries made use of statistical designs which permit, statistically speaking, quantitative estimation for the whole country or for any regions thereof, though, of course, the regional estimates would have larger sampling errors. In the following, we shall obtain the relevant estimates from both the RCS and ALE data for the 13 States, or groups of States, and then try to put the two sets of estimates together. To begin with we shall look at it as a purely statistical exercise.

From the RCS, we need estimates of: (i) total cash farm wages paid in each region (ii) total cash wages both farm and non-farm received, by cultivating families in each region. These are derived in the first half of Table No. 4 and we are given in column Nos. 4 & 5 of that Table, on the basis of per rural family. In the RCS these data are available on the basis of per cultivating family in each district covered by the RCS. The same can be derived for each State or group of States by appropriately weighting the district figures. Such regional estimates, on the basis of per cultivating family, are given in column Nos. 1 and 2 of that Table. To convert these estimates to the basis of per rural family, they have to be multiplied by the proportion that the cultivating families bear to all rural families. These

proportions, derived from the RCS district data, are given in column 3 of the Table. Columns 4 and 5, giving the required estimates on the basis of per rural family, are obtained by multiplying respectively columns 1 and 2 by column 3.

From the ALE, we need estimates of the total cash farm wages received by the landless casual labour families in different regions. We have already described the manner in which such estimates may be obtained on the basis of per landless casual labour family. These estimates are given in column 6 of the Table. In order to convert these estimates to the basis of per rural family, they have to be multiplied by the proportion that the landless casual labour families bear to all rural families. These proportions are given in column 7 of the Table. Column 8 is obtained by multiplying column 6 by column 7 and gives the estimates of total cash farm wages received by landless casual labour families on the basis of per rural family. Now, if we subtract the cash farm wages received by the landless casual labour families (col. 8) from the total payment of cash farm wages (col. 4), we obtain estimates of cash farm wages received by the cultivating families. If these are subtracted from the cash farm and non-farm wages received by the cultivating families (col. 5), we get the required estimates of the receipts of cash

non-farm wages by the cultivating families. These are shown in column 9 and are on the basis of per rural family. They are converted to the basis of per cultivating family and shown in column 10 of the Table.

The final results, it will be seen, are far from satisfactory. In only 6 out of the 13 regions, the cultivators show positive receipts of cash non-farm wages. In the remaining States, where these receipts appear negative, it means that in these States even the payment of cash farm wages is not fully accounted for by the cash wages received by the cultivating families together with the cash farm wages received by the landless casual labour families. The gap between the two is not large in the case of Assam, Orissa and Hyderabad, but it is very large in the case of West Bengal, Rajasthan, Bombay and Madras. The quantitative estimates thrown up by the two surveys thus appear to be greatly at variance with each other.

Even in those States where the cash non-farm wage receipts of the cultivating families appear positive, the actual results are not in great harmony with comparable data from the ALE. For instance, we may find what proportion the non-farm wage receipts of the cultivating families as derived in Table No. 4 above, bear to their total cash wage receipts as given in the RCS. Similarly,



we may find what proportion the non-farm wages form in the total cash wage receipts of the casual labour families, with land and without land, as derived from the ALE. We may then compare the two sets of data. This is done in Table No. 5.

In this Table, in the final column, certain data from the National Sample Survey (NSS) are also added. These are not directly comparable with the RCS and the ALE data, but might afford a broad dimensional check. The data are taken from the Second Report on the Poona Schedules of the National Sample Survey (1950-51), and relate to the period from October 1950 to March 1951. In Tables 16 and 17 of this Report, distributions of male- and female-days are given according to different employment categories. The data are based on the manner in which the persons covered by the Survey were employed during three days preceding the interview. Among the categories of employment, detailed in these Tables, there are two of interest to us. They are: (i) hired farm labour and (ii) hired non-farm labour. We have thus estimates of man- and woman-days spent in farm and non-farm wage work. From these we may find what proportion of the total hired days are spent on farm work. These proportions, for different regions, are given in the last column of Table No. 5.

The three series of data are seen to agree well in the case of Madhya Bharat. But that is a solitary exception. The agreement is not very bad in the case of Bihar, though it appears strange that the non-farm wages should form a larger share in the wage receipts of cultivators than in the wage receipts of casual labour. But a similar difference is also noticed within the ALE data, the share of non-farm wages being larger in the case of labour families with land than in the case of labour families without land. In the remaining four cases, the agreement between the three series of data is far from satisfactory. In the case of Uttar Pradesh, the RCS proportion is much in excess of the ALE proportions, but is closer to the NSS proportion. In Punjab, the RCS proportion is much below the ALE proportions, which are closer to the NSS proportion. In Madhya Pradesh, the RCS proportion is much above both ALE and NSS proportions, which are closer together. Finally, in the case of Mysore and Travancore-Cochin all the three series vary greatly from one another.

It might be thought that part of these discrepancies may be due to our not having taken account of the payments made by the farm families to the permanent or annual farm servants in the RCS and the corresponding agricultural wage receipts of the attached workers' families in the ALE. On the supposition that the

ALE covered practically all attached workers, the two sets of data should broadly agree. They are given in Table No. 6 on the basis of per rural family. It will be seen that except in the case of three States, namely, West Bengal, Madhya Pradesh and Hyderabad, the two sets of data are not in good agreement and that in some of the States, the correspondence is extremely unsatisfactory. Hence, their inclusion in our analysis could hardly improve the correspondence between the RCS and ALE data.

It is beyond the scope of the present paper to further examine the material in order to search for causes of such discrepant results, though it is undoubtedly important to do so. Nevertheless, it is hoped that the demonstration above is enough to emphasise the dangers in accepting uncritically quantitative estimates thrown up by sample, surveys, merely because they flow from the statistical designs of the surveys and are justified by statistical theory.

**Table 1. Payments and Receipts of Cash Wages by Cultivating Families.  
(RCS. All Cultivators-Annual-Rs. Per Cultivating Family)**

District	Cash wages paid for current farm operations	Cash wages paid for capital expenditure in agriculture	Total Cash farm wages paid	Cash wages received by cultivating families	Net receipts of cash wages by cultivating families
(1)	(2)	(3)	(4)	(5)	(6)
1. Lakhimpur	8.8	55.4	64.2	1.5	- 62.7
2. Cachar	42.8	5.5	48.8	74.9	26.6
3. Kamrup	61.3	21.8	83.1	41.4	- 41.7
4. Tripura	165.6	115.8	271.4	103.2	- 168.2
5. Jalpaiguri	7.0	9.7	16.7	31.1	14.4
6. Malda	144.4	15.0	159.4	275.7	116.3
7. Burdwan	112.9	18.2	181.1	42.0	- 89.1
8. Midnapore	213.6	125.6	339.2	158.9	- 180.3
9. Bhagalpur	49.5	121.0	170.5	59.6	- 110.9
10. Monyhyr	39.5	67.6	107.0	198.4	91.4
11. Hazaribagh	3.3	50.8	54.1	71.8	17.7
12. Palamau	3.1	87.9	91.0	176.8	85.8
13. Mirzapur	4.4	10.0	14.4	221.1	212.7
14. Ballia	33.2	15.1	48.3	102.1	53.8
15. Deoria	39.5	21.6	61.1	103.2	42.1
16. Jaunpur	6.8	12.4	19.2	220.2	201.0
17. Sultanpur	5.6	10.0	15.6	191.7	176.1
18. Sitapur	10.7	10.4	21.1	99.4	78.3

(contd.)

Table 1. (Contd.)

District	Cash wages paid for current farm operations	Cash wages paid for capital expenditure in agriculture	Total Cash farm wages paid	Cash wages received by cultivating families	Net receipts of cash wages by cultivating families
(1)	(2)	(3)	(4)	(5)	(6)
19. Hamirpur	16.3	22.9	38.2	137.9	99.7
20. Kanpur	7.2	51.0	58.2	90.2	32.0
21. Shahjahanpur	45.5	34.8	80.3	75.4	- 4.9
22. Agra	39.3	70.4	109.7	268.2	158.6
23. Aligarh	62.0	109.3	171.3	196.9	25.6
24. Nainital	32.8	87.1	119.9	103.5	- 16.4
25. Meerut	34.6	134.5	169.1	29.1	- 140.0
26. Sirmoor	6.5	18.9	20.4	106.1	85.7
27. Hoshiarpur	19.9	41.0	60.9	58.1	- 2.8
28. Jallundar	21.9	44.2	66.1	97.7	31.6
29. Hissar	28.8	0.1	28.4	1.0	- 22.4
30. Bhatinda	60.1	80.3	90.4	60.7	- 29.7
31. Mohindergarh	21.6	85.1	56.1	122.5	65.8
32. Churu	12.5	25.6	38.1	248.5	210.4
33. Barmer	19.9	34.3	54.2	112.2	58.0
34. Sirohi	25.9	78.7	104.6	157.0	52.4
35. Jaipur	53.1	110.4	164.1	45.5	- 118.6
36. Sawai Madhopur	76.6	245.1	322.3	52.4	- 269.9
37. Chittorgarh	40.7	58.8	99.5	-	- 99.5
38. Jhahua	3.6	17.2	20.8	48.5	27.7
39. Shivpuri	35.9	94.1	130.0	1.1	- 128.9
40. Shajapur	68.3	80.1	148.4	101.5	- 46.9
41. Bhilsa	34.9	104.3	139.2	45.8	- 93.4
42. Raisen	21.1	59.4	80.5	108.6	28.1
43. Satna	2.7	35.3	38.0	57.3	19.3
44. Rewa	3.4	53.9	62.3	72.8	10.5
45. Sambalpur	19.4	172.3	191.7	92.4	- 99.3
46. Puri	35.0	62.0	97.0	122.5	25.5
47. Koraput	25.9	15.1	101.0	34.8	- 66.2
48. Bilaspur	5.7	12.8	18.5	222.3	203.8

(contd.)

Table 1. (Contd.)

District	Cash wages paid for current farm operations	Cash wages paid for capital expenditure in agriculture	Total Cash farm wages paid	Cash wages received by cultivating families	Net receipts of cash wages by cultivating families
(1)	(2)	(3)	(4)	(5)	(6)
49. Durg	5.9	4.4	10.3	121.1	110.8
50. Chanda	63.7	31.8	95.5	88.7	- 6.8
51. Nagpur	103.4	113.4	216.8	134.8	- 82.0
52. Sagar	52.0	25.0	77.0	235.4	158.4
53. Akola	457.0	82.7	539.7	175.6	- 364.1
54. Sorath	88.1	132.6	220.7	42.1	- 178.6
55. Ahmedabad	98.5	155.8	253.8	8.9	- 244.9
56. Broach	84.5	52.1	136.6	76.7	- 59.9
57. W. Khandesh	109.0	44.0	158.0	110.4	- 42.6
58. Poona	79.6	129.6	209.2	136.4	- 72.8
59. Ratnagiri	20.0	14.0	84.0	53.9	19.9
60. Kolhapur	81.1	10.1	91.2	81.0	- 10.2
61. Bijapur	117.5	119.4	236.9	118.0	- 118.9
62. Osmanabad	70.3	37.6	107.9	83.0	- 24.9
63. Parbhani	123.2	23.4	146.6	80.1	- 66.5
64. Nizamabad	52.7	29.0	81.7	91.0	9.3
65. Mahbubnagar	98.5	73.8	167.8	86.3	- 81.0
66. Hasan	50.5	108.7	159.2	148.1	- 11.1
67. Bangalore	46.1	39.0	85.1	65.6	- 19.5
68. Coimbatore	218.5	213.3	431.8	121.8	- 310.0
69. Cuddapah	129.0	45.9	174.9	41.7	- 138.2
70. Kurnool	73.7	28.3	102.0	96.8	- 5.2
71. W. Godavari	199.6	104.3	303.9	256.8	- 47.6
72. Chingleput	82.3	59.4	141.7	260.6	118.9
73. Ramanathapuram	50.6	16.3	66.9	108.0	41.1
74. Malabar	320.4	204.9	525.3	189.8	- 885.5
75. Quilon	127.0	64.8	191.3	181.1	- 78.2

\* Ref: Col.(1) RCS Table 17, col. 21; Col (4) RCS Table 9.3, col. 8. Col. (2) RCS Table 1.3 Col.(5) (Col. (4) - Col. (3) Col.(3) Col.(1) + Col. (2).

**Table 2. Proportion of Cash to Total Wages Paid by RCS Cultivating Families Compared with Proportion of Cash to Total Wages Received by ALE Casual Labour Families**

State	Proportion of cash to total wages paid by RCS cultivating families	Proportion of cash to total wages received by ALE casual labour families
(1)	(2)	(3)
1. Assam, Tripura, Manipur	79.68	76.91
2. West Bengal	88.63	67.68
3. Bihar	14.40	40.04
4. Uttar Pradesh	41.79	51.47
5. Punjab and N.E. States	59.75	49.09
6. Rajasthan, Ajmer	91.14	92.98
7. Madhya Bharat, Bhopal, Vindhya Pradesh	22.80	69.31
8. Orissa	30.73	59.02
9. Madhya Pradesh	53.61	40.59
10. Bombay-Saurashtra, Kutch	78.55	64.12
11. Hyderabad	55.69	54.53
12. Madras	71.00	68.81
13. Mysore, Travancore Cochin, Coorg	76.58	64.79

\* Ref: Col. (1) RCS Table 17 and an unpublished tabulation. Col. (2) ALE Intensive Survey Table 5 and 6.

**Table 3. Cash Wage Receipts of RCS Cultivating Families Compared with Cash Wage Receipts of ALE Casual Labour Families.**

State	RCS Cash, wages received by cultivating families. Rs. per family		ALE Cash, wages received by casual labour families. Rs. per family	
	First five deciles	Last five deciles	With land	Without land
(1)	(2)	(3)	(4)	(5)
1. Assam, Tripura, Manipur	46.7	58.9	452	459
2. West Bengal	113.1	155.2	367	372
3. Bihar	99.6	165.7	257	210
4. Uttar Pradesh	121.2	157.4	246	261
5. Punjab and N.E. States	43.1	70.2	180	299
6. Rajasthan, Ajmer	47.9	93.8	359	378
7. Madhya Bharat, Bhopal, Vindhya Pradesh	52.4	66.8	242	252
8. Orissa	84.8	95.8	183	176
9. Madhya Pradesh	108.8	232.2	126	166
10. Bombay-Saurashtra, Kutch	59.0	108.4	188	241
11. Hyderabad	63.6	106.4	174	213
12. Madras	111.8	203.5	179	177
13. Mysore, Travancore Cochin, Coorg	92.5	114.7	252	302

\* Col. (1) RCS Table 9.1

Col. (2) RCS Table 9.2

Col. (3) ALE Intensive Survey Tables 5 and 6.

Col. (4) ALE Intensive Survey Tables 5 and 6.

State	RCS					ALE				
	Payment of cash farm wages per cultivating family Rs.	Receipt of cash farm and non-farm wages per cultivating family Rs.	Proportion of cultivating families to all rural families per cent	Payment by cultivators of cash farm wages per rural family Rs. Col. 1x3	Receipts by cultivators of cash farm & non-farm wages per rural family Rs. Col. 2x3	Receipt of cash agricultural wages of casual labour without land families %	Proportion of casual labour families to all rural families	Receipt of cash agricultural wages of casual labour without land families per rural families Col. 6x7	Receipt of cash non-farm wages by cultivators per rural families Col.5+8-4 Rs.	Receipts of cash non-farm wages by cultivators per cultivating family Col. 9/3
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Assam Tripura, Manipur	98.2	52.8	70.97	69.7	37.5	338.4	7.38	25.0	- 7.2	-
2. West Bengal	39.4	134.2	72.15	172.7	96.8	270.7	12.86	84.8	- 41.1	-
3. Bihar	95.7	132.6	66.56	68.7	88.2	137.7	15.70	21.6	46.1	69.3
4. Uttar Pradesh	65.5	139.4	74.41	48.7	103.7	193.0	7.36	14.2	69.2	93.0
5. Punjab & North-East States	51.8	56.6	59.17	30.6	33.5	178.5	2.82	5.0	7.9	13.3
6. Rajasthan, Ajmer	162.7	70.6	78.42	127.6	55.4	269.4	2.61	7.0	- 65.2	-
7. Madhya Bharat etc.	79.1	59.6	72.23	57.1	43.0	298.6	10.02	29.9	15.8	21.9
8. Orissa	103.1	90.1	58.75	76.4	52.9	108.6	12.71	13.8	- 9.7	-
9. Madhya Pradesh	109.0	170.6	68.61	74.8	117.0	112.0	18.90	21.2	63.4	92.4
10. Bombay, Saurashtra, Kutch	150.0	83.7	68.72	103.1	57.5	190.3	12.51	23.8	-21.8	-
11. Hyderabad	130.1	85.0	60.00	78.1	51.0	146.1	16.23	23.7	- 3.4	-
12. Madras	281.6	157.7	68.59	193.1	108.2	157.8	27.04	42.7	- 42.2	-
13. Mysore, Travancore Cochin & Coorg	143.4	103.6	73.42	105.3	76.1	217.0	18.19	39.5	10.3	14.0

**Table 5. Comparison of Proportions of Non-Farm Wages to All Cash Wages in RCS, ALE And NSS Data**

State	RCS (Estimated) Proportion of non-/ann wage receipts to total cash wage receipts of cultivating fami- lies per cent	ALE Proportion of non-farm wages to total cash wages received by casual labour families		NSS Proportion of hired non-farm labour days to total hired labour days  per cent
		With land per cent	Without land per cent	
	(1)	(2)	(3)	(4)
1. Assam, Tripura, Manipur	-	29.9	20.2	38.6
2. West Bengal	-	30.8	27.2	88.9
3. Bihar	52.3	47.1	84.3	41.6
4. Uttar Pradesh	66.7	19.9	26.1	51.4
5. Punjab and N.E. States	23.5	52.3	40.2	58.5
6. Rajasthan, Ajmer	-	22.5	25.8	60.5
7. Madhya Bharat, Bhopal, Vindhya Pradesh	86.7	36.6	28.8	35.5
8. Orissa	-	41.0	38.6	56.8
9. Madhya Pradesh	54.2	28.8	32.5	38.3
10. Bombay-Saurashtra, Kutch	-	20.0	28.4	32.3
11. Hyderabad	-	25.9	31.5	41.9
12. Madras	-	16.8	17.5	30.6
13. Mysore, Travancore Cochin, Coorg	18.5	23.9	27.7	46.5

Ref: Col.(4) Second Report in the Poona Schedules of the National Sample Survey (1950-51)-Tables 16 and 17.

**Table 6. Comparison of RCS Payments to Annual Farm Servants ALE Agricultural Wage Receipt of Attached Workers**

State	Payment to annual farm servants per rural family	Income from agricultural labour of attached labour families per rural family		
		with land	without land	Total
	Rs.	Rs.	Rs.	Rs.
(1)	(2)	(3)	(4)	(5)
1. Assam, Tripura, Manipur	19.90	0.83	3.52	4.35
2. West Bengal	10.43	4.09	7.86	11.95
3. Bihar	4.68	0.83	1.21	2.04
4. Uttar Pradesh	11.26	2.31	3.40	5.71
5. Punjab and N.E. States	4.55	3.00	26.28	29.28
6. Rajasthan, Ajmer	8.68	1.77	2.03	8.80
7. Madhya Bharat, Bhopal, Vindhya Pradesh	21.32	6.95	10.81	17.76
8. Orissa	19.90	6.02	7.90	13.92
9. Madhya Pradesh	42.72	6.47	31.99	88.46
10. Bombay-Saurashtra, Kutch	26.84	2.26	7.72	9.98
11. Hyderabad	46.49	12.32	22.97	35.29
12. Madras	58.17	0.88	1.49	2.37
13. Mysore, Travancore Cochin, Coorg	3.11	0.23	0.97	1.20

**SUMMARY**

An important finding of the All-India Rural Credit Survey (RCS) is that the farm business in India, generally speaking, depends to a considerable extent on the wages that the farm families earn by working outside their own farm businesses. These wage receipts arise partly within and partly outside agriculture. The purpose of the paper is to examine the available data in order to assess the extent to which they arise outside agriculture. An examination of the RCS data on wages received, and wages paid by the farm families, shows that in about half the

districts covered by the RCS, the wages received by the farm families are larger than the wages paid by them. The excess of receipts over payment of wages presumably arises outside agriculture. Thus even if we suppose that the entire wages paid by the farm families are received only by the farm families and that no part of the agricultural wages go into the hands of the landless labour families, there is clear evidence that, in many districts, the non-farm wage receipts of the farm families are substantial. If we make allowance for the fact that part of the agricultural wages paid by the farm



families are received by the landless labour families, the non-farm wage receipts of the farm families would appear even larger.

The data from the Agriculture Labour Enquiry (ALE) are examined in order to estimate the agricultural wage receipts of the landless labour families. However, when the wages data from the RCS and the ALE are brought together, they do not compare well. For instance; the cash and kind components of the wages received by the labour families in the ALE and the wages paid by the farm families in the RCS do not show satisfactory correspondence. The same is true of the agricultural and non agricultural wage components in the wages received by the

labour families in the ALE and similar components estimated for the wages received by the RCS farm families. Consequently, results of the statistical computation, attempting to combine the data from the two sources in order to estimate the non-farm wage receipts of the farm families, appear far from satisfactory.

In conclusion it is pointed out that the above failure of the statistical computation emphasises the dangers in accepting uncritically quantitative estimates thrown up by the sample surveys, merely because they flow from the statistical designs of the surveys and are justified by statistical theory.

# **"POPULATION GROWTH AND ECONOMIC DEVELOPMENT IN LOW-INCOME COUNTRIES"\***

## **- A REVIEW**

V. M. Dandekar

THOUGH the writers have used a rather general title and have added a small part towards the end which may justify it, it is obvious that the study by Coale and Hoover is essentially what its sub-title indicates, namely, 'A Case Study of India's Prospects.' It is a serious study and bears the mark of careful and painstaking work throughout, and is an important addition to the literature on problems of Indian economic development. Moreover, it focusses attention on an aspect of the problem which has begun to receive serious attention only recently, namely, the population problem, and presents a dimensional picture of the magnitudes involved.

The starting point of the enquiry is the observation that substantial economic development may be a sufficient condition for a decline in mortality, but because of the innovations in the field of public health it is not today a necessary condition. India is no exception. There is enough evidence to suggest that a rapid decline in Indian mortality has already begun and that it will continue for some years to come. Coale and Hoover estimate that the crude death rate in India has

already declined from a level of about 31 per thousand in 1951 to about  $25\frac{1}{2}$  per thousand in 1956, and they expect that it will reach a level as low, as 15 per thousand by about 1975. In support, they have put forward much cogent evidence both from India and from other comparable regions, and it seems that they are as right as one can be in the matter of projecting vital rates over a period of 25 or 30 years. Whether or not their particular estimates come about precisely true, it is obvious that such reduction in mortality is feasible and that therefore it will be kept as a desirable goal of policy and programme in the field of public health. Further, as such a programme is bound to receive a high priority, as it should, the success or failure in attaining such a goal will be practically independent of the pace of overall economic development, and therefore, rapid decline in mortality may be attained far in advance of substantial economic improvement. Hence it becomes necessary to regard such an eventuality and to examine its consequences. The moral of the situation is clear. As the authors point out: "If economic development does not precede the decline in mortality, it must

---

\* *Population Growth and Economic Development in Low-Income Countries - A Case Study of India's Prospects*, by Ansley J. Coale and Edgar M. Hoover, Princeton University Press, 1958.

still occur eventually if the decline is to be maintained." India is making great efforts at rapid development. The authors show generous appreciation of these efforts. The purpose of their study, however, is to demonstrate that notwithstanding all the efforts the pace of future Indian economic development will be governed to a large extent by the course of growth of the Indian population. Thus they emphasize the need for an active population policy and suggest by implication that little is being done or, at any rate, was being done at the time the authors made their study. Undoubtedly it is a very fair statement.

Evidently, mortality is declining and there is little that can be done about it except to help it to decline as rapidly as possible, and this quite independently of the pace of economic development that may be achieved. Therefore, in judging the course of growth of the Indian population, the authors have based their estimates on what they regard to be the most probable course of mortality. In particular, they assume that the mortality will decline sharply and by about 1970 will reach about half its own level in 1951, and will then level off. As for the fertility, the authors had little indication of its future course because as they state "At present writing there are no sure indications of the magnitude of the resources the government plans to devote

to such programs and only scanty evidence with respect to the influence any program can have on fertility rates and to the pace with which any program can be extended through the nation." Therefore, in judging the course of growth of the Indian population, they have resorted to simple contrasting patterns of future fertility trends. They have used three different hypotheses as to fertility, viz., (1) unchanged fertility, (2) a 50 per cent decline between 1956 and 1981, and (3) unchanged fertility up to 1966 to be followed by a 50 per cent decline between 1966 and 1981. The first two provide the contrast between what might nearly be the result of an absence of population policy and what might be achieved by an active population policy and its energetic pursuit. The third hypothesis shows the difference that a late start, even if later made up by a faster speed, will make.

The authors give detailed projections of the population as it will be in the year 1986, under the alternative hypotheses regarding future fertility. It seems that unchanged fertility will yield a population of 775 millions by 1986, growing at 2.6 per cent per annum at that time and with 42 per cent of the population under age 15. If the decline in fertility begins immediately, (i.e., in 1956) and the fertility is halved by 1981, then the population in 1986 is estimated to be only 590 millions, growing at an annual rate

of 1.0 per cent, and with only 30 per cent under age 15. Thus an immediate and rapid decline in fertility will yield not only a much smaller future population but also a population with much smaller potential growth and with a much smaller number of dependents. A delay in the decline in fertility will yield a population of 634 millions (as against 590), though it will not make a great difference in its growth potential nor its age composition.

If there is anyone today who believes that India needs a larger population to work its development projects, the detailed population projections made by the authors will help clarify an important point. It is this. High fertility produces larger populations but for many years such populations remain young in age in the sense that they continue to have a large proportion in the non-working ages. Thus the proportion under age 15 in 1986 is 42 in the case of the larger population under high fertility as against 30 in the smaller population under low fertility. The contrast between the two is even more marked in the earlier years so that a larger projected population has almost no advantage over the smaller in terms of the potential working force until near 1986 and even then the difference is small. There is no need to labour this point any further, as there should be scarcely anybody who would want to

have a larger labour force. On the contrary, today the burden of unemployment and under-employment presents a grave problem and it is clear that any increase in the labour force will only add to the number of unemployed. Under the circumstances, those who still have a mental resistance to any notion of reducing fertility, might turn round and say that a larger population, because it will not add much to the labour force, will not lead to an increase in unemployment and hence there is no danger in having a large population. There is a grain of truth in this statement. A larger population, if it does not lead to a proportionate increase in the labour force, will not be reflected in the growth of unemployment and hence will cause less public concern. The growth in dependants will remain largely confined within the family, and though it will increase the burden on the family, it will not attract public notice until the country undertakes comprehensive social security services. It is therefore necessary to emphasize that, in fact, an increase in the dependent population is a greater evil than an increase in the labour force. The latter may lead to unemployment but for that very reason may attract immediate public attention. Moreover, in the final analysis labour force does represent an economic resource which, even if unemployed, presents the possibility, with appropriate institutions and organizations, of harnessing it to economic

development. On the other hand, there is little that can be done regarding the dependants except supporting them.

The authors have done well to emphasize the manner in which an increase in the number of consumers affects and slows down the rate of economic development. In the first instance, an increase in the number of consumers results in smaller per capita consumption and affects labour productivity partly because of widespread malnutrition and partly because rising consumption is needed to combat apathy and to provide work incentives. Secondly, it tends to increase the fraction of any given national output that is allocated to current consumption and hence reduce savings and investment necessary for future economic development. Thirdly, it absorbs a larger fraction of the available public funds into social services such as health, education, and housing, and leaves less for immediately productive investment.

A rather large part of their study is devoted to an elaborate examination of the factors, other than population, that might determine the pace of Indian economic development and, as the authors are aware, this part constitutes something of a digression from their main theme. However, the discussion was perhaps

necessary in order to assess the differential economic significance of the unchanged as opposed to reduced fertility, or, in other words, to see how the alternative hypotheses regarding population growth would affect the pace of future economic development. On the basis of what they regard as reasonable assumptions about savings rates, capital-output ratios, and the like, they estimate that the per-consumer income would attain a level about 40 per cent higher by 1986 if the fertility would start declining immediately so as to reach in 1981 half its level today than if it remained unchanged. They have checked and verified this point by varying their consumptions and comparing the trends of economic growth under unchanged and reduced fertility. It seems that even under widely varying assumptions about an absolute rate of progress and the non-demographic variables determining it, the reduced fertility will result in a per-consumer income at least 38 per cent larger by 1986; and also that under reduced fertility the rate of growth of total output will be substantially higher than under unchanged fertility, a typical pair of values being 4.5 per cent per annum under reduced fertility and 3.5 per cent under unchanged fertility, or 3.4 per cent per annum growth in per-consumer income under reduced fertility while only one per cent per annum under unchanged fertility.

It is thus that the authors have brought to notice the serious consequences of leaving fertility unchanged at its present level. The urgency of making a beginning immediately is shown by comparing the results of their intermediate population projection which is based on an assumed decline in fertility that does not begin until 1966 but makes up for lost time by declining 50 per cent in 15 years rather than in 25. It seems that in 1986 the economic gains from a reduction of fertility, beginning not immediately but ten years later though proceeding faster, are about only half as great as the gains to be expected from a decline in fertility that begins immediately. The urgency to begin immediately is thus obvious. Because of the cumulative character of both the economic and the demographic growth, it becomes difficult to make up for the time which is once lost.

In their examination of the growth potential of the Indian economy, the authors have devoted much attention to the agricultural sector. Of special interest is their discussion relating to the balance between agricultural sector and the rest of the economy. They seem to think that the plan targets in the agricultural sector by themselves are more or less feasible. For instance, the plan target implies the doubling of the agricultural output in something less than 20 years; they think that this may be done in about 25 years.

Nevertheless, in spite of this optimism about the agricultural sector, they believe that "structural interrelations between agriculture and the rest of the Indian economy are likely to be such that if one sector limits the growth of the other, it is more likely to be a case of agricultural growth limiting non-agricultural than *vice versa*." There are several aspects of this question and the authors have examined them closely.

The first is the changing interrelations between the agricultural sector and the non-agricultural sector in a developing economy. As the authors observe, the process of economic development characteristically involves an increase in the proportion of the total national product originating outside agriculture. They quote Egbert DeVries as having derived an empirical rule from the data on 34 countries that "for every 10 per cent increase in per capita real income, the fraction of national income arising from agriculture drops by 1.5 percentage points." Let us check broadly the planned development of the agricultural and non-agricultural sectors from this standpoint.

The percentage of national income produced in agriculture has been estimated at 48.5 in 1955-56. Within the next 20 years, i.e., from 1956 to 1976, the plan implies the increasing of the income from

agriculture by about 100 per cent and the total national income by about 150 per cent. This means that in 1976, the percentage of national income produced in agriculture will be a little less than 39 thus showing a drop of about 10 percentage points over 20 years. Let us see how this agrees with the empirical rule of DeVries. The planned increases in the total national income imply an increase of about 3.4 per cent per annum in per capita income during the period of 20 years, and the authors apparently regard this as feasible if the growth in population is no more than the projection under low fertility. Now, according to the empirical rule of DeVries, an increase of 3.4 per cent, in per capita income would cause a drop of about  $\frac{1}{2}$  percentage point in the percentage of national income produced in agriculture which in 20 years would cause a drop of about 10 percentage points. This is the same as what would happen if the agricultural and non-agricultural sectors develop according to plan. Thus it seems that the planned development is in accordance with the characteristic behaviour as judged by the DeVries rule and in that sense the planned growth of the agricultural and non-agricultural sectors is "balanced".

Nevertheless, the planned growth of the economy may still be out of balance in the sense that one sector may act for an

unnecessarily long time as the effective limiting factor on the growth of the sector either (i) by failing to provide it with essential materials or services, or (ii) by failing to provide a market for its products or services. The authors have examined only the first of these possibilities in relation to the agricultural sector. In particular, they have asked whether the growing demand for food and other agricultural products would outstrip the domestic supply. The demand for food and other agricultural products will increase, firstly, because of the growth in the population, and secondly, because of the expected increase in the per capita income or expenditure. As for the growth in the population, the authors have examined the two extreme cases, namely, the projected growth under unchanging fertility, and under declining fertility. The effect of the expected increase in per capita income will depend upon the income elasticity of demand for food and other agricultural products; the authors have examined the results of a range of values of income elasticities of demand ranging from 0.6 to 0.9 though they are inclined to accept the value of 0.8 for the purpose. The results of their computations are as follows: If we assume that the agricultural production will increase at 2.8 per cent - per annum, (this corresponds to doubling in about 25 years, which the authors believe to be feasible rather than the planned doubling in

something less than 20 years), and that the population grows with undiminished fertility, then the domestic supplies of food and other agricultural products will permit an increase of no more than 0.6 per cent per annum in the per capita consumer expenditure if the income elasticity were 0.8; if the income elasticity were as low as 0.6, it might permit an increase in the per capita consumer expenditure of up to 0.8 per cent per annum. Under the alternative projection of population growth namely under low fertility, the same supplies will permit an increase in the per capita consumer expenditure of no more than 1.5 per cent per annum if the income elasticity were 0.8 or an increase of up to 2.0 per cent per annum if the income elasticity were as low 0.6.

These results may be compared with the planned increase of about 3.4 per cent per annum in per capita national income. It is thus obvious that a per capita income growth even remotely approaching the planned one might be expected to outrun the ability of domestic agriculture to supply domestic demand and that therefore recourse to imports, or some other adjustment, might become a necessary condition for continued successful development. In the absence of any other adjustment, the authors estimate, on the basis of the above computations and assuming that the planned increase of 3.4

per cent per annum in per capita income materializes and continues up to 1986, then in that year India will have to meet about 48 per cent, of her domestic demand for agricultural products through importation, if the population continues to grow until then with undiminished fertility. If the fertility declines and the growth in population is no more than that projected by the authors under declining fertility, even then, by 1986, 36 per cent of the demand for agricultural products will have to be met by importation. This figure is the more relevant of the two. Because it is only under these conditions, namely of population growth under declining fertility, that the authors believe as feasible the planned rate of 3.4 per cent per annum increase in per capita income. If the population continues to grow with undiminished fertility, the authors do not regard anything more than one per cent per annum increase in the per capita income as attainable. Their computations regarding the adequacy of supplies from domestic agriculture suggest that they will permit an increase of from 0.6 to 0.8 per cent per annum in per capita income. Hence, though we have not made any precise computations on the lines suggested by the authors, it seems that under either conditions of population growth, something like one-third of the domestic requirements of agricultural products in 1986 will have to be met by



importation. Whatever the precise estimates, the warning is clear: our present dependence on the imported food supplies is not probably a temporary feature as many among us like to believe; in all likelihood it might become permanent and might grow unless we are willing to make or allow other adjustments.

What are these, adjustments? Whatever their nature, their effect must be to curtail the demand for agricultural products. The authors have suggested an adjustment in the terms of trade (price ratio) between farm products and other products as one possibility. As they point out: "If at any juncture the output of Indian agriculture should fail to keep pace with the output of other goods and the resulting internal demand, the terms of trade would presumably change to the advantage of the farmer." This would curtail the demand for farm products to a certain extent. Here again the authors have given illustrative computations to show the magnitude of the adjustment necessary to cause a given effect. For instance, as we have already noted, the authors estimate that under their low population projection and in the absence of any other adjustment, about 36 per cent of the demand for farm products in 1986 will have to be met by importation. Now, if the terms of trade were allowed to shift in favour of the farm products and their

prices relative to the prices of non-farm products were allowed to rise by 50 per cent, the imports of farm products will fall from 36 per cent to 28 per cent of the total demand for them. In the case of high population projection, it will require a 100 per cent rise in the relative prices of farm products in order to bring the imports of farm products down from 48 per cent to 36 per cent of the total demand for them.

It is thus clear that a very large adjustment in the terms of trade between the farm and non-farm sectors will be necessary if such adjustment alone is to be relied upon to curtail the demand for farm products and thus reduce the dependence on their imports. Moreover, if the adjustment were to take place through normal price mechanism of a free market, it is obvious that it will not take place without causing, in the process, a large inflationary rise in the general price level. Also, any curtailment in the demand brought about by price adjustments accompanied by a large rise in the general price level will come about largely at the expense of the poorer classes in the society. The authors have not drawn attention to these implications of the process by which a shift in the terms of trade might take place.

A shift in the terms of trade in favour of agriculture may also have some other effects. It might provide some additional stimulus to increased farm output. The authors do not believe this will be material. Secondly, it might encourage a shift in external trade in the direction of importing more agricultural products and exporting manufactures and ultimately India might abandon the objective of overall agricultural self-sufficiency. The authors seem to regard this to be the most plausible of the courses. One would regard such a course of events with equanimity provided there were reasonable prospects of India developing, by that time, exports of manufactures sufficient to pay for the food imports. The authors have quoted Prof. Arthur Lewis as having expressed a judgement that this might be so, but they themselves do not agree with him. The conclusion then seems inescapable, though the authors do not choose to state it: Even in the year 1986, India will continue to beg and borrow—perhaps on an increasing scale.

The authors have not examined the other possibility, namely, of the agricultural sector limiting the growth of the non-farm sector by failing to provide a market for its products and services. But they have raised a related issue, namely, of the relative levels of productivity and per capita incomes in the agricultural and

non-agricultural sectors. An income differential in the two sectors is believed to be necessary in order to produce a redistribution of the labour force away from agriculture. In India, the per capita farm incomes are about half of per capita non-farm incomes and nevertheless the farms appear to have retained an approximately constant proportion of the population for some decades before 1950. Therefore, it might appear necessary for this differential to widen still further in order to shift any appreciable portion of the natural increase of farm population into non-farm work. The authors mention several circumstances due to which they believe that this may not be necessary. In particular, they believe that in the course of development the surplus farm population will become increasingly responsive to the income differential, and that a voluntary shift of sufficient magnitude will take place provided the government has an active policy of assisting such transfers to non-farm jobs. Here, as elsewhere, the authors give illustrative computations to indicate the magnitudes involved. Particularly, they give estimates of the shift in population that will be necessary by the year 1981, if the income differential between farm and non-farm incomes is to be prevented from widening further. Supposing that during the period of about 25 years from 1956 to 1981, the agricultural output doubles (which is what the

authors believe to be the maximum attainable), then it seems that in order to achieve an average annual increase of five per cent, in the total national income, while maintaining the present income parity between the farm and non-farm sectors, no more than about 70 per cent of the farm population that there would be in 1981 in the absence of migration may be allowed to remain on farm; the rest, i.e., about 30 per cent, must move away from agriculture. If this is to happen over a period of 25 years, we may say that broadly every year something more than one per cent of the farm population in that year must move away from agriculture. In terms of labour force, taking the farm labour force in 1956 to be about 100 millions, it means that at least one million jobs will have to be created every year in the non-farm sector in order to absorb fresh migrants from agriculture during that year. This will be in addition to whatever is necessary to keep the non-farm labour force and its progeny employed in the non-farm sector. This will undoubtedly present social and economic problems of the first magnitude.

In spite of these and numerous other grave issues constantly coming to surface throughout their exposition, the authors have made a brave attempt to present on the whole an optimistic and hopeful

picture. Fortunately, they have not minced words where the conclusions are inescapable, and one merely has to put their several findings together to see where the logic of the situation leads to. In the first instance, they make it clear that, in their assessment, India will not be able to attain anything like the planned rate of increase of 3.4 per cent per annum in the per capita national income, unless the Indian fertility begins to decline immediately (1956) and reaches half its present level by 1981. They have not indicated what this means in terms of a programme for family planning and limitation. But judging by the fact that about 50 per cent of births are of the third or higher order, K. Dandekar\* has suggested that in order to reduce fertility to half its present level, it would be necessary to limit all families to two children by preventing third and higher order births. It is therefore clear that consistent with her development aspirations, India must have a large programme of family planning which will result by 1981 and thereafter in effectively limiting all families to two children.

Secondly, even after being optimistic about the growth in agricultural sector and conceding that the agricultural output may double up to 1981, the authors believe that the agricultural output will

---

\* 'Sterilization Programme: Its Size and Effects on Birth Rate', *Artha Vijnana*, Vol. 1, No. 3, Sept. 1953.

not be sufficient to meet the domestic demand for it so much so that in the year 1981, even under retarded population growth, India may have to depend on agricultural imports to the extent of nearly one-third of her total demand while she may not have enough exports to pay for such imports. Left to the mechanism of a free market, a certain curtailment of the demand for agricultural products may take place by means of a shift in the terms of trade in favour of agriculture but through a process which, in the opinion of the present reviewer, will inevitably lead to a general inflationary rise in prices. Under the circumstances, if an inflation at home and a 'beg or borrow' policy abroad are to be avoided, there appears no alternative but to resort to a rational and an equitably controlled distribution of the available short supplies of essential commodities.

Thirdly, if the already depressed agricultural sector is to be prevented from depressing further, it is clear that a massive shift from farm to the non-farm sector will be necessary. Again, left to the mechanism of a free market, this will happen only under conditions of near destitution. To avoid it, greater effort in the organization and mobilization of the labour resources will be necessary.

The authors have avoided putting these problems together probably because that might have led them to ask a question which was perhaps beyond the scope of their study to answer. But if Indian experience has any wider applicability to problems of economic development in low-income countries, this one question seems to underlie it: How much of economic development is possible in low-income countries through the exclusive instrument of financial planning as India seems to be attempting because of a false equation between financial planning and democratic planning?

### *Summary*

The study of Coale and Hoover is a serious essay into the prospects of population growth and economic development in India. The starting point of their enquiry is the observation that because of the innovations in the field of public health, in India as in many other under-developed regions of the world, mortality may decline far in advance of substantial economic improvement; They estimate that mortality in India may decline by 1970 to only half its level in 1950, and they are concerned with the future population growth under these conditions and its effect on economic development. They estimate that if the fertility remains unchanged, India will have a population of 775 millions in 1986 growing at 2.6

per cent per annum at that time. To contrast and compare with this, they present a hypothetical situation under which the fertility is supposed to begin declining immediately so as to reach only half its present level by 1981. Under these conditions, India will have population of only 590 millions in 1986 growing only at one per cent per annum at that time. They show that the larger population under unchanging fertility will have little economic advantage over the smaller population because much of the difference between the two will be concentrated in the younger age-groups so that the larger population will have only a slightly larger labour force but a much larger dependent population. The larger consuming population will leave much less for investment and will thus retard the rate of economic development. In particular, they estimate that India may be able to attain the planned rate of growth of about 3.4 per cent per annum in per capita national income only if the fertility shows an immediate decline so as to reach only half its present level in 1981. On the other hand, if the population continues to grow with undiminished fertility, no more than one per cent annual increase may be achieved in the per capita national income.

The authors have devoted special attention to the prospects of growth in the agricultural sector as they suspect that this might prove the limiting factor on the total growth. As compared to the planned doubling of agricultural output in something less than 20 years, they expect that the agricultural output may be doubled in about 25 years and that nevertheless India will continue to depend on agricultural imports to an increasing extent. They do not feel confident that by 1981 India will have developed enough exports to pay for the agricultural imports. As a result they expect that the terms of trade between the farm and non-farm sectors may move in favour of agriculture, which may curtail to a small extent the demand for agricultural products and may reduce the imports to that extent. They also show that a massive shift of the population away from agriculture will be necessary if the wide disparity between per capita farm and non-farm incomes is to be prevented from widening further. They are aware that such a shift will present social and economic problems of the first magnitude.

The reviewer asks the question as to what extent India or low-income countries in general will be able to face these problems of economic development with the exclusive instrument of financial planning.

# SIZE AND COMPOSITION OF RURAL FAMILIES

V. M. Dandekar and Vasant P. Pethe

## ***Introduction:***

1. The main purpose of this article is to describe, in broad terms, the size and composition of families in rural areas. The results presented below are based on data collected in the course of a programme of socio-economic surveys of the villages liable to drought and famine, carried out by the Gokhale Institute of Politics and Economics during 1947-51. The sample selected for the inquiry consisted of 12,030 families selected from about 74 villages of the Poona, Ahmednagar, Satara, Sholapur and Bijapur districts.

2. The size of the family has been studied in terms of the number of members staying in the family. In analysing the composition of the family, the fact of the institution of the joint family system which is believed to prevail particularly in the rural community has to be taken into account. A joint family is usually constituted by two or more couples, closely related to each other. The description of the composition of the family has, therefore, been made chiefly in the context of the number of couples living together in the family. Normally,

the size of the family would vary directly with the number of couples contained in the family. The discussion on the two aspects of the family is thus closely interrelated.

## ***The size and type of family:***

3. We may begin by noting the distribution of the families by size. Table 1 presents the relevant data.

From the figures, it will be seen that about 27 per cent of the families were relatively of small size (containing between 1 to 3 members), about 44 per cent were of medium size (4-6 members) and nearly 30 per cent were of large (7-9 members) or very large size (more than 9 members). It may be noted that the number of single-member families appeared to be considerable and formed 5.79 per cent, of the total.

4. As said earlier, the composition of the family can be meaningfully studied by observing whether a given family is a unitary or a joint family. A convenient criterion to classify the families from this standpoint is the number of couples found living together in a family. We may make

the following five classes on this basis (i) (iii) two couples, (iv) three couples and Families with no couple,<sup>1</sup> (ii) one couple, (v) more than three

**Table 1. Percentage Distribution of Families by Number of Members in Them**

Family: Size-Classes	Number of members	Per cent, of families
(1)	(2)	(3)
Small-size	1	5.79
	2	8.76
	3	12.56
Medium size	4	15.33
	5	15.29
	6	13.03
Large size	7	10.36
	8	6.45
	9	4.46
Very large size	10	2.43
	11	1.75
	12	1.11
	More than 12	2.68
Total (Actual)		12,030

couples. The category of the 'no-couple family' may be further sub-divided into two classes according as the head of such a family was a male or a female. The type of 'two-couples families' may also be considered in three separate classes according as the male members of the two couples were related as (i) father and son, (ii) brothers or (iii) any other relations. We thus have 8 types of families. Table 2 gives distribution of the families according to these types. It will be seen from the figures that the joint family was not found to be as widely prevalent as is

generally believed. If we add together the no-couple and the one-couple families, it will be seen that over 77 per cent of the families are not joint families. Among the joint families, nearly half were joint families of father and son, and considering the prevalence of early marriage, in many such cases, the sons are likely to be too young to be the heads of independent families. Thus it seems that somewhat less than 20 per cent of the families may be classed as genuinely joint families.

5. We might now cross-classify the

1. No-couple families do not mean single-member families; they mean families among whose members there are no two persons related as husband and wife. This does not also mean that all the members of such families are necessarily unmarried or widowed, though a majority of them will be found to be so.

families by their type and size. This is done in Table 3 which gives the percentage distribution by size of the families of each type. Generally speaking, the size of the family varied directly as the number of couples contained in the family, and *vice versa*. Thus, the 'no-couple families' were mostly of small and

medium size. Over one quarter of no-couple families with male heads and over 35 per cent with female heads were single-member families. The dominant size among one-couple families was the medium size which accounted for nearly 60

**Table 2. Percentage Distribution of the Families By Type Of Family**

Type of family	Per cent, of families
(1)	(2)
<i>Unitary Families</i>	
I A No couple - Male head	9.78
B No couple - Female head	9.27
II One couple	58.02
<i>Joint Families</i>	
III A Two couples - Father and Son	9.69
B Two couples - Two brothers	5.11
C Two couples - Other relations	1.47
IV Three couples	4.66
V More than three couples	1.99
Total (Actual)	12,030

per cent, of total families. Among families with two couples, families with large size were prominent. Families with 3 or more than 3 couples were, - by and large, of a very big size. Over 7 out of every 10 families with more than 3 couples had more than 12 members each.

6. In our sample of 12,030 families, there were some families which had a

rather very large number of members in them. It would be interesting to look into the composition of these families. Table 4 classifies the families having more than 12 members by family types. It was found that families with more than 20 members mostly consisted of more than three couples in them. There were 46 families with 20 or more members each. All but 3 of these families consisted of more than



three couples each. Looking into the details, it was found that in 11 of these families, there were 4 couples each; in 16 families there were five couples each; in 12 families, there were 6 couples each and in the remaining 4 families, there were 7, 8 or 9 couples each. Even in these very large families, the most frequent form of joint family was that between father and sons. In 15 out of the 46 large families, the male members of the couples were related as father and sons. An equally frequent form was that between two or

more brothers and sons of some of them. There were 16 such families, In 8 other families, the male members of the couples were all related as brothers. In 5 more families, relations between the male members of the couples were confined to the same relations of father, sons, grandsons, brothers and brother's sons. There were only two families, in which the male members of the couples were related as father and son-in-law. It is interesting to note that all the 46 families were of cultivators.

**Table 3. Percentage Distribution of The Families by Type and Size**

Family type	Number of members in the family										Total (Actual)
	1	2	3	4	5	6	7	8	9	10 or more	
1. No couple - Male head	25.74	23.96	18.10	16.65	7.39	5.18	2.38	2.52	-	0.08	1,177
2. No couple - Female head	35.24	22.78	19.38	11.66	6.01	2.96	1.43	.36	0.18	-	1,115
3. One couple	-	7.42	15.50	19.98	20.64	16.26	10.77	5.38	2.65	1.40	6,980
4. Two couples - Father and sons joint	-	-	-	8.75	15.09	18.18	20.33	15.01	11.32	11.32	1,166
5. Two couples - Two brothers joint	-	-	-	1.95	8.31	15.15	19.22	16.78	15.79	22.80	614
6. Two couples - Other relations joint	-	-	-	5.62	8.99	7.87	17.98	16.28	15.17	28.09	178
7. Three couples	-	-	-	-	-	3.57	11.23	14.26	15.86	55.08	561
8. More than three couples	-	-	-	-	-	-	-	1.26	2.51	96.23	239
Total	5.79	8.76	12.56	15.33	15.29	13.03	10.36	6.45	4.46	7.97	12,030

**Table 4. Distribution of Large-Sized Families (With more Than 12 Members)  
According To Major Types**

No. of persons	Number of Families				
	One couple	Two couples	Three couples	More than three couples	Total
(1)	(2)	(3)	(4)	(5)	(6)
13	5	19	38	21	83
14	3	11	21	25	60
15	-	13	15	28	56
16	-	6	7	23	36
17	-	1	5	13	19
18	1	1	2	9	13
19		2	3	6	11
20		-	1	13	14
21		1	-	3	4
22			1	11	12
23				5	5
24				5	5
25				2	2
27				1	1
30				1	1
37				1	1
43				1	1
Total	9	54	93	168	324

***General kinship pattern of families of different size and type:***

7. So far we analysed the family composition in terms of the number and relation between male heads of couples contained in the family. The partners forming the couple and other members in the family have a certain relationship with the head of the family. It would be

therefore important to note how the family is composed, from the point of view of the relationship of the family members with the head of the family. We may first set out detailed information on family composition by individual kinship-categories and then study the major kinship-categories by family size and type. Table 5 presents percentile distribution of the male and female

members of the families in the sample by principal kinship-categories, It will be seen from the data that 33.1 per cent of all the male members appear as the heads of their respective families. Naturally, only a small proportion of the female members appear as the heads. But these together with those appearing as wives of heads account for 32.6 per cent of all female members. By definition, no female member was recorded as head of the family if her husband lived in the same family. The females appearing as the head of the family were in most cases widows or else their husbands did not stay in the family for one reason or the other. Another important distinction between the relation composition of the male and female members is that while very few among the men appear as fathers of the heads of their families, a considerable proportion of the women appear as mothers. This is because when a man is

widowed, he does not on that account cease to be the head of the family. But when a woman, who until then has appeared as the wife of the head, is widowed, she more often appears as the mother of the head rather than as the head herself. It was found that a large proportion of the women who appear as mothers of the heads of their families were widows. A classification of mothers by a marital status showed that out of 811 mothers, as many as 92 per cent were widows, 6 per cent married and the remaining separated, etc. The proportion among females appearing as daughters is much smaller than the proportion among males appearing as sons. This, is because while the married sons may continue to stay with their father until they themselves become heads, married daughters generally stay in their husband's families as daughter-in-laws.

**Table 5. Kinship Relations of the Male and Female Members of The Families to the Head**

Relation to Head	Male per cent	Female per cent
(1)	(2)	(3)
Self	33.1	3.7
Wife	-	28.9
Father/Mother	0.8	8.1
Son/Daughter	47.0	31.9
Brother/Sister	7.7	3.1
Relations through Son and Daughter	5.7	14.9
Relations through Brother and Sister	4.1	7.2
Other relations	1.6	2.2
Total number	32,670	32,893

8. In our classification, the daughters-in-law appear in the category of: "relation, through son/daughter". Indeed, this category predominantly consists of relations through sons because the relations through the daughters living in the family of their fathers are few. Among the male members, the relations through sons consisted mainly of the grandsons. Among the female members, they consisted of grand-daughters and the daughters-in-law. In the same way, the proportion of sisters among females was much smaller than the proportion of brothers among males. This is compensated in the category of relations through brothers and sisters. Among male members, they were mainly nephews. Among female members, they consisted of nieces and sisters-in-law. Relations other than those through Sons, daughters, brothers and sisters were very few though their proportion among women was somewhat larger than among men. Thus it is obvious that the families largely consisted of the first relations of the heads, and of their brothers and their Sons. Relations more distant than these were not frequent.

9. We may now put together the data on relation categories and on the Size and type of family, and analyse the family composition against this nexus. Table 6 sets out the kinship relation of the male and female members of the families of

different size and type. It is interesting to observe the main forms of kinships which figure out prominently in different types of family. It is obvious that in 'no-couple one-member family', all the males and all the females appear as heads of the respective families. In respect of families with two or more members but with no couple, 48.2 per cent of the male members were heads of their families, 25.2 per cent were sons of the heads and 18 per cent were brothers of the heads. Thus these three relation categories accounted for nearly 92 per cent of the male members of these families. Besides, there was a small number amounting to about 6 per cent of the total, who were related to the head through his sons, daughters, brothers and sisters and who in the main were his grandsons and nephews. Thus the heads along with their sons and brothers and grandsons and nephews accounted for practically all the male members in these families. Among the female members of the families of this type, the main kinship relation are mothers, daughters and sisters. The three categories together account for 83 per cent of all the female members of these families. Besides 10.4 per cent of the female members were related to the head through his sons, daughters, brothers and sisters and as they were not wives of any members in the family (because there were no couples in these families), in a majority of cases they must be grand-daughters and nieces thus

accounting for 93.4 per cent of all the female members in these families. Among the one-couple families, as the size of these families increased, the proportions of all categories of relations except heads, wives of heads and father and mother of heads increased. But the bulk of the increase was in the categories of sons and daughters. Thus the proportions of sons among the male members of these families rose from 25.6 per cent in the three-member families to over 60 per cent in seven-member families. Similarly, the proportion of daughters among the female members of these families rose from 18.4 per cent in the three-member families to over 50 per cent in the seven-member families. The proportions of brothers and sisters and also of more distant relations increased but only slightly. Thus, the increase in the size of the one-couple families was mainly due to the increase in the number of sons and daughters; the presence of other members did not contribute greatly to their size. It was only in the case of rather very large sized families of this type such as those having more than seven members, that the addition of other members rather than an increase in the number of sons and daughters may be said to have contributed to their size.

10. In Table 6, the "two-couples families" are shown only into two subclasses, namely, those in which the joint family

was between father and son and other types of joint families. Among families of the former kind, 26.8 per cent of the male members are heads of their families, while 56.6 per cent are sons of the heads. The proportion appearing as fathers of the head was very small. This means that when father and son live jointly, the father is traditionally regarded as the head and the son is supposed to stay with his father. Besides these two principal categories, namely, heads and their sons, which together accounted for 83.4 per cent of the male members of the families of this type, relations through sons and daughters and the heads which in the present case would be mostly grandsons, accounted for 9.1 per cent of the male members. Thus the three categories, namely, heads, sons and grandsons accounted for more than 90 per cent of the male members of the families of this type. Similarly, among the female members of these families, the three principal relation categories were wives, daughters and relations through sons and daughters. They accounted for 29.4, 25.4 and 35.7 per cent, respectively. The relations through sons and daughters consisted mainly of daughters-in-law and grand-daughters. As these were two-couple families joint between father and son, the number of daughters-in-law appearing in these families would be approximately equal to the number of wives of heads. Hence out of 35.7 per cent

**Table 6. Relation Composition of Male and Female Members of The Families of Different Types and Sizes**

(MALE MEMBERS)					(Percentage)			
Family type and size	Head	Father	Son	Brother	Relation through		Other relations	Total (actual)
					Son or daughter	Brother or sister		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>No couple</i>								
One member families - male	100.0	-	-	-	-	-	-	303
Two or more members - male head	48.2	0.6	25.2	18.5	1.8	4.1	1.6	1,814
Two or more members - female head	-	0.3	80.3	2.3	11.4	3.3	2.4	836
<i>One couple consisting of -</i>								
Two members	100.0	-	-	-	-	-	-	518
Three members	69.3	0.8	25.6	2.2	0.6	0.9	0.6	1,544
Four members	49.6	0.5	41.6	3.8	1.6	1.5	1.4	2,759
Five members	39.9	0.5	50.3	4.6	2.3	1.1	1.3	3,582
Six members	32.6	0.6	57.0	4.4	2.3	1.9	1.2	3,450
Seven members	27.8	0.8	61.0	4.7	2.8	1.4	1.5	2,677
More than seven members	22.0	0.8	60.1	5.8	3.8	4.4	3.1	2,961
<i>Two couples consisting of-</i>								
Father and son	26.8	1.7	56.6	2.9	9.1	1.7	1.2	4,332
Other relations	24.9	0.7	31.0	21.0	8.6	11.0	2.8	3,152
<i>Three or more couples</i>								
	16.8	1.1	43.6	13.1	14.1	10.0	1.3	4,742
Total	33.1	0.8	47.0	7.7	5.7	4.1	1.6	32,670

**Table 6. (Continued) Relation Composition of Male and Female Members of The Families of Different Types and Sizes**

(FEMALE MEMBERS)						(Percentage)				
Family type and size	Head	Wife	Mother	Daughter	Sister	Relation through		Father or mother	Other relations	Total (actual)
						Son or daughter	Brother or sister			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<i>No couple</i>										
One member families - female	100.0	-	-	-	-	-	-	-	-	393
Two or more members - male head	-	-	35.9	24.5	22.6	4.3	6.1	4.5	2.1	1,219
Two or more members - female head	47.1	-	1.6	36.4	1.6	7.6	1.4	0.6	3.7	1,534
<i>One couple consisting of -</i>										
Two members	-	100.0	-	-	-	-	-	-	-	518
Three members	0.8	60.9	13.1	18.4	0.7	4.2	0.9	0.2	0.8	1,707
Four members	0.8	46.5	1.3	32.4	1.8	4.4	1.4	1.3	1.1	2,820
Five members	0.3	38.0	8.7	43.1	2.3	3.8	1.8	0.8	1.2	3,624
Six members	0.3	32.3	7.5	48.7	3.0	4.3	2.2	0.9	0.8	3,356
Seven members	0.3	28.9	7.2	52.0	2.9	4.2	2.3	0.8	1.4	2,588
More than seven members	0.2	23.5	7.3	50.1	4.4	6.2	5.1	1.8	1.4	2,758
<i>Two couples consisting of-</i>										
Father and son	0.1	29.4	3.7	25.4	1.3	35.7	3.1	0.5	0.8	4,005
Other relations	0.2	21.4	10.8	21.4	3.6	15.6	23.9	1.8	1.3	2,349
<i>Three or more couples</i>	0.1	16.5	4.5	13.1	1.9	42.3	20.4	0.5	0.7	4,622
Total	3.7	28.9	8.1	31.9	3.1	14.9	7.2	1.0	1.2	32,393

appearing in the last category, about 29.4 per cent would be daughters-in-law and the remaining about 6 per cent would be grand-daughters. Thus, the three or four relation categories together accounted for over 90 per cent of the female members of the families of this type.

11. Among other types of joint families with two couples, the predominant type was that between two brothers. Among the male members of these families, therefore, there appeared a large number of brothers of heads. They accounted for 21.0 per cent of all the male members in these families while the heads themselves accounted for 24.9 per cent. The proportion of sons of heads in these families was naturally smaller. Nevertheless they accounted for 31.0 per cent of all the male members. Besides there were relations through sons or daughters and through brothers or sisters. Mainly they were grandsons and nephews. They accounted for 8.6 and 11.0 per cent of all the male members, respectively. The five relation categories, namely, heads, sons, brothers, grandsons and nephews accounted for nearly 97 per cent of all the male members in these families. Among the female members, the related categories were the wives of heads, sisters-in-law, daughters, grand-daughters and nieces. They accounted for nearly 82 per cent, of all

the female members. Besides there were mothers of heads who accounted for nearly 11 per cent of the female members.

12. In larger families, that is those with three or more couples, also the same relation categories both among male and female members accounted for the majority of the members. It is obvious, therefore, that even the very large families were mainly confined to the head and his family, his sons and their families and his brothers and their families. Members more distantly related to the head were very few.

### Summary

This article describes, in broad terms, some important aspects of the size and composition of families in the rural areas. The results presented in the article are based on data gathered in the course of a programme of socio-economic surveys of villages in the famine tracts of the present states of Maharashtra and Mysore. These inquiries were conducted by the Gokhale Institute of Politics and Economics during 1947-51. The sample selected for the purpose consisted of 12,030 families selected from about 74 villages of the Poona, Ahmednagar, Satara, Sholapur and Bijapur districts.



The size of the family has been studied in terms of the number of members living together in the family. The rural families could be characterised, by and large, as the medium and large-sized families. Generally speaking, the size of the family varied directly as the number of couples staying in the family. In analysing the composition of the family, consideration has been given to two main aspects, viz., (a) the prevalence of the unitary family or joint family with two or more couples living in them and (b) the kinship relation of the members of the family to the head.

It was interesting to note that the joint family was not as widely prevalent as is generally believed. Only 20 per cent of the families could be classed as genuinely joint families. Among the joint families, the prominent form was a family joint between the father and his sons. The relation-composition of the families indicated that a large proportion of families amongst families of all type and size consisted of the first relations of the heads of the families and of those of their sons and brothers.

# QUANTITATIVE THINKING AMONG STUDENTS OF ECONOMICS IN INDIA

V. M. Dandekar

IN 1955, the Planning Commission, Government of India set up, with the assistance from the Ford Foundation, a number of centres for training in Social Science Research Methods. Six such centres were established in universities or research institutions in the country, namely, at Bombay, Delhi, Madras, Poona, Hoshiarpur (now at Chandigarh) and Cuttack. The primary aim of this programme was to increase the number of social scientists qualified to make an effective contribution towards meeting India's needs for a more substantial research basis for planning and execution of development programmes. Among other things it provided for specialized courses in Social Science Research Methods and offered suitable fellowships to pre-Ph.D. and post-Ph.D. research scholars, mainly in Economics. Though the content of these courses varied somewhat between different centres, four years of experience has amply demonstrated the utility and need of such a course. In fact, the lack of such a course has been found to be a serious gap in the social science training in the Indian universities and there have been suggestions that it may be advisable to introduce some such course, at some stage, as an integral part of the social science training in the

universities. Some thought has also been given to the desirable and feasible content of such a course if one were to be introduced. The purpose of this paper is to offer some raw material on the subject.

From the standpoint of research in social sciences, the weakest spot in the present day training has been the singular incapacity among research students for quantitative and related critical logical thinking. This is generally known but it is doubtful whether the seriousness of the situation is well recognized. The purpose of this paper is to lay bare the existing situation by presenting relevant factual evidence.

The evidence comes from a short test given to candidates who had applied for a pre-Ph.D. fellowship at the Gokhale Institute of Politics & Economics, Poona in June, 1960, for a one year training in research methods in social sciences. As will be seen, the candidates appearing for this test came from a large group of students derived from a number of Indian universities and judging by their academic and other qualifications, they formed a highly select group of students in Economics. Therefore, though the evidence comes from a test given to a

small group of students, 27 in all, it may be regarded as highly significant in its implications.

The fellowships were advertised in all the principal dailies in the country and in response, we received 332 applications. Of these 202 applicants had a Master's degree in Economics. Their classification by the universities from where they took the Master's degrees in Economics was as under:

Madras 36; Agra 32; Poona 14; Andhra 13; Nagpur 12; Annamalai 10; Bombay and Kerala 7 each; Calcutta, Mysore, Karnatak and Shri Venkateshwaran 6 each; Allahabad and Saugar 5 each; Lucknow, Bihar and Gauhati 4 each; Delhi and Osmania 3 each; Aligarh and Rajasthan 2 each; Benaras, Gorakhpur, Patna, Vishwabharati, Utkal, Vikram and Travancore 1 each; 8 applicants did not mention the universities they took their degrees from.

The classification of the applicants by the year they took their degrees it was as under:

65 in 1960; 57 in 1959; 27 in 1958; 9 in 1957; 8 in 1956; 10 in 1955 or earlier; 26 applicants did not mention the year in which they took their Master's degrees.

Out of these applicants, 42 were called for interview. Their classification according to the universities from where they took their Master's degrees in Economics was as under:

Poona 7; Andhra 5; Nagpur 4; Bombay, Mysore and Delhi 3 each; Annamalai, Osmania, Karnatak, Rajasthan, and Lucknow 2 each; Madras, Kerala, Agra, Aligarh, Benaras, Saugar and Calcutta 1 each.

It will be seen that the applicants called for interview were widely scattered. 27 of them turned up for the interview and appeared for the test. In the following, we shall concentrate attention on them.

All of them had at least a second class Master's degree in Economics. Their classification according to the universities from where they took these degrees was as under:

Poona 7; Nagpur, Mysore and Andhra 3 each; Bombay, Rajasthan and Delhi 2 each; Madras, Osmania, Karnatak, Agra and Lucknow 1 each.

The relatively large number from Poona University was natural and inevitable. There were also a few notable gaps such as the universities from eastern parts of the country. Nevertheless, the group of students is fairly distributed over 12

universities and may be regarded a fair sample for the purpose in hand. It may also be relevant to give the years in which these candidates took their Master's degrees in Economics. Their classification on that basis was as under:

7th 1960; 12th 1959; 5th 1958; 2 in 1957 and 1 in 1956.

There were 24 men and 3 women among the 27 candidates.

The process of selection of these candidates was such that the group of 27 candidates does not represent by any means the average quality of students of Economics in the country. They also do not represent an average of those who intend to do research in Economics and who in the ordinary course of things are allowed to undertake research and in due course earn research degrees. In all probability, they represent a more highly select group. For instance, 6 of the 27 candidates had first class Master's degrees. The remaining 21 had second class Master's degrees. Besides, a number of candidates had a certain amount of teaching or research experience. For instance, six candidates had one or two years of teaching experience. Four other candidates had one or two years of research experience in the departments of Economics of their universities. Five candidates had worked for a period of one

year or so as research investigators in one or the other socio-economic investigations. Three other candidates had worked as research assistants in statistical bureaus or other similar offices. Thus, all in all, 18 out of the 27 candidates had one or two years of experience not unrelated to their previous university training and to their future research intentions.

As we are here concerned mainly with the capacity of these candidates for quantitative and related critical logical thinking it may also be mentioned that the mathematical-statistical background and equipment of the group was also, on an average, much superior to that of the general students of Economics in Indian universities. 18 of the candidates had no Mathematics or Statistics courses either for their B.A. or M.A. degrees. But the remaining 9 candidates had a certain amount of such training. In fact, two of the candidates had, in addition to their Master's degrees in Economics, full M.Sc. degrees in Statistics. In two other cases, the Master's degrees in Economics included a certain amount of Mathematics and Statistics. Five other candidates had such courses for their B.A. degrees. Clearly, therefore, the mathematical-statistical equipment of this group was very much above the average.

The courses of training for the pre-Ph.D. fellows at the Institute had included from the beginning short and elementary courses in Mathematics, Mathematical-Economics, Statistics and Econometrics. Though the courses were quite elementary, it was found that the fellows under training in general experienced quite considerable difficulty. It was, therefore, thought desirable, to make the selection of the fellows more carefully with special attention, if possible, to their equipment and aptitudes *vis-à-vis* these courses. Therefore, when the candidates were called for interviews it was decided, and they were accordingly informed, that they would be given a short written test.

The written test was given along with the *viva voce*, that is to say, the candidates were called for the *viva voce*, one by one while they were sitting for the written test. However, the *viva voce* was quite unrelated to the written test. In fact, no notice was taken during the *viva voce* of what the candidates were doing in the written test. The total time allowed for the written test was two and half hours so that after allowing for the time taken by the *viva voce*, the candidates had at least two hours for the written test. In any case, no candidate asked for extra time and there was no evidence that any suffered for want of time.

The written test consisted of two questions. The first question asked for a precis to be written. The candidates were given copies of Chapter III (about 6 pages) of the Report of the Village and Small Scale Industries Committee (1955), and they were asked to prepare a summary in about one-third of its length, that is to say, in about 1000 to 1200 words. This question was answered by all the candidates more or less satisfactorily.

The second question was intended to test the candidates' capacity for quantitative and related critical logical thinking. It comprised six problems. Three of the problems required no more than a little facility at numerical work; two of them needed only elementary Arithmetic and the third, either a little advanced Arithmetic or elementary Algebra. The other three problems involved no numerical work. They required critical logical facility in quantitative inference. Supposing that the first question on precis writing required about an hour, there was left about an hour in which to attempt these six problems. It is the performance of the 27 candidates in this part of the test which forms the subject matter of this paper. We may refer to the two types of problems mentioned above as numerical and logical, respectively. Let us begin with the numerical problems and

examine the performance of the candidates. It will be convenient to discuss these problems one by one.

The first one was a straightforward arithmetical exercise in converting British system of measure into metric system of measures. It required no more than elementary arithmetic. *It read as follows:*

In the British system, a yard is the measure of length and an acre is the measure of land area. 220 yards square that is 220 yards X 220 yards make 10 acres.

In the metric system, a metre is the measure of length and a hectare is the measure of land area. 100 metres square that is 100 metres X 100 metres make one hectare.

Approximately 11 yards make 10 metres. Find out approximately how many acres make a hectare.

It will be seen that the question is clearly worded and gives sufficient indication of the steps necessary to arrive at the solution. In fact, the solution involves no more than the following steps:

$$\begin{aligned} 1 \text{ Hectare} &= 100 \text{ metres} \times 100 \text{ metres} \\ &= 110 \text{ yards} \times 110 \text{ yards} \end{aligned}$$

$$= \frac{220 \text{ yards} \times 220 \text{ yards}}{4}$$

$$= \frac{10}{4} \text{ acres}$$

$$= 2.5 \text{ acres}$$

Nevertheless, only 6 out of the 27 candidates could get the correct solution. Five of them possessed some mathematical-statistical background. Only one candidate could see the simple solution. The others got the result more or less with difficulty. 9 other candidates attempted but got wrong results. 12 candidates did not attempt at all.

The 9 candidates who attempted but could not get the correct answer all suffered from one common difficulty namely, failure to see the difference between a metre and a square metre; or between a yard and a square yard. For instance, one candidate put down the following steps:

$$\begin{aligned} 11 \text{ yards make } 10 \text{ metres. Therefore} \\ 220 \times 220 \text{ yards make } 10/11 \times 220 \times 220 \\ = 44000 \text{ metres.} \end{aligned}$$

Another candidate put it down as follows:  
220 x 220 yards = 10 acres.

$$\text{Hence One yard} = \frac{1}{220 \times 22} \text{ acres.}$$

Notice that in both these cases, the candidates write 220 x 220 yards instead

of 220 yards x 220 yards and do not see the difference between the two. A third candidate makes probably the same mistake but in a rather different way: His steps were as follows:

11 yards = 10 metres

100 metres x 100 metres = 1 hectare

(i.e., 10 x 10 metres x 10 x 10 metres = 1 hectare).

Hence 11 x 11 yards x 11 x 11 (yards) = 1 hectare.

Hence 121 (yards) x 121 yards. = 1 hectare.

The candidate had not put down the step shown in bracket above. Here it is added as an explanation of how presumably he got his next two steps. In his last two steps he did not also supply the words 'yards' shown in bracket and it is obvious that he did not know the difference that it made between adding and not adding those words. His lack of understanding of these elements is however glaring in the manner in which he deduces the result showing 100 metres = 121 yards. Evidently, he does not see the difference between the following two statements both of which are correct:

100 metres = 10 x 10 metres = 10 x 11 yards = 110 yards

and

100 square metres = 10 metres x 10 metres = 11 yards x 11 yards  
= 121 square yards.

*The second question read as follows:*

On 1st April 1960, the Government of India issued Five Year interest-free Prize Bonds. The Bonds are in denominations

of Rs. 5 and Rs. 100 each. They are issued at par and are repayable at par on or after 1st April 1965. The Bonds do not bear interest but lots are to be drawn quarterly for prizes on the 1st June, 1st September, 1st December and 1st March every year, the first draw being held on the 1st September 1960 and the last draw on 1st March 1965. The total number of prizes to be offered each quarter will be 40 of the aggregate value of Rs. 92,000 and 278 of the aggregate value of Rs. 46,000 in respect of each series of Rs. 100 and Rs. 5. Bonds, respectively. Each series of Rs. 100 Bonds will be for Rs. 1 crore, (i.e., one lakh Bonds of Rs. 100 each) and each series of Rs. 5 Bonds will be for Rs. 50 lakhs, (i.e., 10 lakh Bonds of Rs. 5 each). Each Bond sold will be eligible for participation in all the draws held after the expiry of two calendar months of its sale.

Compute what in effect is the rate of interest that the Government will pay on funds raised through Prize Bonds.

Knowing that a National Savings Certificate of face value of Rs. 100 matures to Rs. 165 after 12 years, which of the two schemes, National Savings and Prize Bonds, carries a rate of interest more favourable to the Government?

Though the text of this question is rather lengthy, it was expected to be familiar to the candidates as students of

Economics. Actually, it was taken verbatim from the press advertisement of the Prize Bonds. The first part of the question did not involve any more than elementary arithmetic. An approximate, but entirely adequate, solution of the first part of this question would be as follows:

The quarterly prize money for the two series of Bonds is Rs. 92,000 for the first series of total amount of Rs. 1 crore and Rs. 46,000 for the second series of total amount of Rs. 50 lakhs. As the prize money bears the same ratio in both cases to the amount of the series, it is enough to consider only one of the two series. Let us consider the first series. In this case, the annual rate of interest on the funds raised through the Prize Bonds will be given by:

$$\frac{92,000 \times 4}{100,00,000} = 3.68 \text{ per cent per annum.}$$

For a more accurate result, we have to take into account the fact that no lots are drawn on the 1st June, 1960. But this is partly compensated by the rule that each Bond sold will be eligible for participation in all the draws held after the expiry of two calendar months of its sale. As a consequence any correction to the above rate of interest will be small and may be neglected.

Of the 27 candidates, only 8 candidates attempted this question and only 4 gave the correct result. 3 of them gave the

result as 3.68 per cent per annum as above. All the 3 candidates possessed a certain amount of mathematical-statistical equipment. The fourth candidate allowed for only 19 draws during 5 years and gave the result as 3.49 per cent per annum.

The remaining 4 candidates committed several arithmetical errors. For instance, one candidate derived the quarterly rate of 0.92 per cent but mistakenly put it as 9.2 and called it the annual rate. Another candidate derived the quarterly rate but multiplied it by 6 to get the annual rate as 5.52 per cent. The most surprising part, however, is that as many as 19 of the 27 candidates made no attempt to solve the question.

The second part of the question relating to the National Savings Certificates was put in order to test whether the candidates knew the difference between the simple interest and the compound interest. Only one candidate showed such awareness, but unfortunately, he had committed arithmetical errors even in solving the first part of the question and hence could not usefully complete the second part.

*The third question read as follows:*

The per capita consumption of food-grains in a country is 20 per cent lower in



the urban sector as compared to that in the rural sector. 20 per cent of the total population of the country in 1950 was urban and 80 per cent was rural. It is estimated that in 1960, the country has a total population larger by 20 per cent but that its total consumption of foodgrains has, remained unchanged.

It is alleged, nevertheless, that the per capita consumption of foodgrains in both its urban and rural sectors has not changed over this period.

What proportion of its total population in 1960 must live in the urban sector for this to be true?

Admittedly this problem is not quite simple Arithmetic and though a simple solution in terms of Arithmetic may be given, properly speaking it is a problem in elementary Algebra. The solution in terms of Arithmetic is as follows:

The per capita consumption of foodgrains in urban sector is 20 per cent lower than that in the rural sector. That is to say, if per capita consumption in rural sector is 100, that in urban sector is 80. In other words, this means that consumption of 4 persons in urban sector is equivalent to consumption of 5 persons in rural areas. Suppose the population in 1950 was 100 of which 20 was urban and 80 rural. If we converted the 20 urban persons into rural,

they would be equivalent to only 16 rural persons. Hence in 1950, there was food enough for only 96 persons if all lived in rural sector. Alternatively, if we converted the 80 rural persons into urban, they would be equivalent to 100 urban persons. Hence we might say that in 1950, there was food enough for 120 persons if all lived in urban sector or for only 96 persons if all lived in rural sector.

The population in 1960 is 120 (compared to 100 in 1950). But there is food enough for them all only if all lived in urban areas.

Hence for the statement to be true, the entire population in 1960 must be urban.

In view of the performance of the candidates in the two simple questions earlier discussed, it is not surprising that only 2 candidates could do this problem correctly. One of the candidates had adequate mathematical-statistical background. The other had none either at B.A. or M.A. level. In fact these were the only two candidates who could solve all the above three questions correctly. Another candidate could solve the first two questions but not the third. One candidate could do only the second question while three candidates could do only the first question. 20 out of the 27 candidates could not solve a single of the three questions.

We may next turn to the second group of three questions, namely, the logical questions. These did not involve any numerical work.

*The first of these read as follows:*

100 children were examined in Arithmetic, Algebra and Geometry, 40 passed in Arithmetic, 39 passed in Algebra and 48 passed in Geometry. 10 passed in all the three, 21 failed in all the three. 9 passed in Arithmetic and in Algebra but failed in Geometry. 19 failed in Arithmetic and in Algebra but passed in Geometry. Find how many children passed in at least two subjects.

Show that in order to answer this question, part of the information given is not necessary.

The question was taken, with verbal modifications, from *An Introduction to the Theory of Statistics* by Yule and Kendall (Example 1.8). It is an elementary problem in statistical Theory of Attributes. Nevertheless, it involves no more than a logical understanding of classification. The reasoning is as follows:

Passing in at least two subjects means passing in two or more subjects. We know that 9 students passed in Arithmetic and Algebra but failed in Geometry.

Therefore, what we need is the number of those who passed in Geometry and did not fail in both Arithmetic and Algebra. We know that 48 students passed in Geometry -they might pass or fail in Arithmetic or Algebra or both. We also know that 19 students, passed in Geometry but failed in both Arithmetic and Algebra. Thus  $48 - 19 = 29$  is the number of those who passed in Geometry and did not fail both in Arithmetic and Algebra. The number of students who passed in at least two subjects is given thus:

Passed in Arithmetic and Algebra but failed in Geometry.	9
Plus Passed in Geometry.	48
Minus Passed in Geometry but failed both in Arithmetic and Algebra.	19
Passed in at least two subjects.	38

The rest of the information is not necessary to answer the question.

None of the 27 candidates appearing for the test answered this question correctly. 13 candidates did not attempt it at all. Two attempted it inconclusively. One candidate asked for additional information. He remarked: "It is not given how many passed or failed in either Arithmetic and Geometry or Algebra and Geometry. One of the two should have been given."

Thus only 11 candidates answered the question and none of them correctly. A typical answer was that 19 students

should have passed mat least two subjects. This answer was given by 6 out of the 11 candidates. The argument was various and rarely clear and categorical.

Nevertheless, its gist was as follows:

10 passed in all the three

9 passed in Arithmetic and Algebra but failed in Geometry. Hence 19 passed in at least two.

It seems therefore that these candidates had confused the phrase 'two subjects' with 'the first two subjects' namely, Arithmetic and Algebra and hence interpreted the question 'number who passed in at least two subjects' as the 'number who passed in at least Arithmetic and Algebra.'

Another candidate tried basically to do the same-namely, to derive the number of those who passed in at least Arithmetic and Algebra-but with a mistake. His argument was as follows and illustrates yet another common mistake:

"40 passed in Arithmetic; 9 passed in Arithmetic and Algebra; 10 passed in all the three. Hence putting these together, we have that 59 passed in at least two subjects."

Two other candidates argued variously to produce two different results. No logic,

right or wrong, is apparent in their reasoning. Finally, two candidates put forward arguments which appear almost irresponsible. They were as under:

"40 passed in Arithmetic, 39 passed in Algebra and 48 passed in Geometry. Hence 39 may have passed in at least two subjects."

"40 passed in Arithmetic 39 passed in Algebra and 48 passed in Geometry. We can say that 40 is the common factor and hence possibly the answer."

*The second question read as follows:*

In a study of unemployment, a group of unemployed workers were classified by their ages. It was found that the number of unemployed workers in the age group 20-24 was much larger than in any five year age group between 40 and 59. It was therefore concluded that the incidence af unemployment was heavier in the younger age group Comment.

The question was taken with minor verbal modifications from, *Statistics-A New Approach* by Walls and Roberts. (Example 95c).

The comment to make was obviously that while judging the incidence of unemployment in, different age groups,

the number of unemployed workers in any age group should be related to the total number of workers in that age group.

Of the 27 candidates appearing for the test, 24 attempted this question but only 6 of them gave the correct answer. It may be noted, nevertheless, that only 2 of these 6 candidates had any mathematical-statistical background and 4 had none. It may be supposed therefore that the question did not call for any special mathematical-statistical training. In any case, those who had such training did not do better.

Three other candidates tried to examine the statement critically but their answers were wrong. They were as under:

"The inference may be wrong. What is needed is not the absolute figure but the percentage of the unemployed of a particular group to the total unemployed."

"While the conclusion is being arrived at, it is assumed that all the age-groups of the unemployed in the particular community are correctly represented in the sample group. This may not be so. Again unemployed labourers between say 18-20 are not taken into account. Observations of this younger group may give different results. Therefore such sweeping generalizations are not valid."

"Statistics is a subject which is very useful for comparisons and inferences. We must compare the frequencies in the same age group in a number of years and then only come to the generalization. Here different age groups in the same year are compared and a general conclusion is arrived at. This procedure of comparison, according to Statistics, is incorrect."

Though their answers were incorrect it may be said that these 3 candidates attempted, along with the other 6 candidates who gave the correct answers, to examine the given statement critically and to check whether the inference drawn was justified on the basis of the given data. The remaining 15 candidates who attempted this question, did not do so. Three of them disputed the inference on general grounds and not on the basis of the data. The other 12 did not question the validity of the inference as arising out of the given data. Instead, they tried to explain away the inference.

The answers of the 3 candidates who disputed the inference on general grounds were as follows:

"Woolten has remarked, 'Whenever six economists are gathered there are seven opinions'. As it is true in other fields of economics it is also true in the field of unemployment. As a matter of

fact, the difference of opinion in regard to unemployment is only due to the different meanings given to the word 'unemployment'."

"The conclusion is not correct because all unemployed young men may not be unwillingly unemployed. On the other hand, some old persons may be unwillingly unemployed which can be said as a true unemployment."

"Perhaps just the reverse. Among the older age group, not only the incidence of heavier unemployment fell upon them but also the incidence of the burden of supporting the majority of the younger age group who are the privileged carefree group."

As mentioned above, the remaining 12 candidates did not question the validity of the inference but instead tried to explain it away. A majority of the candidates had a more or less similar explanation to offer. In the case of 8 out of the 12 candidates, the answers briefly were as under:

"The younger age group consists mostly of students and learning workers. And so it can be said that unemployment incidence is on the younger generation."

"The conclusion is correct because at a particular young age one is not in employment and after that one is employed, say after the age of 24."

"This is obvious because the persons come out of framing in the younger age group."

"At the age of 20-24 men may be less skillful. Hence, the employers may not take the risk of employing them."

"Those seeking employment belong to the younger age group." "Because the younger age group is semi-skilled."

"Because the persons in the younger age group enter the employment market in search of jobs."

"Because the age group between 20-24 consists mostly of graduates in Arts subjects than in Science subjects."

The remaining 4 candidates gave explanations which are slight variations of the same theme. They are as under:

"Population is increasing fast. Now the rate is nearly 1.9 per cent per annum. Hence the lower age group incidence must be greater. Also average age is very low in India. Further many people take

rest during old age. Also in the old age persons are more or less settled in their occupations."

"This shows that the number of those seeking employment has increased at a faster rate than before and the persons in the younger age group could not be absorbed."

"The incidence of unemployment is bound to be heavier on the younger age group as the fresh annual entry into the potential labour force is nearly 1.7 million. As the rate of growth of population rises, as it is doing so, this fresh annual entry becomes even larger."

"Because of the higher birth rate than the death rate the incidence of unemployment on younger generation is bound to be larger."

*The last question read as follows:*

A common medical belief states that after a certain operation it is dangerous for women to have children. An interested doctor studied the records for a group of women who had been through this operation. For each woman, the records showed the number of years the woman had lived after the operation and the number of children born to her during the period. The doctor discovered that the more children a woman bore after the

operation the longer, on an average, she survived the operation. He concluded that the traditional medical belief was the reverse of the true situation, Comment.

This problem was also borrowed from, *Statistics-A New Approach* by Wallis and Roberts (Example 94-A). Of the 27 candidates 22 attempted this question but none of them gave quite the correct answer. The nearest to the correct answer given by a candidate was as follows:

"To refute the common medical belief the doctor should compare 'groups of women with operation' with 'groups of women without operation'. If in the latter case, women survived for longer periods than the former, then he might conclude that the medical belief was wrong."

This is correct as far as it goes but the candidate should have seen that if the group of women with operation had also on an average fewer children than the other group of women, then a comparison as regards longevity between the two groups would not throw any light on the problem in hand. Hence the comparison between the two groups of women must be made for each category of women having a given number of children. This candidate had a B.Sc. degree in Statistics.

Another candidate made nearly the same point but less definitely. He also mixed it with another erroneous point. His comment was as follows:

"The conclusion seems to be a product of the fallacies of non-observation and mal-observation. Firstly, the doctor only studied the records of those women who bore children and were living. But he did not study those wherein women conceived and died. He committed a fallacy of mal- (non?) observation. Secondly, he did not compare the longevity schedule for these women with a general longevity average in that particular area. Had he compared it, the results would have been different. He, therefore, committed a fallacy of mal-observation."

It will be seen that the second point in the above is basically the same as that made by the previous candidate. The first point is however, erroneous and possibly arises out of a difficulty to comprehend the statement correctly. For instance, he says: "The doctor only studied the records of those women who bore children and were living. But he did not study those wherein women conceived and died." Possibly, this is a misunderstanding of the statement: "For each woman, the records showed the number of years the woman had lived after the operation." The same mistake was made by two other candidates. Their answers were as follows:

"The conclusion drawn is not fully correct. It is not stated here how many women who bore children expired, after the operation. It is possible that a few women who bore children survived for a longer period while many expired."

"The doctor's conclusion does not follow from the given facts. What the records have shown is that the larger the number of children after the operation the longer the woman lived. Probably, had there been no children, the woman might have survived longer. Moreover, many might have died after giving birth to the first child."

It will be noticed that in the above, the candidate actually supposed that the records did not show: (1) Women who might have died after giving birth to the first child and also (2) Women who had no children after the operation. It is obvious that he was not able to visualize the form of the record which showed "for each woman, the number of years the woman lived after the operation and the number of children born to her during the period".

The above answers are also illustrations of failure or incapacity to pursue a point critically to its full logical extent and to examine it more closely. In the following are more examples of voicing incompletely thoughtout criticism.

"The record showing that after the operation, if more children are borne the longer is the duration the woman lives to, may be admitted without any shadow of doubt. But what is the guarantee that a woman after the operation will bear more children?"

"The old belief says that it is dangerous to have children after the operation. But once she withstands a delivery she can afford to do so any number without any extra trouble. There is no correlation between the life span of a woman and the issues she has. The doctor's findings that the more children a woman bore after the operation, the longer she survived might be merely accidental if healthy women were to be in the selected group. Hence the conclusion is not necessarily the reverse of the old belief but at best it might prove the fallacy of the old belief."

Five other candidates questioned the appropriateness of the sample of women investigated- 3 of the candidates questioned the representative character of the sample of women while the other two questioned its size that is its numerical adequacy. In all the cases, the criticism was hypothetical. The 5 answers are as follows:

"The doctor is partly right. After analytical study he had found that a 'group of women' whom he had examined

survived longer. But if the 'group of women' were different (say, of the age group 45-55 as against the *supposed* group of 35-45 which the doctor studied) then the doctor's conclusions might be wrong and the common medical belief might be correct," (Note that the candidate himself had underlined the word 'supposed' and thus made it clear that he was presuming defect in the data.)

"The women under study might be of a particular age group or those residing in particular area or otherwise of a special class... and so we may say that the study was not general but particular."

"Population characteristics might be found in a sample, but all the characteristics of a sample need not be found in the population. Hence, the association between the number of children a woman had after the operation and the longevity might be valid only for the particular group of women. Also the harm in accepting a wrong hypothesis wrongly is more for the society than in rejecting a right hypothesis."

"To draw such a conclusion, we need more data on which to base our conclusion. In the present case, the data is not satisfactory."



"The common belief that after a certain operation it is dangerous for women to have children may be taken as a 'generalisation' or 'universe' or 'population result'. The particular case studied by the doctor may be taken as a 'sample' from the universe. This problem is directly related to 'chance cause', in 'sampling' in the subject of 'Statistics'. 'Sampling' is connected with probability. The range between parameter  $\pm 2\sigma$  gives the range between which chance cause may have the effect; beyond and below the range, the cause may be different. The particular doctor, who has taken only one sample or 'a group of women' may be wrong because the sample may likely to be biased. Causes other than 'chance' may also have caused the adverse result. He must take a large number of samples and then only can he come to a definite conclusion."

It is obvious that this candidate does not know what he is talking about. He has only a verbal acquaintance with all the words he has put into inverted commas and probably he knows it. All that probably he is sure about is that a generally valid point could be made by asking the doctor to take a larger sample and he seems to feel that the point could be made more forcefully if supported by technical jargon.

Nevertheless, in spite of the low quality of most of them, all the above answers, 10 in number, may be regarded as serious and critical attempts. Even this cannot be said about the answers given by the remaining 12 candidates. They are all illustrations of pure verbal jugglery, superficial comments and importation of irrelevant considerations into the discussion. The following are some examples of pure verbal jugglery.

"According to the conclusion, if a woman wants to survive for a longer period, then she should give birth to a number of children. Firstly, there is no guarantee that she will not succumb to the operation. As for the doctor, there is scope if she continued to give birth to children. Statistically, the doctor may be correct. Surviving the operation should not be fled with the natural phenomenon of nature."

"The doctor's conclusion is not scientific. He can logically say that the number of children and number of years of survival after the operation are correlated. But he cannot disprove the basic belief that it was dangerous to have children after the operation."

"The doctor's conclusion that it is desirable to have children after the operation is wrong. The women who bore children after the operation may have

survived longer. But longevity is one of the tests. The health of the mother is also an important factor. If the health of the operated woman even after having children is quite satisfactory, then only it is not dangerous for women to have children."

The following are specimens of entirely superficial comments.

"The traditional medical belief is that after a certain operation, it is dangerous for women to bear children. But now this belief has been proved wrong with the help of surveys. Now the old baseless belief stands nowhere before the concrete proof through actual studies."

"Common beliefs are not always correct and are sometimes misleading. A man who found a cloth hanging on a branch of a tree when he took up courage could answer better when he was expecting 'spirits' on the free."

"It can be said that the traditional medical belief of the impossibility of the survival of the mothers after the children was wrong was amply proved by the record of the doctor. The traditional belief is an orthodox and a conservative one. It may be added here that this is a purely psychological one."

"Science is so much advanced now-a-days that one need not be afraid of consequences which are meaningful only in a traditional world and only for men who are stricken with traditional and conservative thinking. The doctor was after all right and wise in shelving the traditional medical belief that a certain operation conducted on a woman is dangerous for child bearing."

In none of the above four answers, there is any attempt at critical examination of the statement. The same is true of the following two answers. But here in addition to its uncritical acceptance the candidates also try to explain away the statement. The explanations offered by them were as under:

"As common belief cannot be denied, the operation may be dangerous but due to improved methods of medicine and surgery, the cases may be successful. Even for diseases like plague, cancer, etc., there were no medicines in older days. But now they are being cured by improved methods of operation and medicine."

"It is but natural that any kind of operation will lead to weakness and due to this weakness (may it be mental, i.e., related to heart or physical, i.e., related to body), the capacity of the women to produce children will become less. If in

such a state of affairs she gives birth to children, it is definitely dangerous for her."

Finally, the following are two specimens of a tendency to import into every discussion, matters of the moment or of so-called practical importance so as to make all logical or critical discussion impossible or appear useless.

"Yes. Because the operated women might have violated the laws of 'rhythm method' or 'safe period'."

"The discovery of the doctor seems to be strange as there is much possibility of the medical belief to be more practical because the medical advices are actually to stop further fertility after a woman undergoes the particular operation of caesarian."

The first one of the above two comments is probably frivolous and may be left alone as such. The second however reveals a point of view or attitude of mind which should be seriously taken notice of. What it amounts to is to say that the

medical belief, though probably disproved by scientific investigations, should nevertheless be left untouched or should in fact be upheld because of certain 'practical' considerations.

This then is the raw material. It must be kept firmly in view in considering all proposals for shaping it in order "to increase the number of social scientists, qualified to make an effective contribution towards meeting India's needs for a more substantial research basis for planning and execution of development programme."

#### NOTE

Throughout the paper, while quoting the candidates, only the gross errors of grammar and obvious slips of hand were corrected—all the rest is as it appears in the answer-scripts. Also on each question, all the candidates are quoted purposely to avoid the impression that only the extremely absurd or amusing cases were cited. In fact no selection was made so that the above represents the full picture.



**RESERVE BANK OF INDIA**

**ALL-INDIA RURAL CREDIT SURVEY**

**DISTRICT MONOGRAPHS BIJAPUR**

**(BOMBAY STATE)**

V. M. Dandekar

G. J. Khudanpur

Gokhale Institute of politics and Economics, Poona.

## FORWARD

This is one of the series of District Monographs of the All-India Rural Credit Survey organised by The Reserve Bank of India during 1951-52 and relates to the District of Bijapur in the Bombay State. The fieldwork was done during November, 1951 to July, 1952 and was conducted under the central direction of the Committee of Direction. Shri G.J. Khudanpur acted as the District Inspector under the general supervision of myself as the Regional Controller for the seven districts where the survey was administered by the Gokhale Institute of politics and Economics, Poona. The Monograph has been prepared in accordance with the synopsis approved by the Committee of Direction with some minor modifications of arrangement. Pr. G. J. Khudanpur assisted me in drafting to an extent justifying his joint authorship of the Monograph. The monograph is therefore being forwarded under our joint authorship.

Poona 25th May, 1953.

V. M. Dandekar

## CONTENTS

- I.       Introductory
- II.       The Selected Villages
- III.      Cultivated Holdings
- IV.      Investment Expenditure and sources of Finance
- V.       Borrowing and Indebtedness
- VI.      Balance of Investment and Disinvestment
- VII.     Farm Business Survey
- VIII.    Assets and New Investment
- IX.      IX. Farm Business - Current Account
- X.       Farm Business - Big Vs. Small
- XI.      Farm business - Other Factors
- XII.     Character of credit
- XIII.    Government - Objectives and Measures
- XIV.     Co-operative Credit - Organisation and Structure
- XV.      Working of Co-operative Societies - Four Case Studies
- XVI.     Working of Co-operative Societies - Summary
- XVII.    Working of Co-operative Societies - More Case Studies
- XVIII.   Character of the Co-operative Credit
- XIX.     The District Central Co-operative Bank
- XX.      The Land Mortgage Banking Section
- XXI.     Marketing of Agricultural Product
- XXII.    Traders in Agricultural Commodities
- XXIII.   Co-operative Marketing
- XXIV.    Private Financing Agencies

## BIJAPUR DISTRICT

### I. INTRODUCTORY

1.1 Bijapur district is an eastern district of the Bombay State and is one of the districts of the Bombay Karnatak. Due to the surging of the border States like Mudhol and Jamkhandi with the district, its area and population have considerably increased. At present its area is about 6,600 square miles and according to the 1951 population census had a population of about 14,00,000. For administrative purpose the district is divided into ten talukas and one Petha. They are -

- (i) Bijapur, Indi, Jamkhandi.
- (ii) Sindgi, Bagewadi, Bilgi, Mudhol.
- (iii) Muddebihal, Bagalkot.
- (iv) Badami, Bungund.

1.2 The Three talukas mentioned in the first group above form the northern talukas of the district with the river Bhima as the north eastern boundary. This is a tract of billowy upland falling into narrow vallies. The talukas mentioned in the second and third groups form the central region of the district. This is a vast plain and across it flow three great rivers, Don, the Krishna and the Ghataprabha. The talukas mentioned in the last group form the southern region which is partly hilly.

Across this region lie two low ranges of hills and through then passes the river Malaprabha.

1.3 In the northern region the soil is shallow on the uplands and deep in the narrow vallies to which cultivation is chiefly confined. The valley of Don is very fertile and is known as the granary of Bijapur. In the central region the level sweeps of black soil are broader and in many places there appears a vast plain as far as eye can reach. The plains of Krishna are of rich alluvial soil. But the richest parts are to be found in east Bagalkot, and in southwest Mungund and the strip of the Malaprabha valley south of the Badami hills in the southern zone.

1.4 Bijapur district receives its rainfall from both the southwest and the northeast monsoons, but mainly from the southwest monsoons. The northeast monsoons is most unreliable and at best is to be regarded as providing occasionally a welcome addition to the rains brought by the southwest monsoons. The rainfall is extremely uncertain and irregular and the district is liable to recurrent draughts. The September rains are comparatively more reliable and the major crops depend upon them; their failure therefore results in a total failure of crops. The rainfall is fairly uniform over the district, the average being 22.65 inches. The rainy season extends from June to November.



As in other parts of the Bombay Deccan, there are two agricultural cropping seasons. The kharif, that is the rainy season and the Rabi, that is the winter season. The kharif season extends from June to early December and Rabi from late September to early April. The rabi season is the more important and approximately two-thirds of the net cropped area of the district is under Rabi crops.

1.4.1 During the period under survey rains had failed and scarcity works

declared in a number of villages. Full suspension of land revenue was granted in respect of 171 villages and half suspension of land revenue in respect of 219 villages. The most affected talukas were Bijapur, Indi, Jamkhandi, Badami and Mudhol.

1.5 In the following table are shown the area and population of the district divided into the four zones mentioned above. (Table 1.1)

**Table 1.1.**

Region	Taluka	Area in sq. miles	1951 population	Population per sq. mile	Population of taluka Hq.	Population of taluka H.Q. as per cent to total
Northern	Bijapur Indi Jamkhandi	2336.4	493836	211.37	94713	19.18
North Central	Sindgi Bagewadi Mudhol Bilgi	2271.2	414507	182.50	31273	7.54
South Central	Muddebihal Bagalkot	939.9	215920	229.72	38572	17.86
Southern	Badami Hungund	1056.1	271922	257.48	15672	5.76
Total		6,603.60	1,396,185	211.43	180,230	12.91

1.6 It is clear from the above table that except in the north central region, the density of population in the district is more or less uniform. The low density of population in the north central region is due to the small proportion of urban population in that region.

1.7 About 80 percent of the area of the district is under crops. Forest is negligible and only 5 percent of the area is under forest. The remaining 15 percent might be cleared as cultivable waste, current and permanent fallow. The principal food crops of the district are Jowar and Bajri which account for more than 61 percent of the total cropped area. The district grows two important commercial crops, namely cotton and groundnut which cover about 17 percent of the total cropped area. In the following table are given the proportionate areas under different crops:-

**Table 1.2.**

Crop	Percentage to total cropped area
Jowar	49
Bajri	12
Wheat	8
Other cereals	2
Gram	2
Tur	2
Other pulses	3
Cotton	7
Groundnut	10
Safflower	3
Other oil Seeds	1
Others	1
Total	100

1.8 Jowar is grown all over the district but more prominently in the northern zone where more than 57 percent of the cropped area is under Jowar. Bajri is more important in Bijapur, Sindgi, Bagewadi, Muddebihal and Badami talukas and wheat in Bijapur, sindgi, Bagewadi and Mudhol talukas. The two important commercial crops, cotton and groundnut are grown all over the district. However, cotton is grown to a greater extent in the southeastern talukas, namely Bagewadi, Bagalkot, Muddebihal and Mungund, while groundnut is more extensive in north eastern talukas, namely Indi, sindgi, Bagewadi and Muddebihal.

1.9 According to the 1949 cattle census the district had about 1,84,000 plough cattle mostly bullocks. However, the census figures were for the whole of the Bijapur district except Jamkhandi taluka. Hence, if the number of plough cattle is related to the corresponding gross cropped area, it gives an average of about an animal for every 16 acres. It is not uncommon to use cows and she buffaloes for working; the number of working cows and she buffaloes in the district are 19,000 and 16,000, respectively. According to the cattle census of 1949, there of bullocks and about 80,000 cows which is less than half number of bullocks and about 70,000 she buffaloes which is

about 23 times the number of he buffaloes. It is clear, therefore, that the plough animal is the bullock and the milch animal is the she buffaloes. There are 2,27,000 sheep and 2,93,000 goats in the district.

1.10 The latest available figures for plough and bullock carts are for year 1945 when there were 50,226 ploughs and 25,756 bullock carts. These give an average of one plough for every 59 acres of cropped area and one bullock cart for every 49 persons. Of the more expensive equipment there are reported to be 62 tractors and 350 pumping sets. There are a large number of indigenous oil presses works by bullocks. Besides there are a very large number of hand looms. In 1946, there were 18,645 of them. It is reported that at present their number is nearly 30,000.

1.11 Five perennial rivers flow across the districts the Bhima in the north, the Don and the Krishna in the centre and the Ghataprabha and the Malaprabha in the south; and ironically, this is a district most liable to recurrent draughts and famines. None of the rivers is being used for irrigation purposes in this district. Recently a few lift irrigation projects have been initiated; there are at present 4 such on the Krishna, 2 on the Ghataprabha and 1 on the Malaprabha. The

total area irrigated by them is about 2,000 acres. The working cost of the lift irrigation scheme is not inconsiderable and reportedly it does not pay to irrigate food-crops on waters of lift irrigation schemes. The irrigation problem of this district are too serious to be tinkered at with minor schemes; and the potentialities of the fertile soil are too great to be neglected. A major irrigation project alone is capable of protecting this fertile district from ravages of recurrent famine. The much discussed Koyna project is one of the projects from which this district is most likely to be benefitted.

1.12 At present the only important sources of irrigation are wells and minor dams and bunds. Wells are largely to be found in the northern and north-eastern talukas and the dams and bunds mainly in Indi, Sindigi and Bagewadi talukas. The area irrigated by canals and tanks is small - only 1487 acres - and for want of repairs, the tanks are going out of use.

1.13 In the following table are shown the irrigated areas in different regions. To the total irrigated area shown here, should be added 1,487 acres irrigated by canals and tanks. The total irrigated area in the district thus comes to about 52,000 acres. (Table 1.3)

**Table 1.3.**

Zone	Talukas irrigated	Area under wells (acres)	Area under Bandharas (acres)	Area under lift irrigation projects (acres)	Total irrigated arid (acres)
Northern	Bijapur Indi Jamkhandi	27,548	2,050	-	2,959
North Central	Sindgi Bagewadi Mudhol Bilgi	14,333	2,360	1,434	1,433
South Central	Muddebihal Bagalkot	1,151	200	82	1,433
Southern	Badami Hungund	792	180	563	1,735
Total		43,824	4,990	2,079	50,893

1.14 Jowar accounts for more than 25 percent of the irrigated area. Other principal irrigated crops are wheat and cotton. Area under sugarcane is small and accounts for only 3 percent of the irrigated area. Other minor irrigated crops are bananas, chillies and other vegetables.

1.15 The irrigated area is mostly concentrated in the talukas of Bijapur, Indi, Sindgi and Bagewadi.

1.16 The agriculturists are mainly drawn from the Lingayats, Kaddis, Lamanis, Kurubars, Becara, Muslims and the

depressed classes. The traders in agricultural commodities are Lingayats, Gujaratis and Marwari Vanis, Kammatis, Muslims and Jains. They combine money lending with trading. Besides, Shroffs are mainly Brahmins, Gujaratis and Marwari Vanis.

1.17 There are regular wandering tribals like Gosavis, Gondhalis, Dombars, Kilikets, and Vadars who move about and some times go beyond the district to earn their livelihood. The day labourers in border areas move into the neighboring districts of Bombay Karnatak, Sholapur and the Nizam's territories in search of

employment during the period from November to April. Otherwise there are no indications of any considerable seasonal migration either within the district or beyond the district. In times of famine, however, there occurs large scale irrigation to neighboring less affected areas.

1.18 The principal industries in the district are cotton ginning and pressing, handloom weaving and quarrying. There are 70 cotton gins, 9 presses and one ginning and pressing factory in the district. Cotton gins are mainly found in Bagalkot, Bijapur, Hungund and Bagawadi and cotton presses are con- flicted to the three marketing centres at Bijapur, Bagalkot and Jamkhandi. There are 8 gins and 4 presses at Bijapur, 8 gins and 5 presses at Bagalkot, 4 gins and 1 ginning and pressing factory at jamkhandi. As regards groundnut processing, there are 32 decorticators and 12 expellers in the district. Of these 9 decorticators and 3 expellers are at Bijapur, 16 decorticators and 7 expellers at Bagalkot and 6 decorticators and 2 expellers at Jamkhandi. There is one decorticator at Hungund. There are a few pulse mills at Bijapur and Bagalkot. There is one sugar factory at Galagali. Upto 1950 it produced only gur and only recently it has undertakren the manufacture of suger. According to 1946 census of industries, there were in this district 18,695 handlooms owned by

7,034 persons. At present the number is estimated to be about 30,000 handlooms employing nearly a lakh of people. Kaavers of Bijapur district have specialised since historical times in dyeing cotton yarn and silk and in manufacturing cotton and silk saries and bodice cloth. The important handloom waving centers are Ilkal, Guledgud, Gudur, Amingad, Kamatagi, Sulcbhavi and Kerur. Both cotton and silk yarn are imported from other districts. Quarrying is done in Badami, Bagalkot and Muddebihal talukas and slate factories are set up at Kaladagi, Bagalkot and Lokapur. Recently, the sisal-fibre industry is developing at Bijapur and packing material for ginned and unginned cotton is being manufactured on considerable scale. It is reported that the industry at present employs about 400 handlooms and 2,000 workers. A cement factory is being erected at Begalkot.

1.19 as already indicated, the district has very little forest of any economic value. There are, therefore, no forest industries in the district.

1.20 Thus, there appear to be only three places in the district which offer some industrial employment. They are Bijapur, Bagalkot and Jamkhandi. Bijapur, as already noted, in the headquarters of the district and is a town of considerable size with a population of about 66,000. It is

connected by a rail-line to Sholapur on the one side and Hubli on the other. Bagalkot is the next largest town and is the headquarters of the taluka and has a population of 32,000. It lies on the railway line from Bijapur to Hubli. Jamkhandi, the next largest town was the capital of the former Jamkhandi, State and is at present the headquarters of the taluka. It has a population of 21,000. It has no railway station. But it is connected by motorable roads to marketing centers like Bijapur, Bagalkot, Nippani and Sangli. There is no large scale industry at any of these places and the employment that the small concerns offer is meagre. More-over, in most cases it is only seasonal.

1.21 The three centres mentioned above are situated in different parts of the district. Jamkhandi is in the west Bijapur in the centre and Bagalkot towards south. There is, therefore, no concentration in the district, of whatever few and small industrial concerns there are.

1.22 Handloom weaving is the most important of the cottage industries. Mention may also be made of wool-weaving, oil pressing and manufacture of bangles and brass-ware. Handloom weaving is the major industry of the district. As earlier mentioned, there are at present 30,000 handlooms and nearly

1,00,000 persons engaged in this industry. The main products are cotton and silk saris and bodice cloth. And these find a ready market in Karnatak; the product is also exported to other parts of the country. The industry is concentrated mainly in the three southern talukas Badami, Bagalkot and Hungund. Wool weaving is more important in Badami, Bagalkot, Hungund and Bijapur. Manufacture of brass-ware and bangles is confined mainly to Hungund taluka.

1.23 There is a large number of oil Ghans in this district. Most of them are distributed all over the district, and there is no major concentration.

1.24 Mention was made of the Sholapur-Hubali rail-line passing through Bijapur. It runs from north to south, through the middle of the district and has 13 stations over a length of 123 miles within the district. Its importance lies in the fact it connects the district, on the one hand, to Sholapur and hence to Bombay and, on the other, to Hubli and hence to Bangalore.

1.25 The district is well served by motorable roads. There are nine inter-district roads connecting the district with important centers outside such as Sholapur, Hubali, Belgaum, Shodbal, kalburgi, Gadag, Bellari, Satara, Kagwad and Pandharpur. Again there are 15

internal roads connecting the various places in the district. The total road mileage is 973 of which 548 miles are maintained by the state Government and 425 miles by the District Local Board. The district has a good network of roads connecting almost all the villages by metalled or unmetalled roads to the important marketing centers. The principal shortcoming is absence of bridges over all the five rivers and when during rainy season the rivers are in flood, dislocation of communications is frequent.

1.26 Due to its important commercial crops, namely, cotton and groundnut, the agricultural marketing in the district is well organized and everywhere regulated under the Bombay agricultural produce markets Act, except in the two recently merged States of Jamkhindi and Hubali. Bijapur is an important marketing centre and has naturally good banking facilities. There are also a few branches of commercial banks at other important taluka places and marketing centers; the district as a whole might, therefore, be said to possess satisfactory banking facilities. Co-operative movement in the district is well established and developed. There are about 400 primary credit societies with a total membership of over 28,000. There are also a number of multipurpose and marketing societies.

1.27 to sum up, Bijapur with its rich black soil, vast alluvial plains, five perennial rivers and well developed agriculture might have become one of the richest districts of the Bombay State. But failure to harness the waters of the rivers for irrigation has left the district at the mercy of the uncertain rains. The ravages of frequent famines have left the district impoverished and the peasantry heavily indebted. Due to the influence of the two commercial crops - groundnuts and cotton which are grown all over the district - farmers are price conscious, and business minded. The people are quiet and peaceful by nature. The district would prosper if irrigation facilities are made available.

## II. THE SELECTED VILLAGES

(2.1) For purposes of the field survey directed towards assessing the requirement of agricultural credit eight villages were selected in the district. With a view to comparing conditions in this respect in villages having and not having co-operative societies, four of the villages were selected from among those not served by any co-operative credit society. The villages were selected by a strict process of random sampling giving each such village a chance of being selected in proportion to its size, that is, its 1951 population. The other four villages were

similarly selected from among the villages having co-operative credit societies.

(2.2) The geographical distribution of the selected villages has been most satisfactory. The villages are scattered all over the district and all regions are adequately represented. Therefore in all respects such as irrigation facilities and distribution of crops, the conditions in the district are well represented by the selected village. For instance, Machaknur and Halerolli are riverside villages and Anjutagi has a number of irrigation wells. The three therefore represent the irrigation facilities available in the district. The

northern region predominantly growing Jawar, the north-eastern groundnut growing region and the south-eastern cotton growing region are all represented respectively by Anjutagi, Korwar and Hireulligeri. Further, there are two villages Hireulligeri and Amarawati from the region where handloom industry is highly developed. Thus it can be seen that on the whole the selection of the villages has been very satisfactory.

(2.3) In the following table are given the particulars of the selected villages. In the paragraphs that follow we give brief descriptive notes on each of the selected villages:-

**Table 2.1. Villages selected in the District**

Village	Taluka	1951 Population	Number of families	Remarks
(1) Halerolli	Bgewadi	553	93	Without society
(2) Hireulligeri	Hungund	634	122	Without society
(3) Kachaknur	Kudhol	1,071	188	Without society
(4) Tajapur	Bijapur	2,214	396	Without society
(5) Amrawati	Hungund	1,464	295	Without society
(6) Anjutagi	Indi	2,432	448	Without society
(7) Dhawalagi	Kuddebihal	1,569	303	Without society
(8) Korwar	Sindgi	3,223	683	Without society
Total		13,160	2,528	

(2.4) Halerolli a village in Bagewadi Taluka is situated on the bank of the river Krishna at a distance of five miles from Kollar, on Bijapur Bagalkot, road. The nearest railway station is Teligi eight

miles from the villages. The village has no post office. The population of the according to 1951 census in 553 comprising of 93 families of which 71 are cultivators. The population consists



mainly of Lingayats and Lamanis. The Lamanis are yet an unsettled tribal people. But have lately settled at a number of places in the district. There are two such settlements near the village. The lands of the village measure 2,651 acres and the land revenue amounts to Rs. 1,216/-. The major land uses are as under:-

Cultivated Area	2,416
Uncultivable Area	81
Area under rivers and nallas	137
Residential area	9
Area under roads	8
<b>Total</b>	<b>2,651</b>

The irrigation area is only two acres. Besides there are eight acres of land which would be under waters of the river Krishna during rainy season. The river Krishna is the main source of water supply but during the period from January to July the waters of the river become stagnant and unfit for drinking. During this period pits are dug in the bed of a nearby stream and the water accumulated in the pits is used for drinking.

The soil is rocky, unfertile and difficult to plough. The value of land per acre is low and varies from Rs. 50 to Rs. 200 according to the fertility of the soil. Or the total cultivable area of 2,416 acres, 329 acres of land was fallow. In the following are given the acreages under different crops during 1950-51:-

Crop	Acres
Kharif/Jowar	313
Rabi/Jowar	732
Bajri	290
Wheat	72
Paddy	1
Arhar	70
Horse gram	45
Green gram	15
Other pulses	13
Groundnut	320
Linseed	17
Safflower	14
Cotton	187
Vegetable and Spices	2
<b>Total</b>	<b>2,094</b>

During 1950-51, the crops had generally failed. The anewari of crops for the same period was annas two for pulses, annas four for rabi Jowar and annas six for Kharif jowar, Bajri, groundnut and cotton.

In the following are detail of livestock as in 1950-51

Bullacks	171
Cows	143
Young stock	137
He Buffaloes	-
She Buffaloes	73
Young stock	44
Goats	165
Sheep	70
Horses	2
Poultry birds	119

Of major agricultural implements

Wooden ploughs	88
Iron ploughs	11 and
Bullock carts	23 were reported.

Use of farmyard manures is common and is available at Rs. 2 per cart load. There is usually shortage of fodder and about 100 carts loads of fodder are brought from

outside at the rate of Rs. 30/- per cart load. The village is self sufficient in agricultural labour. The prevailing rates of wages are as follows:-

Normal daily wages	Adult males	Adult females	Children
In cash	1- 0- 0	0- 12- 0	0- 4- 0
In Kind	3 seers	2, 1/2 seers	-

Daily wages during harvest:

In kind	6 seers	4 seers
---------	---------	---------

It is not common to give cash wages during harvest time. Salary to annual farm servants is Rs. 200/- per annum in addition to food, clothing, footwear

and pan, beetle nut, and tobacco. Hiring of implements and plough cattle is common. The prevailing rates are as follows:-

Plough with a pair of bullock and an adult male laborers	Rs. 6- 0- 0 per day
Plough without a pair of bullocks but with an adult Male labourer	1- 8- 0 per day
Cart with a pair of bullocks and a cartman	5- 0- 0 per day
A pair of bullocks	3- 0- 0 per day
Cart with a pair of bullocks or cartman	1- 0- 0 per day
Sowing charges (team labour)	6- 0- 0 per day
Charges for harrowing (team labour)	4- 0- 0 per day

This is a rayatwari village and a majority of the cultivators are land owners. However share and cash renting are common. The rates of cash rent vary from Rs. 10/- to Rs. 15/- per acre. Crops sharing is half and the landlord shares half the expenditure on seed, manure and cash wages. There is no major occupation or industry in the village other than agricultural.

The people are habituated to chewing pan and tobacco, to smoking and to taking tea. The people are strong and healthy and do not suffer from any major vices or diseases. There is a private medical practitioner in Kollar. But for him no medical aid would have been available for miles around in this part. The majority of the villagers are illiterate. There is no library or reading room in the villages and nobody subscribes for any daily paper.

There is a primary school teaching upto fourth standard. The total strength of the school is 32 of which only two are girls. The school is housed in a temple of goddess Dyamawwa which is the only temple of any importance in the village. An annual festival on a small scale is celebrated every year in the month of "Jeshtha".

The village in midway between Bahalkot and Bijapur both being 30 miles away. However, there is a short route to Bagalkot about 15 miles in length. The agricultural produce of the village is sold either at Bagalkot or at a Bijapur through commission agents. The main produce exported from the village is groundnut, cotton, jowar, bajri, and pulses. There is no grocer's shop, flour mill, or cloth shop in the village. The villagers make their normal purchases in the weekly bazaar held at Kollar. The Nearest place where cattle bazaar is held in Bijapur.

There is no co-operative Credit Society in the village. The majority of the cultivators have to depend on the commission agents at Bagalkot and Bijapur for finance. Some of them also borrow from a Marwari money lender at Kollar.

(2.5) Hire-Otigeri, a village in Hungund Taluka is situated at a distance of six miles to the east of Ilkal, one of the most important weaving centers of the district. The nearest bus stand is Ilkal and the nearest railway station is Bagalkot (42 miles). There is no post office in the village. The population of the village is 634 comprising of 122 families of which 90 are cultivators. The land of the village measure 3,054 acres and the land revenue amounts to Rs. 2,170/-. The major land uses are as under:-

Cultivable land	2,904
Uncultivable Land	20
Area under rivers, nallas, etc.	81
Cremation ground	2
Area under roads, etc.	20
Total acres	3,054

The total irrigated land of the village measures 8 acres of which 2 acres are under paddy, one acre under sugarcane and the remaining five acres under food-grains and vegetables. There are 17 irrigation wells in the village of which 13 are in use. There is only one well for drinking water. But as the water is not good, the villagers generally bring water collected in the pits dug by them in the bod of a stream, which flows nearby.

The soil is mostly black; but red soil and yellow rocky soil is also found. In the following are values of different lands per acre:-

	Best quality Rs.	Medium quality Rs.	Inferior quality Rs.
Black soil	400/-	300/-	150/-
Red soil	300/-	200/-	100/-
Yellow rocky soil	150/-	100/-	75/-

The area under different crops during 1950-51 as follows:-

Crop	Acres
Jowar	622
Bajri	317
Wheat	143
Paddy	2
Nachani	194
Arhar	62
Hulga (horse gram)	98
Gram	46
Other pulses	81
Groundnut	133
Other oil seeds	57
Cotton	882
Other fibres	4
Other crops	11
Total area under crops	2,652

The total gross cropped area of 2,652 acres included five acres of double area. 190 fruit trees such as mango, tamarind and palm trees were reported in the village.

In the following are details of livestock as in 1950-51:-

Bullocks	151
Cows	77
Young stock	87
He buffaloes	3
She Buffaloes	82
Young stock	50
Sheep	58
Goats	79
Horses	4
Donkeys	8
Pigs	3
Poultry birds	219

Of major implements, 85 wooden ploughs, 3 iron ploughs and 31 bullock carts were reported. The village is deficient in farmyard manure, but it does not import it and the manure is sold at Rs. 4/- or Rs. 5/- per cart load. The village is self sufficient in fodder. Jowar stalks are sold at the rate of Rs. 15/- per cart load and other fodder at the rate of Rs. 20/- per cart load. Shortage of agricultural labour is felt particularly during harvesting season.

The rates of wages are as follows:-

	For males	For Females
Normal wages	Re.0-10-0	0-8-0
Wages during harvesting season	Re. 1-0-0	0-10-0

However, it is more common to give wages in kind. The prevailing rates for hiring implements, plough, cattle, etc., and charges for team labour are as follows:-

It is not customary in the village to hire out only bullocks.

For small plough per day		0- 8- 0
For big plough per day		1- 0- 0
For small plough with four bullocks to draw		7- 0- 0
For big plough with eight bullocks to draw		14- 0- 0
For cart with bullock to draw	Rs.	4- 0- 0 per day
For cart without bullock to draw		1- 0- 0 per day
Team labour for sowing	Rs.	4 To Rs. 5 per day
Team labour for harrowing	Rs.	3 to Rs. 4 per day

The village is a rayatwari tract and most of the cultivators are landowners. However, it is common to lease out land for cash rent or share rent. Cash rent never exceeds Rs. 10/- per acres. In the case of share rent, the land lord gets half the share of the gross produce and has to contribute equally towards the expenditure on seed. There is no major occupation or industry other than agriculture. Hence most of the non-cultivating families are merely land less labour.

The people are strong and healthy and do not suffer from any major vices or diseases. Tea and smoking are common and there are a few who are addicted to drinking. Medical facilities are available at Ilkal. There is a primary school in the village, teaching upto fourth standard. There are 45 students under only one untrained teacher. The school has a separate building of its own and quarters for

the teachers. Nobody in the village subscribes for any news papers and there is no library or reading room. There is no grampanchayat. There are a few temples. Formerly two small annual fairs used to be held on the Hindi New Year day, one in honour of Maruti and the other in honour of Basavanna. But during the last 3 or 4 years no fairs have been held due to party factions in the village.

Ilkal which is an important handloom weaving and marketing center, is only six miles from the villages. There is a regulated market in cotton, groundnut and other oil seeds at Ilkal and there are 16 shops of commission agents. One of the biggest cattle bazaars in the district is held weekly at Amingad 18 miles from the village. In the village itself there is only one grocer's shop and it does not stock all the provisions. Hence villagers gen-

erally make their purchases at Ilkal. The main commodities exported from the village are groundnut and cotton.

There is no co-operative credit society in the village at present. About 25 years ago a society had been registered which after functioning for 14 years was liquidated as its working was found to be unsatisfactory. On 1-10-1951 the amount of tagai loan due to the government from the villagers was about Rs. 1,559/- which it must be noted was a small amount compared to the total indebtedness of the village. The villagers generally depend for finance on traders, commission agents and moneylenders at Ilkal.

(2.6) Machaknur, a village in mudhol taluka, is situated on the bank of the river Ghataprabha at a distance of 12.1/2 miles to the South East Mudhol. The nearest railway station is Bagalkot (30 miles). The nearest bus stands are Lokapur and Hire Algundi. The village postman brings mail to the village every Thursday from Mudhol. The population of the village according to 1951 census is 1071, comprising of 188 families 110 of which are cultivators. The lands of the village measure 3164 acres and the land revenue amounts to approximately Rs. 3,580/- The major land uses are as under:-

	Acres
Cultivable area	3028
Uncultivable area	66
Area under rivers and nallas	27
Mofat	11
Residential area	23
Area under roads	9
Total	3064 acres

The irrigated area is only 20 acres. About 200 acres of land on the bank of the river Ghataprabha is submerged under water during rainy season. This area is used for growing cotton, gram, beans, rabi, jowar and brinjals. There is only one well for drinking water and as during summer the water is insufficient, the river water is used for drinking purposes.

In the bed and on the bank of the river the soil is black and is used for growing rabi crops. In other parts the soil is rocky and is used for growing Kharif crops. In the case of land of rocky soil the vales per acres ranges from Rs. 100/- to Rs. 200/- In the case of land on the bank of the river, the value per acre ranges from Rs. 100/- to Rs. 400. Kharif crops are more important than rabi crops. The mail Kharif crops are Jowar, Bajri and Groundnut and the main rabi crop is cotton. Figures of acreage under different crops during the year 1950-51 were not available.

Following are the details of livestock as in 1950-51:-

Breeding bulls	6
Bullocks	184
Cows	97
Young stock	102
He buffaloes	2
She buffaloes	150
Young stock	107
Sheep	23
Goat	390
Horses	8
Poultry birds	338

Of major implements, 4 iron ploughs, 84 wooden ploughs, 48 bullock carts and one sugarcane crusher were reported. The villagers are accustomed to using manure. Only farm yard manure is used and as there is not sufficient supply of

manure in the village, about 200 carts loads of manure is brought from neighboring villages at a rate varying from Rs. 3/- to Rs. 4/- per cart load. The village is self sufficient in fodder. There are private grazing lands where bullocks are allowed to graze for two months for a rent of Rs. 10/- per pair of bullocks. There is no scarcity of labour. In fact a few families go out in search of employment. The rates of wages per man per day are annas eight in summer, Re. 1 at a the time of sowing and Re. 1-4-0 during harvest if paid in cash and 2 seers, 3,1/2 seers and 4 seers, respectively if paid in kind. It is common amongst cultivators to take implements and plough cattle on hire. The prevailing rates are as follows:-

Plough with a pair of bullocks to draw and an adult male labourer	Rs. 5- 0- 0 per day
Plough only (from kaladagi co- operative society)	Rs. 0- 2- 0 per day
Cart with a pair of bullocks to draw and a cartman	Rs. 5- 0- 0 per day
Cart only	Rs. 1- 0- 0 per day
A pair of bullocks	Rs. 3- 0- 0 per day
Harrowing (team labour)	Rs. 4- 0- 0 per day
Sowing (team labour)	Rs. 6- 0- 0 per day

This is a rayatwari village and a majority of the cultivators are tenants. However, it is common to lease out land either for cash rent or for share rent. Cash rent is paid at the rate of Rs. 25/- per acre. In the case of share renting the land lord gets 2/3 or 1/2 share of the gross produce according as the land is of good or of

medium quality. He shares the expenditure on seed manure and cash wages in the same proportion. There is no major occupation or industry other than agriculture. The villagers are habituated to smoking to chewing pan and tobacco and to taking tea. A few are addicted to drinking. The villagers are strong and

healthy but suffer from malaria almost every year. People have to go to kaladagi, Mudhol, Jamkhandi or Bagalkot for medical treatment. For major ailments, medicine is available at Lokapur. There are very few literate persons in the village and nobody in the village subscribes for any news papers. There is no library or Gram Panchayat in the village. There is a primary school teaching upto fourth standard. The strength of the school is 25. It has a building of its own "Hole Basappa" is the important deity of the village and a fair is held annually in the month of "Margashirsha". About 5,000 people from Sholapur, Dharwar, Belgaum and Bijapur Districts assemble for the fair which is held for three days.

There are five grocer's shops in the village. The nearest places where a weekly bazaar is held are Lokapur (five miles) Kaladagi (7 miles) and Mudhol (12 miles). The weekly bazaar held at Kaladgi is a big bazaar and people from 35 neighbouring villages attend it. In addition to agricultural produce, dairy products and cloth is marketed at this bazaar. The nearest places where cattle bazaar is held are Kaladagi (seven miles) and Kerur (twenty - five miles). The agricultural produce of the village is sold at Mudhol through commission agents, the main agricultural produce exported being groundnut, cotton and pulses.

There is no co-operative society in the village; and villagers depend for finance completely on commission agents, private moneylenders and such other private agencies.

(2.7) Tajapur, a village in Bijapur taluka is situated at a distance of only 12 miles to the West of Bijapur. The village is only 2 miles from Ratanapur and 5 miles from Tikota both of which are bus stops on Shedhal Bijapur road. The village originally belonged to the Kurundwad State. Tikota is a fairly big place and has a post office, police outpost, D.L.B. Dispensary, private dispensaries, a commercial bank and all types of shops. The population of the village is 2204 comprising of 396 families of which 283 are cultivators. The lands of the village measure 13,417 acres and the land revenue amounts to Rs. 1,383/-. The major land uses are as under:-

	Acres
Cultivable land	13058
Uncultivable Land	152
Land for public use	4
Area under tanks	19
Grazing land	40
Area of the village site	41
Area under roads	103
Total	13,417



The irrigation area of the village is 32 acres. The main source of irrigation is wells there being one kachha and 18 pakka irrigation wells in the villages. There is a District Local Board well for drinking water. There is a separate well for the use of Harijans.

Four types of soil are found in this village; they are black cotton soil, black soil, calicarious soil and the red soil. The land values per acre are:-

	Best Variety	Medium Variety	Inferior Variety
Black cotton soil	400	300	200
Black soil	250	200	150
Calicarious soil	200	150	100
Red soil	200	150	100

As already stated the total cultivable area is 13,058 acres of which 404 acres is current fallow. In the following are crops acreages under different crops during 1950-51.

Crop	Acres	Crop	Acres
Rice	5	Gram	300
Wheat	1,500	Arhar	50
Jowari	7,408	Mung	25
Bajri	200	Other pulses	50
Cotton	25,00	Safflower	400
Vegetable & Spices	16	Linseed	200
		Total	12,654

During 1950-51, crops had generally failed. Anewari for different crops during the same period was annas four for rabi jowar, Bajri and pulses (kharif crops) and annas two for cotton and anna one for pulses (Rabi crops)

In the following are details of livestock as in 1950-51:-

Breeding bull	1
Bullocks	150
He buffaloes	14
Cows	193
She Buffaloes	65
Sheep	126
Horses	8
Goats	85

The village is self sufficient in fodder and manure. Manure is sold in the village at the rate of Re. 0- 8- 0 per cart load. During harvesting season shortage of agricultural labour is felt. The wages are as follows:-

For males Re. 0-12-0 or 3 seers of Jowar per day  
For female Re. 0-8-0 or 2 seers of Jowar per day

Wages during harvesting season.

For males Re. 1-4-0 or 4 seers of Jowar per day  
For female Re. 0-14-0 or 3 seers of Jowar per day

The rates for the hiring out agricultural implements, plough cattle, etc., are as follows:-

---

For iron plough with a pair of bullocks	Rs. 4- 0- 0 per day
For a iron plough only	Rs. 0-4- 0 per day
For a bullock cart with a pair of bullocks and a cartman	Rs. 5- 0- 0 per day
For a bullock cart only	Rs. 0- 8- 0 per day
For pair of bullocks	Rs. 4- 0- 0 per day
For harrowing (team labour)	Rs. 4- 0- 0 per day
For sowing (team labour)	Rs. 8 to Rs. 10 per day
For lifting water (teamlabour)	Rs. 5- 0- 0 per day

---

This is a rayatwari village and a majority of the cultivators are land owners. However, it is also common to lease out land either for share rent or for cash rent. In the case of crop sharing the land lord gets 3/4th, 2/3rd or 1/2 of the gross produce according as the land is of good, medium or inferior quality. The land lord has to contribute towards expenditure on seed other than Jowar in the same proportion. The cash rent varies from Rs. 20/- to Rs.30/- per acre for land having the best quality or red soil. There is no major occupation or industry other than agricultural.

The villagers are strong and healthy but suffer from malaria during winter. Villagers go to Tikota for medical aid when needed. There is a primary school in the village teaching upto fourth standard. It has one ubtrained teacher and forty students. The school is at present housed in the temple of Maruti. There is no library or reading room in the village and nobody subscribes for any newspaper. There are a few places of worship in

the village. Mention may be made of Malikarjuna and Pir Haji Sahib. A small annual fair is held in honor of God Malikarjuna in the month of "Chaitra". About 500 persons gather for the fair. A fair is also held annually in honour of Pir Haji Saheb in the tenth day after "bakri Id" About 200 person from the neighboring villages attend this fair. There is no Gram panchayat in the village.

There are five grocer's shops. The weekly market is at Tikota where about 2,000 people from surrounding villages gather every week to make purchases or to sell their produce. The selling market is however at Bijapur. The main commodities exported from the village are cotton, groundnut, safflower and pulses.

There is no co-operative society in the village and the villages depend largely on commission agents, traders, and agriculturist moneylenders at Bijapur.

(2.8) Amarawati, a village in Hungund Taluka is only 1.1/2 miles from Hungund,

the taluka headquarters and is connected to it by an approach road. The village has no post office. The nearest post office is at Hungund which is also an important marketing center. The population of the village is 1464 comprising of 295 families of which 231 are cultivators. The lands of the village measure 4172 acres and the land revenue amounts to Rs. 2,282/-. The major land uses are:-

Cultivable Area	3926 Acres
Uncultivable Area	15 Acres
Area under rivers, nallas, etc.	146 Acres
Area under village site	21 Acres
Cremation ground	3 Acres
Area under roads	55 Acres
Total	4172 acres

Three streams namely Sangawwana halla, Kadigi halla, and Hire halla flow near by the village. All of them dry up in summer and none of them is useful for irrigation. The total irrigated area of the village is only six acres and there is only one irrigation well in use. Of the total of six acres of irrigation land, 3 1/2 acres is under food grains, two acres under fodder crops and half acre under sugarcane. There are only two wells for drinking water; both are private. The depressed classes dig pits in the bed of the at streams for drinking water.

Two types of soil are found in the village, namely black cotton soil and red soil. The value of land per acre is as

follows:-

	Best Variety	Medium Variety	Inferior Variety
Black cotton soil	250	200	150
Red soil	200	150	100

In the following are the acreages under different crops during 1950-51

Jowar Kharif	200 acres
Jowar rabi	1408 acres
Bajari	301 acres
Wheat	160 acres
Paddy	1 acres
Nachani	112 acres
Tur	40 acres
Hulag	81 acres
Gram	100 acres
Other pulses	38 acres
Cotton	1026 acres
Groundnut	115 acres
Safflower	50 acres
Linseed	35 acres
Sesamum	15 acres
Other oilseed	12 acres
Chilies	5 acres
Irrigated crops	6 acres
Total	3704 Acres

Of this 40 acres was twice cropped area so that the net cropped area was 3664. And 262 acres was current fallow. Thus the total cultivable land measured 3926 acres.

In the following are details of livestock as in 1950- 51

Breeding bulls	8
Working bullocks	251
Cows	100
He buffaloes	5
She buffaloes	130
Young stock	160
Sheep	496
Goat	198
Horses	1
Donkeys	28
Pigs	9
Poultry birds	112

village is self sufficient in agricultural labour. In fact a large number of families are landless laborers. The prevailing rate of wages are as follows:-

	Adult males Rs.	Adult females Rs.
Normal daily wages	0- 12- 0	0- 5- 0
Daily wages at the time of sowing	1- 0- 0	0- 10- 0
Daily wages at harvest time	1- 0- 0	0- 12- 0

Of major implements, 128 wooden ploughs, 34 iron ploughs and 42 bullock carts were reported to be in uses in the village. No tractors, oil engines, or pumping sets were reported in the village. The village is self sufficient in farmyard manure. The village is also self sufficient in fodder in a normal year. Fodder is sold at Rs. 20 to Rs. 25 per cart load and manure at Rs. 4 to Rs. 5 per cart load. The

During harvesting season it is more common to pay wages in kind than in cash. So far as payment to annual farm servants is concerned it is common to provide board, clothing and other amenities and to give Rs. 100/- per annum over and above that. It is common in the village to hire plough cattle, implements and team labour. The prevailing rates are as follows:-

For iron plough per day	Rs. 0- 2- 0 or Rs. 0-4-0
Iron plough with a pair of bullocks to draw and an adult male labourer	Rs. 4- 0- 0 per day
Bullock cart with a pair of bullocks to draw	Rs. 4- 0- 0 per day
Bullock cart only	Rs. 1- 0- 0 per day
A pair of bullocks only	Rs. 3- 0- 0
For harrowing (Team labour)	Rs. 3- 0- 0 to 4- 0- 0 per day
For sowing (team labour)	5 or Rs. 6 per day

This is an inam village and the entire cultivating land belongs to the Desai of Rakkasagi. Recently some of the land have been sold by the Desai, but still he is the biggest land lord in the village and

most of the cultivators are his tenants. The Desai has leased out land to the cultivators for cash rent varying from Rs. 5 to Rs. 6 per acre. The main occupation of the villagers is agriculture. Other

occupations are rearing of sheep and goats and weaving coarse woolen blankets.

The villagers are strong and healthy and do not suffer from any major vices or diseases. They are habituated to tea, smoking, chewing pan, betel-nut Tobacco. The nearest dispensary is at hungund. There are two primary schools in the village; one for boys, teaching upto sixth standard and having 131 students and 3 trained teachers and the other for girls, teaching upto fourth standard and having 73 girl students and two teachers one of them trained. None of the schools has its own building. The former is housed in the house of the Desai and the latter in the temple of Maruti. In both places, accommodation is inadequate. There are two reading rooms which subscribe for dailies and weeklies in the regional language. There are a few temples in the village. The most important of them is that of Basaveshwar. A small annual fair is held on the last Monday in the month of "shravana". There is no gram-panchayat.

There are three grocers shops. The village co-operative credit society runs a shop supplying food-grains, kerosens and sugar. However, the village is only 1.1/2 miles from Hungund which is one of the important marketing centers in the district. The nearest place where a cattle

bazaar is held in amingad only eight miles from the village. The villagers sell their agricultural produce at Hungund either through the commission agents or through the branch of the Bagalkot co-operative purchase and sale union at Hungund. The main commodities exported from the village are cotton, groundnut and pulses.

Recently a multipurpose society has been organised in the village. The society was registered on 18-8-1950. But it has made rapid progress. At present it has 54 members and a share capital amounting to Rs. 2,010/-. During 1951-52 it advanced loans amounting to Rs. 6,400/- to its member. Besides it supplies iron ploughs on hire. It also is engaged in selling plough shares. It is the wholesale agent for the village for bidis and also runs a ration shop. Thus it is seen that the society is functioning actively. The villagers get credit not only from the local multipurpose society but also from other co-operative institutions at Hungund such as the branch of the Bagalkot Purchase and Sale Union, Ltd., and the three multipurpose societies at Hungund. The Government has advanced tagai loans to the villagers but on a very small scale. On 1-10-1951 the amount due to the Government from the villagers amounted to Rs. 1866/-. Supply of Co-operative credit is generally adequate and the villagers are such less dependent on private agencies.

(2.9) Anjutagi, a village in Indi taluka, is situated on the Indi Chadchan road, eight miles from Indi, the taluka headquarters and an important marketing centre in the district. "Indi Road" a station on the Sholapur Hubli section of the Southern Railway is only four miles from the village. The village has a post office. The population of the village is 2,432 comprising of 448 families 299 of which are cultivators. The lands of the village measure 7749 acres and the land revenue amounts to Rs. 2249 the major land uses are as under:-

Cultivable land	7484 acres
Uncultivable land	72 acres
Area under Rivers & nallas	4 acres
Grazing land	43 acres
Area under village site	29 acres
Area under roads, railways, etc.	117 acres
<b>Total</b>	<b>7749 acres</b>

Of a total cultivable area of 7484 acres, 6561 acres were actually cultivated. Of this 837 acres of land is irrigated by wells. There are 141 irrigation wells in the village of which only 69 wells are in use. There are besides 14 wells for drinking water of which ten are not in good condition. In the following are details of irrigated area under different crops:-

Jowar	412 acres
Wheat	70 acres
Cotton	257 acres
Sugarcane	19 acres
Bananas, Chillies, Vegetable and others	79 acres
<b>Total</b>	<b>837 acres</b>

There are 190 mango trees, 60 tamarind trees and a few other fruit trees in the village.

In the following are areas under different crops during the year 1950-51:-

Jowar	4278 acres
Bajri	969 acres
Paddy	75 acres
Wheat	95 acres
Other cereals	11 acres
Gram	116 acres
Arhar	59 acres
Horse gram	174 acres
Other pulses	24 acres
Cotton	257 acres
Other fibres	16 acres
Groundnut	271 acres
Safflower	70 acres
Sesamum	17 acres
Other oilseeds	14 acres
Sugarcane	19 acres
Chillies	42 acres
Fruits	40 acres
Vegetables	22 acres
<b>Total</b>	<b>6569 acres</b>

The 6569 acres of gross cropped area included eight acres of double cropped area. Hence the net cropped area was 6561 acres. The agricultural season during 1950-50 was unsatisfactory. The anewari for different crops was as follows:-

Groundnut	0- 4- 0
Bajari	0- 3- 0
Other kharif crops	0- 3- 6
Rabi jowar	0- 6- 0
Wheat	0- 6- 0
Cotton	0- 6- 0
Other rabi crops	0- 6- 0

Three types of soil are found in the village namely, red rocky and black. About half of the land is of red soil, three-eighth of rocky soil and one-eighth of black soil. In the following are land values per acre:-

Type of soil	Best quality	Medium quality	Inferior quality
Red soil	Rs. 500/-	Rs. 300/-	Rs. 200/-
Black soil	Rs. 400/-	Rs. 400/-	Rs. 200/-
Rocky soil	Rs. 200/-	Rs. 150/-	Rs. 100/-

In the following are details of livestock and poultry as in 1950-51:-

Bullocks	514
Cows	365
Young stock	264
He buffaloes	25
She buffaloes	187
Young stock	174
Horses	14
Donkeys	8
Goats	841
Sheep	1235
Poultry	328

Of major implements, 88 iron ploughs, 23 wooden ploughs, 44 bullock carts, one iron sugar cane crushing machine, two pumping sets and 142 iron mots for lifting water, were reported. Use of farm yard manure is common and even chemical fertilisers are used by a few. Though the village is not sufficient in manure, it does not import manure. Manure costs Rs. 2 to Rs. 3 per cart load. In normal years the village will be self sufficient in fodder. But in bad years it has to bring fodder from villages on the bank of the Krishna and the Bhima rivers. The cultivators experience shortage of agricultural labour in harvesting season.

The prevailing rates of wages are as follows:-

#### Normal wages

For adult males Rs. 1-0-0 or 4 seers of Jowar per day

For adult female Re. 0-6-0 or  $1\frac{1}{2}$  seers of Jowar per day

#### Wages During harvesting season

For adult males Re. 1-4-0 or 5 seers of Jowar per day

For adult female Re. 0-8-0 or 2 seers of Jowar per day

For annual farm servants Rs. 400/- per annum without herd

For children Rs. 200/- per annum for herding cattle.

It is also common in the village to hire out important plough cattle, etc. The rates charged are as follows:-

Plough with a pair of bullocks to draw and an adult male labourer	Rs. 6-0-0
Plough without a pair of bullocks to draw and an adult male labourer	Rs. 0-8-0
Bullock cart with a pair of bullock to draw and an adult male labourer	Rs. 5-0-0
Bullock cart without a pair of bullock to draw and an adult male labourer	Rs. 1-0-0
A pair of bullocks	Rs. 4-0-0
For sowing (team labour)	Rs. 6-0-0
For harrowing (team labour)	Rs. 4-0-0

This is a rayatwari village and a majority of the cultivators are land owners. However, it is also common to lease out land either for cash rent or for share rent. Cash rent varies from Rs. 10/- to Rs. 25/- per acre according to the fertility of the soil. In the case of crop sharing, if the land is irrigated the land gets 1/3 share price of expenditure. However, if the land is unirrigated he has to contribute half the expenditure on seed, manure and cash wages and gets in return 1/2 share of the gross produce.

Some families are engaged in rearing of sheep and goats and weaving of saris and Coarse woolen blankets.

The villagers are habituated to chewing pan and tobacco, drinking tea and smoking. They are strong and healthy and do not suffer from any major diseases. Medical aid is available at Indi. There is a school in the village teaching upto vernacular final standard. There are six teachers and 280 students. The present building of the school is inadequate and hence the villagers are collecting a building fund for the school. They have already collected Rs. 950/-. There is no Grampanchayat. There are a few temples in the village. The more important of them are those of Maruti, Kala Siddheshwar, Virabhadra and Laxmi. An annual fair is held in honour of each of these four deities in the months of Chaitra, Kartika, Jeshtha and Vaishakha, respectively. Of these the fair of Goddess Laxmi is held exclusively by Harijans who offer five or six he buffaloes and 10 to 15 goats to the Goddess. Harijans from the neighboring villages gather on this occasion. The fair in honour of God Virbhadra is held in the month of Jeshtha and about 500 people from the neighboring villages attend.

The agricultural produce of the village is sold either at Indi or at Bijapur through commission agents. Banana groves are leased out to fruit merchants of Sholapur; for a term of one year or more. The nearest place where cattle bazaar is held are Chandachan (15 miles) and Bijapur (32



miles). There are four grocers shops in the village. Besides these there are no other shops in the village. The main commodities exported from the village are, groundnut, cotton, pulses, fruits and vegetables. Saris and coarse woolen blankets are also marketed.

There is a co-operative society in the village. In addition to supplying credit, it has undertaken the distribution of food-grains, sugar and kerosene. Formerly it was also distributing cloth. As the proportion of over dues is increasing the society is finding it more and more difficult to supply credit to members. There are 134 persons in the village who have taken tagai loans amounting in all to Rs. 6,055/-. As the proportion of irrigated land is considerable the farm expenses are large. The cultivators depend partly on co-operative society but mainly on loans from private agencies such as commission agents and money lenders.

(2.10) Dhawalagi, a village in Muddebihal taluka, is situated on Muddebihal Bijapur road, seven miles from Muddabihal the taluka headquarters. The nearest railway station is Alamatti 18 miles away. The village has a post office

of its own and mail is delivered every day. The population is 1,569 comprising of 303 families of which 186 are cultivators. The village land measure 5,457 acres and the major land uses are as under:-

Cultivable land	5290 acres
Uncultivable land	62 acres
Area under Rivers & nallas	18 acres
Area under tank	3 acres
Area under village site	21 acres
Area under roads	63 acres
<hr/>	
Total	5457 acres

The irrigation area is only five acres. There are in all seven irrigation wells and of these only four are in use. A stream flows by but is not used for irrigation. There are three wells of drinking water one for the general use of the villagers and the other two for the use of the depressed class people.

Except in the southern part of the village where rich black soil is found and on the banks of the stream where the soil is fertile, the village generally has white rocky soil, which is not very fertile. The prevailing land values per acre are as follows:-

Type of soil	Best quality	Medium quality	Inferior quality
White rocky soil	Rs. 100	Rs. 60	Rs. 25
Rich Black soil	Rs. 400	Rs. 200	Rs. 100
Soil on the bank of the stream	Rs. 500	Rs. 300	Rs. 200

In the following are acreages under different crops during 1950-51:-

Kharif jowar	791 acres
Rabi Jowar	1191 acres
Bajri	592 acres
Wheat	309 acres
Paddy and other cereals	25 acres
Horses gram	66 acres
Arhar	79 acres
Garm	87 acres
Other pulses	56 acres
Cotton	615 acres
Other fibres	5 acres
Groundnut	1054 acres
Linseed	59 acres
Safflower	38 acres
Other oil seeds	5 acres
Irrigated crops	5 acres
Total	4985 acres

The agricultural year during 1951-52 was unsatisfactory. Anewari for that year was annas six for Kharif crops and annas three for Rabi crops. There are 90 mango trees, 355 Tamarind trees, eight coconut trees and 90 plam trees.

In the following are details of Live-stock as it 1950-51:-

Breeding bulls	17
Working bullocks	276
Cows	214
Young stock	156
He buffalo used for breeding	1
She buffaloes	154
Young stock	19
Sheep	116
Goats	270
Horses	9
Donkeys	7
Poultry birds	356

Of major implements, 68 wooden ploughs, 47 irons ploughs, 56 bullocks carts, 3 oil engines to help lift water and two oil presses were reported. The village is self sufficient in fodder and manure. In addition to farm yard manure the cultivators use groundnut cake and manure mixture supplied by the local Better Farming Society. Farm yard manure costs Rs. 3 to Rs. 4 per cart load. Jowar fodder costs Rs. 20 per cart load. The village is normally self sufficient in agricultural labour. Hiring of bullocks and implements is common. The prevailing rates are as follows:-

---

For a plough requiring four or less bullocks to draw	Rs. 0- 4- 0 per day
For a plough requiring six or more bullocks to draw	Rs. 0- 6- 0 per day
For a plough with four bullocks to draw	Rs. 6- 0- 0 per day
For a plough with six bullocks to draw	Rs. 9- 0- 0 per day
For a plough with eight bullocks to draw	Rs. 12- 0- 0 per day
For a man with a pair of bullocks	Rs. 4- 0- 0 per day
For a bullocks carts cart without bullocks to draw	Rs. 1- 0- 0 per day
For sowing (team labour)	Rs. 3- 0- 0 per day
For harrowing (team labour)	Rs. 4- 0- 0 per day

---

It is not common in the village to hire out bullocks along with the bullocks cart. For the team labour the charges are Rs. 3/- for harrowing and Rs. 4/- for sowing.

This is a rayatwari village and most of the cultivators are land owners. But it is also common to lease out land either for cash rent or for share rent. The cash rent is Rs. 10/-, Rs. 15/- or Rs. 20/- per acre according as the soil is white and rocky, rich and black or on the bank. Similarly, in the case of share renting, the owner gets 1/3, 1/2 or 2/3 share of the produce, according as the soil is white, and rocky, rich and black or on the bank of the stream. The landlord contributes towards the expenditure on seed in the same proportion in which he shares the gross produce.

The villagers are strong and healthy and do not suffer from any major vices or diseases. Tea, smoking and chewing tobacco are common. The nearest dispensary is at Muddebihal. There are two

schools in the village; a primary school for girls teaching upto fourth standard and a vernacular secondary school for boys teaching upto seventh standard. In the former, there are two teachers and 92 girls students; in the latter there are four teachers and 155 boys. There is a temple of Madiwaleshwar in the village and an annual fair is held in the month of Fhalgun. About 1500 persons from neighboring villages gather. The expenses are met by public subscription. Recently a Grampanchayat has been elected. But it has not yet started functioning. The main occupation of the villagers is agriculture. But some of the families are engaged in weaving saris and a few in rearing sheep and goats.

There are 6 grocers shops and two cloth shops. The grocers' shops do not stock all the provisions. The weekly market is at Muddebihal. The main commodities going out of the village are cotton, groundnut, safflower, linseed and pulses. They are sold either in the Muddebihal

market or in the Bijapur market through general commission agents. Talikoti where one of the biggest cattle market in the district is held, is only 18 miles from here.

There are two co-operative societies in the villages. One Better Farming Society and a Thrift and Credit society. There Better Farming Society does not supply credit to its members but supplies iron ploughs on hire and groundnut cake, manure mixture, and cotton seed on sale. The Better Farming Society has 22 members and it is operating on a small scale. Nevertheless it is making good profits. The thrift and credit society is the older of the two societies and was registered on 13-1-1943. It has 57 members and a share capital of Rs. 1,690/-. It has advanced during 1951-52, Rs. 8,500/- to its members by way of loans. The society also runs a cloth shop and a ration shop. However the society is thinking of closing the cloth shop as it is running into a loss. The society advances loans only to members and that too for meeting capital and current farm expenditure only. Hence a large majority of the cultivators who are not members do not derive any benefit from the society. The credit supplied by the Government by way of tagai loans is also negligible. On 1-10-1951 the total amount due to the government from the villagers amounted to Rs. 1,384/- only. A

majority of the villagers depend on private agencies for the supply of credit. The credit needed is provided by the local agriculturist moneylenders, private money lenders and general commission agents at Bijapur and Muddebihal.

(2.11) Korwar, a village in Sindgi taluka, is situated at a distance of 13 miles from Sindgi, the taluka headquarters. The nearest bus stand is Kondguli (6 miles) and the nearest railway station is Bijapur (36 miles). The village has a post office and receives mail three times a week. The population of the village is 3223 comprising of 683 families 425 of which are cultivators. The lands of the village measure 12872 acres and the land revenue amounts to approximately Rs. 6,141/-. The major land uses are:-

Cultivable area	12485 acres
Uncultivable area	170 acres
Area under rivers, nallas, etc.	19 acres
Grazing land	8 acres
Area under the village site	51 acres
Cremation ground	11 acres
Area under roads	126 acres
Area of land leased out to the school	2 acres
Total	12872 acres

The irrigated area is 400 acres. The main source of irrigation is wells. There are 135 irrigation wells in the village of

which only 60 are in use at present. The principal irrigated crops is Jowar. There are 20 wells for drinking water.

A variety of soil is found in the village. Thus there is deep black soil, light black soil, deep red and light red soil, rocky soil, etc. The land is not very fertile and unirrigated land is valued at a price varying from Rs. 50/- to Rs. 300/- per acre. Irrigated land is valued at Rs. 400/- per acre. Kharif season is the more important. The important crops are Kharif Jowar and groundnut. Other crops in the order of importance are Jowar (Rabi), cotton, Bajri, and wheat. The agricultural season in 1951-52 was unsatisfactory. The anewari of different crops was as follows:-

Jowar Khari	0- 6- 0
Groundnut	0- 5- 0
Bajari	0- 5- 0
Pulses	0- 5- 0
Jowar Rabi	0- 4- 0
Wheat	0- 4- 0
Cotton	0- 4- 0
Safflower	0- 4- 0

Figures of acreage under different crops, as well as the figures of livestock population of the village for the period under report, were not available in the village. The village is not self sufficient in manure. Though the cultivators feel the shortage of manure they do not import it. A few bigger cultivators however use

manure mixture available for sale at the Government godown at Kondaguli. A cart load of farm yard manure costs Rs. 3/- to Rs. 4/-. The village is also deficient in fodder. Every year about 200 cart loads of fodder is brought from the neighboring villages at a cost of Rs. 40/- per cart load. The village is self sufficient in agricultural labour. The rates of wages prevalent in the village are as follows:-

	For males	For females
Normal daily wages	Rs. 1-8-0	Rs. 0-8-0
Daily wages during harvest	Rs. 2-8-0	Rs. 1-0-0

It is common to pay wages in kind during harvesting season. The annual farm servants are paid Rs. 400/- per annum without board or any other amenities. It is also common in the village to hire implements, plough cattle, and team labour. The prevailing rates are:-

0-8-0	per day per plough only
5-0-0	per day for a plough with a pair of bullocks and an adult male labour.
1-0-0	per day per bullock cart only.
5-0-0	per day per bullock cart with a pair of bullocks and a cartman.
3-0-0	per day per pair of bullocks for ploughing.
4-0-0	per day for harrowing (teamlabour)
5-0-0	to Rs. 6-0-0 per day for sowing (team labour)
4-0-0	per day per pair of bullocks for (lifting) drawing water.

This is a rayatwari village and most of the cultivators are land owners. But the area of Inam land is also considerable. Leasing out land for share or cash rent is also common. In fact of a total cultivated area of 12485 acres 2050 acres are Inam Lands. Cash rent varies from Rs. 50/- to Rs. 100/- for every four acres of land. In the case of crop sharing the land lord gets  $\frac{2}{3}$  or  $\frac{1}{2}$  share of gross produce according as the land is of the best or medium quality. The land lord has to contribute towards expenditure on account of seed and cash wages in the proportion in which he shares the produce.

Of a total of 683 families in the village about 50 families are Lamanis who are a tribal people. They live in a settlement about three miles from the village. The villagers are strong and healthy and do not suffer from any major diseases. However cases of Malaria and guinea-worms are common in the village. The villagers are habituated to tea, smoking and chewing pan, beetle-nut and tobacco. The Lamanis, are in addition, addicted to drinking. There is no dispensary and the villagers go to Sindgi, Hippargi, Talikoti or Bijapur for medical aid. There are three schools, an Urdu school, a primary school for girls teaching upto fourth standard, and a school for boys teaching upto vernacular final standard. The school, last mentioned, has a library which subscribes

for leading regional language papers and magazines. There are a few temples in the village. But the only temple worth mentioning is that of Maruti. A fair is held every year in the month of Chaitra. About 3000 outsiders assemble for the fair. There is a gram panchayat which looks after the sweeping and lighting of village streets. However due to its meagre income it has not been able to do much work. The system of communal panchayats is prevalent and is functioning effectively among the Lamanis. The Lamanis have a hereditary pancha who enjoys special privileges. There is no major occupation or industry other than agriculture.

There are ten grocers shops and four cloth shops. One of the cloth shop is doing business on a very large scale. It sells cloth on credit and recovers dues at harvest. The turnover is estimated at over a lakh of rupees. A weekly bazaar is held every Friday and people of about 18 villages within a radius of six miles attend it. The main commodities marketed are agricultural produce, saris and other cloth. The selling market is at Bijapur. The villagers carry their produce in bullock-carts to the Bijapur market. However, often a commission agent comes to the village with a truck to collect agricultural produce from his clients

especially when groundnut is harvested. The main commodities exported are groundnut, cotton, safflower and pulses.

There was a co-operative credit society. But lately it has been suspended and a recovery clerk has been appointed to recover the outstanding dues. Hence during the period under report no loans were advanced by the society. Besides in recent years the villagers have not received much by way of tagai loans from

the Government. On 1-10-1950 the tagai loans due to the government from the villagers stood at Rs. 12,318/-. The villagers mostly depend for finance largely on private agencies such as commission agents, private moneylenders, relatives and agriculturist moneylenders.

(2.12) The selected villages were visited twice by our investigators. In the following table we give the dates of the two visits to each village:-

Village	First visit	Second Visit
Halerolli	12-2-52 to 22-2-52	20-4-52 to 26-4-52
Hirectigeri	20-3-52 to 27-3-52	6-6-52 to 12-6-52
Nachakunur	11-1-52 to 11-2-52	3-5-52 to 10-5-52
Tajapur	16-3-52 to 31-3-52	11-5-52 to 18-5-52
Amarawati	11-1-52 to 7-2-52	1-6-52 to 6-6-52
Anjutagi	22-12-51 to 10-1-52	19-5-52 to 25-5-52
Dhawalagi	9-2-52 to 14-3-52	26-5-52 to 31-5-52
Korwar	17-11-51 to 21-12-51	27-4-52 to 2-5-52

### III. CULTIVATED HOLDINGS

(3.1) A schedule, called the General Schedule, covering certain broad items of information was filled for all the resident families in the selected villages. As a principal classifying item, information was obtained regarding the size of the cultivated holdings of the families concerned, and along with the size of the holding, was also obtained the number of their plough cattle. In this chapter, it is proposed to present the related data. Not

all the families were of course cultivators. In the following table we give for the eight selected villages what proportion of their families were cultivators and the average size of their cultivated holding. In the adjoining column is given the average number of plough cattle per cultivator. (Table 3.1).

(3.2) It is obvious that the average size of the cultivated holding differ considerably in different villages. In arithmetic average is however greatly affected by

extreme cases so that a large average holding in one village might not mean more than that there are in the village one or two very big cultivators who pull up the average of the village, without of course benefitting the other cultivators, in any manner. A fuller statement of the size of the cultivated holdings in different villages might therefore be give as under. (table 3.2)

**Table 3.1.**

Village	Proportion of cultivating families to total	Average size of holding in acres	Average no. of plough cattle
Halerolli	76	24.2	2.1
Hireotigeri	74	23.2	1.7
Machakanur	59	27.0	1.6
Tajapur	71	30.2	1.4
Amrawati	78	17.2	1.2
Anjutagi	67	16.5	1.9
Dhawalagi	61	25.8	1.5
Korwar	62	30.1	1.8
District Average	69	24.0	1.6

**Table 3.2. Range of Cultivated Holding in acres in Different strata of Families in the Selected Villages.**

Percent of cultivators having holding larger than	Halerolli	Hirectigeri	Machakanur	Tajapur	Amrawati	Anjutagi	Dhawalagi	Korwar
0	92	80	250	400	186	250	240	201
10	48	48	57.5	66	40.5	35.5	49	57
20	35	32	40	43.5	30	24	38	44
30	32	28	32	33.5	24	18	29.5	36
40	24	24	24	26	20	14	24.5	28
50	20	20	20	19	16	12	18	24
60	16	16	14	14	12	8	13.5	20
70	12	12	8	10	9	6	9.5	16
80	8	7.5	3.5	6.5	6	4	8	11
90	5.5	4	1	4	4	4	4	8
100	-	-	-	-	-	-	-	-



The table reads as follows: In the village Halerolli, the largest holding was 92 acres; 10 per cent of the cultivators had holdings larger than 48 acres, 20 per cent had it larger than 35 acres, etc.

(3.3) The manner in which the villages were selected makes a simple average of any item of the 2528 families interviewed, not particularly appropriate a district average. It should be remembered that in selecting the villages, they were given chance proportional to their population, which means that the larger villages were given a greater chance of being selected. This gives an over-representation to larger villages. Thus six of the eight selected villages are of population more than a thousand. This certainly is not the proportion of such villages, in the district. In consequence, population staying in larger villages is given more than proportionate representation. This bias in the sample is corrected, if instead of taking the average of 2528 families, we first work out the village averages and then take an average of the village average. Another bias is that while in the sample we have four villages with societies and four villages without societies, in the district, the number of villages with and without societies is not equal. According to our information the number of villages with cooperative

societies was 379 and their 1941 population was 4,42,788. On the other hand the number of villages without cooperative societies was 542 and their 1941 population was 6,13,425. In order to obtain an appropriate district average, therefore, it is necessary to "weight" the society and non-society village averages in proportion to the population staying in such villages. The appropriate weights in the present case are 1.39836 and 1.16098, respectively. The proportion of the cultivating families and the average size of their cultivating holding appearing in table 3.3 are so derived. Henceforward, all district averages and percentages based on the General Schedule data have been similarly obtained after appropriate "weighting".

(3.4) Thus considering the district as a whole about 69 per cent of the families were found to be cultivators. The average size of the cultivated holding was about 24 acres, which of course included both the owned and tenanted lands cultivated by the family. On an average each cultivator possessed two plough cattle which were mostly bullocks. The ratio of cultivated area to plough cattle namely about 13 to 14 acres per animal, compares favourably with the figure 16 acres obtained by taking into consideration the cows and she-buffaloes used for working. The differences of two acres per plough

animal may be partly explained by the fact that the figures for livestock used in para 1.9 do not include those of Jamkhandi taluka.

(3.5) The range of variation in the size of the cultivated holding of different cultivators might be indicated by such considerations, as under as in table 3.2 we might arrange the cultivators in each village by the size of their holdings in a descending order. When they are so arranged and the first ten per cent, that is, the ten per cent biggest cultivators in each of the villages are considered together, their average cultivated holding turns out to be as much as 74 acres. This is more than three times the overall average of 24 acres. The ten per cent second biggest cultivators in different villages grouped together give an average cultivated holding of 41 acres and for the ten per cent, third biggest, the average is 30 acres. At the other extreme, the ten per cent smallest cultivators in different villages when grouped together give an average of only two acres of cultivated holding which is equal to one twelfth of the overall average of 24 acres. The ten per cent cultivators immediately above

this group have an average holding of only five acres and the next higher group of ten per cent cultivators has an average of eight acres. The average cultivated holding in the ten groups of cultivators are shown in table 3.3 (table 3.3).

(3.6) The inequalities in the distribution of the cultivated holding might be brought out in yet another and perhaps more striking manner. Thus it is seen that the ten per cent biggest cultivators who have an average cultivated holding of 74 acres cultivate nearly 32 per cent of the total cultivated area. Similarly the next lower group of 10 per cent cultivators who have an average cultivated holding of 41 acres cultivate more than 17 per cent of the total cultivated area. Thus it is seen that the first 20 per cent cultivators of the different villages taken together cultivate 49 per cent of the total cultivated area, while at the other extreme, the last 20 per cent of the cultivators together cultivate only 3.1/2 per cent of the total cultivated area. In the fourth column of table 3.3 are shown what percentage of the total land is cultivated by the cultivators in each group.

**Table 3.3.**

Stratum of families	Number of families	Average size of cultivated holdings (acres)	Percent of total land cultivated by cultivators in this group	Percent of cultivators owning plough cattle	Percent of total plough cattle owned by the cultivators in this group
Docile					
I	70	74	31.9	96	24.9
II	69	41	17.1	96	16.3
III	69	30	13.0	91	12.7
IV	67	26	10.7	90	11.9
V	69	20	8.8	88	10.8
VI	69	15	6.6	64	8.2
VII	67	12	5.0	55	6.1
VIII	69	8	3.5	46	5.3
IX	70	5	2.2	24	2.7
X	67	2	1.1	10	1.1
Total Ag.	686	24	100.0	66	98.8
Total N. Ag.	314	-	-	-	1.2

(3.7) Perhaps a more simple summing up of the situation would be as follows:-

If we arrange all the cultivators in a village by the size of their cultivated holding in descending order and divide the list in three equal divisions then it works out that on an average, the first division forming the one-third biggest cultivators commands about two-thirds of the cultivated land, while the last division forming the one-third smallest cultivators commands only one-twelfth of the total cultivated land.

(3.8) It should be noted that from the analysis does not bring out fully the

extent of inequalities that exist. For instance the first division above represents not the one-third biggest cultivators in the district but the aggregate of the one-third biggest cultivators in each village. It is obvious, therefore, that if we could group together the one-third cultivators who are the biggest in the district, that group would certainly command more than two-thirds of the cultivated area.

(3.9) The position regarding the variation in the ownership of cattle - mostly bullocks - is very similar. The relevant data are shown in the last column of table 3.3.

for instance the first 20 per cent biggest cultivators, who cultivate 49 per cent of the total cultivated area possess 41 per cent of the total plough cattle while the 20 per cent smallest cultivators who cultivate 3.1/2 per cent of the total cultivated area own four percent of the plough cattle. This seems to indicate that the variations in the ownership of plough cattle though a little less extreme, follow the same pattern as that of variations in the area of cultivated holding. A part of the inequalities of distribution of plough cattle is found in the extreme circumstance that some of the cultivators do not possess any plough cattle. The percent of cultivators owning plough cattle in each group is shown in the last but one column of table 3.3. Thus in the district as a whole 66 percent of the cultivators are seen to possess plough cattle. This percentage is fairly high. In the first two groups comparing of the 20 percent biggest cultivators it is 96 per cent. In the next three groups, it is about 90 percent. Hence it is obvious that 90 percent or more of the cultivators in the first five groups comprising of 50 percent biggest cultivators, possess plough cattle. Among the smaller cultivators however this proportion is smaller and in the last group comprising of ten percent smallest cultivators it is as low as ten percent. Hence it is clear that the smaller cultivators have to rely largely on hired plough cattle.

#### IV. INVESTMENT EXPENDITURE AND SOURCES OF FINANCE

(4.1) In the General schedule which was filled in for all resident families in the selected villages, an attempt was made to enquire into the annual expenditure of the families on a number of specific items. Most of these items were in the nature of capital investment both in agricultural business, and also in financial assets. A few items of family expenditure were also included. They covered what might be called expenditure on durable consumer goods, as also on certain items of social expenditure. A few items of ordinary family expenditure such as on medicine, education and clothing were also included but major items of family expenditure, i.e., food, etc., were specifically omitted.

(4.2) The total annual expenditure reported on these items came to about Rs. 433 per family and between the principal categories, it was distributed as in table 4.1.

(4.3) As was pointed out earlier, about 69 percent of the families were cultivators. Nevertheless, of the total expenditure reported 86 percent was reported by these families. Almost the entire capital expenditure on agriculture should, of course, be reported by the cultivating families only.

**Table 4.1. Per Family Annual Expenditure in Rupees**

(1) Capital Investment in agriculture	135
(2) Capital investment in non - Agricultural business	14
(3) Addition to financial assets	0.5
(4) Repayment of debt	32
(5) Durable consumer expenditure	39
(6) Marriage, Death and other ceremonies	50
(7) Medicine, education, Clothing and litigation	162.5
Total	433.0

However nearly six percent of the capital expenditure on agriculture was reported by the non - cultivating families. This may be explained by the fact that some of the families, though not cultivators were land owners and that in other cases purchase of live-stock which was classified as an item of capital expenditure in agriculture was not indeed so. However, when we examine the reported capital expenditure on non-farm business, we should normally expect a proportionately larger expenditure among the non-cultivating families than among the cultivating families. That this was not in fact so, is perhaps a little surprising. The cultivating families - forming 69 percent of the total families reported 70 percent of the total expenditure on this item. This suggests that even among the artisan classes non-farm business is usually combined with some cultivation and that, therefore, generally speaking, there are only a few cases where families are engaged in purely non-farm business of their own. The position in regard to other

items of expenditure is similar. Thus 98 percent of the additions to financial assets, 85 percent of durable consumer expenditure, which was mostly on construction and repairs of residential houses, 77 percent of the expenditure on marriage, death and other ceremonies and 84 percent of the expenditure on medicine, education, clothing and litigation, were reported by the cultivating families which formed 69 percent of the total families. It is clear, therefore, that the non-cultivating families, as a class, are poorer than the cultivating families. This is because, most likely, a large majority of them have no independent business of their own, but are purely landless labour. And barring some exceptions, such as, non-cultivating land lords, traders, moneylenders and salaried persons, both in their social and economic conditions, they come very much below the cultivating families.

(4.4)As already stated the annual expenditure on items in the nature of capital investment on agriculture was about Rs. 135 per family. As was to be expected such expenditure was reported almost entirely by the cultivating families. These formed only 69 percent of all families so that if we relate the capital expenditure in agriculture to these families, the per family expenditure would be naturally larger. It actually turns out to be Rs. 196 per cultivating family. There are two observations to be made in this

connection. Firstly, not all the cultivators would annually incur expenditure in the nature of capital investment. For instance only 58 percent of the cultivators reported expenditure of this nature. Secondly, such expenditure would not be incurred equally in all strata of cultivators. We would normally expect proportionately larger investment expenditure among bigger cultivators than among smaller ones, both because proportionately larger number among them would incur such expenditure and when they did, they would do it in larger amounts. These points are brought out in table 4.2.

(4.5) thus only about 58 percent of the cultivating families reported capital investment in agriculture during the year, with an average expenditure of about Rs. 327 per reporting cultivator. In the table 4.2 the first group consists of the ten percent biggest cultivators from each

village, while the last group consists of the ten percent smallest cultivators in each village. Other groups are similarly constituted. The point mentioned above is now obvious. In the first group of cultivators, 88 percent of the cultivators reported an average of Rs. 758 of capital expenditure in agriculture; in the last group of smallest cultivators, on the other hand, only 17 percent of cultivators reported this expenditure and that was only Rs. 224 per reporting family. The proportion of families reporting investment expenditure generally decreases as we move from the biggest to the smallest cultivators. The decrease in the amount of investment expenditure per reporting cultivator is however not so regular. The comparatively large average expenditure in the last three groups is on account of a few cases of reported heavy expenditure on reclamation and purchase of land.

**Table 4.2. Capital Investment in agriculture**

Stratum of families	Proportion of reporting families to total families in the strata	Expenditure per reporting cultivator	Expenditure incurred by each stratum of cultivators as percentage of total expenditure incurred by all families
First 10%	88	758	36.4
Second 10%	85	350	15.7
Third 10%	68	290	10.5
Fourth 10%	79	293	12.2
Fifth 10%	68	247	8.9
Sixth 10%	53	159	4.4
Seventh 10%	51	138	3.7
Eighth 10%	36	196	3.8
Ninth 10%	32	151	2.5
Tenth 10%	17	224	1.9
All cultivators	58	327	100.0

(4.6) The main items of capital investment in agriculture were purchases of land, livestock and implements, and bunding and other land improvements. Some expenditure was also reported on the digging and repairing of wells and on the reclamation of land. In the following table is shown the comparative importance of the different items of capital investment in agriculture.

**Table 4.3.**

Item	Expenditure on the item as percentage of total capital investment in agriculture.
Purchase of land	14
Purchase of livestock	27
Purchase of implements and machinery	14
Bunding and other land improvement	33
Digging and repairing of wells	7
Reclamation of land and other miscellaneous land improvements	5
Total	100

(4.7) The extent to which expenditure on different items was reported and magnitude of the reported expenditure might be judged from the following table, where we show the proportion of all cultivators who reported expenditure on each item and the average amount of expenditure incurred by each such family:-

**Table 4.4. Capital Investment in Agriculture**

Item	Percentage of cultivators reporting expenditure on the item	Average expenditure per reporting family in Rs.
Purchase of land	2.5	949
Purchase of livestock	21	254
Purchase of implements	30	92
Bunding and other land improvement	30	198
Digging and repairing of wells	3	433
Reclamation of land and other miscellaneous land improvements	3	1957

Thus only 2.1/2 percent of the cultivators reported purchases of land during the year, though the average expenditure on the item was naturally large. As many as 21 percent of all cultivators reported purchases of livestock. However, not all these cases involved new investment, as in a number of them purchases were offset by sales and in at least some, the purchases were of poultry and goat so that they would not in all cases be acts of investment or at any rate not of investment in agriculture. The most frequently reported item of capital investment in agriculture was bunding and other land improvement. Thirty percent of the cultivators reported expenditure on this item and as was seen in table 4.3 the total expenditure on this item was nearly one-third of the total capital investment in agriculture. Hence, obviously this is a major item of capital expenditure and one in which cultivators generally invest.

About three percent of the families reported expenditure on digging and repairing of wells and the average expenditure per reporting family was as low as Rs. 433. We are therefore, inclined to believe that the expenditure was mostly on improvement of wells rather than on digging of wells. The proportion of cultivators reporting purchases of implement is too large, being as high as 30 percent. The point has been examined more fully in subsequent section.

(4.8) For a group of families while interpreting purchases of land, livestock and implements as item of capital investment, the sales by the same group of families of the respective items should be obviously taken into account. For instance, considering all cultivating families together, if all sales and purchases of land were to take place only between cultivators no net investment by way of purchases of land by cultivators could be expected. In fact, however, some sales and purchases take place between cultivating and non-cultivating families. To that extent, the sales and purchases of land by cultivators would not be equal. If cultivators purchased more land from non-cultivators than they sold to them, it would result in more land coming into the hands of cultivators and consequently what might be termed a net investment by cultivators in purchase of land. The position would be otherwise if cultivators sold more land to

non-cultivators than they purchased from them. The reported sales of land by cultivators are smaller than their purchases suggesting a net investment by cultivators in land. The sales of land by cultivators form 37 percent of their purchase so that unless the sales are under-reported, the balance of 63 percent might be regarded as net investment by cultivators in land. Consistent with this indication and as a result of recent tenancy legislation facilitating speedier transfer of land from non-cultivating into cultivating lands we would expect some transfer of land from the bigger to the smaller cultivators. This however is not supported by the reported purchases and sales. In fact, the reported purchases of land are mostly among the bigger cultivators. In table 4.5 are shown the purchases and sales of the land in different strata of cultivators. (table 4.5)

(4.9) The position regarding the purchases and sale of livestock is somewhat different. In the first instance the sales are relatively numerous and their value forms 62 per cent of the value of purchases. Secondly not all the sales of livestock could be considered as liquidation of capital assets. Sale of sheep, goats and poultry as also of young stock of plough and milch cattle are often in the nature of sale of produce rather than liquidation of assets. There is, therefore, an indication of investment on livestock



by cultivating families. Such investment is of course, by no means net investment, in the strict sense of the term. For on the one hand, no allowance is made for depreciation in number and value of livestock due to death and old age and on the other, no account is taken of the additions of homebred stock. Another point to note is that the excess of livestock purchases over sales is confined only to the first five groups comprising of fifty percent bigger cultivators. Among the smaller cultivators, the purchases and sales are almost equal indicating that there is hardly any real investment but mostly seasonal purchases to be offset by seasonal sales. The large sales among smaller cultivators might also be partly due to the unsatisfactory seasons in both the years 1950-51 and 1951-52, when in some of the selected villages suspension of land revenue was granted. In table 4.6 are shown the purchases and sales of

livestock in different strata of cultivators.

(4.10) the values of reported sales of livestock, though large, are nevertheless smaller than the values of purchases. Therefore, unless the reported sales suffer from under reporting,

**Table 4.5. Purchases and sales of land in different strata of cultivators**

Stratum	Purchase of land value in Rs.	Sale of land value in Rs.
First 10%	347	309
Second 10%	355	-
Third 10%	129	-
Fourth 10%	225	62
Fifth 10%	193	-
Sixth 10%	95	-
Seventh 10%	-	110
Eighth 10%	-	-
Ninth 10%	110	124
Tenth 10%	160	-
All cultivators	1,614	605

**Table 4.6. Purchases & sales of livestock in different strata of cultivators**

Stratum	Purchase of livestock value in Rs.	Sale of livestock value in Rs.	Sale as percent of purchases
First 10%	956	457	48
Second 10%	525	380	72
Third 10%	487	370	76
Fourth 10%	623	280	45
Fifth 10%	441	234	53
Sixth 10%	227	193	85
Seventh 10%	143	138	97
Eighth 10%	137	60	44
Ninth 10%	84	110	131
Tenth 10%	33	35	106
All cultivators	3,656	2,257	62

they must mean that some purchases of livestock that the cultivators make from non-cultivators. This might be so. In our enquiry the values of sales of livestock reported by the non-cultivating families exceed those of their purchases; but the excess is hardly sufficient to account for the balance of purchases over sales by the cultivating families. Another partial explanation of this excess of purchases over sales by cultivators could be that the sales that the cultivators make to the non-cultivators might often be of either young stock or old and disabled animals and when a cultivator sold working animal to a non-cultivators, he might often be selling it at a disadvantage. On the other hand, the purchases by cultivators should mostly be of working animal. As a result we should expect that the average value of livestock sales made by cultivators would be smaller than the average

value of livestock purchased by them. This is supported by the reported figures, while the average value of livestock purchases is Rs. 254, the average value of sale is only Rs. 205. These are, however, only partial explanations. It appears therefore, that a substantial explanation could be sought only in the suggestion that either the district as a whole, or at any rate, the sample of selected villages, was deficient in livestock and imported considerable number from outside.

(4.11) It was noted that 30 percent of cultivators reported expenditure on purchases of implement with an average expenditure of Rs. 92 per reporting cultivator. In the following table (table 4.7) we give the expenditure on implements incurred by cultivators in different strata:-

**Table 4.7. Purchases of Implements and Machinery in different stratas of cultivators.**

Stratum	Percent of cultivators reporting expenditure	Expenditure per reporting cultivator	Expenditure incurred by this group as percent of total expenditure incurred by all cultivators
First 10%	66	190	46.1
Second 10%	52	97	10.4
Third 10%	46	82	13.9
Fourth 10%	40	61	8.8
Fifth 10%	32	37	4.3
Sixth 10%	20	44	3.2
Seventh 10%	18	36	2.3
Eighth 10%	14	37	1.9
Ninth 10%	9	23	0.7
Tenth 10%	Less than 0.5	70	0.4
All cultivators	30	92	100.0

As will appear, a substantial proportion of the total expenditure, as much as 46 percent, is incurred by cultivators in the first group of ten percent biggest cultivators. It does not seem true, however, that this is on account of a few bigger cultivators undertaking large expenditure on expensive machinery. For, in this group, as many as 66 percent of the cultivators have reported this expenditure and though the average expenditure per reporting family is larger than the general average, it is not large enough to suggest any large scale investment in new machinery. The average expenditure per reporting cultivators is only Rs. 190 so that it does not seem likely that except possibly for one or two cultivators, the expenditure by others was on anything other than the traditional implement of agriculture. We should also note that even though the expenditure reported by the first group is comparatively large, it is not too large in relation to the size of their cultivated holdings. It is true that the cultivators in the first group account for 46 percent of the total expenditure reported, but it is also true that they command nearly 32 percent of the cultivated area. It appears, therefore, that in a large majority of the reported cases, the expenditure could not be on anything but traditional implements. In the next two groups also, as many as 50 percent of the cultivators have reported this expenditure

and in these cases the average reported expenditure is less than Rs. 100. There is, therefore, little possibility of any substantial investment in improved machinery. One wonders then as to what could be the traditional implements on which such a large proportion of cultivators should report annual expenditure. Perhaps an explanation is to be found in the fact that iron ploughs are not yet common in this district as they are in some other districts of the Bombay Deccan and that therefore, a large majority of the ploughs are wooden. Those would naturally need more frequent replacement. In some districts of the Bombay Deccan it is also customary for the village carpenter to supply certain minor implements, such as the seed drill, under the traditional contract. It is possible that custom does not prevail in Bijapur so that even the minor implements have also to be purchased. Among smaller cultivators, the proportion of cultivators reporting the expenditure and the average amount of reported expenditure are both small. The smaller cultivators do not therefore seem more than maintain and replace their traditional implements. The sales of implements by cultivators are naturally small and negligible.

(4.12) If purchases of land, livestock and implements are noted for the respective sales, the relative importance of the different investment item naturally looks very different from the one earlier shown. This is shown in table 4.8.

(4.13) As will be seen the most important form of capital investment in this district is land improvement particularly by bunding and well digging. This is true both in respect of the bigger and the smaller cultivators and as regards the latter, that seems to be the only form in which some investment has been reported. This is due to the numerous large-scale bunding and well-digging schemes which the government has launched and encouraged in this district in recent years. These schemes are enforced ones, not necessarily against active resistance, and are subsidised to a large extent. It therefore remains to be seen whether the cultivators, left to themselves, would consider this form of investment worthwhile.

(4.14) Capital investment in non-agricultural business was reported by about 2.4 percent of all families and the average expenditure per reporting family comes to Rs. 597.

**Table 4.8. Capital Investment in Agriculture - Net of Disinvestment through Sales.**

Item	Net investment as percentage of total
Purchase of land not of sales	10
Purchase of livestock	14
Purchase of implements net of sales	19
Bunding and other land improvements	42
Digging and repairing of walls	10
Reclamation and other miscellaneous land improvement	5
Total	100

(4.15) Expenditure resulting in addition to financial assets was reported by 1.5 percent of all families and the average expenditure per reporting family comes to Rs. 3.5 only. Thus it is seen that the addition to financial assets is insignificant and negligible. Most of it is reported only by the biggest cultivators.

(4.16) Addition to financial assets were mainly in the form of shares of cooperative societies. Two thirds of the reported investment was in the shares of cooperative societies and the remaining one third in deposits with the cooperative institutions. No cases of purchases of National Saving Certificates or of Treasury Bonds were reported.

(4.17) Finally, we might examine the expenditure on what might be called

consumer capital or durable goods. Such expenditure might be broadly divided into two groups:- (1) Construction and repairs of residential houses and other building and (2) Purchases of household utensils, furniture, etc. As already noted the average per family expenditure on this category was about Rs. 39. However only about 22 percent of all families reported this expenditure, the average amount incurred by them being about Rs. 175 per reporting family. As in other cause, the proportion of families reporting this expenditure and the average amount of it incurred by them, are both larger for cultivating families than for non-cultivating families, so that of the total of such expenditure reported 86 percent was done by the 69 percent cultivating families. Also among the cultivating families, large part of the reported expenditure was incurred by the bigger cultivators, the 50 percent biggest cultivators reporting about two thirds of the total expenditure.

(4.18) Most of the expenditure under these items was on construction and repairs of residential and other building and very little on purchase of utensils and furniture. The former accounted for 94 percent and the latter only 6 percent of the total reported expenditure. No sales

utensils or of furniture were reported. The sales of residential houses were also small and negligible.

(4.19) We shall now proceed to examine the sources from where these various items of capital expenditure in agriculture are financed. The principal sources of finance are current income, past saving, sale or liquidation of assets, and finally borrowing. Past savings are often difficult to distinguish from current income, particularly when the flow of current income is not regular. They were also not defined in sufficient detail to distinguish them from current income even as a matter of technical distinction. We do not, therefore, propose to distinguish them in the following.

(4.20) In the following table are shown sources of financing different items of capital investment in agriculture. Taking all items of capital investment in agriculture, 69 percent of the total expenditure was reported to be financed by either current income or past savings, 4 percent by sale of assets, 26 percent by borrowing and 1 percent by other unspecified sources. Considering separately the purchase of land, livestock and implements, the extent to which sale of assets finances these items of expenditure are different.

**Table 4.9. Sources of Financing Different Items of Capital Expenditure in Agriculture**

Items of expenditure	Percent of total financed by			Total
	Current income & past savings	Sale of assets	Borrowings	
Purchase of land	60.8	7.5	31.7	100
Purchase of livestock	34.1	15.6	50.3	100
Purchase of implements	73.3	1.5	25.2	100
Bunding and other land improvements	65.3	0.8	33.9	100
Digging and repairing of wells	48.4	4.3	47.3	100
Reclamation and other miscellaneous land improvement	36.9	-	63.1	100
Total	54.9	6.1	39.0	100

But except in the case of purchase of livestock the extent to which borrowing takes place on these accounts is more or less the same. About thirty percent of the expenditure on land improvement and on purchases of land and implements is financed by borrowing. That purchase of land should be financed by borrowing to the extent of 32 per cent indicates that smaller cultivators are possibly investing in land acquisitions. This does not however, receive support in our earlier analysis. That as much as 50 percent of the expenditure in purchase of livestock should be financed by borrowing suggests that purchase of livestock constitutes some of the principal occasions on which the cultivator borrows. This might be explained as due to the fact that as distinct from other items of capital expenditure, this one cannot be postponed. In a sense therefore borrowing for

purchase of livestock falls in a different category from the borrowing for either purchase of land or for land improvements. If the latter might be described as prudent borrowing for extension and improvement of farm business, the former might be considered as distress borrowing.

(4.21) 25 percent of the expenditure on non-agricultural investment is financed by borrowing.

(4.22) It has already been stated that additions to financial assets are insignificant, and that they are mostly done by the biggest cultivators. It is surprising therefore, that they should be financed by borrowing to the extent of fifty percent. When it is remembered that the principal form of this investment is shares of co-operative societies, it becomes clear that

shares of co-operative societies are not considered an investment proposition even by the biggest cultivators, and that it is looked upon as no more than a procedure necessary to qualify the person for borrowing from the society.

(4.23) Expenditure on construction and repair of residential and other buildings which was the principal item of consumer capital, is financed by borrowing to the extent of 33 percent.

(4.24) Other items of family expenditure, particularly, expenditure on death, marriage and other ceremonies, were enquired into because it was expected that they might be some of the principal occasions of borrowing. The average per family expenditure on death ceremonies is only Rs. 1.5. But when it is noted that only 2 percent of the families reported this expenditure during the year, the expenditure on death ceremonies per reporting family works out to be Rs. 83. The incidence of this item is more or less uniform except among the biggest and the smallest cultivators. Among the 20 percent biggest cultivators, the expenditure on death ceremonies per reporting cultivator is Rs. 168; the same among the smallest cultivators is only Rs. 30 among the remaining cultivators it is more or less uniform and averages nearly Rs. 60 per reporting cultivator. The importance of

these figures lies in the fact that nearly 42 percent of such expenditure has to be met by borrowing.

(4.25) The same remark holds good in the case of the expenditure on marriage and ceremonies. As already stated the expenditure per family works out to Rs. 48.5. but as only 18 percent of all families have reported expenditure on this item, the expenditure per reporting family is Rs. 265. The proportion of the reporting families, namely, 18 percent is too high for the marriage ceremonies to be reported with that frequency. It appears therefore, that some other equally common ceremony has been included. On examination, it appears that this high frequency of reported ceremonial expenditure is confined to only two of the selected villages where there happened to be Lamani settlements. It is reported that among these people it is customary for each household to give an annual feast to the whole community. The average expenditure on such occasions is expected to be smaller than that on a marriage ceremony. It appears, therefore, that the average expenditure on marriage ceremonies would be above Rs. 300 which would of course vary considerably in different strata of cultivators. 40 percent of such expenditure is met by borrowing.

(4.26) Large expenditure had been reported on some of the other items of family expenditure. The per family expenditure on different items included in the questionnaire was as under:-

**Table 4.10.**

Items	Per family expenditure in Rs.
Medicine	14.2
Education	11.1
Clothing	116.3
Litigation	20.9
Total	162.5

Of these litigation and medicine are important as occasions of borrowing because 35 percent of the expenditure on the former and 28 percent of the expenditure on the latter were met by borrowing. From the point of view of borrowing education seemed to be the least important, only five percent of the expenditure on it having been met by borrowing. 11 per cent of the expenditure on clothing, bedding, etc., was met by borrowing. This might be explained by the fact that credit purchases of clothes, etc., were treated as purchases by borrowing. Another explanation is also possible namely that the purchases of cloth in marriage and other ceremonies might have been met by or at any rate might have been reported to have been met by borrowing. Otherwise, that 11

percent of the expenditure on clothing which is a regular item of family expenditure is financed by borrowing appears rather high.

## V. BORROWING AND INDEBTEDNESS

(5.1) If we now concentrate our attention on the borrowings during the year, we find them reported to the extent of Rs. 166 per family. Not all the families of course borrowed during the year. Nevertheless as many as 48 percent of all families have reported borrowing during the year. The amount borrowed then works out to Rs. 344 per borrowing family. We have earlier examined some occasions and purposes for which families borrowed and the extent to which they did so on those accounts. Two important purposes for which borrowing takes place were than left out of consideration, namely, current farm and family expenditure. Of the total reported borrowing, particularly of the cultivating families roughly about 35.6 percent was for meeting capital expenditure in agriculture, 9.6 percent was for meeting current farm expenditure, 1.9 percent was for meeting non-farm business expenditure and the remaining 52.9 percent for meeting family and other expenditure. The principal items of capital expenditure in agriculture, for which borrowing takes



place, are as we have noted earlier, purchase of land, livestock and implements and also improvement of land. The relative position of these items were as given in table 5.1.

**Table 5.1.**

Item	Percentage of borrowing for capital investment in agriculture
Purchase of land	12
Bunding and other land improvement	33
Digging and repairing of wells	9
Reclamation of land	1
Purchase of livestock	36
Purchase of implements	9
Others	-
Total	100

(5.2) Among items of current farm expenses for which borrowing takes place, the most important is the purchase of seed which accounts for 35 percent of the borrowing on this account. Other items and their relative shares are as under. (table 5.2). It will thus be seen that purchase of seed and manure account for almost sixty percent of the borrowing for current farm expenditure. The large proportion under "other" which are mostly unspecified items is unfortunate. They might include substantial payment of wages, and also purchase of fodder.

**Table 5.2.**

Item	Percentage of borrowing for current farm expenditure
Purchase of seed	35
Purchase of manure	23
Payment of wages	1
Payment of rent	6
Others	35
Total	100

(5.3) Of the borrowing to meet the family expenditure, the most important single item is the marriage ceremonies, which account for 23 percent of the borrowing on this account. The more important items and their relative shares are given in table 5.3, below:-

**Table 5.3.**

Item	Percentage of borrowing for family expenditure
Construction and repair of residential and other building	15
Marriage and other ceremonies	23
Medical expenses	5
Purchase of clothing, shoe and bedding etc.	15
"Others"	42
Total	100

(5.4) The incidence and the extent of borrowing and the purpose for which it takes place are naturally different in different strata of families. For instance, as between cultivating and non-cultivating families, while about 54 percent of the

former reported borrowing only 36 percent of the latter reported borrowing. Again the average amount borrowed per reporting family was Rs. 379 in the case of the former and Rs. 229 in the case of the latter. The purchases for which borrowing took place were also naturally different in the two cases. In the case of cultivating families, only 53 percent of the total borrowing was for meeting the family expenditure; whereas family expenditure formed 79 percent of the borrowings of non-cultivating families. It is true that a large number of the non-cultivating families would be landless labour and hence poorer than cultivating families. It is not, however, on that account that the family expenditure accounts for so large a proportion of the borrowings by the non-cultivating families. The other two purposes for which cultivating families borrow are the capital and current farm expenditure and these simply do not exist for the non-cultivating families. It is for this reason that family expenditures appear so large an item among the borrowings of non-cultivating families.

There is no indication that the extent of borrowing on account of family expenditure among the cultivating families is any less than that among the non-cultivating families. Thus as noted above, the borrowing per borrowing cultivator was Rs. 379, 53 percent of which was for

meeting family expenditure. This gives us an average of about Rs. 202 per borrowing cultivator for meeting family expenditure. On the other hand the borrowing non-cultivating families borrowed an average of only Rs. 229, 79 percent of which, that is Rs. 181 per family was for meeting the family expenditure. If we now remember that the proportion of borrowing families in the case of cultivators is one and a half times than that in the case of non-cultivators, it would be clear that the credit needs of the cultivators or at any rate their effective demand to meet their family expenditure are very much higher than those of the non-cultivators. In fact, the average amount borrowed during the year on that account by the cultivating families is Rs. 108, while the same for the non-cultivating families is only Rs. 65.

(5.5) This is also true as between the different strata of cultivators. In the following table (table 5.4) are shown details of borrowing by cultivators in different strata. Thus except for the last three classes of small cultivators, the incidence of borrowing is more or less uniform among all classes of cultivators. It is somewhat smaller in the last three classes. The extent of borrowing is however different among different classes and generally decreases gradually from the bigger to the smaller cultivators. Taking all cultivators together, the average amounts borrowed

by the borrowing families works out to be Rs. 379. In the group of the ten percent biggest cultivators this average is Rs. 764. A large part of this borrowing is to meet family expenditure. About 48 per cent of the borrowings of the ten percent biggest cultivators are for meeting family and other expenditures. This gives an average of Rs. 367 per borrowing family which is very much larger than the average of Rs. 201 for all cultivating families and more than double of Rs. 181 for the non-cultivating families. It should further be noted that these averages are per borrowing family in the different

groups and that while only 36 percent of non-cultivating families and 54 percent of all cultivating families borrowed during the year, as many as 58 percent of the big cultivators borrowed; so that if comparison were to be made on the basis of per family in the different groups, it would appear that in order to meet the family expenditures, the big cultivators borrowed on an average cultivators and more than one and a half times as much as did an average cultivator and more than three times as much as did an average non-cultivating family.

**Table 5.4. Borrowing During the year by Cultivators in Different Strata and by Non-cultivators**

Stratum	Percentage of borrowing families	Amount borrowed per borrowing family	Percent of total borrowing		
			For capital farm expenditure	For current farm expenditure	For family and other expenditure
First 10%	58	764	41.5	10.7	47.8
Second 10%	64	508	47.6	6.7	45.7
Third 10%	54	372	31.1	17.6	51.3
Fourth 10%	58	397	48.7	5.8	45.5
Fifth 10%	62	359	41.3	10.6	48.1
Sixth 10%	52	249	24.5	14.9	60.6
Seventh 10%	54	349	12.5	8.8	78.7
Eighth 10%	46	287	33.7	9.5	56.8
Ninth 10%	47	224	18.1	3.4	78.5
Tenth 10%	48	172	10.4	3.8	85.8
All cultivators	54	379	35.6	9.6	54.8
Non-cultivators	36	229	13.0	1.1	85.9
Total	48	344	32.1	8.2	59.7

(5.6) We could illustrate the same point by considering another group of cultivators. Consider for instance the 20 per cent smallest cultivators - these naturally come closer to the non-cultivating families. In this group, 47 percent of all families borrowed during the year, which is smaller than the average for all cultivators, but more than the average for non-cultivating families. The average amount borrowed by these borrowing families is Rs. 198 Which is very much smaller than the average for all cultivating families and only slightly smaller than average for non-cultivating families. In this group, a very large proportion of the total borrowing is on account of family expenditure as much as 77 percent of which is very much comparable with the figure for non-cultivating families. As a result we have that in this group the borrowing on account of family expenditure is as much as Rs. 153 per borrowing family.

(5.7) The conclusion, is therefore, inescapable. As we pass from the non-cultivating to the cultivating families, and within the cultivating families, from the smaller to the bigger cultivators, the incidence, that is, the proportion of the families who borrow, and the extent, that in the average amounts borrowed, both increase. Part of this increased borrowing among the better off families is explained by their credit requirements to meet the

capital and the current farm expenditure, but that does not explain the whole of it. Their borrowings on account of family expenditure also are substantially larger than those of the smaller cultivators, and those of the smaller cultivators in their turn are nearly equal to those of the non-cultivating families.

(5.8) We shall not venture to put forward an explanation of this appalling state of affairs. A partial explanation is, of course, to be found in the expensive manner in which marriages are performed - generally beyond the means of the families whether better or worse off. But that could not possibly be the whole explanation. If not, and if the bigger cultivators appear to borrow to a greater extent even to meet normal family expenditure, are we to suppose that not only do they live better than the smaller cultivators and the land-less labour, but rather very much better than they really afford to? or are we to suppose that the larger holdings have proportionately larger charges on them, either of larger families or of more relatives or of proportionately larger hired labour? In the last alternative, it would really amount to supposing that the larger holdings do not necessarily leave proportionately larger surplus to the cultivator. The data we have collected and the extent to which an analysis is attempted here are both too limited to answer these queries. Perhaps, the

explanation lies in the seasonal character of the farm expenses and the farm receipts and the time gap between the two, so that even the bigger cultivators have to borrow seasonally to meet the family expenditure. Perhaps, the explanation lies deeper in the spending habits of the families and the improvidence with they habitually contract debt. Whatever may be the explanation it seems important to realize that the agricultural credit is in

separable mixed up with the ordinary indebtedness so much so that the two apparently cannot be separated at any level or cultivated holding.

(5.9) The amounts borrowed for meeting the capital and current farm expenditure might be related to the total cultivated holding of all families. This is done in table 5.5.

**Table 5.5. Borrowing for Capital and Current farm Expenditure per acre of Cultivated Holding in Different Strata of Cultivators.**

Stratum	Average cultivated holding in acres	Borrowing for capital farm expenditure	Borrowing for current farm expenditure per acre in Rs.
First 10%	74	2.4	0.6
Second 10%	41	3.8	0.5
Third 10%	30	2.0	1.1
Fourth 10%	26	4.3	0.5
Fifth 10%	20	4.5	1.1
Sixth 10%	15	2.0	1.2
Seventh 10%	12	1.9	1.4
Eighth 10%	8	5.4	1.5
Ninth 10%	5	3.7	0.7
Tenth 10%	2	2.9	1.1
All cultivators	24	3.1	0.8

Considering all families together, the average amount borrowed for capital expenditure, works out at Rs. 3.3 per acre of cultivated holding and the amount borrowed for meeting the current farm expenditure at Rs.0.8 per acre of cultivated holding. If we confine our attention to the bigger cultivators, the borrowing

on this account naturally larger, but on a per acre of their holding is actually smaller. Thus considering the ten percent biggest cultivators their borrowing on capital accounts is about Rs. 2.4 per acre of the cultivated holding; the borrowing on current account is about one fourth of this. Thus the credit needs of the biggest

cultivators on capital and current farm account are less than those of an average cultivator; on the other hand, if we return to an earlier point, their needs on family accounts are very much greater than those of the average cultivator.

(5.10) Wherefrom do these families raise all this credit? In the following table (table 5.6) we give the relative shares of different agencies in supplying the credit:-

**Table. 5.6.**

Creditor	Percent of total borrowing
Government	0.4
Cooperative Societies	5.0
Banks	0.1
Zamindars	0.1
Traders and commission agents	8.2
Private moneylenders	3.8
Agricultural moneylenders	61.7
Relatives	20.7
Total	100.0

(5.11) Thus the share of the government is negligible. The purposes for which it is available are also restricted. The share of the co-operative societies is too small in comparison to their share in some other districts of the Bombay Deccan and in relation to the large number of societies in the district, their performance must be regarded as disappointing. The agriculturist moneylender seems to rule even to the exclusion of the private, that is, professional moneylender. The role of commercial banks is again negligible and if they supply any finance it must be only through traders, whose share is considerable.

(5.12) In the following table, we give a distribution by purposes for which credit is available from different agencies:-

**Table. 5.7.**

Creditor	Percent of total credit For		
	Capital and non-farm expenditure	Current farm expenditure	Family & other expenditure
Government	95.6	4.4	-
Cooperative Societies	31.5	11.5	57.0
Banks	23.1	7.7	69.2
Zamindars	12.5	62.5	25.0
Traders and commission agents	33.3	14.1	52.6
Private moneylenders	30.5	10.4	59.1
Relatives	37.6	4.2	58.2
Agriculturist moneylenders	34.2	8.3	57.5
Average	34.8	8.2	57.0

As earlier remarked, the small amount of Government finance is restricted only to a few limited purpose, almost exclusively, to capital investment in agriculture. With respect to the finance from the cooperative societies, it is surprising that of the small amount that is available from them, about half is used for family expenditure. Another thirty percent is used for capital investment and only 12 percent for current farm expenditure. One would have thought that it is for meeting the current farm expenditure that the finance from the societies might have been most suitable. Societies having failed even in this most legitimated field, it is natural that the agriculturist money-lender is predominant.

(5.13) Along with the borrowings made during the year, account should be taken of the repayment of loan made during the year. In the following table we show the position regarding borrowing and repayment during the year and the debt outstanding at the end of the year in different strata of cultivators (table 5.8) under circumstances not leading to increase in indebtedness of the families, we should expect that there would be a substantial repayment of loan amounting approximately to the fresh borrowings

made during the year. However, this has not been so during the year under report. While the fresh borrowings during the year amounted to Rs. 166 per family, the average repayments per family were only Rs. 32, which is slightly less than one fifth of the fresh borrowings. There has, therefore, been during the year a net increase of Rs. 134 in the average indebtedness of the families. The average indebtedness at the end of the year was only Rs. 234. The net increases in the indebtedness of Rs. 134 during the year means that at the beginning of the year the average outstanding indebtedness was Rs. 100. A net addition of Rs. 134 to Rs. 100 at the beginning is indeed very high and must be exceptional. Even if we try to explain the increases by supposing that during the year, particularly large amounts were borrowed to meet capital expenditure that would not do. For only about 32 percent of the fresh borrowings, that is, about Rs. 53/- per family were incurred for this purpose. If we try to explain by supposing that there existed during the year, particularly easy conditions to obtain institutional credit, that again would not do; for advances from Government, societies and banks do not form more than six percent of the total credit. In all probability, the agricultural

year was much below the normal. It was reported to be so, as we have stated in the introductory chapter. This receives support from two facts namely that borrowing for meeting family expenditure account for as high as 51 percent of the fresh borrowing and that the proportion that the repayment bear to the borrowings is more or less the same in all strata of

cultivators. It appears therefore that unless the repayments during the year have been underreported, they are particularly low. It is not certain whether the reportedly heavy borrowing on family accounts is the result of the prevalence of scarcity conditions in some of the selected villages.

**Table 5.8. Borrowing and Repayment During the year and debt Outstanding at the end of the year in Different Strata of Families.**

Stratum	Borrowing per family Rs.	Repayment per family Rs.	Outstanding indebtedness per family Rs.
First 10%	426	102	715
Second 10%	324	61	429
Third 10%	200	33	276
Fourth 10%	231	39	301
Fifth 10%	224	44	288
Sixth 10%	130	18	186
Seventh 10%	188	38	257
Eighth 10%	133	8	168
Ninth 10%	106	34	132
Tenth 10%	82	11	115
All cultivators	205	39	288
Non-Cultivators	82	17	118
Total	166	32	234

(5.14) As already pointed out the average indebtedness at the end of the year was Rs. 234 per family. Not all the families were, of course in debt. Nevertheless 58 percent of the families were in debt and their average debt was Rs. 406, per indebted family. The incidence and the

extent of indebtedness both varied between different strata, the variations in the extent of indebtedness being considerable more than the variations in the incidence of the indebtedness. In the following table is shown the position in different strata of families:-



**Table 5.9. Percentage of Indebted Families and Average Indebtedness per Indebted Family.**

Stratum	Percent of indebted families	Average debt per indebted family
First 10%	67	1065
Second 10%	77	558
Third 10%	59	465
Fourth 10%	64	470
Fifth 10%	70	414
Sixth 10%	65	284
Seventh 10%	61	420
Eighth 10%	52	322
Ninth 10%	59	226
Tenth 10%	60	192
All cultivators	63	454
Non-Cultivators	45	260
Total	58	406

Thus among the non-cultivators 45 per cent of the families were in debt with an average debt of Rs. 260. Among the cultivators both the incidence and the extent of indebtedness were higher among the bigger cultivators than among the smaller ones. Thus considering the ten percent biggest cultivators more than two thirds of them were in debt with an average debt of Rs. 1065 per indebted family. In the second group of ten percent biggest cultivators, more than three fourths of the families were in debt with an average debts of Rs. 558, per indebted family. In fact, if we combine these two groups which make the twenty percent biggest cultivators, forty percent of the total indebtedness of cultivators belongs to them. On the other hand the share in the total indebtedness of the 20 percent

smallest cultivators is less than 10 per cent. In this group 59 percent of the cultivators were in debt with an average debt of Rs. 209 per indebted family.

(5.15) We shall, therefore, conclude by pointing out that borrowing and indebtedness are not phenomena either confined to or even more prevalent among the smaller cultivators and the landless labour. They are, in fact, more extensive among the bigger cultivators. This is so even after allowance is made for their larger credit needs on account of the larger farm business. There remains, of course, one explanation, namely, that the smaller cultivators and the landless labour borrow less and are indebted to a smaller extent, not because their credit needs are smaller but because being less

creditworthy, their demand is less effective. From this point of view the bigger cultivators are better placed in the sense that they can borrow and get into debt with greater facility.

(5.16) We have examined the relative shares of different credit agencies in supplying the credit raised during the year. We shall now examine their dues in the total debt outstanding at the end of the year. They are as under:-

**Table 5.10. Indebtedness Outstanding at the end of the year.**

Cultivators	Percent of total debt due
Government	5.8
Co-operative Societies	7.0
Traders and commission agents	12.0
Private moneylenders	6.4
Agricultural moneylenders	51.0
Relatives	17.5
Zamindars	0.3
Total	100.00

It is seen that the shares of all credit agencies except agricultural moneylenders, and relatives are much larger in the outstanding indebtedness than in the borrowings during the year. We have already seen that almost the entire government finance is available for capital expenditure and is therefore, of a longer term. A substantial portion of the advances from private moneylenders, traders and commission agents, goes to

finance family expenditure of the borrower, and though intended to be strictly short term, actually remains standing over a long term particularly because the private moneylender is more accommodative. Though a large part of the advances of co-operative societies and Banks are used for financing family expenditure, still a substantial portion of it goes to finance capital expenditure and is therefore of longer term. The agricultural moneylenders are the major source of finance for all strata of cultivators and non-cultivators. But so far as the small cultivators and landless labour are concerned this is the most important source of credit and it mainly finances family expenditure. Hence in view of the nature of the clientele the agricultural moneylender would not allow many over dues. Advances from relatives are interest free by our definition and usually are in the nature of short term accommodation. For these reasons the shares of these agencies in the total outstanding debt are somewhat smaller than their shares in the annual borrowing.

## VI. BALANCE OF INVESTMENT AND DISINVESTMENT

(6.1) The discussion in the previous chapters might be summarised by bringing together what might be called investment expenditure and disinvestment receipts of the families. The items as under:-

**Table 6.1.**

Disinvestment receipts	Rs.	Investment Expenditure	Rs.
1. Sale of assets	36	5. Ag. Investment	135.0
2. Borrowing	166	6. Non-ag. Investment	14.0
		7. Financial Investment	0.5
		8. Durable consumer expenditure	39.0
3. From current A/c	18.5	9. Repayment of debt	32.0
4. Total Receipts	220.50	10. Total payments	220.50

Thus presented the items are indeed the sides of the capital account of an average family. The balance between the receipts and expenditure, which in this case is a small positive amount of Rs. 19 has therefore, been shown as item 3 on the receipts side, and termed "from current Account". It is in fact a measure of how much from the current account is transferred to the capital account by way of investment. The item has obvious similarity with the concept of net capital formation and should for that reason be clearly distinguished from that concept. It should be noted that the above statement is restricted to only actual capital transactions. From it are excluded firstly all imputations regarding appreciation or depreciation of assets both through physical changes and through price changes; secondly, changes in the inventories of stocks as also changes in cash balance including other liquid assets are excluded. These are of course matters of definition of the scope and content of concepts involved. But even with the

restricted concept, there are a couple of shortcomings in the above statement, one is minor and might be neglected. It is that while on the receipts side, under sale of assets, sale of bullion, etc., is included, the corresponding item on the expenditure side, namely, purchase of bullion, ornaments etc., has not been included. For obvious reasons, information on purchase of bullion etc., was not asked for. The item however is small, only worth Rs. 0.1 per family and a partial correction for the omission of the item on the right hand side would be to drop it from the left hand side as well. In doing this, we shall be merely treating bullion and ornaments, on par with cash and other liquid assets. The other omission is serious. Borrowings appear appropriately on the receipts, that is to say, on the disinvestment side and the repayments on the investment expenditure side. We have omitted however an analogous pair of receipts and payments. They are, the receipts by way of recovery of loans on the one hand, and payment by way of

making of loans on the other. As we shall see this omission is rather serious and detracts much from the value of the balancing item 3 appearing in table 6.1. From the point of view of an individual perhaps repayment is the counterpart of borrowing and recovery that of lending. But in relation to the account of a group and in relation to a point of time or a period of time, it is the lending which is the counterpart of borrowing and recovery that of repayment. However that is an academic point and so long as both borrowing and recovery appear on the receipts side and lending and repayment appears on the payment side, the statement would be unobjectionable from this point of view. The omission of both lending and recovery however causes serious difficulty. As it was thought difficult to obtain reliable information, no information was obtained on these points and that leaves the statement necessarily incomplete.

(6.3) An attempt might be made to fill in these serious gaps in the above statement. We would noted to begin with that all borrowing by individuals is not from individuals but that, part of it is from institutions such as Government, Co-operative Societies, Banks, etc. On the other hand, lending by individuals to institutions is small and has been included under other categories of financial assets such as deposits, etc. For

this reason, it is obvious that the lending by individuals, which would appear on the right hand side of the above statement would be smaller than the borrowing by individuals. For the same reason, recoveries by individuals would be smaller than the repayment by individual. There is a further reason why in the above statement lending would be smaller than borrowing and recoveries smaller than repayment. Even when individuals have borrowed from individuals, the creditors would often be persons not belonging to the group of individuals to which the above statement is supposed to refer. Such for instance are money lenders and traders who would be mostly residents of larger towns and marketing centers which the sample of villages does not cover or represent. In fact, if we refer to our classification of creditors, it appears that it is the agriculturist moneylenders and the relatives of the borrower who would be persons included in the group of individuals covered by the above statement. Agriculturist moneylenders are in most cases cultivators; themselves and the relatives of the borrower would not be very different from himself. Some of them of course would be urban workers. But as will appear from the farm business data presented in subsequent chapters, the receipts from remittances to the cultivators in this district were small. There is therefore, little evidence of the agriculture at home being subsidised by

workers in cities and other urban centers. It seems likely that the credit received by the village people from their city relatives would also be small. At any rate there is no immediate possibility of finding this out and we shall therefore, neglect the point. As we earlier noted, out of the total of borrowing of R. 166/- per family, 62 percent was borrowed from agriculturist moneylenders and 21 percent was borrowed from relatives. Thus we might say 83 percent of Rs. 166 which is Rs. 138/- were borrowed by the families from other families within the group they represent. If therefore, we were to have an item of "lending" on the right hand side, it would be approximately Rs. 138/-.

(6.4) Regarding recovery of loans, as pointed out earlier, the receipts on that account would be smaller than the repayments appearing on the right hand side. The repayments during the year amounted to Rs. 32 per family. We have no knowledge of the creditor composition of the repayments. As a first approximation we might take the same percentage, namely 83 percent as having been repaid to individuals belonging to the group under discussion. That would be about Rs. 27. However, we are inclined to believe that the actual share of the individuals in the repayments during the year would be somewhat larger. One reason for this belief is that the share of

institutions in the outstanding indebtedness is very much greater than their share in the borrowings. This indicated that the repayment towards institutional loans is less than proportionate to their share in borrowing. This is so in the case of individual creditors other than agriculturist moneylenders and relatives. The agriculturist moneylenders and relatives together supplied 83 percent of the total credit. But their share in the outstanding indebtedness is only about 68 percent. Clearly their share in repayment must have been more than proportionate to their share in borrowing. Another reason for this is that agriculturist moneylenders and relatives reside in the village itself and are therefore, in a position to know the financial condition of the borrower at any time and are able to recover the loan from time to time and in installments. It is therefore, obvious that the share of agriculturist moneylenders and relatives in recoveries is considerable. Any guess is by its nature bound to be arbitrary; but we are inclined to believe that about 90 percent of the repayment were to individuals belonging to the group of families under consideration. Therefore, we put this figure at about Rs. 29 per family.

(6.5) If we are now permitted to enter these items, the statement would appear as under. (table 6.2) Thus the resulting investment surplus which we show as transfer from current account to capital

account is about Rs. 127 per family. This investment surplus of Rs. 127 per family includes the expenditure on durable consumer goods which amounts to Rs. 39 per family. Some might not choose to include this item under "investment". Therefore, if it is omitted, the surplus is reduced to Rs. 68 per family.

(6.6) If we now confine our attention to the cultivating families only, the above statement per cultivator appears as under. (table 6.3) In this statement, the lending has been put equal to borrowing by all families from agricultural moneylenders

plus borrowing by cultivators from their relatives. This seems to be reasonable. On the other hand, the recoveries will have to be put somewhat arbitrarily. We propose to proceed on the assumption that the recoveries amounting to Rs. 29 per family which we entered in the previous statement, were all recoveries accruing to cultivators. This will if anything be an overestimate of this item and we shall be safer in the sense of not overestimating the investment surplus. The resulting surplus is Rs. 200 and is very much larger than the average for all families.

**Table 6.2.**

Receipts	Rs.	Payments	Rs.
1. Sale of ag. Assets (Land, livestock, etc.)	35	9. Ag. Investment	135.0
2. Sale of non-ag. Assets	-	10. Non- ag. Investment	14.0
3. Liquidation of financial assets	-	11. Financial investment	0.5
4. sales of other assets	1	12. Durable consumer expenditure	39.0
5. Borrowing	166	13. Lending (borrowing from Ag. Money lenders and relatives)	137.0
6. Recoveries (approx)	29	14. Repayments	32.0
7. From current A/c.	126.5		
8. Total Receipts	357.5	15. Total repayments	357.5

**Table 6.3.**

Disinvestment receipts	Rs.	Investment Expenditure	Rs.
1. Sale of Ag. Assets (Land, Livestock etc.)	42	9. Ag. Investment	185
2. Sale of non-ag. Assets	-	10. Non-ag. Investment	15
3. liquidation of financial assets	-	11. Financial investment	1
4. Sale of other assets	1	12. Durable consumer expenditure	48
5. Borrowing	205	13. Lending (borrowing from Ag. Money lenders and relatives)	189
6. Recoveries	29	14. Repayments	39
7. From current A/c.	200		
8. Total Receipts	477	15. Total payments	477

(6.7) It is to be expected that the investment surplus will be larger with the bigger cultivators than with the smaller ones. It would be useful therefore to prepare similar investment and disinvestment statements separately for the ten groups of cultivators. However, even an approximate estimation of the two items of lending and recoveries separately for ten groups of cultivators seems difficult. As we put them in the previous section, the lending and recoveries per cultivator were Rs. 189 and Rs. 29, respectively. The problem now is to divide these total estimated lending and recoveries of all cultivators among the ten groups. There is no direct way to do this. In the following we describe an attempt to achieve this indirectly. Though we have not so far made use of the information, we have in the General Schedule asked each family regarding its outstanding dues. In the following table (table 6.4) we give the reported outstanding dues for the ten groups of cultivators and also for the non-cultivating families. In a parallel column we give the indebtedness owing to agriculturist moneylenders and relatives. If the reported outstanding dues were reasonably complete the total dues should approximately be equal to the total indebtedness owing to agriculturist moneylenders and relatives. As it is, the outstanding dues are very much smaller

than the relevant indebtedness and it is obvious that the outstanding dues are grossly under reported. That was of course expected and in fact it was for that reason that we did not so far use the reported data on dues.

**Table 6.4.**

Stratum of Families	Outstanding Dues Rs.	Indebtedness owing to Ag. Moneylenders and relatives Rs.
1	9,700	26,580
2	2,140	19,370
3	2,500	12,600
4	1,240	14,380
5	570	14,460
6	420	10,030
7	1,000	11,120
8	780	10,230
9	330	7,670
10	280	5,850
All cultivators	18,960	1,32,290
Non-cultivators	2,530	28,160
Total	21,490	1,60,450

If this reporting were reasonably complete, we had thought that we might as an approximation distribute the total estimated lending by all cultivators among the ten groups in the same proportion as their reported outstanding dues. In view of the gross under reporting of the dues, this does not seem possible.

(6.8) In comparing the investment expenditure and the disinvestment receipts of different groups of cultivators, we shall not therefore take an account of the lendings and recoveries. In the following table (table 6.5) we give in summary form the per family receipts and expenditure of different groups of cultivators:-

**Table 6.5.**

Stratum	Sale of assets	Borrowing	Total receipts	Investment expenditure	Durable consumer expenditure	Repayment of debt	Total expenditure
1	116	426	542	702	136	102	940
2	56	324	380	300	60	61	421
3	54	200	254	201	55	33	289
4	51	231	282	236	26	39	301
5	34	224	258	167	53	44	264
6	28	130	158	89	19	18	126
7	37	188	225	95	42	38	175
8	11	133	144	74	29	8	111
9	33	106	139	52	14	34	100
10	5	82	87	77	50	11	138

(6.9) For a comparison between the bigger and smaller cultivators, we might concentrate our attention as we have earlier done, on the first group, namely, that of 10 percent biggest cultivators and last two groups, namely, the groups of 20 percent of smaller cultivators. Considering first the groups of ten percent biggest cultivators, we give in the table below principal investment and disinvestment items per cultivator in this group. Some of the disinvestment items could obviously be set off against corresponding investment items. Thus we might set off sale of land against the purchase of land or the borrowings made to meet the capital investment in agriculture against the total of such expenditure. In the following table, wherever possible, the investment items have been so netted for the corresponding disinvestment items.



**Table 6.6.**

Item	Expenditure per cultivator in the group of 10% biggest cultivators
Purchase of land net of sales	5.5
Purchase of livestock net of sales	71.3
Purchase of implements net of sales	120.8
Land improvement	349.7
Total Investment in agriculture net of sales	547.3
Minus borrowings for capital investment in agriculture	176.6
Total investment in agriculture net of borrowing	370.7
Capital investment in non- farm business	40.1
Additions to financial assets	2.4
Consumer capital expenditure	136.4
Repayment of old debt	102.4
Total	652.0

The disinvestment items which could not be net off against any of the investment items are:-

Sale of other assets	3.0
Borrowings:	249.0
For current farm expenditure	45.6
For family expenditure	191.7
For other expenditure	11.7
Total	252.0

In this group of cultivators, however, the expenditure on marriage has been as much as Rs. 187 per family and there is no doubt that a considerable part of it must be on purchases of bullion and ornaments. Apart from voluntary expenditure on this item on such occasions, social customs and family prestige

demand a minimum of this kind of expenditure, and it is not uncommon for the parties to agree in advance upon the weight of bullion which the bride or the bridegroom will wear. Remembering that here we are considering only the cash expenditure on marriage ceremonies ten percent of the total seems a very conservative estimate of expenditure on this item. So that there seems little doubt that the purchases of bullion would more than balance its sales in this group of cultivators. Therefore, on this account also the investment surplus would be somewhat larger than it appears in the table 6.6.

(6.10) Thus there is an investment excess of Rs. 400 per cultivator in this

group. We should remind that we have neglected both lendings and recoveries. As the total borrowing is far in excess of total repayment, we expect that in the group of biggest cultivators lending would be considerably larger than recoveries. The actual investment surplus in this group should therefore, be considerably larger than it appears above. Secondly, we have earlier suggested that sale of ornaments and bullion might be omitted, from the disinvestment side. In comparing the big and the small cultivators we have thought it desirable to present the reported sales of bullion. In the above table we have, therefore, entered on the disinvestment side sale of ornaments and bullion. But as indicated earlier, the amount is small, and insignificant worth only about Rs. 0.1 per family in this group.

(6.11) It might be reminded that the investment items are not net of depreciation and replacement. These are particularly important in the case of livestock implements and buildings. We have no data on the basis of which depreciation allowance might be made. Nevertheless we shall return to this point, in the next chapter again while studying farm business accounts of the cultivators. The same is true of the large disinvestment item, namely, borrowing for current farm

expenditure. It seems necessary to examine more closely its contents and the reasons why most of it could not be set off against equivalent repayments. We hope to do this in the next chapter. Borrowing on family account is also substantial, the most important items of family expenditure being clothing, marriage, and construction and repair of buildings, in that order. We have already connected on this point, earlier. The only additional point to which we wish to draw attention is that this large borrowing on family account takes place side by side with substantial excess on the investment side. This might partly be explained by the fact that the group of families is not altogether homogeneous, in the sense that the families incurring the investment expenditure might not all be the same as those who borrowed on family account. There is no doubt, however, that the group of bigger cultivators presents some very intriguing features. We hope, that when in the next chapter, we study their farm business, some light could be thrown on these features.

(6.12) Against this might be contrasted the conditions in the 20 percent smallest cultivators. In the following table we give their investment items netted for corresponding disinvestment items wherever possible:-

**Table 6.7.**

Item	Per cultivator in the group of 20 percent smallest cul- tivators
Purchase of land net of sales	10.6
Purchase of livestock net of sales	-2.0
Purchase of implements net of sales	1.5
Land improvement	11.3
Total Investment in agriculture net of sales	21.4
Minus borrowings for capital investment in agriculture	13.9
Capital investment in agriculture net of borrowing	7.5
Capital investment in non-agricultural net of borrowing	18.9
Additions to financial assets	0.3
Consumer capital expenditure	31.3
Repayment of debt	22.5
Total	80.5
The disinvestment items are:-	
Borrowing for current farm expenditure	3.4
Borrowing for family expenditure	70.2
Borrowing for other expenditure	2.5
Total	76.1

Thus there results a surplus of Rs. 4 per cultivator in this group.

(6.13) We shall conclude this discussion by once again drawing attention to the contrast which the two groups of cultivators show. On the one hand, borrowing even on family account is larger with the bigger cultivators. But side by side with this borrowing there takes place considerable investment, one third of which

again is financed by borrowings and which inspite of large borrowings on family account, results in a net surplus of Rs. 400 on the investment side. On the other hand the smaller cultivators borrow less on family account and much more less on other accounts. Yet in their case the investment surplus is very small. It seems therefore, that larger borrowing or for that matter larger borrowing on family account does not necessarily indicate an

unfavorable or undesirable situation. Use of credit by the creditworthy is natural and perhaps also desirable. The distinction between the farm and the family accounts, however, is an accounting distinction and at source when and where credit is drawn upon, it is not always obvious and is often artificial.

## VII. FARM BUSINESS SURVEY

(7.1) The discussion of the credit needs in the previous chapter was based on the information supplied by the General Schedule and as such could not be related in more than a general way, to the economic circumstances of the families concerned. This would need more detailed information regarding the occupation, income and expenditure of the families concerned. This could not of course be attempted for all the 2528 families surveyed by the General Schedule. It was therefore decided in the first instance, to restrict ourselves only to the cultivating families and secondly, even among cultivating families to investigate in more detail only a small sample of them. A sample of 120 cultivators, 15 from each one of the selected villages, was therefore, selected for the purpose. Information on the principal items of farm expenditure and receipts

was obtained by means of two visits to them. In the first visit, the period from April 1951 to September 1951 was covered. In the second visit the period from October 1951 to March 1952 was covered. Though it was expected that these two visits would roughly correspond to the two agricultural cropping seasons Kharif and Rabi it so happened that actually both the crops - Kharif and Rabi - were harvested during the period covered by the second visit. Therefore, as will be seen in later sections, very few farm receipts were reported during the first visit. Other aspects of farm business during Kharif season were of course covered in the first visit.

(7.2) In selecting the sample of 15 cultivators from each village care was taken to make the sample representative of the cultivators in the village. Attention might be invited to the manner in which the cultivators in each village were divided into ten equal groups after being arranged in the descending order of their cultivated holdings. The range of the size of the cultivated holdings for different groups in each village were, for instance, give in table 3.2. From each one of the first five groups, which together comprised half and the bigger cultivators, two

cultivators were selected. On the other hand from each one of the latter five groups consisting of smaller cultivators, only one cultivator was selected. This gave a total of fifteen cultivators from each village. The reason for choosing a larger number of bigger cultivators was the possibility that there would be more variety in their farm business. Within each group, the selection was of course made in accordance with an appropriate random procedure.

(7.3) A great deal of detailed information was obtained regarding various items of farm business of these cultivators. In table 7.1, we give a few summary items for each one of the 120 cultivators. We have presented them in ten groups according to the ten groups from which they were selected, from their respective villages. Thus, the first group of 16 cultivators, two from each village, are those selected from the ten percent biggest cultivators, from their respective villages. The first five groups thus consist of 16 cultivators each, while the latter five groups consist of eight cultivators each. At the end of each group, the averages for all items for that group are given. These averages it should be noted. Are not simple averages of the cultivators

appearing in each group. In section 3.3, we had explained the kind of biases by which our sample of villages was affected. The first bias arose out of an over representation of the larger villages. In the present sample of cultivators, this bias is corrected by taking the same number, namely 15, of cultivators from each village, whether large or small. In fact it is for this reason that in selecting the villages, they were given chance proportional to their populations. The second bias was on account of the equal representation of the society and non-society villages. In the sample of cultivators this bias remains and has to be corrected by the same procedure as explained in section 3.3. The average for each group of cultivators are therefore, though not simple averages are "weighted" to remove only the society and non-society bias. At the end of the table a summary is given. It contains the averages of all items for the cultivators in the first five groups, in the last five groups and for all cultivators taken together. We might for convenience call the cultivators in the first groups, the bigger cultivators and those in the latter five groups, the smaller cultivators. The averages for these are obtained by simply averaging the averages of the individual groups. The

average for all cultivators, appearing in the last line of the table is again a simple average of averages for the bigger and smaller cultivators. It should be noted, however, that this is not the same as a simple average of 120 cultivators. As we have explained, the 120 cultivators consisted of 80 bigger and only 40 smaller cultivators, though the original groups of bigger and smaller cultivators as they were constituted were numerically equal. To remedy this the general average is obtained as a simple average of the averages of the bigger and smaller cultivators, whereby the two groups are placed on an equal footing.

(7.4) The items included in table 7.1 are as under and appear in columns bearing respective numbers:-

- 0 - Serial number
- 1 - Value of owned land and buildings (in Rs.00's)
- 2 - Value of owned livestock and implements (in Rs.00's)
- 3 - Area sown in acres.
- 4 - Cash receipts by sale of produce.
- 5 - Other cash receipts
- 6 - Unsold produce.

- 7 - Total receipts
- 8 - Cash expenditure
- 9 - Expenditure in kind.
- 10 - Total expenditure
- 11 - Balance in cash.
- 12 - Balance in kind.
- 13 - Capital investment in agriculture
- 14 - Borrowing during the year
- 15 - Repayment during the year
- 16 - Total outstanding debt at the end of the year.

(7.5) As will appear from the last line of table 3.1 the average size of the cultivated holding of the selected cultivators was 25.5 acres and the average number of plough cattle they owned was about two. Those agree very well with the average for all cultivators obtained from the General Schedule and suggest that the sample of cultivators, selected for detailed study, formed a good and representative sample of all cultivators. It should be possible, therefore, to discuss on the basis of this sample of cultivators, aspects of the problem which, for lack of more detailed information could not be discussed in the previous chapter. We propose to do this in the following chapters.

Table 7.1.

## Decile I.

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	3	422	27	52	665	-	1137	1802	918	530	1448	-253	607	700	964	-	1036
1	6	32	15	48	410	36	674	1120	601	223	824	-1558	451	300	500	-	516
2	3	149	15	76	1206	95	1700	3000	430	686	1116	70	1014	500	300	55	-
2	5	146	15	60	441	-	1728	2169	257	370	627	184	1358	430	-	-	-
3	6	181	19	75	-	-	1334	1334	417	350	767	-417	984	100	440	-	940
3	11	150	11	60	587	840	174	1601	666	745	1411	761	-571	30	-	-	-
4	3	822	90	204	6075	-	-9	6066	2897	3105	6002	3178	-3114	4000	-	-	-
4	16	143	21	81	1700	-	-320	1380	1083	1375	2458	617	-1695	1700	1100	425	690
8	8	765	53	120	1550	-	794	2344	4812	2877	7689	-3262	-2083	1560	400	1200	203
8	39	53	19	60	1700	20	1092	2812	1285	711	1996	435	381	1348	500	-	1000
15	2	74	71	160	1293	-	3750	5043	2531	585	3116	-1238	3165	120	1050	300	2260
15	6	55	4	74	1000	-	1935	2935	1668	272	1940	668	1663	500	-	-	-
16	6	6	7	62	220	-	1178	1398	238	770	1008	-18	408	400	600	-	500
16	16	100	23	48	249	-	509	758	633	101	734	-384	408	400	-	-	700
17	3	860	26	190	6666	-	1797	1246	3965	2875	6840	2701	2922	650	800	-	1700
17	16	286	29	52	1225	-	2039	3	1262	962	2224	-37	1077	800	1500	500	1500
3264																	
Weigh- ted	Average	263	28	89.5	1577	58	1545	3180	1461	1026	2487	174	519	820	520	154	720

## Decile II.

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	14	11	17	38	533	-	-141	392	302	165	467	231	-306	300	400	-	470
1	15	2	9	36	244	-	516	760	570	383	953	-326	133	80	300	248	112
2	15	87	12	36	296	25	908	1229	175	308	483	146	600	-	-	-	-
2	16	55	10	48	196	300	1296	1792	30	474	504	466	822	16	-	-	-
3	17	59	8	36	-	-	481	421	295	48	343	-295	373	310	1154	-	1337
3	18	75	18	42	-	112	900	1012	140	387	527	-28	513	400	150	150	-
4	35	79	11	59	945	-	758	1703	391	602	993	554	156	160	50	-	50
4	56	37	8	45	126	-	825	851	423	423	846	-297	402	300	335	-	238
8	73	200	2	40	1008	-	460	1468	1908	96	2004	-900	364	150	500	1000	1772
8	83	40	14	32	154	-	930	1084	127	516	643	27	414	60	260	-	260
15	29	18	2	39	631	-	257	888	520	159	679	111	98	150	500	400	1325
15	30	6	18	38	680	50	565	1295	358	259	617	372	306	100	200	-	200
16	36	40	4	32	80	546	242	867	98	47	145	527	195	130	650	-	650
16	57	120	6	24	40	-	183	223	132	5	137	-92	178	150	-	-	701
17	25	43	18	44	446	-	1872	2318	608	1265	1868	-157	607	530	750	-	750
17	37	13	14	35	-	180	1760	1920	21	1219	1240	139	541	1750	-	-	-
Weigh- ted	Average	54	10	38.7	335	78	740	1153	373	395	768	40	345	300	330	109	500

**Decile III.**

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	21	27	7	32	420	80	572	1072	974	348	1322	-474	224	420	-	248	24
1	22	1	9	32	209	55	175	439	284	119	403	-20	56	60	-	-	-
2	24	12	7	32	371	120	955	1446	68	590	658	423	365	178	200	25	100
2	26	30	6	28	326	41	662	1029	81	287	368	286	375	-	-	-	-
3	26	73	8	32	224	-	282	506	360	141	501	-136	141	86	5500	-	400
3	32	43	14	30	-	50	1136	1186	267	269	536	-217	1867	150	185	185	-
4	63	5	3	42	260	100	1400	1760	174	1222	1396	186	178	120	60	92	-
4	82	65	15	34	424	-	288	712	728	354	1082	-304	-66	50	670	50	637
8	88	11	4	53	400	1510	992	2902	481	360	841	1429	632	500	600	400	600
8	92	55	13	42	-	-	1040	1040	191	345	536	-191	695	-	-	-	-
15	52	45	-	28	-	330	269	599	164	10	174	166	259	-	-	-	-
15	69	10	4	24	-	1100	501	1601	377	56	433	723	445	380	300	-	300
16	66	80	15	16	642	-	1598	2240	1078	156	1234	-436	1442	390	-	-	-
16	83	104	21	21	587	-	1554	2141	500	263	763	87	1291	779	-	-	1000
17	41	72	3	36	224	-	935	1159	418	298	716	-194	637	520	345	-	200
17	53	10	6	30	390	250	893	1523	402	173	575	228	720	-	50	-	-
Weigh- ted	Average	41	8	31.6	281	231	838	1350	416	301	717	96	537	235	467	58	207

**Decile IV.**

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	24	31	18	32	466	100	622	1188	153	716	869	413	-94	-	100	-	100
1	29	2	4	24	186	50	298	534	206	109	315	30	189	-	300	-	406
2	34	62	9	24	293	25	373	696	69	128	197	249	250	430	200	50	200
2	35	85	4	24	225	86	171	482	28	93	121	283	78	125	150	-	150
3	41	101	17	24	150	-	462	612	138	230	368	12	232	400	150	-	150
3	43	70	9	24	-	-	680	680	130	149	278	-130	532	16	-	-	-
4	105	65	3	28	126	-	913	1039	183	231	414	-57	682	150	75	-	152
4	109	65	-	27	832	-	-100	732	770	203	973	62	-303	-	100	-	100
8	133	8	8	35	132	120	760	1012	263	576	839	-11	184	250	430	-	430
8	145	40	9	32	25	30	1408	1463	166	1059	1225	-111	349	30	300	-	200
15	77	34	9	24	423	-	614	1037	372	79	451	51	535	145	100	-	100
15	92	20	6	20	400	450	-28	822	285	26	311	565	-54	200	50	-	200
16	112	37	11	16	273	305	87	665	234	143	377	344	-56	75	400	150	499
16	113	15	8	10	233	-	240	473	243	106	349	-10	134	50	-	-	-
17	64	20	13	28	-	-	556	556	9	372	381	-9	184	-	-	-	-
17	66	210	10	28	400	1843	823	3066	892	189	1081	1351	634	648	800	400	1600
Weigh- ted	Average	54	9	24.8	262	206	485	953	266	267	533	202	218	160	199	41	277



**Decile V.**

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	31	1	6	24	303	120	275	698	328	290	618	95	-15	200	200	-	248
1	36	67	11	20	194	38	588	820	119	181	300	113	407	-	-	-	-
2	38	80	11	24	657	68	962	1688	193	279	472	532	684	550	100	110	300
2	43	65	11	18	500	-	-22	478	49	125	174	451	-147	-	-	-	-
3	46	45	8	24	-	6	742	748	150	187	337	-144	555	300	300	-	436
3	55	68	10	20	-	104	125	229	322	182	504	-218	-57	-	510	-	978
4	115	70	8	26	135	10	253	398	236	105	341	-91	148	30	150	-	178
4	138	5	9	20	158	135	378	671	262	375	637	31	3	-	189	369	178
8	182	80	12	28	460	129	636	1225	453	223	676	136	413	-	800	100	1000
8	199	46	1	24	-	426	788	1214	730	-	730	-304	788	200	-	-	-
15	94	60	8	20	23	50	635	708	92	167	259	-19	468	400	400	-	500
15	107	30	13	18	709	-	349	1058	708	169	877	1	180	600	400		400
16	129	54	18	13	151	-	415	566	345	10	355	-194	405	120	300	-	372
16	145	24	7	12	60	225	207	422	143	104	247	142	103	86	-	-	-
17	77	4	5	24	-	356	579	935	97	299	396	259	280	4	-	-	-
17	83	70	5	22	396	-	632	1028	705	134	839	-309	498	975	625	-	997
Weighted	Average	47	9	20.9	240	104	464	808	311	175	486	33	289	227	251	34	351

**Decile VI.**

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	39	16	5	16	144	-	390	534	298	169	467	-154	221	80	-	-	-
2	48	39	6	18	429	16	562	1007	52	73	125	393	489	-	-	-	-
3	58	50	3	17	-	-	304	304	51	65	116	-51	239	-	235	-	352
4	64	35	1	15	302	-	556	858	441	179	620	-139	377	300	480	350	182
8	35	25	1	20	800	-	192	992	1087	69	1096	-227	123	50	-	-	500
15	116	25	2	16	183	145	632	960	195	172	367	133	460	-	-	-	-
16	172	8	11	10	564	300	1185	2049	131	401	532	733	784	-	100	200	104
17	112	18	1	14	-	138	233	371	11	7	18	127	226	-	100	-	50
Weighted	Average	26	4	15.6	299	83	519	901	261	146	407	121	373	50	111	69	148

**Decile VII.**

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	46	21	2	16	342	50	414	806	97	375	472	295	39	-	100	-	160
2	63	27	5	13	556	-	292	848	285	103	388	271	189	225	-	50	-
3	75	21	1	8	45	100	155	300	89	34	123	56	121	-	440	-	440
4	198	24	1	10	162	270	263	685	239	41	280	193	212	-	287	96	248
8	262	7	-	18	364	-	428	792	1292	85	1377	-928	343	30	400	-	980
15	153	3	1	10	-	465	215	680	239	15	254	226	200	-	100	-	40
16	208	20	1	7	80	-	42	122	284	-	284	-204	42	50	-	96	600
17	127	11	1	10	66	80	235	381	30	62	92	116	173	-	28	-	-
Weigh- ted	Average	16	2	11.4	191	125	248	684	310	85	395	6	163	37	160	30	302

**Decile VIII.**

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	52	50	8	6	239	-	296	534	93	71	164	146	234	-	-	-	531
2	71	20	5	8	311	88	205	604	125	92	217	274	113	40	40	75	-
3	79	3	6	8	-	300	148	448	75	12	87	225	136	-	80	-	80
4	221	22	2	7	42	380	126	548	26	137	163	396	-11	-	97	-	171
8	321	16	3	12	315	-	443	768	581	62	643	-266	381	325	450	900	450
15	184	28	3	5	173	125	219	517	424	104	528	-126	115	150	550	-	550
16	233	15	2	5	21	280	73	374	68	10	78	233	63	-	-	-	-
17	145	4	2	8	-	430	53	483	1	6	7	489	47	-	-	-	-
Weigh- ted	Average	19	4	7.4	132	206	190	528	289	60	349	49	130	63	154	113	220

**Decile IX.**

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	61	64	12	8	212	-	361	573	81	200	281	131	161	120	300	200	238
2	76	13	1	5	-	120	254	374	9	27	36	111	227	-	-	-	-
3	98	4	1	1	-	104	32	136	-	1	1	104	31	-	120	-	168
4	236	19	-	6	180	275	109	564	276	54	330	179	55	200	-	-	-
8	360	14	4	8	216	400	300	916	501	124	625	115	176	20	3000	420	180
15	194	5	-	5	120	270	18	408	173	30	203	217	-12	300	300	-	336
16	250	25	-	4	26	260	45	331	34	-	34	252	45	-	-	200	100
17	150	4	2	6	-	370	76	446	3	9	12	367	67	-	-	-	-
Weigh- ted	Average	18	2	5.4	91	230	148	463	130	53	183	191	89	81	440	100	710

**Decile X.**

Village	S.S. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	65	18	8	5	168	-	112	280	24	106	130	144	6	-	-	-	-
2	90	8	1	2	308	190	-142	356	35	15	50	463	-157	-	140	120	220
3	100	4	3	1	-	68	64	132	-	17	17	68	47	-	68	-	76
4	282	2	1	2	86	257	-10	333	71	2	73	272	-12	-	125	-	155
8	407	8	-	4	152	150	8	310	203	-	203	99	8	-	-	80	-
15	208	-	-	4	-	200	23	223	42	8	50	158	15	-	-	-	-
16	298	3	1	1	-	375	13	388	57	-	57	318	13	-	260	-	260
17	168	9	-	4	132	100	147	379	14	22	36	218	125	-	-	-	20
Weigh- ted	Average	6	2	2.9	101	168	29	298	54	28	82	215	1	-	75	23	91
First 5 Stratas		92	13	41.1	539	136	814	1488	565	433	998	109	381	348	353	79.1	411
Last 5 Stratas		17	3	8.5	163	163	226	552	209	74	283	117	152	46	188	67.0	293
All Cultivators		54	8	24.8	351	149	520	1020	387	253.5	640.5	113	266.5	197	270.5	73.0	352

### VIII. ASSETS AND NEW INVESTMENT

(8.1) One of the aspects of the problem which we would not discuss in the earlier chapters was the relation of new investment to existing assets. In earlier chapters we discussed, among other things, the extent of new capital investment in agriculture and the forms that it takes. We could not however place it against the background of the existing capital equipment. In the farm Business Survey

of the selected cultivators, we have obtained the inventories of their assets and liabilities. It should now be possible, therefore, to examine the new investment in relation to the existing assets.

(8.2) The principal assets of the cultivators are of course the owned land, buildings, livestock and implements. The average values of these assets per cultivator were as under: (table 8.1)

**Table 8.1. Value of Assets per Cultivator**

Stratum	Land Rs.	Buildings Rs.	Livestock Rs.	Implements Rs.	Other assets Rs.	Total Rs.
1	21,585	4,678	1,971	802	151	29,187
2	4,435	967	848	163	6	6,419
3	3,227	886	737	105	7	4,962
4	3,930	1,490	738	130	58	6,346
5	3,780	913	777	120	-	5,590
6	2,213	416	333	49	-	3,011
7	1,341	295	123	23	-	1,782
8	1,469	477	365	12	-	2,323
9	1,425	374	225	23	-	2,047
10	446	186	165	-	-	797
All cultivators	4,385	1,068	628	143	22	6,246

(8.3) Naturally land constitutes the principal item and accounts for more than 70 percent of the total assets. Buildings include, it must be noted, all kinds of buildings and in particular the residential buildings. In fact a large part of these assets would consist of only the residential buildings, there being very few of

other categories. Livestock comprises of the plough and milch cattle as also of other animals and some poultry. We have already noted that the number of plough cattle per cultivator is about 2. The actual average works out to be 2.17. The average number of milch cattle per cultivator is 1.64. The value of these together with a

small number of sheep and goat and some poultry, is about Rs. 628 per cultivator. A majority of the implements are of the traditional type. Besides there are a few pumping sets for lifting water. No tractors were reported in any of the selected villages.

(8.4) The sample of cultivators reported an average expenditure of Rs. 197, by way of capital investment in agriculture which agrees well with the figure obtained from the General Schedule, namely Rs. 185. However, the expenditure on the different items of capital investment in agriculture reported in the General Schedule and in the Farm Business Survey, are not in harmony. For instance the expenditure on purchase of land and purchase of implements reported in the General Schedule are double the corresponding figures obtained in the Farm Business Survey. The purchase of land is an item, the expenditure on which is incurred by only a small proportion of cultivators, only about 2.1/2 percent of them and when it is incurred the amounts involved are usually large. In such circumstances the averages based on a small sample such as of only 120 cultivators are liable to large variations. In the particular case only one cultivator has reported expenditure on purchase of land amounting to Rs.2,448 which gives an average of Rs. 12 per family. Some of the larger discrepancies

appearing between figures reported in the General Schedule and the Farm Business Survey are explained on similar grounds. Expenditure reported on other capital items both in General Schedule and in the Farm Business Survey are more or less in harmony.

(8.5) The expenditure on construction and repairs to buildings of all types, is about Rs. 46 per cultivator which comes to about 4.3 percent the total value of existing buildings. Considering the type of structures that exist in the rural areas, the new construction and repairs do not seem to be adequate to balance the depreciation of real estate. Therefore, the net investment in real estate, if any seems to be negligible. The expenditure on purchase of implements and machinery is reported to be about Rs. 13 per cultivator as against Rs. 28 in the General Schedule. This works out at about nine percent of the value of existing implements. Though it is difficult to determine the rate of depreciation of implements and machinery, a cash expenditure of nine percent of the existing value of implements should be more than adequate to cover depreciation. Some allowance, must however, be made for the fact that in evaluating the inventory, the implements were valued at cost or purchase prices, which in many cases would be very much lower than the present prices of new implements. It is

doubtful, therefore, how much of the purchases of implement, would be not if allowance were made for replacement.

(8.6) Expenditure on purchase of livestock is about Rs. 53 per cultivator which coincides with the average figure reported in General Schedule. This should be adjusted for sale of livestock, receipts from which amount to Rs. 48 per family. This gives an average of Rs. 5 on purchase of livestock net of sales and works out at about 0.8 percent of the value of livestock. Ordinarily this amount should be inadequate to cover depreciation. However, no opinion can be expressed as to its adequacy or otherwise as we have no idea as to the rate of depreciation in the value of livestock through death and advancing age, or as to the replacement which takes place by means of homebred animals.

(8.7) Expenditure on land improvement of all types comes to Rs. 119 per cultivator. If it is appropriate to relate this to the value of owned land, it works out to about 3 percent of the land value.

(8.8) Though in the above we have related the investment expenditure of all cultivators to their related total assets, it must be noted that the bulk of the investment expenditure is undertaken by only the biggest of cultivators. This was

also evident from the investment expenditure reported in the General schedule by the cultivators in different classes. Among the selected cultivators we find, for instance, that though the average expenditure on purchase of livestock is about Rs. 53, about two fifths of the expenditure is incurred by only the 10 percent biggest cultivators. If we now consider the bigger and the smaller cultivators, it would be seen that while more than 80 percent of the total expenditure on this item is reported by the former, less than 20 percent of the expenditure is reported by latter. It may further be observed that the 20 percent smallest cultivators did not report any expenditure on purchase of livestock. The average receipts by sale of livestock were reported to be Rs. 48 per cultivator. However of the total receipts about two thirds were reported by the bigger and only one third by the smaller cultivators. If we now consider purchases of livestock in relation to their sales, it would be seen that they are in excess of sales among the bigger cultivators and are short of sales among the smaller cultivators. However, considering all the cultivators the excess of purchases of livestock over their sales is very small, only Rs. 5 per cultivator. If this is related to the existing value of livestock per cultivator it is seen to be less

than one percent. In the following table per cultivator in different strata of is given purchases and sales of livestock cultivators:-

**Table 8.2.**

Stratum	Value of livestock per cultivator	Purchases of live-stock per cultivator	Sales of livestock per cultivator	Net purchases of livestock
1	1971	192.8	94.7	98.1
2	848	37.0	76.8	-39.8
3	737	97.0	57.5	39.5
4	738	42.1	46.4	-4.3
5	777	68.6	31.3	37.3
6	333	15.1	38.8	-23.7
7	123	26.1	23.2	2.9
8	365	50.0	49.3	0.7
9	225	-	56.6	-56.6
10	165	-	3.9	-3.9
All cultivators	628	52.87	47.85	5.0

(8.9) It was observed earlier that the major item of capital investment in agriculture was bunding other land improvement. The average expenditure on this item is Rs. 104 and forms 2.3 percent of the average value of owned land. Of the total expenditure on this item, about 50 per cent is incurred by the 10 per cent biggest cultivators. The average expenditure on this item in this group is about Rs. 511 which when related to the value of their owned lands; work out to be about 2.4 per cent so that in relation to their land holdings, their expenditure on land improvement is not more than that of an average cultivator. If we consider the bigger and the smaller cultivators it will be seen that the former have incurred 88 per cent of the total expenditure while the latter have incurred only 12 percent of the total expenditure. But if the expenditure incurred by the two classes is considered in relation to the value of their respective owned lands, it would be seen that the expenditure is more or less the same in both the classes for the value of land owned by the bigger and the smaller cultivators is 88 per cent and 12 per cent, respectively of the total value of land owned by all cultivators. It may further be stated that almost all strata of cultivators have incurred expenditure on this item and that this seems to be the only form in which investment expenditure seems to have been incurred by the smaller cultivators. In the following table

are given the value of owned land and the expenditure on bunding and other land improvement per cultivator in different strata of cultivators.

**Table 8.3.**

Stratum	Value of land per cultivator in this group	Expenditure on bunding and other land improvement per cultivator in this group
I	21,585	510.6
II	4,435	70.4
III	3,227	87.3
IV	3,930	97.9
V	3,780	154.7
VI	2,213	34.8
VII	1,341	70.0
VIII	1,469	13.4
IX	1,425	65.2
X	446	-
All cultivators	4,385	104.1

**Table 8.4.**

Stratum	Value of residential and other buildings per cultivator of in this group	Expenditure on construction and repairs of residential and other buildings, per cultivator in this group
I	4,678	1,460
II	967	14.0
III	886	34.3
IV	1,490	1.0
V	913	11.0
VI	416	24.4
VII	295	211.6
VIII	477	2.3
IX	374	17.4
X	186	-
All cultivators	1068	46.2

(8.10) Constructions and repairs of residential houses and other building was another important item of capital investment and as seen from table 8.4, the average expenditure on this item was about Rs. 46. It is surprising to note that the smaller cultivators who owned residential and other building of value less than 17 per cent of the total incurred 55 percent of the total expenditure while the bigger cultivators owning buildings of value exceeding 83 per cent of the total have incurred only 45 per cent of the expenditure on this item. If we relate the expenditure on this item in the two classes of cultivators to the respective value of residential and other buildings owned by them, it will be seen that it is 15 per cent in the case of smaller cultivators and only 2.1/2 per cent in the case of bigger cultivators. Thus it appears that as compared to the bigger cultivators the smaller cultivators are incurring proportionately larger expenditure on construction and repairs of residential and other buildings.

(8.11) In conclusion we may note that though the investment expenditure incurred by the bigger cultivators is larger as compared to that incurred by the smaller cultivators, it is not large in proportion to the value of their assets. Further the investment expenditure except that in land improvement is generally small and is possibly no more than adequate to keep the existing assets in their present form.



**IX. FARM BUSINESS - CURRENT ACCOUNT**

(9.1) The annual operation of farm business might be briefly summarised by mean of a statement of receipts and expenditure. For an average cultivator

with an average cultivating holding of 25.5 acres and an average sown area (counted twice when sown twice) of 24.8 acres, a summary statement of receipts and expenditure appears as under:-

**Table 9.1.**

1. Cash receipts	500	4. Cash Expenditure	387
1.1. By sale of crops and fodder	351	4.1. Purchases of goods and services	196
1.2. Other receipts	149	4.2. Payment to factors	170
		4.3. Other	21
2. Value of unsold produce	521	5. Expenditure incurred in kind	250
		6. Balance	384
		6.1. In cash	113
		6.2. In kind	271
3. Total Receipts	1021	7. Total expenditure	1021

(9.2) In the above statement both the receipts and payments have been divided into two broad categories, namely, in cash and in kind and the statement shows a resulting cash balance of Rs. 113 and a Balance in kind worth Rs. 270/-. For a better appreciation of the content of this balance we should explain in some detail the items appearing on both sides of the above statement.

(9.3) On the receipts side, we have Rs. 351/- by sale of crops and Rs. 521/- as the value of unsold produce. This gives us a total of Rs. 872 as the gross value of produce. The value of unsold produce has been obtained by subtracting from the

gross value of produce, the value of sales. This might be objected to on grounds that sales might not necessarily be out of the current years produce. That is of course true and it is possible that some of the sales might be from the previous years produce. This does not however affect the current account and in a statement where the inventories of stocks at the beginning and at the end and hence the changes in the inventories are not shown, the above appears to be the appropriate accounting procedure.

(9.4) In the following table, we give the commodity composition of the gross produce, sold and unsold. (Table 9.2)

(9.5) This is the composition of the gross produce of an average cultivator in the district. It should be noted, however, that as pointed out in the introductory chapter, there is predominance and concentration of certain crops in certain regions of the district, so that an average cultivator with the composition of the kind above shown is perhaps not to be met with. At any rate he is not the one to be most frequently found. The above should be regarded, therefore, as the composition of agricultural produce of the district rather than that of a cultivator. Thus about 58 per cent of the total agricultural produce of the district comprises of foodgrains and fodder and the remaining 42 per cent of the commercial crops, mainly groundnut and cotton.

Table 9.2.

Crop	Sold Rs.	Unsold Rs.	Total Rs.
Millets	29.4	299.9	329.3
Wheat	1.4	34.0	35.4
Rice	1.7	6.1	7.8
Other cereals	-	12.3	12.3
Gram	3.4	5.7	9.1
Arhar	3.8	13.0	16.8
Other pulses	0.3	4.2	4.5
Total	40.0	375.2	418.2
Cotton	141.4	-51.0*	90.4
Oilseed (mainly groundnut)	158.3	93.6	251.9
Chillies and other spices	0.2	3.2	3.4
Fruits and vegetables	10.0	4.1	14.1
Other (sugarcane)	-	3.6	3.6
Total	309.9	53.5	363.4
Fodder	1.1	92.0	93.1
Grand Total	351.0	520.7	871.7

\* The negative balance indicates the value of stocks brought forward from the previous year.

(9.6) Relating current sales to current produce which seems largely justified in the present, case, it appears that among food crops only pulses, particularly gram and arhar are grown for the market; about one third of the gram and one fourth of the arhar grown having been marketed. Though about one fourth of the paddy grown is also marketed, it should be noted that the total sale proceeds are small and insignificant in absolute terms. The value of millets sold was substantial and formed nearly one tenth of the total sale proceeds of all crops. But then millets are the principal crops of the district and are grown primarily for home consumption. Only about one tenth of total millets grown is seen to have been marketed. Of commercial crops, sugar cane is grown primarily for home consumption while the other are grown primarily for the market. It is to be noted that only about three fifths of the groundnut is used for making payments in kind as is the prevalent practice, and part of it is consumed or stocked. In the case of cotton the sales are far in excess of the cotton grown during the year indicating that the excess might be the stocks brought forward from the previous year unless the production has been under-reported. Of fodder, only a little is sold.

(9.7) It should be noted that the total of Rs. 872 of gross produce is for an average farm of 25.5 acres or of 24.8 acres

of sown area. The gross produce per acre, therefore, works out to be Rs. 35. This is an average figure composite for all crops and it might be worthwhile comparing the gross produce per acre for different crops. The 24.8 acres of sown area is approximately distributed as under:-

**Table 9.3.**

Crop	Acres
Millets	12.4
Wheat	1.2
Other cereals	0.6
Pulses	1.6
Cotton	4.2
Oil seeds	4.5
Other	0.3
Total	24.8

It is necessary to note here that though the distribution of crop acreages in the sample of cultivators. Cultivators chosen for the Farm Business Survey follows the general pattern of crop acreages of the whole district, there are certain major differences. Thus the acreage under cotton and oil seeds is 17 per cent and 18 per cent, respectively in the case of the sample of cultivators whereas it is 7 per cent and 14 per cent, respectively in the case of the district as a whole. Thus the commercial crops are over-represented in the sample. Consequently the acreage under millets is only 50 per cent in the sample as compared to 61 per cent in the district. The acreage under wheat is also somewhat smaller in the sample than in

the district. Therefore, it appears that we have a proportionately larger number of cotton and groundnut cultivators and smaller numbers of millets and wheat cultivators in the sample of cultivators chosen for Farm Business Survey.

(9.8) Returning to the gross value per acre of different crops, we should now relate the gross value of millets, namely Rs. 329.3 to area sown under them, that is 12.4 acres. That gives an average of about Rs. 26.5 per acre. Little area is shown under fodder crops as such and it seems that most of the fodder is the stalk of millet crops particularly of Jowar and Bajri. If we make some allowance, say about 40 per cent, for the fodder value of the stalks of millets crops, and add that to the value of grains, that gives an average gross value of about Rs. 37 per acre of millets crops. Similar figures for other crops are Rs. 29.5 for wheat, Rs. 19 for pulses, Rs. 21.5 cotton and Rs. 56 for oilseeds.

(9.9) These figures are very much on the lower side and are to be mainly explained as due to the unfavorable character of the season, Rainfall in 1951-52 was both inadequate and badly distributed and the yields of different crops were reported to be about one third of their normals. In view of the prevalence of scarcity conditions full suspension of land revenue had been granted in

171 villages and half suspension of land revenue had been granted in 219 villages. Thus out of about 1300 villages in the district, nearly one third had been affected by scarcity. Full suspension of land revenue had been granted in two of the selected villages. Under the circumstances, it would also be difficult to compare the relative value of yields of different crops.

(9.10) Other cash receipts appearing on the receipts side are as under:-

**Table 9.4. Other cash receipts per cultivator**

By sale of livestock	8.7
By sale of miscellaneous agricultural produce	0.3
By cash wages	118.0
From Remittances	7.2
By carting	2.1
Cash rent	12.9
<b>Total</b>	<b>149.2</b>

While choosing the items to be included, the intention was to include only such receipts items as might be considered part of the farm business receipts. Receipts from non-farm business of the cultivators were specifically omitted.

(9.11) The inclusion in farm business of carting, wages and rent and remittance received might be disputed. If cart is

considered as part of the capital equipment of the farm business, as it most often is, the receipts for its hiring should belong to the farm business. The inclusion of rent received is also justifiable on the same ground. The case for inclusion of wages is more difficult. The receipts per cultivator on this account are reported to be Rs. 118. As we shall later see, the expenditure per cultivator on employment of casual labour is reported to be Rs. 117.4. The extremely close correspondence between the two figures must be fortuitous. Partly it might be due to the possible inclusion of non-farm wages in the wage receipts. It is clear however that a large part of the wage payments which cultivators themselves. Therefore, when a cultivator sometimes employs labour on his farm and at some other time himself seeks employment on other farm, he is making no more than a time and labour adjustment; and if his payments are to be reported as farm expenditure his receipts should appropriately be regarded as farm business receipts. We might frame the argument in a somewhat different manner. Considerable amount of farm work is done by mutual exchange of human and team labour between cultivators. When this is done, it neither appears on the receipts nor on the expenditure side of the farm business. The omission is justified only as an accounting practice as the two

entries would normally balance. When cash payments are made and received the position is not fundamentally different, except that the two entries need not and will not usually balance for a farm so that there is need for explicit entries on both sides. Our inclusion of this item, however, rests on simpler consideration; namely, firstly, it comes very close to farm business and secondly, it forms an important source of cash receipts to cultivators, particularly to the smaller ones. Its importance is obvious because even for the average cultivator, it form about 24 per cent of the total cash receipts. Remittances are important in certain districts. In the accounts they are in the nature of subsidies or other transfer payments. Reportedly, where they are important, they form some of the principal sources of cash receipts and when they do, they finance not only the family expenditure but also cash expenses on farm. It is for that reason that we have included them on the receipts side.

(9.12) On the expenditure side, following the usual social accounting practice, the cash expenture is divided into three broad categories, namely (i) purchase of goods and services (ii) payment to factors and (iii) other charges. In the following table are given the details of expenditure on purchase of goods and services:-

**Table 9.5. Cash Purchases of goods and services**

Seed	44.9
Manure	9.6
Fodder	165.0
Materials other than seed, fodder or manure	3.3
Purchase of grain for paying wages in kind	4.5
Maintenance and Repair of implements	5.2
Hire of implements and plough cattle	29.0
Storage, transport, sales commission, etc.	12.4
Rent	22.5
Total	196.4

(9.13) The items are clear. It might be noted that while expenditure on hire of implements and of plough cattle is as much as Rs. 29 per family, no corresponding receipts are reported. It is obvious that such payments could mostly be done only to cultivators and that therefore there is a clear case of under-reporting of receipts under this item. Perhaps this is to be explained by the fact that the item was not explicitly mentioned in the questionnaire. The expenditure of Rs. 29 per family for hiring of implement and plough cattle must be on account of the fact that a large proportion of the smaller cultivators do not have any plough cattle of their own but cultivate their land with hired plough cattle. Rent is classified as purchase of service and not a factor payment. This is in conformity with the social accounting practice. Here again as much as Rs. 22.5 per cultivator were being paid by way of cash rent while the corresponding receipts

amounted to Rs. 12.9. The difference unless the rent receipts are under reported might be assumed to represent the rent paid to non-cultivating land owners.

(9.14) Payments to factors are as under:-

**Table 9.6. Payments to factors**

Wages to annual farm servants	41.3
Wages to casual farm labour	117.4
Interest on loan	10.7
Total	169.4

The close correspondence between the wage payments to casual labour and the corresponding receipts has already been brought to notice. The operations for which casual labour with cash wages is employed are roughly as under (table 9.7).

**Table 9.7.**

Floughing and harrowing	Rs. 37.6
Transplanting, sowing, etc.	8.9
Interculturing	39.4
Harvesting	19.0
Other	12.5
Total	117.4

(9.15) Other charges are:-

**Table 9.8.**

Land revenue	Rs. 16.1
Other expenditure	5.0
Total	21.1

Other expenditure comparing of unspecified items most probably does not belong to the category of "other charges" in the accounting sense. It must be partly expenditure on purchase of goods and services and partly factor payments.

(9.16) The second major category of expenditure is that incurred in kind. It forms nearly two fifths of the total expenditure. In the following are the particulars:-

**Table 9.9. Expenditure incurred in kind**

Homegrown seeds	56.3
Farm yard manure	30.0
Share rent	58.5
Annual remuneration to artisans and services	15.4
Wages to harvesting labour	49.0
Other payments at harvest	2.5
Wages to casual labour	38.2
Total	249.9

The first two items are products retained by cultivators as producers. If they are to be recorded on the expenditure side, care has to be taken that they are reported as parts of the gross produce entered on the receipts side. Though intentions and instructions were that gross produce should be recorded without making allowance for grain kept aside as seed, it is by no means certain that cultivators do not habitually make that allowance mentally. The cultivator knows that he needs certain quantity of

grain for making payments in kind and for seed purchases. He, therefore, habitually discounts his produce to that extent. In order that gross produce may not be under reported on this account particular care was taken. The form of the questionnaire was such that along with gross produce of each crop, the corresponding disposals in kind made at the harvest time, were enquired into. Such disposals consisted of share rent paid to land lords, annual remuneration in kind made to certain artisans and services, wages in kind to harvesting labour and certain other traditional payments made at harvest. Thus in arriving at the net produce no allowance was to be made for seed requirements and it is presumed that the cultivators did not make any allowance themselves. As already stated, it is by no means certain that this was so.

(9.17) The positive in respect of farm yard manure used at home is more explicit. This item does not appear used at home is more explicit. This item does not appear on the receipts side and hence should not appear on the expenditure side. On the other hand, the position is respect of home-grown fodder retained by cultivators, is exactly the reverse. That is an item which appears on the receipts side and it is a fairly big sized item, worth about Rs. 93 per cultivator. However, on the expenditure side, only cash expenditure on purchases of fodder is included,

no account having been taken of the home grown fodder fed to the livestock. For accounting consistency, we should take on the receipts side only the cash receipts from sale of fodder or include on the expenditure side, the home grown fodder fed to live-stock.

(9.18) As already noted the cash expenditure on fodder is Rs. 65 per cultivator. The corresponding on fodder is Rs. 65 per cultivator. The corresponding figure for cash receipts by sale of fodder is only Rs. 1. This is clearly a case of under reporting of sale of fodder. Possibly the very small sales of fodder are the result of the unsatisfactory character of the agricultural season which we have already mentioned in Section 9.9. Otherwise normally the cash expenditure on fodder should be balanced if not exceeded by the corresponding receipts by sale of fodder as this is a district predominantly growing millets and has nearly 60 per cent of cultivated area under them.

(9.19) Compared to wages paid in cash, wages paid in kind are small. Nevertheless, they are considerably large and merit attention. In the first place it must be emphasised that payments in kind are made not only at the time of the harvest but also at other time. And that it is not uncommon for farmers to pay even casual labour in kind. It is only when there is not

sufficient stock of food grains that people pay wages in cash. And even then, sometimes, they prefer to make payments in kind by purchasing food grains. This view is supported by the reported case of purchase of food grains for making payments of wages in kind. Though this age old practice of making payments of wages in kind is being weakened by the recurrence of famine and the enforcement of the levy system and the rationing system, still it is too deep rooted to be abandoned and is still prevalent in all parts of district. Secondly, the amount of annual labour used as farm servants is also substantial. In fact, wages paid to annual farm servants amount to Rs. 41 per cultivator. This amount, it must be understood, was the cash payment made to annual farm servants in addition to providing them with board and other pre-requisites of life such as clothing and footwear.

(9.20) Finally, we might note while a number of items of expenditure in kind were entered on the expenditure side, corresponding receipts of some of the items were not taken account of. Of these two principal items are the share rent and wages in kind. The share rent paid out is considerable, about Rs. 59. It might be reasonable to suppose that share rent received by cultivators would be smaller than this. The wages paid in kind are also



considerable, about Rs. 49. But the corresponding receipts of wages in kind would be smaller than this because two thirds of the sample cultivators were big cultivators who themselves employed hired labour and could not reasonably be expected, in view of their social status, to work on other farms as day labourers. Nevertheless, the exclusion of these two items from the receipts side seems to result in a serious under-estimation of receipts. The effect of these imputed receipts on the overall receipts and expenditure position of the cultivator has been fully considered in section 9.22.

(9.21) If we now set off the expenditure against the receipts we have what might be called the balance of cultivation which is the surplus available to be the cultivator. The total cash receipts are Rs. 500 and the total cash expenditure about Rs. 387. This leaves a cash balance of Rs.113/- with the cultivator. His other surplus is in the form of unsold produce. From the value of unsold produce, which is worth Rs. 521/- we should subtract his expenditure in kind amounting to Rs. 250/-. This gives us a balance in kind worth Rs. 271/-. Most of it is in the form of produce consumed or retained for consumption at home; though of course, part of it might be sold and converted into

cash at a later date. Thus the total balance left with the cultivator is Rs. 384 about 30 per cent of which is in cash.

(9.22) While discussing the nature of the various items appearing on the receipts and the expenditure sides of the account, we indicated in a few cases some modifications, such as for instance, that as the home yard manure is not shown as a receipt item, the same should not also appear on the expenditure side. Though we do not intend to pursue these modifications in subsequent discussion, in the following table (table 9.1) we bring them together so that their net effect on the balance available to the cultivator might be judged.

(9.23) The Farm Business Survey was not intended to be a cost of production study. Nevertheless, in noting the expenses on seed and manure both in cash and in kind as also on cash wages to casual labour, we could conveniently note them separately for each crop for which they were incurred. In table 9.11 we give the expenditure on these items per acre of the various crops, as the information may prove of some interest. In the last column, we have expressed the total of this expenditure as a percentage of the gross value of produce per acre of each crop.

**Table 9.10.**

Imputed receipts		Imputed expenditure	
Hire of implements and plough cattle (approx)	25	Unsold fodder presumably consumed by owned cattle	92
Cash rent (approx)	10		
Farm yard manure consumed	30		
Share rent received in kind (approx)	50		
Wages in kind (approx)	40		
Total	155		92

(9.24) Thus in the annual accounts of an average farm, as presented above the receipts and the expenditure are seen to balance comfortably, leaving a sizeable balance to the cultivator and thus not directly revealing any credit requirements. On the other hand, as we noted, the cultivators actually borrowed on an average Rs. 18.5 for meeting the current farm expenditure. There are two distinct reasons

**Table 9.11.**

Crop	Expenditure per acre			Total	Total expenditure as percentage of gross value of produce
	Seed	Manure	Cash wages		
Millets	0.64	1.14	1.45	3.23	12
Wheat	6.94	0.09	0.34	7.37	26
Gram	6.09	-	0.91	7.0	26
Arhar	1.91	0.38	2.24	4.53	23
Cotton	1.93	0.98	1.80	4.71	22
Oil seeds	15.84	3.22	8.93	27.99	50

Reasons as to why the annual accounts of a cultivator do not reveal the credit needs. In the first instance, in the average accounts, the receipts and expenditure of different cultivators are added up. In practice, this cannot be done so that the receipts of one cultivator are of little use in financing the expenditure of another cultivator unless the latter chooses to borrow from the former. Therefore, the credit needs as revealed by the accounts of an average cultivator are not the average need of cultivators. The latter must be far more than the former. To get at them, we must examine the accounts of individual cultivators. We shall return

to the point a little later. The second reason why the annual accounts of an average cultivator does not reveal any credit needs is because they are annual. In spite of the balance appearing in the annual accounts, in its day to day operation, the farm business might suffer from shortage of funds. This is because of the extreme seasonal character of both the farm receipts and the farm expenditure. Even if we divide the year into two broad agricultural seasons of six months each, the cash receipts and the cash expenditure no longer balance in the accounts of each season. In the following tables (tables 9.12 and 9.13) we give the cash receipts and expenditure separately for the two periods from April to September and from October to March.

**Table 9.12. April to September 1951**

Receipts		Expenditure	
Sale proceeds	175.1	Seed	41.2
Other receipts	71.2	Manure	8.4
		Fodder	48.0
		Wages	78.4
		Other	77.8
Total	246.3		253.8

**Table 9.13.**

Receipts		Expenditure	
Sale proceeds	175.9	Seed	3.7
Other receipts	78.0	Manure	1.2
		Fodder	17.2
		Wages	39.0
		Other	72.0
Total	253.9		133.1

Thus there is a small cash deficit of Rs. 7.5 in the first season and a surplus of Rs. 120.8 in the second season. The cash deficit in the first season is very small. As will appear from the next section, the produce harvested during this season is nil. The sale proceeds are therefore of sale of crops of earlier season. It is obvious therefore that for the agricultural economy of this district the division of the year into two periods, April to September and October to March, has not been appropriate.

(9.25) The lack of seasonal balance between receipts and expenditure from which the farm business suffers is not confined to its cash requirements. If it is part of the farm business to keep the cultivator's family alive, the shortage of food grains during the first season is even more acute. As earlier noted the harvesting of both the crops - kharif and Rabi in the district takes place after September. Gross produce harvested in the first period, from April to September is very small. In our sample it was nil. This is shown below. In the following we give the gross produce, divided into three categories, namely food grains, cash crops and fodder, for the two seasons separately.

**Table 9.14.**

Gross produce	April to September	October to March	Total
Food grains	Nil	83,051	83,051
Cash crops	Nil	72,664	72,664
Fodder crops	Nil	18,619	18,619
Total	Nil	174,334	174,334

(9.26) The shortage of food grains with which the farmer is faced in the first half of the year, who during this period must sustain himself with the uncertain prospects of the two seasons emphasises the sense in which his farm and family is one whole business and the manner in which any accounting separation of the two becomes entirely artificial in practice. Those not fully aware of the hazardous margin on which most of the cultivators carry on their business, might wonder as to why the surplus of the second season should not finance the deficit of the first season of the following year. This certainly is the way the cultivator would arrange the matter. But a single unfavorable season with inadequate crops in the second season would upset his arrangements and it would need a succession of favorable years to retrieve the situation. From the point of view of the credit requirements, particularly of the shorter duration, it is the lack of seasonal balance in the farm accounts,

rather than the overall annual position which appears to be of primary importance.

#### **X. FARM BUSINESS - BIG VS. SMALL**

(10.1) We shall now return to the other point which we mentioned earlier. We said that for obvious reasons, the credit needs as revealed by the accounts of an arithmetically average cultivator could not be the average credit needs of cultivators and that to get the latter, we should examine the accounts of individual cultivators. It is with this object that we gave in chapter VII summary items of the farm business of individual cultivators. It is possible from the items supplied to derive the balance available to each cultivator and it would be found that only 76 of the 120 cultivators have a positive cash balance. It is obviously not possible in a summary report of this nature to examine in greater detail the accounts of individual cultivators. As *via media*, we should classify the cultivators according to some criterion and study the average accounts of different cultivators. To begin with, we might adopt the same method of classifying the cultivators as was used in the presentation of the General Schedule results. There, all cultivators in a village were arranged according to the size of their cultivated holding and then divided into ten equal divisions. When corresponding divisions in different villages were combined together, they resulted in

a certain classification of the cultivators. The sample of cultivators selected for the farm business survey were actually selected from these classes of cultivators. From each one of the first five classes, two cultivators were selected from each village, giving us a sample of 80 bigger cultivators. From each one of the later five classes, only one cultivator was selected from each village, giving us a

sample of 40 smaller cultivators. In the following sections, we shall present the results for these two samples of cultivators, one of the bigger and the other of the smaller cultivators.

(10.2) In the following tables we give the statements of receipts and expenditure per cultivator in two groups of cultivators.

**Table 10.1. Statement of Receipts and Expenditure per cultivator in the group of Bigger Cultivators**

1.	Cash receipts	674.2	4.	Cash Expenditure	564.7
1.1.	By value of crops and fodder	539.0	4.1.	Purchases of goods and other services	291.7
1.2.	Other receipts	135.2	4.2.	Payment to factors	235.9
			4.3.	Other	37.1
2.	Value of unsold produce	814.3	5.	Expenditure in kind	426.3
			6.	Balance	497.5
			6.1.	In cash	109.5
			6.2.	In kind	388.0
3.	Total Receipts	1488.5	7.	Total expenditure	1488.5

**Table 10.2.**

1.	Cash receipts	326.2	4.	Cash Expenditure	209.1
1.1.	By value of crops and fodder	163.0	4.1.	Purchases of goods and services	101.1
1.2.	Other receipts	163.2	4.2.	Payment to factors	102.9
			4.3.	Other	5.1
2.	Value of unsold produce	227.1	5.	Expenditure in kind	73.5
			6.	Balance	270.7
			6.1.	In kind	153.6
			6.2.	In cash	117.1
3.	Total Receipts	553.3	7.	Total Payments	553.3

(10.3) Let us note at the outset that, taking into account the farm receipts and expenditure and certain other cash receipts which have been included under the head "other receipts", the balance left to the cultivator is greater in the case of bigger cultivators than in the case of smaller cultivators. Thus it is Rs. 498 in the case of bigger and Rs. 271 in the case of smaller cultivators. However the difference is not as large as was expected. The bigger cultivators who has a holding five times as big as that of the smaller cultivator, has a balance which is not even two times as big as the balance left to the smaller cultivator. However, the division of this balance into cash and kind is very different in the two cases. In the case of bigger cultivators Rs. 110 out of balance of Rs. 498 were in cash; whereas in the case of smaller cultivators Rs. 117 out of a balance of Rs. 271 were in cash. Thus it is seen that so far as the position of cash resources is concerned, the smaller cultivators better off than the bigger cultivators. We shall now examine briefly the items appearing on both sides of these statements.

(10.4) Let us first consider the value of gross produce. For the bigger cultivators on the receipts side we have Rs. 539 by sale of produce and Rs. 814 as the value

of unsold produce. This gives a total of Rs. 1353 as gross value of produce. For smaller cultivators the corresponding figures are Rs. 163 and Rs. 227 adding to Rs. 390 worth of gross produce. We should relate this to the size of the cultivated holding in the two cases, or more properly, though that is not very different, to the sown area. For bigger cultivators the average area sown is 41.1 acres; for smaller cultivators it is 8.5 acres which is roughly one fifth of the former. The value of gross produce is, however, more than one fifth of that of the former. Thus the gross produce instead of being Rs. 271 is actually Rs. 390. This means that in the case of small cultivators, the value of gross produce per acre is 44 per cent greater than that of the bigger cultivator. Unless, therefore, we are to suspect under-reporting of gross produce by the bigger cultivators, it must be supposed that the smaller cultivators operate their farms much more intensively than do the bigger cultivators. The difference in the gross produce per acre is too large to be explained by possibly different crop compositions of areas sown by the bigger and the smaller cultivators, respectively. Nevertheless the point might be examined. In the following table we give the areas sown under different crops by the two groups of cultivators:-

**Table 10.3. Area Sown Under Implement Crops**

Crops	Average per cultivator	
	Bigger cultivators	Smaller cultivators
Millets	20.1	4.7
Wheat	2.3	0.1
Other cereals	1.1	0.1
Pulses	2.5	0.7
Cotton	7.7	0.7
Oilseeds	6.9	2.1
Others	0.5	0.1
Total	41.1	8.5

Thus, among food crops, the smaller cultivators have proportionately larger areas under millets and pulses while the bigger cultivators have them under wheat and other cereals, which is rice. Among the commercial crops the smaller cultivators have proportionately more area under oilseeds while the bigger cultivators have it under cotton.

(10.5) In the following table we give a comparative statement of gross produce per acre of different crops for the bigger and the smaller cultivators:-

Thus the gross produce per acre of millets and other cereals as also of Arhar is larger in the case of smaller cultivator than that in the case of bigger cultivators. More striking difference is however to be found

in the average yields of oilseeds and cotton where the smaller cultivators appear positively better. There appears therefore, little doubt that the smaller cultivators operate their farm more intensively.

**Table 10.4. Gross produce per Aacre**

Crops	Bigger cultivators	Smaller cultivators
	Rs.	Rs.
Wheat	28.3	24.7
Millets	24.9	33.6
Other cereals	21.0	25.0
Gram	27.7	16.1
Arhar	18.0	25.1
Other pulses	11.6	9.3
Oil seeds	53.3	66.6
Cotton	20.7	31.6
Spices	16.1	19.3
Average	32.9	45.8

(10.6) The proportion of the produce sold is approximately the same in the case of both the bigger and the smaller cultivators it being 40 per cent and 42 per cent, respectively. This is in conformity with the earlier suggestion. It seems therefore that the smaller cultivators in this district are as much business minded and grow as much for the market as do the bigger cultivators.

(10.7) The relative intensity of cultivation might be judged by examining the items of farm expenditure. The total farm

expenditure for bigger cultivators is about Rs. 991 which works out to Rs. 24.1 per acre. In the case of small cultivators it works out to Rs. 33.2. There is thus a clear evidence of more intensive cultivation by the smaller cultivators. The larger gross produce per acre of their farms must therefore be attributed to these larger expenses. If the farm expenditure is related to the gross produce, it is seen that the proportion is roughly the same in both the cases, it being 73 per cent in the case of bigger and 72 per cent in the case of smaller cultivators. If we consider the division of the total farm expenditure into cash and kind, we have that the cash expenditure forms 57 per cent of the total farm expenditure of bigger cultivators and 74 per cent of the total farm expenditure of smaller cultivators. Thus the smaller cultivators incur not only larger farm expenditure per acre, but actually seem to incur even

larger cash expenditure per acre. This is a little surprising; but the results so far have been all consistent and indicate more intensive farming by the smaller cultivators. We have earlier seen the crop composition of the areas sown by the two groups of cultivators. It might now be worthwhile examining the costs of the bigger and the smaller cultivators per acre of different crops. As we noted earlier, though all the cost items could not be recorded separately for different crops, expenditure on seed and manure both in cash and in kind, as also wages paid to casual labour could be conveniently recorded separately for different crops. The average expenditure on these items per acre of different crops for all cultivators were given in table 9.11. In the following table we give the same separately for the bigger and the smaller cultivators:-

**Table 10.5. Expenditure per acre for Different Crops for Bigger and Smaller Cultivators.**

Crops	Bigger cultivators				Smaller cultivators			
	Seed	Manure	Cash wages	Total	Seed	Manure	Cash wages	Total
Millets	0.6	1.1	1.2	2.9	0.7	1.2	2.6	4.5
Wheat	6.9	0.1	0.3	7.3	7.8	-	1.1	8.9
Gram	6.1	-	0.7	6.8	5.4	-	2.9	8.3
Arhar	1.9	0.5	2.9	5.3	2.0	-	0.1	2.1
Cotton	2.0	1.0	1.8	4.8	1.2	0.5	2.1	3.8
Oilseeds	15.1	3.3	8.2	26.6	18.2	2.9	11.4	32.5



It will be seen that on almost all crops the smaller cultivators incur larger expenditure per acre, on both seed and hired labour and that therefore, the difference cannot be attributed to different crop compositions of the two.

(10.8) Let us now examine in detail the farm expenditure of the bigger and the

smaller cultivators. Earlier we had divided the cash expenditure into three categories, namely (i) Purchase of goods and services (ii) Payments to factors and (iii) other charges. We shall examine the several items in that order. In the following table, we give the expenditure incurred by the two groups of cultivators on purchases of goods and services.

**Table 10.6. Cash Purchases of Goods and Services**

	Bigger cultivators	Smaller cultivators
Seed	54.8	35.0
Manure	18.1	1.1
Fodder	104.4	25.6
Materials other than seeds fodder and manure	3.8	2.8
Purchase of grain for paying wages in kind	8.2	0.8
Other services	-	-
Maintenance and repairs of implements	9.9	0.5
Hire of implements and plough cattle	37.1	20.9
Storage, transport, commission, etc.	16.8	8.0
Rent	38.6	6.4
Total	291.7	101.1

(10.9) For a broad comparison let us keep in mind that the area sown by the smaller cultivators is approximately one fifth of that sown by the bigger cultivators. It is then clear that the smaller cultivators are incurring comparatively very little expenditure on manure. Even the expenditure incurred by the bigger cultivators on manure though comparatively large, is in absolute terms quite small and works out at less than annas

eight per acre. It is therefore, obvious that the cultivators generally seem to be reluctant to incur cash expenditure on manure, not because they are not alive to the necessity of manuring their fields but because in view of the uncertainty of the season they do not think it worthwhile to manure. For the fact that they are fully utilizing farmyard manure indicates that they are alive to the necessity of manuring their fields. Any way the smaller culti-

vators have incurred comparatively smaller expenditure on manure and therefore the larger gross produce per acre obtained by them cannot be ascribed to the use of manure.

(10.10) As against this, the smaller cultivators have spent proportionately more on seed. In fact they have spent approximately Rs. 4 per acre on seed as against Rs. 1/7/- spent by the bigger cultivators. This means that the smaller cultivators are using either larger quantity of seed or better quality seed. In view of the better yield per acre obtained by the smaller cultivators we are inclined to accept the latter view.

(10.11) The smaller cultivators also seen to spend more on fodder. But if we relate the expenditure on fodder to the number of owned livestock it is seen to be Rs. 17 per head of cattle, both among the bigger and the smaller cultivators. The expenditure on hire of implements and plough cattle is also greater among smaller cultivators. This was on account of the fact observed earlier, that many of the smaller cultivators did not own any plough cattle and depended entirely on hired plough cattle. As against this the expenditure on maintenance and repairs of implements was smaller among

smaller cultivators. This is possibly due to the fact that the smaller cultivators own fewer implements. This view finds support in the figures of value of implements and machinery owned by the different strata of cultivators as shown in table 8.1.

(10.12) It is seen that the bigger cultivators are paying proportionately greater rent. This suggests that the distinction between the bigger and the smaller cultivators as we have grouped them, does not correspond with the distinction between the owner and tenant cultivators. In fact the proportionately smaller amount of rent paid by the smaller cultivators may be taken to mean that many of them are owner cultivators while the proportionately larger amount of rent paid by the bigger cultivators may be taken to mean that many of them are tenant cultivators. The bigger cultivators incurred proportionately larger expenditure on purchase of grain for payment of wages. This seems to suggest that the system payment of wages in kind is widely prevalent and deep rooted so much so that it necessitates the purchase of grain for paying wages in kind.

(10.13) In the following table, we give the payments to factors made by the two groups of cultivators:-

**Table 10.7. Payments to Factors**

	Bigger cultivators	Smaller cultivators
Wages to annual farm servants	73.3	9.3
Wages to casual farm servants	152.0	82.8
Interest on loan	10.6	10.8
Total	235.9	102.9

Thus on a per acre basis the smaller cultivators employ a good deal more of hired labour than do the bigger cultivators. The employment of annual farm servants is however more frequent among the bigger cultivators. It is seen from the table that the wages paid by both groups of cultivators are considerable.

(10.14) In the following table (table 10.8) are given the other charges. The items are small and invite little comment.

**Table 10.8. Other expenditure**

	Bigger cultivators	Smaller cultivators
Land Revenue	27.8	4.4
Other expenditure	9.3	0.7
Total	37.1	5.1

(10.15) The expenditure incurred in kind by the smaller cultivators is proportionately smaller than that incurred by the bigger cultivators. The difference is largely confined to the items of home grown seed and wages to casual labour.

In the following table, we give a summary of the expenditure incurred in kind by the two groups of cultivators (Table 10.9).

(10.16) It is a little surprising at first sight that the smaller cultivators do not make as much use of the home grown seed as do the bigger cultivators. In fact they meet a major portion of their seed

**Table 10.9. Expenditure Incurred in kind**

	Bigger cultivators	Smaller cultivators
Home grown seed	102.2	10.4
Farm yard manure	48.6	11.4
Share rent	101.2	15.8
Annual remuneration to artisans and services	21.1	9.7
Wages to harvesting labour	78.0	20.0
Other payments at harvest	3.4	1.6
Wages to casual labour	71.8	4.6
Total	426.3	72.5

requirement by purchasing seed. This might be as indication of the extreme narrow margin on which the small cultivators conduct their business. They are often short of food grains for family consumption and under the pressure cannot provide for the seed requirements. But sow they must and when the sowing season comes they must either borrow grain for seed or borrow money and purchase seed. Thus goes on the cycle. Alternatively, if we are to follow the earlier indications suggesting more intensive cultivation by the smaller cultivators, their large purchases of seed

might be taken to indicate that they used better seed. The value of farm yard manure used by the smaller cultivators is not on a per acre basis - smaller than that used by the bigger cultivators; as we earlier saw, the smaller cultivators purchase proportionately less manure, but the value of purchased manure is generally small as compared to that of farm-yard manure used. There is therefore, no reason to suppose that the use of manure by the smaller cultivators is very much less than that of the bigger cultivators. Of the other payments in kind there are two which are proportionately larger in the case of the bigger cultivators. One is the rent in kind. The larger share rent which the bigger cultivators pay is consistent with the larger cash rents which they were seen to pay. This seems to indicate as was then suggested that the bigger cultivators are bigger not because they are bigger landlords but because they are bigger tenants. The other is the large payment of wages in kind to casual labour which the bigger cultivators are seen to make. It might be on account of the large share rent and the large payments of wages in kind which the bigger cultivators make that as we saw earlier, they are unable to make proportionately larger sales out of their gross produce.

(10.17) We should sum up this discussion by saying that, the gross yield per acre, the farm expenditure per acre

and the net yield per acre are all larger in the case of the smaller cultivator than in the case of the bigger cultivator. Thus the net yield or the surplus per acre comes to approximately Rs. 9 per acre of sown area in the case of the bigger cultivators. The corresponding figure for the smaller cultivators is Rs. 13. But the bigger cultivator has a cultivated area which is nearly five times that of the smaller cultivator and there he beats the smaller cultivator. The latter tried to make up for this by his capacity to earn other cash receipts. In the following table, we give the details of other receipts of the two groups of cultivators:-

**Table 10.10. Other cash receipts per cultivator**

	Bigger cultivators	Smaller cultivators
By sale of livestock produce	8.1	9.3
By sale of miscellaneous agricultural produce	0.5	0.1
From remittances	13.7	0.7
By carting	3.4	0.8
By cash wages	92.1	143.9
By cash rent	17.4	8.4
Total	135.2	163.2

It is clear that it is mainly by way of cash wages that the small cultivator makes up his balance. All other items of receipts, except remittances received and the sale proceeds of miscellaneous agricultural produce, are larger for the smaller cultivators than for the bigger cultivators. But the items are small and so not make much of a difference. The rent received

by the smaller cultivators is also proportionately larger and indicates that some of them are land lords who have leased out part of their holdings.

(10.18) The difference between the bigger and the smaller cultivators might be highlighted by comparing and contrasting two extreme groups of cultivators. The method by which the sample of 120 cultivators was selected has already been explained. For instance, from the ten per cent bigger cultivators in each selected village, two cultivators were chosen at random. This gives us a sample of 16 big cultivators. At the other extreme, from the 20 per cent smallest cultivators in each selected village, two cultivators were chosen. That gives a

sample of 16 small cultivators. In the following table (table 10.11) we give a comparative statement of farm business accounts for the average farm business in the two groups of cultivators.

Thus both big and the small cultivators seem to end up in a cash surplus. But the cash surplus is bigger in the case of smaller cultivators. However, considering the balance in cash and kind together, the big cultivators have an average balance of Rs. 729, while the small cultivators have a balance of Rs. 345 only. on the basis of per acre of their holdings the balance available to the small cultivators is of course larger than that available to the big cultivators.

**Table 10.11**

		10% Biggest cultivators	20% Smallest cultivators
1.1	Cash receipts by sale of crops and fodder	1577	96
1.2	Other cash receipts	58	199
2.0	Value of unsold produce	1545	182
3.0	Total Receipts	3180	477
4.0	Cash farm Expenditure	1461	92
5.0	Expenditure in kind	990	40
6.1	Cash balance	174	203
6.2	Balance in kind	555	142
7.0	Total payments	3180	477

(10.19) The average size of the cultivated holding for the big cultivators is 82.9 acres. The same for the small cultivators is 4 acres, which is less than 5 percent of that for the bigger cultivators. Considering the area sown, it is 89.5 acres for big cultivators and 4.2 acres for the

small cultivators. If we now relate the gross produce, both sold and unsold, to area sown, we have gross produce per acre of sown area to be about Rs. 34.9 for the big cultivators and about Rs. 45.4 for the small cultivators. As already seen the difference in the value of gross produce

per acre is due to a variety of causes, but mainly due to the efficient way the small cultivator manages his farm business.

(10.20) The success of the small cultivators lies in the fact that inspite of greater expenditure per acre, he is able to produce a gross yield far greater than that produced by the big cultivator and has a greater surplus per acre. Taking the cash and kind expenditure together, the big cultivators incur expenditure of Rs. 2451 to produce crops worth Rs. 3122. Thus

the expenditure forms approximately 78 per cent of the gross produce. On the other hand the small cultivators incur an average expenditure of Rs. 132 to produce crops worth Rs. 278 and the expenditure forms approximately 47 per cent of the gross produce. Further about 70 per cent of their expenses are in cash as against 60 per cent in the case of big cultivators. In the following we give the details of the expenditure in cash and kind incurred by the two groups of cultivators (table 10.12).

**Table 10.12. Details of Expenditure in cash and kind per Cultivator**

	10% Big cultivators	20% Small cultivators
<b>CASH EXPENDITURE</b>		
Seed	95	21
Manure	61	-
Fodder	201	7
Cash wages	465	31
Other cash expenditure	603	33
Purchase of grain for payment of wages	36	-
Total cash expenditure	1461	92
<b>EXPENDITURE IN KIND</b>		
Seed	271	6
Manure	89	9
Wages	306	4
Other payments in kind	324	21
Total expenditure in kind	990	40
Total farm expenditure	2451	132

The differences follow the same lines as we found when we compared the bigger and the smaller cultivators. But, now that we are comparing the two extreme groups of cultivators, they appear magnified. For instance, earlier it

was remarked that the quantity of seed sown per acre by the smaller cultivators was 40 per cent more than that sown by the bigger cultivators; here it is seen to be 60 per cent larger.

## **XI. FARM BUSINESS - OTHER FACTORS**

(11.1) The system by which we have so far classified the cultivators both in the previous chapter and in the chapter relating to the General Schedule data was in a sense artificial. The basis classification of course depends upon the size of the cultivated holdings of the cultivators and thus is a size classification. Its artificiality lies in the fact that the ten per cent biggest cultivators in one village are added to the ten per cent biggest cultivators in another village giving us a combined class. The ten per cent biggest in different villages might not always be comparable in the sense that the size of their holdings might vary over quite different ranges. The principal reason for adopting that method of classification while presenting General Schedule results was a certain technical convenience, arising out of the manner in which the villages were selected. Combining of the village figures on the basis of any other method of classifying the cultivators would have been rather difficult. The sample of cultivators chosen for farm business survey, was also chosen from classes made on the same basis. There appeared therefore, a certain advantage in presenting the farm business survey results on that basis. The advantage lay of course in achieving comparability with the General Schedule results. However, it is seen that in spite of certain artificiality in classification, the difference

between the classes of cultivators so made were indeed remarkable. This is due to the fact that though the classes so made were not really the ten per cent divisions of all cultivators according to the size of their holdings, they were the aggregate of the corresponding ten per cent divisions of all cultivators in each village according to the size of their holding. This fact is important in itself because the local community within a village being what it is and the means of communication between different villages being what they are, there subsists a kind of relationship between the bigger and the smaller cultivator, not so much because of the difference in the size of the holding; but because of the fact that they belong to two widely different social strata of the village community. The combined class of 10 per cent cultivators, biggest in their respective villages, therefore, though it certainly lacked homogeneity in the size of its holdings, formed in some important respects indeed a much more homogenous group. It nevertheless remains true that the classes so formed were a little artificial in the sense that they were not easily comprehensible. Therefore, we now propose to classify the selected cultivators in a more direct manner, such as for instance, on the basis of their size and type of farm business.

(11.2) We shall first begin with the distinction on the basis of the size of the farm business. This might be indicated, as it usually is, by the size of the cultivated holding. Areas under different crops are however not of the same importance both from the point of view of gross receipts and expenditure. Some allowance for this fact might be made by taking gross value of produce as size indicator of farm business. We propose to do the same. In the following table we give the percentage distribution of the selected cultivators, according to the size of their farm business defined by the gross value of produce. In adjoining columns we give the average size of the cultivated holding and the average value of gross produce for each groups of cultivators.

**Table 11.1.**

Range of gross value of produce	Percent of all cultivators	Average cultivated holding acres	Average gross value of produce Rs.
Less than 200	20	4.7	92
200- 399	19	4.9	300
400- 599	14	17.4	514
600- 799	10	17.3	787
800-999	10	23.1	879
1000-1999	19	43.2	1316
Above 2000	8	77.0	3838
Average		25.5	871

(11.3) Average value of gross produce is shown in the last column. When from this are subtracted, the farm expenses both in cash and kind, we have the net value of produce, which might be termed the cultivation surplus. From the accounting point of view, this comprises of, after allowance for depreciation of capital assets, imputed wages for family labour and profits of cultivation if any. In practice it is the balance available to the cultivator. In the following table, we show the gross produce and the deductions to be made for farm expenditure for each groups of cultivators:-



**Table 11.2**

Range of gross value of produce	Average gross value of produce in Rs.	Average farm expenditure in Rs.	Average net value of produce	Net as per cent of gross
Less than 200	92	101	-9	-
200 - 399	300	210	90	30
400 - 599	514	372	142	28
600 - 799	787	845	-58	-
800 - 999	879	575	304	35
1000- 1999	1316	836	480	36
Above 2000	3838	2793	1045	27
Average	871	636	235	27

(11.4) In the last column of the above table, the net value of produce is as the percentage of the value of gross produce. This is seen to be more or less uniform in all the groups of cultivators except the first where the value of gross produce is less than Rs. 200 and the fourth where the value of gross produce ranges from Rs. 600 to Rs. 800/-. In the first groups of cultivators, where the value of gross produce is less Rs. 200 the net value of produce is seen to be negative, indicating that the total farm expenditure is larger than the value of gross produce. This might be explained as due to two reasons. The classical explanation would perhaps be that these being smaller farms, the overhead charges would be proportionately larger. This might be true; but the manner in which we have defined the size of the farm business, namely, the value of gross produce, suggests that the reasons might be more direct. Net values

might bear a smaller proportion to the gross value if the latter were below expectation which might be either due to unfortunate circumstances or due to understatements. Most of the costs of cultivation are fixed and only a few are directly related to the gross produce; in the latter category are for instance, such items as share rent, payments in kind to harvesting labour particularly when they are fixed proportions of the harvest and remuneration to artisans and services which in practice are to some extent flexible. On the other hand expenditure on such items as seed, manure and fodder and most of the expenses of cultivation are more or less fixed in the sense that they are incurred long before the harvest, and though they undoubtedly influence the yield in a positive sense, they cannot be avoided or adjusted to misfortunes of accidents and bad season. If therefore, the gross produce were below expectation

due to such circumstances, the costs remaining more or less the same, it is obvious that the net value would bear a smaller proportion to the gross value. If the gross produce were understated, the case is simpler; in such cases, the costs are usually stated in full if not actually exaggerated and this naturally results in proportionately smaller net value of produce. However, in the present case, as already emphasised in section 9.9, during the period under report, the yield was below normal on account of the unsatisfactory character of the season. This largely explains the small negative net value of produce in the first group of cultivators.

(11.5) In the fourth group of cultivators, where the gross value of produce is about Rs. 787, abnormally heavy average farm expenditure amounting to Rs. 845/- is reported. An analysis of this heavy average farm expenditure shows that it is confined only to two cultivators in this group. They have together incurred an expenditure of about Rs. 3000/- on payment of wages and about Rs. 1600 on other expenditure. The effect of this heavy expenditure on the average farm expenditure per family in this group of cultivators may be seen from the fact that the elimination of these, will result in lowering the average farm expenditure from Rs. 845 to Rs. 582 so that the net value of produce would be a positive

balance of Rs. 205 instead of a negative balance of Rs. 58 as at present. It is therefore obvious that the negative balance is due to the abnormally heavy expenditure incurred by two of the cultivators in this group.

(11.6) the preceding discussion, it should be remembered, is based on the Farm Business Survey of a sample of only 120 cultivators; too much should not, therefore, be read into the results. Nevertheless, we shall draw attention to certain results which might have some significance. In the first three groups of cultivator, the net value of produce is too small for a family living; in fact it is negative in the first group. Hence, as shall subsequently see the families in these groups must earn from additional sources. The negative net values of produce in the fourth group of cultivators with an average gross produce worth Rs. 787, is as already explained exceptional. In the remaining three groups of cultivators with an average value of gross produce exceeding Rs. 800/- the net value of produce is substantial and is generally proportional to the gross value of produce.

(11.7) The farm receipts of the cultivators are often supplemented by some other receipts. As explained earlier, we have not taken into account the receipts from non-farm business of the

cultivator. When these are left out, the other receipts are to some extent derived from sale of dairy products and of minor products of the farm, but largely from wages. Their overall composition has already been indicated. In the following table we give for each group of cultivators, the farm and other receipts.

**Table 11.3**

Range of gross value of produce in Rs.	Average net farm receipts Rs.	Average other receipts Rs.	Average total receipts Rs.	Other receipts as percent to total Rs.
Less than 200	-9	238	229	-
200- 399	90	170	260	65
400- 599	142	148	290	51
600- 799	-58	87	29	-
800-999	304	43	347	12
1000-1999	480	182	662	27
Above 2000	1045	8	1053	1
Average	235	149	384	39

It should be noticed that as we go from groups with lower gross value of produce to groups with higher gross value of produce, the value of average other cash receipts generally diminishes from group to group. In the first three groups of cultivators where the gross value of produce is less than Rs. 600/- the average other cash receipts are substantial, and are mostly in the nature of wage receipts. Average other cash receipts are also substantial in the group of cultivators with an average gross value of produce amounting to Rs. 1316/-. But in relation to the average total receipts they are small. Besides they must be exceptional as they are confined largely to one or two

cultivators. Thus a single cultivator in this group of cultivators has reported average other cash receipts amounting Rs. 734/-. This has considerably pulled up the average for the whole group. Otherwise in all other groups the average other cash receipts are small both absolutely and in relation to the average total receipts and are mostly in the nature of receipts by subsidiary sales and of cash rent.

(11.8) The total receipts as shown in the last but one column of the above table, which are the balance, resting with the cultivator will be partly in cash and partly in kind. In the following table, we show them as divided into these categories

(table 11.4).

Thus to the large amount of supplementary receipts, particularly by way of cash wages, the position of the smaller cultivator in respect of their cash receipts is much better. In fact it may be stated that the cultivator who supplements his farm income by cash wages and other receipts is generally better off so far as cash receipts are concerned. This is so in

the case of the first three groups of cultivators. The position of the cultivators in the fourth group is somewhat different and, as indicated earlier, is exceptional. In all other groups of cultivators the cash balance of the cultivators is seen to be small as compared to their total farm receipts because the farm receipts are not supplemented to any considerable extent by other cash receipts.

**Table 11.4**

Range of gross value of produce Rs.	Average cash balance Rs.	Average balance in kind Rs.	Average total balance Rs.	Cash balance as percent to total balance Rs.
Less than 200	208	21	229	91
200- 399	140	120	260	54
400- 599	107	183	290	37
600- 799	-242	271	29	-
800-999	36	311	347	10
1000-1999	199	463	662	30
Above 2000	144	909	1053	14
Average	113	271	384	29

(11.9) The cash receipts accruing to the cultivator as well as his cash requirements for farm expenditure both depend, apart from the size of his farm, upon the kind of crops that he grows. For this purpose, a broad distinction might be made as between food crops and commercial crops. In the latter category are

included, in this district, such crops as cotton, groundnut and certain garden crops as chillies. If we divide the cultivators according to the proportion that the value of their commercial crops bears to the value of all crops, we have the following:-

**Table 11.5.**

Proportion of cash crops to all crops	Percent of cultivators	Average cultivated holding in acres	Average gross value of produce	Average value of cash crops
Less than 20%	10	13.5	394	45
20%-39%	20	19.5	516	174
40%- 49%	21	23.7	980	443
50%- 59%	19	41.4	1391	750
60%- 79%	20	31.6	1067	709
80% and above	10	11.0	450	391
Average		25.5	871	456

Thus it is seen that in the case of nearly half of the cultivators, the commercial crops form more than half of their total gross produce. In the adjoining column of the above table is shown the average cultivating holding for cash group of cultivators. Except in the last group, the size of cultivated holding is seen to increase from group to group indicating that it is the larger farms that are com-

mercialised to a greater extent.

(11.10) The commercialised farms grow more for the market. Consequently a large proportion of their gross produce is sold and a smaller proportion retained for home consumption. This may be seen from the following table though the figures are not very regular:-

**Table 11.6**

Proportion of cash crops to all crops	Average value of gross produce Rs.	Sales proceeds Rs.	Sales as percentage of gross produce
Less than 20%	394	72	18
20%-39%	516	222	43
40%- 49%	980	282	29
50%- 59%	1391	747	54
60%- 79%	1067	392	27
80% and above	450	197	44
Average	871	351	140

(11.11) It is to be expected that the farms commercialised to a greater extent would incur proportionately larger expenditure. In the following table, we show the per acre farm expenditure incurred by cultivators in different groups:-

**Table 11.7**

Proportion of cash crops to all crops	Average cultivated holdings in acres	Average farm expenditure in Rs.	Per acre expenditure in Rs.
Less than 20%	13.5	244	18
20%-39%	19.5	515	26
40% - 49%	23.7	546	23
50% - 59%	41.4	960	23
60% - 79%	31.6	798	25
80% and above	11.0	523	48
Average	25.5	636	25

Except for two extreme classes, the expenditure per acre is not seen to increase with increasing commercialisation. In the following table, where we show for each group of cultivators, the average value of gross produce, the average farm expenditure, the average net value of produce which is gross value minus expenditure, and finally the proportion that the net value bears to the gross value of produce:-

(11.12) The same point might be examined in a different manner in the

**Table 11.8.**

Proportion of cash crops to all crops	Average value of gross produce	Average farm expenditure	Average net value of produce	Average net value of as percentage of gross produce
Less than 20%	394	244	150	38
20%-39%	516	515	1	-
40% - 49%	980	546	434	44
50% - 59%	1391	960	431	31
60% - 79%	1067	798	269	25
80% and above	450	523	-73	-16
Average	871	636	235	27

Here again the figures do not look very regular.

(11.13) Another method by which cultivators might be classified on the basis of the crops they grow would be by their principal or major crops. In the large variety of crops that a cultivator grows it is difficult to fix on one as the principal or major crop. Nevertheless, as a matter of definition, we shall regard that crop which by value forms the largest proportion in the gross value of all crops, as being the major crop. It should be noted that when so defined the major crop does not necessarily account for more than 50 per cent of the gross value of produce; it only means that by value of produce it is bigger than any other crop. In the following table we give the distribution of the cultivators by the major crops so defined. In adjoining columns of the table, we show their average holdings and average value of their gross produce:-

**Table 11.9.**

Major crops	Percent of cultivators	Average cultivated holding in acres	Average value of produce
Millets	47	28.3	956
Groundnut	39	22.4	786
Others	14	24.9	822
Average		25.5	871

The last group of 14 cultivators comprised of seven cotton growers, two wheat growers, one grower each of sugarcane, gram, and pluses other than gram and two growers of miscellaneous crops.

(11.14) In the following table, we show the relation between the net and gross value of the produce for cultivators in different major crop groups:-

**Table 11.10.**

Major crops	Average gross value of produce in Rs.	Farm expenditure in Rs.	Net value of produce in Rs.	Net value as percentage of gross value
Millets	956	611	345	36
Groundnut	786	679	107	14
Others	822	587	235	29
Average	871	636	235	27

It should be noted that the gross and net value figures do not relate to the specific major crops but to all crops grown by the cultivators, in that major crop group. It is then worthwhile noting that the cultivators growing proportionately more groundnut are left with a smaller net value as compared to cultivators growing proportionately more millets crops.

(11.15) We have earlier seen that rent does not appear to be an important item of expenditure in the farm business accounts of cultivators in this district. Actually 66 per cent of the cultivators do not pay any rent. In the case of 17 cultivators the rent bears a proportion of less than 20% to their gross produce. In the case of the remaining 17 cultivators the proportion of rent to gross produce is between 20 to 70 per cent. In the fol-

lowing table, we give the average holdings and the average gross produce of these groups of cultivators:-

**Table 11.11**

Rent paid as % to total gross produce	Percent of cultivators	Average cultivated holding in acres	Average gross value of produce
0	66	20.9	801
Less than 20%	17	41.2	1172
20%-70%	17	27.6	843
Average		25.5	871

(11.16) Only 13 per cent of all cultivators were landless; that is they were exclusively tenant cultivators. The average size of their cultivated holding was 18 acres. In the following table we give a brief statement of the farm business account of the tenant cultivators. (table 11.12)

**Table 11.12.**

Per cultivator			Rs.		
Per cultivator			Rs.		
1.1	Cash receipts by sale of crops and fodder	159	4.0	Cash farm Expenditure	220
1.2	Other cash receipts	307	5.0	Expenditure in kind	169
2.0	Value of unsold produce	253	6.1	Cash balance	246
			6.2	Balance in kind	84
3.0	Total Receipts	719	7.0	Total payments	719



It is obvious that the balance left to these cultivators is entirely due to their capacity to earn other cash receipts, and that in their farm business they do not seem to make very much more than just balance the receipts and the expenditure.

## XII. CHARACTER OF CREDIT

(12.1) In chapter V we examined the extent of annual borrowing and the purpose for which it was resorted to. Confining our attention to cultivators, we found that borrowing per cultivator amounted to Rs. 205 of which Rs. 77 were for meeting capital investment expenditure, Rs. 20 for meeting current farm expenditure and the remaining Rs. 108 for family and other expenditure. Similar information is obtainable from the Farm Business Survey of the selected cultivators. The figures on this basis are, however, somewhat different. On the basis of the Farm Business Survey the average borrowing per cultivator was reported to be Rs. 271 of which only Rs. 84 were for meeting the capital farm expenditure, Rs. 19 were for meeting current farm expenditure and the remaining Rs. 168 were for meeting family and other expenditure. Thus the reported borrowings in the Farm Business Survey are somewhat larger than those reported in the General Schedule. Borrowing on business account, that is for capital and current farm expenditure, together are more or less the same in the two cases,

Rs. 97 in the General Schedule and Rs. 103 in the Farm Business Survey and the borrowing on Capital and Current Farm Expenditure both agree well in the two cases. The real differences however, is the large borrowing for family and other expenditure reported in the Farm Business Survey where it is 55 per cent higher as compared to that reported in the General Schedule.

(12.2) These differences are partly due to the variations inherent in the sample results and partly due to the fact that the two sets of results do not refer to quite the same period of time. Some difference might also arise from the difference in the method by which the data was collected in the two cases. The General Schedule was filled in a single visit to the families and there the information related the the period of one year immediately preceding the day of the visit. On the other hand, the farm business survey of the sample of cultivators was conducted in two visits and in each visit the information was for a fixed period of six months from April to September in the first visit and from October to March in the second visit. It would be out of place to discuss in any detail the differences that these two methods of investigation are likely to cause. We might note, nevertheless, that in the second method, there is sometimes a possibility of enumerating larger

number of transactions. This might happen due to three district reasons. Firstly, as the questionnaire relates to a shorter period, only six months, the respondent is likely to respond with a better memory. Secondly, though the questionnaire relates to a fixed period, such as from April to September, the visit usually takes place not immediately after the close of the reference period, but sometimes after, say in November. In such cases, even though the investigator might try to fix the respondent to the reference period, he is likely to report all transactions to date of visit. This results in a certain amount of overlap between the reporting period which can be minimised only with considerable investigational care. Thirdly, the respondent is likely not to report two transactions which mutually cancelled during the period. Such are for instance borrowing and repayment. With shorter reporting period, there would usually be fewer such transactions, which having been mutually cancelled are not reported. Having regard to these circumstances, the differences between the sample and the General Schedule results do not appear to be large enough to detract from their value.

(12.3) The principal item of information obtained in the Farm Business Survey which add significantly to the analysis of borrowing attempted in chapter V on the basis of the General Schedule data, are

details regarding amounts, rates of interest and securities in addition to creditors and purposes of borrowing for each loan taken during the year. In the following section we shall present those details. In doing this, it might prove convenient and useful to divide all loans taken during the year into two categories; one, of loans borrowed and fully repaid during the year and the other of loans borrowed but not fully repaid during the year, that is of loans which were borrowed during the year and remained outstanding, partly or wholly, at end of the year. To these categories of loans, we might then add a third category, namely, of loans not borrowed during the year, which were outstanding at the end of the year, that is of loans outstanding at the end of the year which were borrowed sometime before this year. An analysis of these loans by the period over which they remained outstanding might be found particularly useful.

(12.4) For the sample of cultivators we have already noted that the average borrowing, during the year was about Rs. 271 per cultivator. Out of this, loans worth Rs. 61 only were fully repaid during the year. The remaining loan worth Rs. 210 was not repaid before the end of the year, which was the end of March. It is difficult to say whether on this account, we treat only the first Rs. 61 as being strictly short term credit. Our hesitation in this respect

arises due mainly to two considerations. In the first instance, we choose the year from April to March; the repayments were heaviest in March and it is possible that they were substantial in the following April. It seems, therefore, that if we had chosen the year say from May to April the proportion of the loans fully repaid during the year might have been somewhat larger especially as very few borrowings were reported in April. Secondly, if we decide to call loans repaid within one year, as strictly short term credit, some of the loans borrowed during the year which remained outstanding at the end of the year might not have been of more than one year's duration. In any case some of the issues seem hypothetical and others difficult to settle without a more detailed examination of the material. Therefore, in what follows we shall be content with treating the Rs. 61 worth of loans which were borrowed and fully repaid during the year, separately from the Rs.210 which remained outstanding at the end of the year. It should nevertheless be noted that the former comprises of a big loan exceeding Rs.5500/- borrowed and repaid during the year. And if that is eliminated the total amount borrowed and fully repaid during the year comes to Rs. 32. And this is about 13 per cent of the total borrowings during the year. In a normal year this amount would have been very much larger; but during the period under report, the season was

poor and famine conditions prevailed in two of the selected villages and consequently repayments of loans might be expected to have been smaller than usual.

(12.5) Coming back to the loans borrowed and fully repaid during the year, they amounted, as stated earlier, to Rs. 61 per cultivator. After eliminating the abnormal case referred to above, they come to Rs. 32 per cultivator. Borrowings were reported in all the twelve months of the year. They were heaviest in August, the total borrowings during that month being approximately one third of the total borrowings. They were also heavy in the months of November and December, the total amount borrowed during these two months exceeding one fourth of the total loans borrowed. On the contrary the repayments are mainly concentrated in two months December and March, repayments in December amounting to 27 per cent and those in March amounting to 53 per cent of the total repayments.

(12.6) As to the size of these loans, it might be noted that there were about 30 such loans per 100 cultivators. This gives an average size of about Rs. 203 per loan. However, if we leave the abnormally heavy loan reported earlier, the average size of the loan comes down to Rs. 111/- more than 58 per cent of the total amount comprised of loans of amounts less than Rs. 300 each, 23 per cent of the loans of

amounts between Rs. 300 to Rs. 400 and the remaining 19 per cent of loans of amounts exceeding Rs. 400.

(12.7) Two fifths of the amount was borrowed for meeting family expenditure, one fifth for meeting current farm expenditure, one third for meeting capital farm expenditure and the remaining to meet other expenditure. These figures are obtained after eliminating the abnormally heavy loan referred to in the previous paragraphs. This loan had been borrowed to meet family expenditure. It appears that most of the capital expenditure on farm was in the nature of bunding and other land improvement.

(12.8) Leaving aside the exceptional case referred to in previous paragraphs, more than two thirds of loans were supplied by agricultural money-lenders, one sixth by traders and commission agents, one twelfth by relatives and the remaining by the private professional moneylenders. It is a little surprising that no loans from co-operative societies appear among these loans. Of the total loans 35 per cent are free of interest, 31 per cent bear interest at rates varying from 10 to 15 per cent per annum and the remaining 34 per cent bears interest at rates higher than 15 per cent. Of the total loans 96 per cent was unsecured and the remaining four per cent was secured by pledge of gold and ornaments.

(12.9) The remaining loan amounting to Rs. 210 was borrowed but not fully repaid during the year. Some of the loans were only partially repaid, the repayments including interest amounting to Rs. 8.8 only. We have said it was possible that some of the outstanding loans did not in fact remain unpaid for more than a year. Alternatively, a part of it though actually remained outstanding over more than a year, was not intended to be so at the time of borrowing. This might be true to some extent. But as we shall presently see, the loans borrowed but not repaid during the year differ in any important respects from the loans borrowed and fully repaid during the year, and to such an extent as to suggest that at any rate a larger part of them was intended to remain outstanding for longer than a year. The first important respect in which they differ from the shorter termed loans is that they were of much larger amounts. There were approximately 112 such loans reported per 100 cultivators. This gives an average amount of more than Rs. 188 per loan. 47 per cent of the total amount comprised of loans of less than Rs. 300/-, 21 per cent of loans of more than Rs. 1000/- each, and the remaining 32 per cent of loans varying from Rs. 300 to Rs. 1000/-.

(12.10) Of the total borrowing 45 per cent were for meeting family expenditure, 35 per cent meeting capital expenditure,

diture on farm, 6 per cent for meeting current farm expenditure, one per cent for meeting current farm and family expenditure and the remaining 13 per cent to meet other expenditure. The purposes for which the loans were borrowed and the proportion of the amounts borrowed for those purposes do not differ materially as between loans fully repaid during the year and those not fully repaid during the year. However the proportion of the amount borrowed to meet current farm expenditure is 20 per cent in the case of loans fully repaid during the year as against only 6 per cent in the case of loans not fully repaid during the year. As against this, the proportion of the amount borrowed to meet other expenditure is comparatively greater in the case of loans not fully repaid during the year. The proportion of the amount borrowed to meet expenditure is also slightly greater in the case of loans not fully repaid during the year.

(12.11) Of the total loans four per cent was provided by the co-operative societies and less than one per cent by the Government. The remaining 95 per cent of the loans were supplied by private creditors. Of the total loans more than 23 per cent are from relatives and are therefore area of interest. Hence they may be supposed have been intended only for a short term as are usually the loans from co-operative societies.

(12.12) Nearly 94.8 per cent of the loans were advanced without any security, 2 per cent on the security of immoveable property, 1.6 per cent against the security of commodities, and 0.8 per cent each against the security of bullion and ornaments and other moveable property. The most usual rate of interest was 12 per cent. Others which are frequently come across are 18 per cent, 24 per cent and 37.5 per cent. Of the total loans 37 per cent were free of interest. The usual rates of interest are 1.1/2 anna per rupee per annum. (Rs. 9-6-0 per cent per annum), one rupee per cent per month (12 per cent per annum), one pice per rupee per month (Rs. 18-12-0 per cent per annum), 2 rupees per cent per month and 1/2 anna per rupee per month (Rs. 37-8-0 per cent per annum). 7, 25, 16, 9 and 6 per cent of the total amount borrowed were at these rates of interest, respectively.

(12.13) It is clear therefore that the loans borrowed but not fully during the year were in many respects different and that therefore, a majority of them were possibly not intended to be repaid during the year. Of the total loans six per cent was for meeting current farm expenditure and 4 per cent was supplied by co-operative societies. Hence not more than five per cent of the total of such loans could have been repaid or intended to be repaid within one year. And this comes to Rs. 9 out of Rs. 188. When this is added to Rs.

61 which were fully repaid during the year, we will have Rs. 70 which might be called as short term borrowings.

(12.14) Of the total borrowings during the year amounting to Rs. 271, Rs. 84 were for meeting capital expenditure on farm, Rs. 18 to meet current expenditure on farm, Rs. 136 to meet family expenditure, Rs. 30 to meet other expenditure, and Rs. 3 to meet current farm and family expenditure. The total capital investment in agriculture net of sales amounts to Rs. 147.6. The borrowings on that account, however, amount to 56 per cent of this expenditure. On the other hand the cash expenditure on current farm account was Rs. 387 so that the borrowing on that account comes to 4.6 per cent of the total expenditure. As an alternative we had enquired how the current farm expenditure was met by the cultivators. The two main sources were, of course, income and borrowing. In the following table we give the total cash expenditure under the main heads and the proportion of it which was financed by borrowing:- (table 12.1)

(12.15) The total borrowing for current farm expenditure, as it appear in the above table, comes to Rs. 86. The difference between this figure and the earlier figure of Rs. 18 might be partly due to discrepancies of reporting as the figures were derived from two very different questionnaires. The figure of Rs. 86 was

arrived at by asking to what extent the incurred expenditure was met by borrowing.

**Table 12.1**

Item	Expenditure	Of which met by borrowing	Per cent financed by borrowing
Seed	44.9	29.6	65.9
Manure	9.6	1.2	12.5
Fodder	65.0	18.6	28.6
Wages	117.4	29.7	25.3
Other	150.0	6.8	4.5
Total	386.9	85.9	22.2

The latter figure of Rs. 18 was obtained by analyzing the loans according to the purpose for which they were borrowed. Some discrepancy of reporting is therefore, to be expected. The difference between the two figures is however, too large but might be due to the possibility that though a loan might have been incurred for a specific purpose, the whole amount of the loan might not have been actually expended or if expended not wholly for the specified purpose. It had already been observed that heavy borrowing has been reported on account of capital expenditure on farms and it is likely that part of it has been diverted to meet current farm expenditure.

(12.16) Taking the figures as they are, it is clear that it is comparatively for the purchase of seed fodder and payment of

wages that borrowing is resorted to a greater extent. The urgency of seed and fodder requirements is obvious. As shown earlier in table 9.7, of the cash wages about two fifths were for inter-culturing, about one half was for ploughing, sowing, harrowing and harvesting and the remaining for other agricultural operations. The expenditure on inter-culturing is highly flexible and depends upon the resources of the cultivator and the availability of cheap credit whereas the expenditure on ploughing, sowing, harvesting, etc., is unavoidable and the demand for it is urgent.

(12.17) The average borrowing on family account is Rs. 136. As we noted earlier it is about 41 per cent higher than that reported in the General Schedule. The family expenditure\* .....

(12.18) ..... first category are of course to the full extent of borrowing. In the second the borrowing amounted to Rs. 210 per cultivator. The repayments therefore, come to about 3.1/2 per cent only. If we put together loans in the first two categories that is, loans borrowed during the year, the repayments come to about 24 per cent of the borrowings.

**Table 12.2. Repayment during the year**

	Rs.
Towards loans borrowed and fully repaid during the year	61
Towards loans borrowed but not fully repaid during the year	4
Towards loans outstanding at the beginning of the year and not fully repaid during the year	8
Towards loans outstanding at the beginning of the year, but fully repaid during the year	-
Total repayment	73

(12.19) The amount at the end of the year of the loan in the third category was approximately Rs. 130 per cultivator. This was the amount outstanding after repayment of Rs. 8 so that the amount outstanding at the beginning of the year should be Rs. 138. The repayment is therefore, about 6 per cent of the outstanding at the beginning. Now none of the loans outstanding at the beginning of the year is completely liquidated. Hence

it is obvious that Rs. 138/- was all that was outstanding at the beginning of the year, and that only about six per cent of it has been repaid during the year. Besides this Rs. 271 was borrowed during the year of which Rs. 65 were repaid during the year. The total debt outstanding at the end of the year thus comes to about Rs. 336 as compared to Rs. 138/- outstanding at the beginning of the year. The outstanding indebtedness per cultivator thus

\* Some portion of point no. (12.17) and initial portion of point no. (12.18) is missing in the original text itself.

increased by about 143 per cent during the year. This is in general agreement with the result of the General Schedule, though the outstanding indebtedness both at the beginning and at the end of the year as appearing in the General Schedule were considerably lower than those appearing in the farm business accounts. In the General Schedule results the indebtedness at the beginning and at the end were Rs. 100 and Rs. 234, respectively and thus recorded an increase of 134 per cent during the year.

(12.20) We have already seen that Rs. 336 outstanding at the end of the year consisted of Rs. 206 borrowed during the year and Rs. 130 borrowed in previous years. Hence it is obvious that of these Rs. 336, the amount of Rs. 206 was outstanding for not more than a year and that the balance, namely Rs. 130 was outstanding for a period exceeding a year. In the following table ( table 12.3) we give the distribution of Rs. 130 according to the number of years over which they remained outstanding.

(12.21) We have already seen that loans borrowed but not fully repaid during the year, differed in some important respects, from the loans borrowed and fully repaid during the year. We might expect, therefore, that the loans remaining outstanding over a longer period would also differ materially in some respects from

both the loans referred to earlier. Thus loans of longer duration were of larger amounts. Thus the amount of loans of a size of Rs. 500/- and more formed 60 per cent of the loans of longer duration whereas loans of sizes smaller than Rs. 500 formed more than 60 per cent of the amount borrowed during the year. The purpose for which the loans were borrowed however were the same in both the cases and the proportion of loans borrowed for different purposes also was generally in harmony in both the cases. Thus in the case of loans of longer duration 34 per cent were to meet capital expenditure on farm, 7 per cent to meet current expenditure on farm, 54 per cent to meet family expenditure and the remaining 5 per cent to meet other miscellaneous expenditure.

**Table 12.3.**

No. of years outstanding	Amount in Rupees
Two or three	103
Four or six	22
Eight, nine or ten	4
Thirty-four	1
Total	130

(12.21A) In Bijapur district the movement for organising institutions such as grain banks for providing grain loans to cultivators has not yet gathered momentum. In fact, during period under



report, there were only two such institutions in the district. None of them was covered by our investigation. Nevertheless, it appears that occasionally grain loans are borrowed by cultivators from other cultivator; for a few grain loans were actually reported, in the selected villages by cultivators selected for Farm Business Survey. Thus 15 grain loans borrowed and fully repaid during the year were reported. The quantity borrowed was 3009 seers of Jowar. The quantity repaid with interest in full satisfaction of these loans came to about 3607 seers of Jowar. From this it is obvious that the average size of a loan borrowed and fully repaid during the year was approximately 200 seers of Jowar. All these loans were borrowed exclusively to meet family expenditure and presumably for consumption at home. Besides these 15 grain loans, there were 11 others borrowed but not fully repaid during the year. The total quantity borrowed was 1499 seers of Jowar and the total quantity outstanding at the end of the year was 1488 seers of Jowar. The size of the loan in this case came to 136 seers of Jowar. The loans were borrowed exclusively to meet family expenditure. Of the total outstanding dues 74 per cent was outstanding for more than eight months while the remaining 26 per cent was outstanding for not more than three months.

(12.22) In a classification of these loans by creditors, the share of the government is now naturally higher. Thus it is 16 per cent as against a share of less than one per cent in the case of loans outstanding for less than a year. Similarly the share of the co-operative societies is also higher. Thus it is 9 per cent as against four per cent in the case of loans outstanding for less than a year. Thus it is seen that the Government and the co-operative societies together supply one fourth of the total long term credit needs. The shares of traders and commission agents, professional private moneylenders and the relatives were, as was expected, very small. Thus professional private moneylenders, traders and commission agents together accounted for only 4 per cent of the total amount supplied while the share of the relatives that is of interest free loans was as low as 10 per cent. The Agricultural moneylenders supplied 50 per cent of the amounts and other moneylenders supplied the remaining 11 per cent of the amount.

(12.23) About 68 per cent of the loans were advanced without any security. 24 per cent against the security of immovable property and 8 per cent against the security of bullion and ornaments. Thus the proportion of unsecured loans was 68 per cent as against 95 per cent in the case of loans outstanding for not more than a year. Consequently the proportion of

secured loans and the proportion of amounts borrowed according to the nature of security differ considerably in both the cases. Thus, while in the case of loans outstanding for not more than a year, agricultural produce and moveable property - mainly bullocks, are seen to have been accepted, they are, naturally enough, not accepted as security for loans of longer duration. The loans of longer duration are secured by mortgage of immovable property mostly land and pledge of gold and ornaments.

(12.24) Of the longer termed loans, 16 per cent were free of interest, 33 per cent bore interest at the rate of Rs. 9-6-0 per cent or less, 27 per cent bore interest at 12 per cent, 6 per cent bore interest at about 19 per cent, 10 per cent bore interest at 24 per cent and the remaining 8 per cent at about 37.5 per cent. As against this of the loans which remained outstanding for not more than year, 37 per cent were free of interest, 8 per cent were borrowed at 9-6-0 per cent or less, 25 per cent were borrowed at 12 per cent about 15 per cent borrowed at a rate of 18 per cent, 9 per cent were borrowed at a rate of 24 per cent and the remaining 6 per cent at a rate of 37.5 per cent. Thus it is seen that though the proportion of loans free of interest is smaller in the case of longer termed loans, the proportion of loans bearing interest at Rs. 9-6-0 per cent or less is considerably more indicating that a longer proportion

of the amount was borrowed from either the Government or the co-operative societies. Otherwise the proportion of amounts borrowed at different rates are generally in harmony in the case of both the short-termed and the long termed loans. The only appreciation difference is in the proportion of loans borrowed as the rate of about 19 per cent, the proportion is 6 per cent in the case of long termed loans as against 15 per cent in the case of short-termed loans.

(12.25) Thus it is obvious that private moneylenders have great scope because the finance provided by government is insignificant and is mainly given to meet the capital expenditure on farm. The amount provided by co-operative societies is also very small and is restricted to its members only. Besides they are advanced to meet farm expenditure only, whether capital or current. Thus the private agencies, the agricultural moneylenders, traders and commission agents, professional private moneylenders, not only supply a major portion of the total credit but are actually the only suppliers of credit to meet expenditure of private character. Thus they supply credit to meet family and other miscellaneous expenditure in addition to financing the farm business of the cultivators. Most of this lending is done by unauthorised persons seemingly unaware of the legislation governing their business.

(12.26) For a better appreciation of the limitations of the government finance and co-operative credit which leave a larger field to the private money lenders it would be necessary to study the structure and working of these various credit agencies in greater detail. We propose to do this in the following chapters.

### **XIII. GOVERNMENT - OBJECTIVES & MEASURES**

(13.1) In earlier chapters, while discussing the agencies supplying credit needs of cultivators, we saw that the State Government has by no means an important share in the business. Less than one half per cent of the total amount borrowed during the year was supplied by the Government. The Government loans were mainly for capital investment in agriculture; in fact, as such as 96 per cent was for capital investment in agriculture and the remaining 4 per cent for current farm expenditure. In particular, we noticed that Government made no advances for meeting family expenditure, which as stated, seemed inseparably mixed up with borrowings for agricultural purposes. Even in respect of the loans raised for capital investment in agriculture, the Government share, it should be noted, was not indeed large. Less than one and a quarter per cent of such amount was advanced by the Government. The Government loans however were allowed to stand somewhat longer with the result

that its share in the total outstanding debt was comparatively larger than its share in the total borrowings; actually the share of the Government in the outstanding dues come to 5.8 per cent. The finance emanating from Government, therefore, appears to have some district characteristics and its potential importance should be greater than what its value indicates. Besides providing of actual finance, the Government of course can influence to a great extent the credit and the general agricultural situation. In this chapter we propose, therefore, to examine in some detail, the objectives of the Government as indicated by the legislative provisions and the consequent measures and their operation in practice.

(13.2) There are two legislations enacted by the state Government which are calculated to affect the general agricultural organisation as it exists today. They are the Bombay Tenancy and Agricultural Lands Act and the Bombay Prevention of Fragmentation and Consolidation of Holdings Act.

(13.3) The Bombay Tenancy and Agricultural Lands Act of 1948 was a substantial revision of the earlier Bombay Tenancy Act of 1939. The primary objective of the Act, as of its predecessor, is to give protection to the tenant personally cultivating lands from being evicted from the land so long as he

regularly pays a reasonable rent, the rent if not mutually agreed upon is to be settled by the Mamletdar, who is the Taluka Revenue Officer, but is stipulated not to be more than one-fourth of the irrigated crops and one third of the dry crops. An important provision is that when suspension of remission of the land revenue is granted by the Government, the tenant is entitled to suspension or remission of rent in the same proportion.

(13.4) The second important provision of the act, is the limit that it seeks to put on the size of cultivated holding of a cultivator. It has been put at fifty acres. Thus ordinarily, under certain conditions, when a landlord desires to cultivate a rented land, he can terminate even a protected tenancy; but if this leads to an increase in his cultivated holding beyond 50 acres, he cannot do so. On the other hand, a protected tenant has a right to purchase from the landlord the land in the tenants' cultivation. If the price offered by the tenant is not acceptable to the landlord, the tenant may apply to the tribunal for determining the price and when he deposits the amount fixed by the tribunal, the tribunal declares him to be the possessor; but this can only be done when the purchase does not result in the tenant owning more than fifty acres of land.

(13.5) The third objective of the Act is to restrict the alienation rights in land. The act invalidates all sales, gifts, mortgages, leases or exchanges of an agricultural land in favour of a person who is not an agriculturist. A landlord intending to sell his land must sell according to prescribed priorities; tenant who is actually cultivating the land; cultivator or the adjoining lands; a co-operative farming society and any other agriculturist, in that order. Further, lands purchased by a protected tenant under the provision of the Act cannot be sold, mortgaged, gifted, exchanged or leased without the prior sanction of the Government.

(13.6) The Bombay Prevention of Fragmentation and Consolidation of Holdings Act of 1947 was enacted with a view to preventing fragmentation of agricultural lands and promoting consolidation of agricultural holdings. In order to prevent fragmentation, under this Act, Government by notification specifies area - a village, a Mahal or Taluka where the Act is made applicable. In order to prevent fragmentation, a standard area for each class of land in the area is determined and fragments of area smaller than the standard area are not allowed to be sold or transferred in any way unless they become merged to form a piece of more than the standard area. No land in the area is allowed to partition under any

circumstances which might result in fragments of area smaller than the standard area.

(13.7) For promotion consolidation of holdings in the area, a consolidation officer is appointed who in consultation with the cultivators concerned, prepares a scheme providing for mutual exchange of fragments between the cultivators. Under certain conditions, the scheme can be enforced even in face of opposition of some landlords.

(13.8) Apart from their effect on the general agricultural organisation, those provisions affect, more or less the demand for and the supply of agricultural credit. A protected tenancy might be expected to incur larger expenditures on land improvements. On account of the restrictions on the alienation rights in land and the prescribed purchaser priorities, the land values are likely to be affected in favour of the tenant-would-be-purchaser, and we might expect him to be induced to purchase land. On both those accounts the demand for credit is likely to be enhanced.

(13.9) Provisions seeking to put an upper limit on the size of the cultivated holding, it should be understood, do not all necessarily arise out of narrower considerations of efficient agricultural

production. Primarily they must be based on considerations of social justice. The inequalities that exist in the sizes of cultivated holdings and in the ownership of agricultural capital have been described in earlier chapters; there is little need for an argument to justify a provision promoting greater equality. From the narrower point of view of efficient agricultural production, the position is less certain. At any rate, the provision seems contrary to the promotion of large scale farming. In so far as it restricts the activities of the more enterprising of the cultivators, as an indirect and long term effect, we might hope that in course of time it will modify the extreme individualistic character of our agricultural communities and promote the growth of, if not genuinely co-operative, at least joint or collective effect.

(13.10) The prevention of fragmentation and consolidation of Holdings Act does not, it should be noted, directly provide for any lower limit to the size of the cultivating holdings. The provision of the Act are based more on the considerations of agricultural technology rather than on general considerations of agricultural economy. Nevertheless, where the whole holding itself is less than of the standard area prescribed for a plot,

it will be seen that the Act would gradually eliminate such holdings. The desirability of putting a lower limit to the size of holdings, is felt, probably on two distinct considerations. Firstly, it might be assumed that holdings below a certain size might not be efficiently cultivated. Secondly, in so far as responsibility of cultivating a piece of land, however small, ties down a family to land and does not release it for alternative employment, it might be considered irrational to tie down a family to too small a piece of land even though the total agricultural production as such might not suffer. From the point of view of our immediate interest, this Act is, however, of relatively minor interest.

(13.11) From the point of view of supply of credit to agriculturists, the restrictions which the Tenancy Act places on the alienation rights in land, are probably the most important. As we have seen, the assets of the agriculturist comprise overwhelmingly of land. Therefore, the restrictions on the alienation rights in hand naturally reduce the value of his assets as backing to his borrowing capacity. There is an old view that it is because of his unrestricted alienation right in land that the agriculturist has been so far rather improvident in his borrowing. In so far as this is true, the restrictions

on the alienation rights, though they may prove inconvenient in the beginning should prove beneficial in the long run.

(13.12) There are two legislations more directly concerned with agricultural credit, one calculated to give relief to agricultural debtors and the other to regulate the business of private money-lenders. Relief to agricultural debtors by adjusting or sealing down of their outstanding debts was first provided for by an Act of 1939. The provisions of this Act were, however, made applicable to only a few talukas and debt adjustment and conciliation boards appointed for the purpose. The number of applications for conciliation and adjustment received by these boards were however too numerous and their disposal was too slow. Little progress therefore, could be made and the net result of the Act was to give the creditors and moneylenders sufficient notice to effect recoveries of old debts. The process was aided by the rising prices of agricultural produce so that before the Act of 1939 was repealed and the new Bombay Agricultural Debtors Relief Act of 1947 enacted, it was believed the magnitude of the problem was greatly reduced.

(13.13) The new Act requires all creditors to submit to the court details of all their debt dues before a prescribed

date; debts in respect of which no statement is submitted to the court by the creditor are deemed extinguished. The Act then lays down rules by which the courts should scale down and adjust debt of a debtor making an application for the purpose. The adjustment is to proceed briefly as under; for debts older than 1931, the rate of interest is to be not more than 12 per cent and all dues are to be reduced by 40 per cent; for debts, between 1931 and 1940, the rate of interest is to be not more than 9 per cent and all dues to be reduced by 30 per cent; finally, for debts after 1940, the rate of interest is to be not more than 6 per cent and the dues on interest account are not to exceed the dues out of principal. Finally, if the total debts so adjusted exceeds 60 per cent of the value of the property of the debtor, all debts are further reduced pro rata.

(13.14) The debtor is to pay off the adjusted debt in equal installments not more than twelve in number. If the debtor fails to pay any installment due, the same may be recovered through the collector as arrears of land revenue. In such cases, the court might also order sale of property of the debtor and if the court thinks that the debtor is incapable of paying annual instalments, it may declare him to be insolvent.

(13.15) Presumable for speedier and also for more regular operation of the adjustment process, the new Act abolished the adjustment boards set up under the old Act and empowered the civil courts to deal with adjustment applications under the new Act. We do not know whether this is likely to speed up the adjustment process. Apart from usual difficulties with civil court procedures, the principal difficulty appears to be the large number of ignorant applications made by debtors which in fact are outside the scope of the Act.

(13.16) The Bombay Moneylenders Act of 1946 is designed to regulate and control the business of the moneylenders. The Act requires all moneylenders to be registered and licensed to carry on the business of money lending in a specific area. The license is valid only for one year and must be renewed. In order to regularises the moneylenders' accounts, the Act requires him to keep them in a prescribed form and to inform the registrar of every loan made by him within 30 days of making the loan and to pass plain and complete receipts for every dues received from the debtor. The rate of interest are to be fixed by the Government from time to time; at present they are at 6 per cent for secured and 9 per cent for unsecured loans.

(13.17) As we have earlier noted, the majority of loans made by private moneylenders earn interest between 18 to 24 per cent. This is because most of the loans are not made by licentiate moneylenders. In fact, there is very little registration and even when a moneylender is registered and licentiate, a large part of his business is usually outside the prescribed accounts. There is little doubt that a substantial part of the private money lending in the district, as in other district of the State, is outside the scope of the Act. Principal difficulties in an effective enforcement of the Act seem to be firstly, the large amount of money lending that takes place within a village which it is obviously difficult to control by any act of legislation. Secondly, not all the money lending is done by professional moneylenders who would take the trouble of getting registered and maintaining accounts in prescribed forms; a substantial part of the money lending is in the nature of one cultivator lending to another not very different from himself. Thirdly, the business of money lending is often combined with other business such as trading and an accounting separation of the two is sometimes difficult. Finally, of course, is the general distrust with which the moneylenders look upon government regulation and the ingenuity and influence which they command to escape the same.

(13.18) A special questionnaire was issued enquiring whether the cultivators though that the difficulties they experienced were due to or related to any legislation or other action of Government. All the cultivators selected for the study of their farm business were requested to answer this questionnaire. In the following, we shall briefly describe their response to this questionnaire.

(13.19) The basic question was, "what are the difficulties you experience in obtaining adequate and prompt finance?" and the response to it was very good, 79 of the 80 bigger cultivators and 39 of the 40 smaller cultivators having answered the question. Of these 18 bigger cultivators and 8 smaller cultivators reported that adequate and prompt finance was not available. 12 bigger and 5 smaller cultivators stated that there were no financing agencies in their village. 10 bigger and 2 smaller cultivators had, according to them, no acceptable security to offer. One reported that he was already heavily indebted and that therefore, he found it difficult to raise fresh loans. 13 bigger and 4 smaller cultivators stated that they were experiencing difficulties in borrowing as loans could not be borrowed at lower rates of interest and they could not afford to borrow at high rates of interest. One of the bigger cultivators reported malpractices and harassments by moneylenders. However, 42 of the bigger



cultivators and 25 of the smaller cultivators expressed the opinion that they did not experience any difficulty in obtaining finance. To the next question, "Are any of these due to any legislation or any other action of the Government?" 23 of the bigger cultivators and 6 of the smaller cultivators replied in the affirmative. In the next question they were asked to "mention the laws" that they thought were responsible for their difficulties; and 21 of the bigger and 6 of the smaller cultivators replied that they were due to the "moneylender's Act" and two cultivators mentioned some other piece of legislation. 34 bigger and 20 smaller cultivators replied that they were not aware of any piece of legislation and that they could not say for certain whether the difficulties experienced in obtaining prompt and adequate finance were due to the legislation or not.

(13.20) It was stated earlier that 21 bigger and 6 smaller cultivators replied that the difficulties in the way of obtaining prompt and adequate finance were due mainly to the "moneylenders Act". In the following are briefly what they thought were the effects of this legislation. "Due to the moneylenders legislation, it was becoming difficult to obtain loans from the private moneylenders; and neither the government nor the societies have been able to supply speedy and emergent credit, which the

private moneylenders provided. The moneylenders cannot operate without a license; most of them have no licenses; hence they say that their lending will be illegal and hence charge high rates of interest. Beside as these transactions of money lending are illegal, the moneylenders do not pass any receipts for articles pawned with them. Before this Act came into force there used to be a great deal of mutual accommodation amongst the cultivators; due to the Act, this is becoming increasingly difficult.

(13.21) None among the selected cultivators has reported to have obtained a loan from the Government during the year. Only two cultivators, from the group of bigger cultivators had applied for Government loan during the year. Both the applications were still under consideration at the time of our enquiry.

(13.22) The moneylenders' Act of 1946 and the Agricultural Debtors' Relief Act 1947 are in sense the negative aspects of the Government policy. In its positive aspect, the Government operates principally under the provisions of two ancient Acts, namely, the land Improvement Loans Act of 1883 and the Agriculturists' Loans Act 1884. The first Act provides for government loans for agricultural investment, specifically related to land improvement; in fact, under the Act, improvement is defined as works adding

to the letting value of lands. The second Act provides for loans for agricultural purposes not covered by the first Act, in particular for current farm expenditure such as purchase of seed, fodder and manure and such items of capital expenditure as purchase of agricultural livestock and implements.

(13.23) Loans under both the Acts are made through the Revenue Department. Applications for loans under these Acts are usually made to the Avval Karkoon, who is a senior clerk of the Taluka revenue office. Then a revenue officer or above the rank of an Avval Karkoon makes enquiries particularly relating to the securities offered. Recently in order to cope with the heavy work of enquiring into these cases, Government has authorised circle inspectors who are immediately below in rank to an Avval Karkoon to accept applications and to conduct enquiries. Applications without tangible security are usually rejected. After satisfaction, the applications are submitted to the mamlatdar, who is the Taluka revenue officer, for sanction. Mamlatdar is authorised to sanction loans upto Rs. 1000/- under the Land Improvement Loans Act and upto Rs. 200/- under the Agriculturists' Loan Act. Loans of larger Amounts require the sanction of either the Prant Officer or the District Collector.

(13.24) Loans of small amounts, such as are made under the agriculturists' Loans Acts, are in a single installment. Loans of larger amounts are paid in two or more installments and at appropriate times so that borrower may not be tempted to use them for other purposes. Recoveries are usually made by means of equated payment over a number of years according to the purpose of the loan. Loans under the agriculturist' Loans Act are usually of shorter duration; loans for seed, and manure are usually only for one year; loans for fodder, minor implements and for grain for consumption, are allowed for two years; loans for construction of houses and purchases of cattle and durable equipment, are allowed for four years. Loans under the land the land improvement Act are of longer duration and according to the amounts involved and the repaying capacity of the borrower, might be recovered by installments spread over upto 20 years. All loans, except those made under some special schemes, usually carry interest at 5.1/2 per cent per annum.

(13.25) Relevant records are maintained in the taluka revenue office. Individual cases with all relevant papers including those to each case are preserved until the case comes to an end either through complete recovery or otherwise. Rejected applications are, however, destroyed at the end of each year.

(13.26) The old land improvements Loans Act of 1883 was supplemented in a significant manner by the Bombay Land Improvement Schemes Act of 1942. The Act was first enacted and thereafter amended with a view to making and executing schemes relating to construction of tanks, embankments and other works leading to improved water supply; schemes relating to prohibition and control of gazing, preservation of soil and prevention of soil erosion; and schemes of dry farming and of reclamation of waste and water logged lands. Under this act, for each district, a Board is constituted consisting of the District Collector, District Agricultural Officer, Divisional Soil Conservation Officer and two non-official members. This Board prepares schemes for land improvement and is empowered to execute them. A draft scheme for a particular area is prepared and published for information. An enquiry officer then considers any objections from interested parties. The Board finally sanctions the scheme with or without modification. Every owner of land included in the scheme is required to pay the prescribed costs of improvement works carried out by the Government on his lands. Persons whose lands are not directly included in the scheme but are likely to be benefited by such works, are also liable to pay prescribed contributions either to government or to an appropriate landowner. The schemes

are partly subsidised and the costs charges to the land-owners are recovered over a period. The collective element appearing in the scheme is essential for carrying out any concerted schemes of land improvement, such as of contour bunding. In so far as the work is directly handled by the Government and then the costs are charged to landowners, it ensures that the credit advanced is actually expended for the avowed purposes.

(13.27) In recent years, the Government has initiated a number of schemes under which loans and subsidies are given for agricultural purposes. Most of these schemes come under the Grow More Food Campaign and are under the administrative control of the Department of Agriculture. The most important of these schemes is the Well Scheme for construction of new wells and improvement of old wells. The scheme has been working since 1st April 1947. An application for either a loan or a subsidy or both is made to the Rural Development Board. A revenue officer and a well inspector make enquiries relating to the particulars. If the application is approved, the Chairman of the board is authorised to disburse the first installment of the loan. In the case of new wells the subsidy is to the extent of 25 per cent of the cost of construction subject to a maximum of Rs. 500/-; in the case of old wells the

subsidy is 25 per cent of the cost of improvement subject to a maximum of Rs. 250. Only small holders, that is those who hold not more than 6 acres of irrigated land or 18 acres of dry land are eligible for the subsidy which is usually disbursed in three installments, at various stages of the completion of the work. Loans are made in two or more installments and are charged at 3.1/4 per cent and are recovered in 10 equated annual installments. However on 1st July 1951 the administrative control over this scheme was transferred to the Revenue Department and the Rural Development Board was authorised only to dispose off the applications received by it prior to that date, under this scheme. As a result, from that date, all applications received under this scheme, either for loans or for subsidies are enquired into by the officials of the Revenue Department.

(13.28) The major grievance against government loans is the long period between the application and its sanction, as also the high costs that the applicant is reported to incur in travel and in satisfying the local lenders and petty government officials whose influence seems decisive.

(13.29) Other scheme under the Grow More Food Campaign which are under the administrative control of the Agricultural Department are, the Hot Weather

Crop Subsidy Scheme, the bunding Scheme, the sales tax rebate scheme for encouraging purchase of agricultural machinery, and the scheme for improvement of farm yard manure by subsidising digging of compost and farm yard manure pits. This multiplicity, of schemes, authorities and procedures has, we believe, caused considerable confusion and the mixing up of subsidies with proper credit schemes has had a great demoralising influence both on the officials and the borrower.

(13.30) Consolidated and classified statements relating to total Government finance in the district were not readily available at the district office and the figures supplied by the Taluka offices were not always for the same period. In the following table, we give consolidated figures for the five talukas namely, Bijapur, Bagalkot, Hungund, Indi and Jamkhandi, where our inspector collected figures by personal visits to the taluka offices.

**Table 13.1.**

4.12 Seed	7,005
4.13 Fodder	5,000
4.2 Purchase of bullocks	13,500
4.3 Digging and repairing of wells	49,206 -7-0
4.4 Bunding and other land improvements	51,717-8-0
Total Rs	1,26,428-15-0

Obviously, a very large part of the total finance was for land improvements and digging and repairing of wells. The total finance given in these talukas during the year was about one and a quarter lakh of rupees. The total population of these five talukas excluding that of the taluka town is about six lakhs. The government

finance, therefore, works at about annas three per capita. Government finance reported in the general schedule was annas eleven per family which on a per capita basis is also approximately annas three. We present below whatever figures we could gather from the district office.

**Table 13.2.**

	1945-50	1950-51
Seed	30,953	7,005
Purchase of bullocks	439,491	42,650
Fodder	84,395	9,880
Well digging and improvements	274,965	76,607
Oil Engines	19,952	7,500
Land improvements	271,760	1,32,740
Rebuilding of houses	125,846	10,450
Other purposes	500	-
Total	12,47,862	2,86,832

The items include in the above statement cover most of the items under government loans were given so that if the figures are to be trusted finance given in 1950-51 was less than one fourth of what it was in 1949-50. The population of the district excluding that of the taluka headquarters, is about 12,15,000. The government finance given during 1950-51 therefore, works out at less than annas four per capita which is not very different from the general schedule figure of annas eleven per family.

(13.31) In order to study the operation of the Government loans, case study of a

few loan applications made during the year 1950-51 was undertaken. The cases were selected at the five taluka offices - Bijapur, Bagalkot, Hungund, Jamkhandi and Indi - by a process which would approximate the random procedure as far as practicable. However, one could not be certain that all application for government loans under various schemes would be found in the taluka revenue office, and the volume of records and the manner in which they were stacked often made it difficult to keep to all procedural details designed to ensure a properly random sample. It is conceivable therefore, that the sample of case studies was

not strictly representative of all government loans. In the following we shall submit the results of the case study.

(13.32) In all a sample of 118 loan applications asking for a total of Rs. 1,09,375/- was selected for study. Of these 15 applications asking for loans totalling to Rs. 16,900/- were not sanctioned. That was how the cases were selected and it is not to be supposed that nearly 13% of all applications made were rejected. Of the 15 rejected cases, 2 were rejected for lack of adequate security, 3 because the purpose of the loan was not approved, in 1 case it was because the

applicant had old government dues and the remaining 9 applications were rejected because of miscellaneous reasons.

(13.33) The 103 sanctioned applications asked for Rs. 92,475/-. Not all of them were, however, sanctioned to the full extent. The total amount sanctioned against them being Rs. 82,103/- which is about 89 per cent of the amount applied for. Of this only Rs. 75,383/- were actually disbursed during the year. In the following table, we give the purpose for which these loans and the corresponding amounts were sanctioned.

**Table 13.3.**

	No. of cases	Amount sanctioned in Rs.
Bunding and other land improvements	46	30,000
Digging and repairing of walls	22	29,785
Purchase of livestock	23	8,850
Purchase of Agricultural machinery (pumping sets)	2	5,000
Purchase of fodder	4	2,775
Other farm expenses	5	4,693
Construction and repairs of residential houses and other buildings	1	1,000
Total	103	82,103

The above distribution of sanctioned amounts follows the same pattern as that the previous table. It may be observed that about 72 per cent of the total amount sanctioned was for land improvements and for digging and repairing of wells. Actually 46 per cent were for land

improvement and 26 per cent for digging and repairing wells. In the sample results however the corresponding figures are 36 per cent and 36 per cent. The proportionately greater amount sanctioned for digging and repairing of wells as seen in the sample results is accounted for by the

fact that the two talukas Bijapur and Indi which are the only talukas to have advanced large amounts for digging and repairing of wells, are both included in the sample. The only other major purpose for which loans are advanced in purchase of bullocks. 15 per cent of the total government finance was provided for this purpose. The corresponding figure from the sample results is 11 per cent. It is generally seen that a very small part of the government finance is provided for meeting current farm expenditure. Hence it may be observed that the sample results, on which all further discussion is based, are in general agreement with the district figures.

(13.34) In the following table (table 13.4), we give the distribution of sanctioned loans by the amounts sanctioned. Thus more than 31 per cent of the loans were of amounts of Rs. 1,000/- or more but they accounted for more than 63 per cent of the total amount sanctioned.

Table 13.4.

	No. of cases	Total Amount sanctioned in Rs.
Less than Rs. 100	-	-
Rs. 100 - 299	22	4,512
Rs. 300 - 499	13	4,650
Rs. 500 - 999	36	20,689
Rs. 1,000 - 4,999	32	52,252
Over Re. 5,000	-	-
Total	103	82,103

About 35 per cent of the loans were of amounts of Rs. 500 or more but less than Rs. 1,000/- and accounted for 25 per cent of the amount sanctioned. Thus it is seen that as already observed the majority of the loans are bigger in size and are generally advanced for capital investment in agriculture. Again the usual rate of interest charged by the Government is 5.1/2 per cent. However, in the case of loans for digging and improvement of wells the rate is  $3\frac{1}{4}$  per cent.

(13.35) In the following table is given the distribution of the sanctioned loans by duration for which they were sanctioned, which in the case of government loans would mean the period over which the repayment of loans was to take place by means of equated annual installments.

Table 13.5. Number and Amount of Loans Sanctioned by Duration

Duration of loan	Number	Amount
Less than 3 months	-	-
3 - 6 months	-	-
6 - 9 months	-	-
9 - 12 months	-	-
1 - 2 years	-	-
2 - 3 years	4	1,662
3 - 4 years	22	7,050
4 - 5 years	16	8,400
5 years and more	58	62,366
Those who have not stated the duration	3	2,625
Total	103	82,103

Obviously there were no loans of less than two year duration. It is further seen that 56 per cent of the loans were of 5 or more year's duration and accounted for more than 75 per cent of the total amount sanctioned.

(13.36) A frequent grievance made against government loans is that it takes too long a time between the application and its sanction. In the following table we give the distribution of the sanctioned loans by the time between the application and sanction.

**Table 13.6. No. and Amount of Loan by Time Lag between Application and Sanction**

Time lag between the date of application sanction	Number	Amount applied for	Amount sanctioned
On the same day	1	200	150
Less than one month	14	11,275	9,040
1 - 2 months	12	7,350	5,600
2 - 3 months	13	6,900	6,250
3 - 4 months	12	11,200	10,350
4 - 5 months	9	7,800	7,100
5 - 6 months	5	10,000	9,500
6 - 7 months	5	3,550	3,200
7 - 8 months	3	4,300	3,850
Over 8 months	10	12,400	10,535
Not ascertainable	34	34,400	16,528
Total	118	1,09,375	82,103

About one fourth of the loans were sanctioned within two months, but in one fifth of the case, it took more than five months to obtain the sanction. In view of the multitude of jobs that the revenue department has to handle, one is not sure whether the consideration of the application can really be speeded up, though from the point of view of the utility of loans made, it is very desirable to do so.

(13.37) After the case study of tagai

loan at Indi taluka office, our inspector reported that loans had been advanced for well improvement under the Land Improvement Loans Act at a rate of 5.1/2 per cent even though a separate scheme for well improvement was actually in operation at that time and under which loans could be advanced at  $3\frac{1}{4}$  per cent. The officials concerned reportedly explained that the grants under the head of well improvements scheme had been



exhausted in that taluka and that consequently loans had to be advanced under the L.I.L. Act bearing a higher rate of interest. It may further be observed in this connection that while in this taluka the grants under the well improvement scheme had been reportedly exhausted, the district as a whole had to surrender more than 60 cent of the grant under this head as according to the district official source there was no demand for loans under this scheme. If true, this indicates that there was no adequate co-ordination or allocation of grants as between different talukas.

(13.38) Other major grievances of course relates to the cost which the applicant has to incur in travelling to the taluka place and, as is reported, in satisfying the local leaders and petty government officials. There is no doubt that malpractices and corruption exist, and we are afraid, rather on a universal scale. The multiplicity of schemes and the indiscriminate haste with which some of them were initiated certainly aided the process. A case in point is the loans for purchase of bullocks where the purpose of the loans could most easily be manipulated. The mixing up of subsidy, with proper credit schemes, as already noted, has had a most undesirable and demoralising influence. Subsidy, it should be noted, is a net gain and temptation to corrupt practices is obvious. The entire well scheme is a

standing example of what with a little imagination, could have been anticipated.

(13.39) Along with Farm Business Survey, we had canvassed a questionnaire relating to the credit needs of the selected cultivators. The questions as well as the answers to this questionnaire are by their nature hypothetical. Nevertheless, we might present the material as being relevant to the Government policy and measures.

(13.40) All the 80 bigger cultivators and 39 of the 40 smaller cultivators replied to the questionnaire relating to their credit needs. Of these only 37 bigger and 18 smaller cultivators replied in the affirmative to the question "Do you experience difficulties in meeting expenses for current agricultural operations due to lack of finance?" All of them replied that if credit were available, they would use it for intensive tillage, better manuring and seed.

(13.41) In a subsequent question, the cultivators were asked whether they had any plans for developing their farms; and if so, in what way. In the following table (table 13.7), we give the various questions which were put to them and the number of cultivators who answered the question in the affirmative. It should be

understood that the categories of development were not mutually exclusive, that is to say, the same cultivator could answer in the affirmative to more than one question. The remaining cultivators just did not answer. The cultivators were also asked as to the approximate amounts they required for the proposed capital or development expenditure. In the adjoining column, the total amounts required by the reporting cultivators are shown.

(13.42) Most of the cultivators said that they were prepared to offer land as security while a few had nothing other than

standing crops or agricultural produce to offer as security. 6 cultivators wanted the loans to be of less than 2 years duration, 24 cultivators wanted loans of 2 to 5 years duration, 38 cultivators wanted loans of 5 to 10 years duration while 21 cultivators wanted the loans to be of duration longer than 10 years. Most of the cultivators were willing to pay interest at 5 or 6 per cent per annum. Only 7 cultivators expressed willingness to borrow at rates higher than 8 per cent per annum. But no one was willing to borrow at rates exceeding 12 per cent per annum.

**Table 13.7.**

Question	Bigger cultivators		Smaller cultivators	
	No.	Amount required Rs.	No.	Amount required Rs.
Do you desire to purchase bullocks?	11	4,250	4	1,500
Purchase implements and machinery?	16	6,710	5	1,180
Speed money on bunding, land improvement and land reclamation?	62	38,375	23	6,350
Increase the size of holding by tenancy?	7	1,350	3	700
Increase the size of the holding by purchase of land?	3	5,200	1	3,000
Dig wells in your holding?	19	19,000	6	4,100
Make use of other irrigation sources?	2	2,000	-	-
Undertake more remunerative but costly crops like cash crops or garden crops?	-	-	-	-
Total		76,885		16,830

(13.43) The questionnaire did not enquire about the credit needs for meeting the current farm or family expenditure.

(13.44) As a related aspect of the problem we had also issued a questionnaire to the selected cultivators regarding the forms of savings which they prefer. In reply to his questionnaire, 2 cultivators stated that they held National Savings Certificates; 8 stated that they held shares of co-operative societies; 2 cultivators reported that they held insurance policies, while 2 others reported that they deposited their savings with private traders. All these cultivators who reported savings in one form or another belonged to the group of bigger cultivators. The remaining cultivators reported that they had no savings in any of the forms enumerated in the questionnaire such as postal savings, national savings Certificates, etc.

(13.45) As to the reason why the cultivators did not prefer savings in the above mentioned institutional forms, 76 of the bigger and 39 of the smaller cultivators said that they had no margin for savings, 3 bigger cultivators said that they would prefer to hold the savings in cash

while one showed preference to money lending. He was earning interest at 18 per cent on his savings, by money lending. All the cultivators who reported savings also said with one exception, that they had no margin to save. In fact, if we remember that their savings are mostly in the form of shares of co-operative societies, it becomes obvious that the cultivators regard the purchase of shares of co-operative societies more as a matter of procedure to be complied with for obtaining a loan than as a form of savings.

(13.46) Of the 119 cultivators who answered to the question, "Do you know that there is a postal savings bank?" only 12 answered in the affirmative; of those, again, only 2 know the rate of interest. When questioned as to their attitude towards postal savings, 3 cultivators stated that the rate of interest allowed was too low and that it was difficult to withdraw the amount. 4 cultivators stated that there were no local facilities. Out of 48 cultivators who replied to this question only 5 expressed their willingness to make use of them if facilities were locally available. There was hardly any response to the other parts of the questionnaire.

#### **XIV. CO-OPERATIVE CREDIT - ORGANIZATION AND STRUCTURE**

(14.1) In the preceding chapter, while describing the Government objectives and measures, we divided them into two broad categories of what we called the negative and the positive aspects of the Government policy. Under the first, came measures primarily directed towards reformation of the profession of the private moneylenders and the amelioration of the conditions created by the unrestricted practices of these gentlemen over long years. Under the second aspect of the policy, attention was confined to the government efforts to supply credit to agriculturists directly. It was thought that the extension of the government credit has in some respects been indiscriminate and unimaginative and has led to corrupt practices, to which both the government official and the borrower are parties. In this chapter, we shall examine a third aspect of the government policy, which falls in between the two, but which in a sense, is one of enduring and permanent value; namely, the government efforts to sponsor and foster co-operative effort generally and co-operative credit in particular. Thanks to the persevering official and non-official efforts, the co-operative movement, it seems, has found its roots in this district.

(14.2) At the beginning of the year 1952, there were 362 primary agricultural credit societies in the district. Besides there were 65 multipurpose and 5 marketing societies. There was no independent land mortgage bank in the district. But the Bijapur District Central Cooperative Bank, Ltd. has a small land mortgage banking section which acts as the agent of the Bombay Provincial Land Mortgage Bank.

(14.3) The co-operative societies are registered under and governed by the Bombay Co-operative Societies Act of 1925 which has been amended and modified from time to time. All powers under this act are conferred in the Registrar of Co-operative Societies who is responsible for the operation of the Act. The object of the legislation was to facilitate the formation of co-operative societies for the promotion of thrift, self-help and mutual aid among persons with common economic needs. Though, therefore, the Act provides for the formation of various types of co-operative societies, we shall for the present confine attention to the types which are mentioned above.

(14.4) The application for the registration of a new society is to be sent to the

registrar and has to be signed by at least ten prospective members. A copy of the proposed bye-laws of the society is to be sent along with the application. When the registrar is satisfied that the society complies with the provisions of the Act, he registers the society and its bye-laws and issues a certificate of registration. Any amendment to the bye-laws has to be approved by a general meeting of all members of the society and sent to the Registrar for his approval and registration.

(14.5) Societies may be either of unlimited or of limited liability. Society members of unlimited liability are jointly and severally liable for all its obligations. On the other hand, the liability of a member of a limited liability society is limited to his shares in the society; in such cases, no member is allowed to hold more than one fifth of all shares of the society. Societies affiliating other societies as their members are necessarily of limited liability. A society may change its liability from unlimited to limited or from limited to unlimited. In Bijapur, most of the societies are with unlimited liability.

(14.6) A society deriving profits is required to create a reserve fund. After making contribution to the reserve fund

of the society and to the educational fund of the Bombay Provincial Institute, the remaining profits are to be distributed to the members as dividend. A society is not allowed to pay dividends at rates exceeding  $6\frac{1}{4}$  per cent.

(14.7) The administration of a credit society is looked after by a secretary and a managing committee, with a chairman. The ultimate authority rests with the members meeting in a General Meeting. Every member has one vote and the Chairman use his vote only when necessary as a casting vote. Annual General Meeting of the society is called within three months of the closing of the accounting year. Special General Meeting may be called at any time by a majority of the managing committee or it may be called on requisition of one-fifth of all member or at the instance of the Registrar.

(14.8) The societies are supervised by the Supervising Unions under the control of the Assistant Registrar of Co-operative Societies. In 1950-51 there were eleven supervising unions and 12 supervisors in the district.

(14.9) The accounts of a society are to be audited at least once a year. In 1950-51 there were three auditors, 9 sub-auditors and one special auditor in Bijapur.

(14.10) Primary credit societies and the village multipurpose societies work on the same level, the area of their operation usually being a single village, through sometimes, adjoining villages are affiliated. The area of operation of a cotton sale-purchase society is a group of villages; for a sales-purchase society of another type it is the taluka. In some cases, the credit societies and the village multi-purpose societies are members of respective taluka sales-purchase societies. There does not exist any other relationship between institutions at the taluka and the village levels. The area of operation of the Land Mortgage Bank section of D.C.C. Bank is the whole district.

(14.11) The Bijapur District Central Cooperative Bank, Limited, Bijapur is the only source of finance for the societies in the district. However, Industrial Cooperative Societies are not financed by this bank as there is another District General Co-operative Bank at Bagalkot to finance industrial cooperatives and village industries.

(14.12) Agricultural credit societies advance short and intermediate term loans. There are limited in obtaining credit from a credit society. Thus, for short term loans, that is for loans of less than three years duration, the individual limits of borrowing are Rs. 150 in newly registered societies. Later on the limit is raised, first to Rs. 200 and finally to Rs. 300/-. As a rule loans of less than three years duration are never of amounts larger than Rs. 300/-. Similarly for loans of intermediate term, that is for loans of duration between 3 to 5 years, the individual borrowing limit is Rs. 300 in newly registered societies; Later on this is raised, first to Rs. 400 and finally to Rs. 500/-. Loans of amounts larger than Rs. 500/- are not, as a rule, sanctioned. Within these limits loans are sanctioned to a member of a society according to his credit-worthiness as determined from the value of his assets mortgaged to the society. Thus the limits for member are fixed in the normal credit statements which are prepared by the staff of the society. It is then scrutinised by the supervisor on behalf of the Taluka Supervising Union. After scrutinising the supervisor forwards it to the District Central Cooperative Bank either directly or through its taluka branch office if there is one in that taluka. It is then sanctioned

the loan sub-committee of the bank or by the Board of Directors of the Bank, if the total loan asked by the society is of an amount larger than that the committees is authorised to sanction. Before sanctioning the loan the bank may, if it deems fit, ask the bank inspector to check the normal credit statement sent by the society. The loans sanctioned by bank, are disbursed within the limits prescribed by them and in one or more installments at the discretion of the society.

(14.13) For a loan from a cooperative society, an applicant who is a member of the society, puts his demand before the managing committee. The managing committee, after resolution, submits the demand for the approval of the District Central Cooperative Bank. When the demand is approved, an application is filled in a prescribed form for demand and a bond is signed by the applicant at the time of disbursement.

(14.14) The Land Mortgage Bank Section of the District Central Cooperative Bank advances loans for long term purpose such as repayment of old debts, purchase of land, purchase of costly agricultural machinery such as tractors and oil engines construction and repairs of wells and other land improvements. For a loan from the Land Mortgage Bank

Section, an applicant applies in a prescribed form with necessary documents, showing title to the land concerned. The application is scrutinised by the land valuation officer of the Bank and is submitted by him to the Board of Directors of the Bank for their approval. After obtaining a certificate from the Debt Adjustment Board if necessary, and after consulting the legal advisor of the Bank, the Board of Directors of the D.C.C. Bank forwards the case papers to the Bombay Provincial Land Mortgage Bank for approval, with due recommendations as to the amount of loan to be sanctioned. After approval from the Apex Bank, the loan is disbursed in one installment.

(14.15) Loans from a credit society are either secured by land mortgage or more often when they are not so secured, are guaranteed by third party surety. Loans from the Land Mortgage Bank Section are necessarily secured by land mortgage. The societies charge interest at  $6 \frac{1}{4}$  per cent per annum. The land mortgage Bank Section charges interest at  $5\frac{1}{2}$  per cent per annum. The loans from a society are generally repayable in two or more equal annual installments, while the loans from the land Mortgage Bank Section are repayable in 15 to 20 equal installments.

### XV. WORKING OF COOPERATIVE SOCIETIES - FOUR CASE STUDIES

(15.1) With a view to studying the working of the co-operative societies and their place in the village economy, four of the eight selected villages were so chosen as to have co-operatives societies. The four selected villages having co-operative societies were (1) Amarawati (2) Anjutagi (3) Dhawalgi and (4) Korwar. Unfortunately the society in Korwar was defunct during the period under report, it having been suspended in 1947. In chapter II we have already given a general description of these villages. In the following sections we shall briefly describe the working of the credit societies in these villages.

(15.2) The village multipurpose co-operative society was registered on 22-6-1950. During the year 1950-51, the number of members was 38 and the share capital was Rs. 1,235/-. The reserve fund amounted to Rs. 28. The borrowing capacity of the society has been fixed at Rs. 19,000/-, Rs. 15,000/- for money lending operations and Rs. 4,000/- for business operations. The borrowing capacity of members has been fixed at Rs. 300/- per member for loans of duration of 3 years or less and Rs. 500/- for loans of duration between 3 to 5 years. During 1950- 51, the deposits received were small and negligible. The main source of

finance was the District General Co-operative Bank. In the following table we give a few details of the working of the society during the year 1950-51 as shown by its borrowings from the District General Cooperative Bank on the one hand and by its lendings to its members on the other.

**Table 15.1**

1950-51	Fresh Loans from the D.C.C Bank	Loans to individuals
Ordinary loans	2,950	2,600
	2,950	2,600

From the table given above one gets the impression that the society does nothing more than act as an agent of the D.C.C. Bank and that its own funds make no appearance in its transactions. But that is incorrect, because, the society being a multipurpose one, has other fields for investment. It has invested some of its capital in the distribution business of food-grains, sugar and kerosene. It has also invested Rs. 200/- in money lending operations as is seen from the fact that at the end of the year 1950-51 the loan due to the D.C.C. Bank from the society stands at Rs. 2,400/- as against Rs. 2,600/- actually due to the society from its members. Considering the figures for the year 1951-52, it would be seen that the society is making rapid progress. Thus in



1951-52, the society was able to raise the share capital by Rs. 550/- of which Rs. 375/- were from old members and Rs. 175/- from new, thus bringing the share capital of the society to Rs. 1,750/-. It has also expanded the sphere of its activities. It is at present engaged in selling and hiring out iron ploughs, and in the selling of plough shares. Beside it is the solo agent for the supply of "bidis" to the village. Thus it is seen that the society is functioning very actively. As the society has been established very recently and the figures for 1951-52 are not completely available it is not possible to express any opinion as to whether loans are recovered easily. During the year 1950-51 the society has been shown to have incurred a loss. That is only an accounting error and does not reflect the true position of the society. The loss arises out of the fact that the value of weighing scales, books of accounts (for future use), furnitures and other dead stock purchased during the year have been all treated as current expenditure though they are in the nature of capital expenditure. The loss incurred during 1950-51 is approximately Rs. 155/-.

(15.3) The village was first visited by our investigators during the period from 9-1-1952 to 8-2-1952. It is during this period that the General Schedule for all the families in the village was filled in. The information in the General Schedule

was intended to refer to one year period immediately preceding the date of interview. In this case, it might be taken to relate roughly to the calendar year 1951. As already noted the General Schedule records 295 families of which 229 were cultivators. In the following we shall present a few General Schedule items regarding these cultivating families.

(15.4) The General Schedule records that of the 229 cultivating families 140 borrowed during the year and that their total borrowing amounted to Rs. 50,880/-. Though the number of borrowing families was 140, they reported a total of 318 transactions of fresh debts contracted during the year. In the following table we give the distribution of these debt transactions and of the corresponding amounts according to the creditor source of borrowing.

**Table 15.2. Borrowing by cultivating families in the village Amarawati**

Creditor Source	No. of debt transactions	Amount
Government	1	50
Co-operative societies	70	9,080
Traders, commission agents	71	14,180
Private moneylenders	-	-
Relatives	83	15,680
Agricultural moneylenders	93	11,890
Total	318	50,880

It is immediately obvious from the table that the amount shown to have been supplied by the co-operative societies is far in excess of Rs. 2,600/- actually supplied by the village society. This is so because the people from this village have borrowed heavily from the Hungund branch of the Bagalkot Co-operative purchase and Sale Union. It must be noted, at this stage, that the co-operative movement is highly developed in the Hungund taluka and that in Hungund itself there are three multipurpose societies and a branch of the Bagalkot Purchase and Sale Union, the biggest marketing society in the district. The influence of these co-operative institutions on the credit structure of the neighboring villages cannot be under-rated. In Amarawati for instance the co-operative credit forms approximately 18 per cent of the total credit supplied, though only 5 per cent of the total credit has been supplied by the local co-operative society.

(15.5) We have already seen that the village society has been registered very recently and that it has therefore, not yet fully developed to measure its strength with the other sources of finance. Nevertheless it has made a modest beginning by advancing Rs. 2,600/-. Let us therefore, examine the purposes for which credit is needed so that we may know whether the village co-operative

society has any chance to develop. (table 15.3) Thus more than 45 per cent of the borrowing is undertaken to meet the capital and current expenditure on farm and as already seen the cooperative societies have supplied Rs. 9,080/- to meet expenditure on these two items. That is nearly 40 per cent of the amount is borrowed to meet capital and current expenditure on farm. It is further seen that the amounts borrowed to meet capital expenditure on farm are mainly to finance expenditure on the construction of bunds and on the purchase of livestock. Other items of capital expenditure in agriculture financed to some extent by borrowing are purchase of land and purchase of implements and machinery. The main items of current farm expenditure financed by borrowing are purchase of seed and payment of wages.

(15.6) Of the 229 cultivating families 163 were reported to be in debt at the time of the enquiry and their total indebtedness amounted to Rs. 78,070/-. In the following table we give the number of cultivating families owing debt to different types of creditors. It should be borne in mind that some of the 163 families owned their debt to more than one creditor. (Table 15.4) From the table it is obvious that more than 80 per cent of the total outstanding indebtedness is due to private agencies such as traders and commission agents, relatives and agricultural

moneylenders. The outstanding indebtedness due to the Government and co-operative societies formed 3 and 15 per cent, respectively of the total indebtedness. Besides the total amount due to the Government is in harmony with the amount actually due to it.

**Table 15.3. Borrowing for different purposes by the cultivating families in the village Amarawati**

Purpose	No. of debt transactions	Amount
Capital investment in agriculture	92	17,690
Current farm expenditure	36	5,420
Non-farm expenditure	4	410
Family expenditure	156	22,600
Other expenditure	30	4,760
Total	318	50,880

**Table 15.4. Indebtedness of cultivating families in the village Amarawati**

Creditor	No. of cultivators indebted	Amount of total debt
Government	11	2,060
Co-operative societies	57	11,540
Traders, commission agents	2	2,050
Private moneylenders	73	22,560
Relatives	75	24,760
Agricultural moneylenders	72	15,100
Total	290	78,070

(15.7) The Anjutagi village Credit Society was registered in 1927. It is at present being managed by an unpaid

secretary and a managing committee of five members. The society had 62 members in 1949-50. But due to the death of two members, the number has come down to 60. The share capital of the society amounted to Rs. 2,345/- in 1950-51. The reserve and other funds were also considerable and together amounted to Rs. 1,316/-. The deposits received were negligible. The maximum borrowing capacity of the society has been fixed at Rs. 15,000/-. The Individual limits for borrowing are Rs. 300/- for short-term loans and Rs. 500/- for intermediate-term loans. In the following table we give a few details of the working of the society in the two years, as shown by its borrowings from the District Central Co-operative Bank on the one hand and by its lendings to its members on the other.

**Table 15.5.**

	Fresh loans from the D.C.C. Bank	Loans to members
1949-50		
Ordinary loans	2600	2600
Total	2600	2600
1950-51		
Ordinary loans	3950	3950
* Cash credit	2000	-
Total	5950	3950

\* Advance to conduct business other than money lending

From the table, it is clear that the society does nothing more than act as an agent for the D.C.C. Bank. The reason for this is that the society's owned funds are locked up in loans due to it from its members. The outstanding loans stood at Rs. 9,824 at the end of the year 1950-51. Of this Rs. 7,468/- were overdue. Three of the defaulting members are on the managing committee the amount overdue from them being Rs. 1200/-. The irregularity in repayment may partly be attributed to the fact that for the past few years the agricultural year has been bad and partly to the fact that the management of the society is inefficient. However, no cases have been referred to arbitration so far. The society has undertaken the distribution work of food grains, sugar and cloth. Due to reported mismanagement the society has incurred a loss of Rs. 1,416 in cloth business. No enquiry was undertaken in to the cause of this serious loss. Due to this heavy loss and because of the fact that most of its own funds are locked up in the loans advanced to members, the society is experiencing acute shortage of cash resources. If the society has not gone into liquidation so far it is mainly because it is making profit in its distribution work of food grains and sugar. The society has on the whole been able to show a profit of Rs. 62/- in 1949-50 and Rs. 52/- in 1950-51.

(15.8) The village was first visited by our investigators during the period from 21-12-1951 to 7-1-1952. It is during this period that the General Schedule for all the families in the village was filled in. The information in the General Schedule was intended to refer to one year period immediately preceding the date of interview. In this case it might therefore, be reasonably taken to relate roughly to the calendar year 1951. As already noted the general schedule records 448 families of which 299 are cultivators. In the following we shall present a few general schedule items regarding these cultivating families.

(15.9) The general schedule records that of the 299 cultivating families 145 borrowed during the year and that their total borrowings amounted to Rs. 55,630/-. Though the number of borrowing families was 145, they reported a total of 261 transactions of fresh debts contracted during the year. In the following table we give the distribution of these debt transactions and of the corresponding amounts according to the creditor source of borrowing. (Table 15.6) It is immediately obvious from the table that the part which the credit society plays in the supply of credit to the cultivators is exceedingly small. It appears however that its part is greatly underestimated in the general schedule reporting. As we saw above, the society

made loans to individuals to the extents of Rs. 2,600/- in 1949-50 and Rs. 3,950/- in 1950-51. It is therefore, obvious that the reported amount of Rs. 300/- is a clear case of under estimation. So, if in the place of the reported loans worth Rs. 300/- made by the credit society we substitute the actual amount of loan disbursed by the society during that period, namely, Rs. 3,950/- it seems that the society shares about one sixteenth of the total supply of credit to cultivators in the village.

**Table 15.6. Borrowing by cultivating families in the village Anjutagi**

Creditor Sources	No. of debt transactions	Amount
Government	-	-
Co-operative societies	4	300
Traders, commission agents	9	2,810
Private moneylenders	2	250
Relatives	44	10,240
Agricultural moneylenders	200	41,880
Others	2	150
Total	261	55,630

(15.10) The reason why the society cannot cater for more of the credit needs are obvious. The resources of the society are too small to meet even the credit needs for meeting capital and current farm expenditure. In the following table (table 15.7) we give an analysis of the debt transactions by the purpose for which they were incurred.

**Table 15.7. Borrowing for different purposes by the cultivating families in the village Anjutagi**

Purpose	No. of debt transactions	Amount in Rupees
Capital investment in agriculture	84	19,680
Current farm expenditure	29	3,700
Non-farm expenditure	2	1,300
Family expenditure	125	26,110
Other expenditure	21	4,840
Total	261	55,630

It is seen that the borrowing to meet capital and current farm expenditure forms 42 per cent of the total borrowings. The total credit actually supplied by the society during the same year amounted to Rs. 3,950 that is about 15 per cent of the total amount borrowed to meet capital and current farm expenditure. We have related the total advances made by the society to the total borrowings to meet capital and current expenditure on farm because the society advances loans only for those two purposes. The items of capital expenditure which are financed by borrowing are mainly digging and repairing of wells, purchase of draught animals, purchase of implements and machinery and construction and repairs to bunds. The main items of current farm expenditure are purchases of seed and fodder and payment of wages.

(15.11) Of the 299 cultivating families 197 were reported to be in debt at the time of the enquiry and their total indebtedness amounted to Rs. 95,680/-. In the following table we give the number of families owing debt to different types of creditors. It should be borne in mind that some of the 197 families owed their debt to more than one creditor.

**Table 15.8. Indebtedness of cultivating families in the village Anjutagi**

Creditor	Number of cultivators indebted	Amount of total debt
Government	47	17,560
Co-operative societies	40	8,870
Private moneylenders	9	5,240
Relatives	32	12,030
Zamindars	1	200
Traders, commission agents	19	4,100
Agricultural moneylenders	128	47,530
Unspecified creditors	2	150
Total	278	95,680

We had occasion to refer earlier to the fact that borrowings from the credit society were under-reported in the General Schedule. Similarly the total amount due to the society at the time of the enquiry is also under-reported in the General Schedule, but to a small extent only. Thus the reported amount is Rs. 8,870/- as against the actual amount of Rs. 9,824/-. Hence if we substitute the actual amount for the reported amount, it would be seen

that the outstanding loans of the co-operative society amount to 10 per cent of the total outstanding amount.

(15.12) There are two co-operative societies in at Dhawalgi. One is the Shri Madiwaleshwar Thrift and Credit Society, the other is the Better Farm Society. Shri Madiwaleshwar Thrift and Credit Society is the older of the two and was registered in 1943. But soon differences of opinion arose among the members of the managing committee and the chairman who found himself in the minority group, left the society and established the Better Farm Society.

(15.13) The Better Farm Society was registered in 1946 as a limited liability society. During both the years 1949-50 and 1950-51 the number of members was 22. The share capital of the society also remained at Rs. 805/- during both those years. But the reserve fund increased from Rs. 461/- in 1949-50 Rs. 618/- in 1950-51 and other funds increased from Rs. 41/- to Rs. 325/-. Thus it is seen that during the period under report there was a net increase of Rs. 441/- in the owned funds of the society. The society was formerly supplying credit to its members. But recently it has stopped its money lending operations and has restricted its activities mainly to improving the method of cultivation. In order to improve the method of farming the

society has undertaken to supply iron plough on hire and groundnut cakes and manure mixture, for sale. It also supplies, occasionally, cotton seeds. The society has jurisdiction over six villages, namely Dhawalgi, Hallur, Agaswad, Tarnal, Balwat and Godihal. But its operations are so far confined to Dhawalgi only. The society is working efficiently and is making nice profits. After paying dividend at the rate of 7. 1/2 per cent the balance of the profit is appropriated to reserve and other funds. At present the society owns 19 iron ploughs valued at Rs. 988 after making due allowance for depreciation. The society has all along been self sufficient so far as financial resources are concerned. The society has so far received Rs. 330-12-0 from Government in the form of subsidy. The society is managed by a paid secretary and a managing committee of five members. As already stated this society is a product of competition between two groups. Hence, so long as the spirit of competition and rivalry lasted the managing committee took keen interest in the society and made it one of the best societies in the Bijapur District. But of late the two groups have forgotten their rivalries and have closed their ranks; with the spirit of rivalry the interest in the society has also died. Now it is a neglected society. If the managing committee evinces as great an interest in the society as it was formerly evincing it can

expand the sphere as well as the scope of the activities of the society and can make it the foremost institution of its kind in the District.

(15.14) The village agricultural credit society was registered in 1943. During both the years 1949-50 and 1950-51 the number of members was 57. The owned funds of the society amounted to Rs. 1,588/- in 1949-50 and Rs. 1,866/- in 1950-51. Though the total owned funds have recorded an increase of Rs. 278/-, the increase is mainly due to increase in accumulated profits. The increase in the share capital was negligible and the total share capital was also too small namely Rs. 485/-. The borrowing capacity of the society has been fixed at Rs. 15,000/-. The individual borrowing limits are Rs. 300/- for short-term loans (three years) and Rs. 500 for medium term loans (three to five years). During the years 1949-50 the deposited by the society were negligible. In 1950-51, however, the current deposits were considerable and they actually amounted to Rs. 810/-. These deposits comprised of a charity fund collected by the villagers and temporarily deposited with the co-operative society, an amount of Rs. 250/- deposited by the local Better Farm Society as a token of good will and an individual deposit. Consequently it is obvious that the deposits are not a regular feature and have no value as a source of finance. The only

source of finance for the society is the D.C.C. Bank, Limited, Bijapur. In the following table we give a few details of the working of the society in the two years as shown by its borrowings from the D.C.C. Bank on the one hand and by its lendings to its members on the other:-

**Table 15.9.**

	Fresh loans from the D.C.C. Bank	Loans to individuals
1949-50		
Ordinary loans	Rs. 3,690/-	Rs. 5,450/-
Total	Rs. 3,690/-	Rs. 5,450/-
1950-51		
Ordinary loans	Rs. 10,000/-	Rs. 8,650/-
Total	Rs. 10,000/-	Rs. 8,650/-

It is obvious from the table for the year 1949-50 that the fund of the society make their appearance in the money lending operations of the society. The repayments of loans are also found to be generally regular in this society. In addition to money lending business the society has undertaken the distribution of cloth, food grains, sugar and kerosene. It is making profits in all these undertakings. However, it is anticipated that during the year 1951-52, the cloth business would suffer a loss. So far as the administration of the society is concerned it must be stated that it is negligent. Resolutions passed at meetings having no quorum as laid down by the bye-laws of the society, are treated

as valid resolutions and implemented. No attention seems to have been paid to this aspect of the management. However, the society has showed a profit of Rs. 465/- in 1949-50 and Rs. 181/- in 1950-51. No dividends have been declared so far as the society being one of unlimited liability has no authority to declare dividends during the first ten years of its working.

(15.15) The village was first visited by our investigators during the period from 9-2-1952 to 13-3-1952. Therefore, the information in the General Schedule which was filled in during that period, related roughly to the year ending with February 1952. The schedule recorded a total of 303 families of which 186 were cultivators. 80 of the cultivating families borrowed during the year and reported a total of 140 transactions of fresh debts. In the following table (table 15.10) we give the distribution of these transactions and the corresponding amounts by the creditor source. It is obvious from the above table that the part which the society plays in the supply of credit is somewhat under estimated in the General Schedule reporting because actually Rs. 8,650/- have been advanced during this period by the society. So, if in the place of the reported loans of Rs. 6,750/- the actual amount of 8,650 is substituted, it would be seen that the advances made by the society are more than 20 per cent of the



total credit supplied. However, the co-operative credit society advances loans only to meet capital and current expenditure on farms. Hence if we relate the advances made by the society to the total credit supplied to meet the expenditure on those two items only the proportion is bound to be greater.

**Table 15.10. Borrowing by cultivating families in the village Dhawalgi**

Purpose (Creditor Sources)	No. of debt transactions	Amount in Rupees
Government	-	-
Co-operative society	29	6,750
Traders, commission agents	-	-
Private moneylenders	3	600
Relatives	22	7,010
Agricultural moneylender	86	22,380
Total	140	36,740

(15.16) In the following table are given the various purposes for which amounts have been borrowed. (Table 15.11)

**Table 15.11. Borrowing for different purposes by the cultivating families in the village Dhawalgi**

Purpose	No. of debt trans actions	Amount in Rupees
Capital investment in agriculture	53	16,620
Current farm expenditure	4	800
Non-farm expenditure	4	2,500
Family expenditure	71	15,080
Other expenditure	8	1,740
Total	140	36,740

From the table it is obvious that nearly half of the total borrowings are to meet capital and current expenditure on farms and that the amount advanced by the societies is more than two fifths of the total amount borrowed to meet capital and current expenditure on farm. The items of capital expenditure mainly financed by borrowing are the purchases of land, livestock, implements and machinery, construction and repairs of bunds. The amount borrowed to meet current farm expenditure was very small.

(15.17) Of the 186 cultivating families only 93 were reported to be in debt at the time of the enquiry, the total reported indebtedness amounting to Rs. 51,170/-. In the following table we give the number of cultivating families owing debts to different types of creditors. It should be borne in mind that some of the 93 families owed their debts to more than one creditor.

**Table 15.12. Indebtedness of cultivating families in the village Dhawalgi**

Creditor	No. of cultivators indebted	Amount of total debt
Government	3	460
Co-operative society	26	8,450
Private moneylenders	2	600
Relatives	27	10,110
Traders, commission agents	22	4,870
Agricultural moneylenders	49	26,680
Total	129	51,170

We had earlier noted that the borrowing from the credit society had been somewhat under-reported in the General Schedule. However, it is seen that the outstanding indebtedness to the credit society is in harmony with the figures shown in the books of the society as the amount due from members. It is also obvious from the table above that of the outstanding indebtedness the amount due to the Government is very much smaller than the actual amount due to it. Thus if we substitute for the reported amount of Rs. 460/- the amount of Rs. 1,384/- actually due to the Government, it would be seen that Government loans outstanding account for 2 per cent of the total indebtedness. The outstanding loans of the co-operative credit society account for about 16 per cent of the total indebtedness. Thus it is seen that the private agencies which supply credit dominate the field of money lending.

(15.18) The village co-operative credit society was registered in 1929. The society was suspended on 4-1-1947 and a recovery clerk was appointed to recover the outstanding loans. The society is still under suspension. Hence during the

period under report the society was defunct. On 28-5-1951, the share capital of the society amounted to Rs. 1,230, the reserve fund amounted to Rs. 4,426 and the charity fund amounted to Rs. 646. Thus the owned funds of the society amounted to Rs. 6,696/-. Hence it is seen that the resources of the society were substantial. As against this the outstanding amount of the society stood at Rs. 4,726/- on that day. Besides the society had Rs. 198/- in cash, Rs. 1,038/- in bank and Rs. 555/- in the form of shares of co-operative institutions. Prior to its suspension, the society was engaged in money lending operations and in the distribution of sugar. It is alleged that as the distribution of the sugar proved to be a most profitable enterprise there was a scramble between the rival groups in the village to gain control over the society and that this eventually lead to the suspension of the society. It is worthwhile to notice that the society was fully utilising its owned funds in its money lending operations. It appears that the recovery of loans was satisfactory. However, two members of the managing committee were also defaulters, though the amount involved was small about Rs. 150/- in all.

## XVI. WORKING OF COOPERATIVE SOCIETIES - SUMMARY

(16.1) In the previous chapter we have given a general description of the working of the co-operative societies in the four selected villages, against the background of the conditions in respect of borrowing and indebtedness in the respective villages. It was then seen that of the four societies, one was under suspension during the period under report; another was not working very satisfactorily, the third did not show any promise and only one society which had been recently registered showed some promise. Nevertheless taken as they are and taken together they represent in a sense the success and failings of the co-operative movement in the district. In this chapter we shall summarise the position by consolidating their accounts as also the situation in the respective village with regard to borrowing and indebtedness. However as already noted during 1950-51 only three societies were functioning in the selected villages. Hence we propose to deal with the accounts of these three societies and that too for the year 1950-51 only.

(16.2) The three villages put together had a population of 5465 comprising of 1047 families 716 of which were cultivators. The membership of the three societies taken together was 155. It is therefore, seen that about 22 per cent of

all cultivators were members of the co-operative societies. The share capital was Rs. 4,065/- so that it worked out at Rs. 26/- per member. The reserve and other funds were considerable and amounted to two thirds of the total share capital. Generally the societies did not have any deposits either current or fixed. However, during 1950-51 the current deposits amounted in all to Rs. 914/-. This by no means indicates that the societies have been able to attract deposits. For, two societies together had only Rs. 100 worth of current deposits while the third society had Rs. 814/- worth of current deposits. The nature of these deposits worth Rs. 814/- in this particular society has already been fully analysed in section 15.14, where it was shown that it was not an indication of the society being able to attract deposits. The maximum borrowing limit of all the three societies taken together is Rs. 49,000/-. Of these Rs. 45,000/- is for money lending operations and the extra limit of Rs. 4,000/- is for conducting business other than money lending. The maximum borrowing limits thus fixed are reasonable though they do not bear any direct relation to the assets of the societies.

(16.3) During 1950-51 the three societies together received fresh loans amounting to Rs. 18,900/- from the District Central Co-operative Bank. This is about 39 per cent of the maximum credit

limit allowed. The amount sanctioned by the bank, no doubt, is very much lower than the credit limit fixed by it. But the reasons are quite obvious. The bank, naturally enough, cannot risk advancing loans to the societies to the full extent of the credit limit allowed to them, when it knows full well that it is not going to be easy or possible for it to recover in time the amount advanced to the societies. Besides as already stated in a previous section the societies also may not be in need of credit to the full extent of the credit limit allowed to them. Any way it is worthwhile to note that the loans advanced by the bank to the societies are substantial and form the bulk of the working capital of the societies.

(16.4) The loans to members by the three societies during 1950-51 amounted to Rs. 15,200/- which is very much less than the working capital which amounted to Rs. 26,852/-. This does not mean that the societies are not fully utilising their working capital. The fact is that a large part of their capital is locked up in loans outstanding from members and hence does not make any appearance in their money lending operations during the year. Hence, though on the face of it, it does not appear that the societies are using their working capital to the fullest extent they are really making the fullest possible use of their working capital. We shall now examine this effort against the

requirements of cultivators, as seen from their borrowings. The General Schedule for the three villages shows that out of 716 cultivators 365 actually borrowed from one source or another. The 365 cultivators actually reported 719 loans incurred during the year, amounting to a total of Rs. 1,43,250/-. This works out to Rs. 200/- per cultivator. Or if we consider the 365 cultivators who borrowed during the year it gives Rs. 392/- per borrowing cultivator. Of the total amount borrowed Rs. 16,130/- was borrowed from the co-operative societies and that is about one ninth of the total amount borrowed. In the following table, we give the distribution of loans incurred during the year and of the corresponding amounts by creditors.

**Table 16.1.**

Creditor	No. of debt transactions	Amount in Rupees
Government	1	50
Co-operative societies	103	16,130
Traders, commission agents	80	16,990
Private money lenders	5	850
Relatives	149	32,930
Agricultural moneylenders	379	76,150
Others	2	150
Total	719	143,250

Thus the co-operative societies are seen to provide only 11 per cent of the total credit supply to the cultivating families in the villages. Incidentally it should be

noted that the amount reported by the General Schedule as borrowed from the co-operative societies, namely Rs. 16,130/- agrees very well with the one indicated by the accounts of societies for the year 1950-51, where it appears that the loans made by the societies during the year amounted to Rs. 15,200/-. The small difference might be due to the fact that the General Schedule does not refer to the year 1950-51, but to a somewhat later period, being approximately the calendar year 1951. Agriculturist money lenders account for a very large share, about 55 per cent of the total credit supply. Relative-s supply 23 per cent traders and commission agents 12 per cent and private money lenders 1 per cent of the total supply of credit.

(16.5) In the following table, we give the purchases for which the loans were taken during the year:-

**Table 16.2.**

Purpose	No. of debt transaction s	Amount in Rupees
Capital farm expenditure	229	53,990
Current farm expenditure	69	9,920
Non-farm expenditure	10	4,210
Family expenditure	352	63,790
Other expenditure	59	11,340
Total	719	143,250

Thus about 44 per cent of the borrowing is for meeting family expenditure. Of the total capital farm expenditure about 34 per cent was on purchase of plough cattle, 33 per cent on purchase of fodder 13 per cent on payment of wages, 13 per cent on purchase of agricultural implements and machinery and the remaining 7 per cent on purchase of land.

(16.6) In the next table are given the details of the current farm expenditure from which loans were taken:-

**Table 16.3.**

Expenditure items	No. of debt trans actions	Amount in Rupees
Seed	24	2290
Manure	2	130
Fodder	10	1770
Payment of wages	1	20
More than one of these items	32	5710
Total	69	9920

(16.7) In the following table we give the distribution of the loans taken for meeting capital farm expenditure according to creditors from whom they were borrowed. (table 16.4)

**Table 16.4.**

Creditor	No. of debt trans actions	Amount in Rupees
Government	-	-
Co-operative societies	25	4,820
Traders, commission agents	22	5,350
Private money lenders	-	-
Relatives	53	12,120
Agricultural moneylenders	128	31,650
Others	1	50
<b>Total</b>	<b>229</b>	<b>53,990</b>

Thus it is seen that co-operative societies supplied about 9 per cent of the total credit. And if we remember that these are villages having co-operative societies it would be seen how insignificant is the role played by co-operative societies in supplying credit. From the table it is obvious that Government has not advanced any loans for capital farm expenditure. However, this must be regarded as unlikely. For evidently Government has advanced large sums for capital investment in agriculture in the district. And at least one or two individuals in the three society villages must have received tagai loans. Hence it may be regarded that the amount advanced by the Government in the form of tagai loans has been under estimated in the General Schedule. From table 16.4 it is obvious that private agencies have supplied 91 per cent of the total credit. Thus the agriculturist money lenders have supplied 59 per

cent relatives 22 per cent and traders and commission 10 per cent of the total credit supplied.

(16.8) In the following table we give the distribution of the loans taken for current farm expenditure according to the creditors from whom they were borrowed:-

**Table 16.5**

Creditor	No. of debt trans actions	Amount in Rupees
Government	1	50
Co-operative societies	12	2,070
Traders, commission agents	15	2,360
Private money lenders	-	-
Relatives	9	1,790
Agricultural moneylenders	32	3,650
<b>Total</b>	<b>69</b>	<b>9,920</b>

(16.9) Finally we might examine the supply of credit for family and other expenditure. In the following table we give the distribution of loans taken for that purpose according to creditors from whom they were borrowed.

**Table 16.6**

Creditor	No. of debt transaction s	Amount in Rupees
Co-operative societies	65	9,140
Traders, commission agents	40	8,370
Private money lenders	4	650
Relatives	86	18,420
Agricultural moneylenders	215	38,450
Others	1	100
<b>Total</b>	<b>411</b>	<b>75,130</b>

Thus the Government has not and does not make any loans to meet the family expenditure. The societies account for only 12 per cent of the total amount borrowed for this purpose. Even here, it must be noted that the above classification of loans is based on the purposes as reported by the borrowers. The loan registers of the societies mention only the capital or current requirements of farm business and these are the "official" reasons for which the societies in fact make the loans. The rest that is 88 per cent of the total is met by private creditors. The agriculturist money lenders provide 51 per cent, the relatives provide 25 per cent and other private money lenders provide 12 per cent of the total credit supplied for this purpose.

(16.10) Out of the 716 cultivating families in the three villages 453 were reported indebted at the time of the enquiry. This is more than 63 per cent of all cultivators. In the following table we give the number of cultivators who were indebted to different types of creditors and corresponding amounts of indebtedness. It should be noted that the same cultivator may be indebted to more than one creditor.

**Table 16.7.**

Creditor	No. of cultivators indebted	Amount in rupees
Government	61	20,080
Co-operative societies	123	28,860
Private moneylenders	13	7,890
Relatives	132	44,700
Zamindars	1	200
Traders, commission agents	116	33,730
Agricultural moneylenders	249	89,310
Others	2	150
Total	697	2,24,920

Thus the total indebtedness works out at Rs. 497/- per indebted family and of the total only about one eighth is owed to the cooperative societies.

#### **XVII. WORKING OF COOPERATIVE SOCIETIES - MORE CASE STUDIES**

(17.1) In addition to the four societies from the selected villages, which we have described in the previous two chapters, four more credit societies in the district were selected for study. In these cases, the investigation was confined to the working of the selected societies and no general information regarding the villages in which they were situated was obtained. In particular, the General schedule was not filled in for these villages and consequently no information regarding the total borrowing or indebtedness of the cultivating families in these villages is available. In this chapter, we shall briefly describe the working of the four selected societies.

(17.2) Of the four selected societies three were credit societies. They are those at Bhatgunki in Indi taluka and at Babanagar and Hittinhalli in Bijapur Taluka. The fourth is a multipurpose society and is situated at Hunnur in Jamkhandi taluka. We shall describe them one by one, in that order.

(17.3) Bhatgunki is a village in Indi taluka situated at a distance of 9 miles from Indi, the taluka town. The village is well served by wells there being as many as 50 irrigation wells. However of them dry up in summer and are therefore, not useful for heavy irrigation. Hence the main food crop - Jowar, is raised as an irrigated crop. The main crops of the village are in the order of their importance Jowar, Bajri, Groundnut, Cotton, and pulses. The Village Thrift and Credit Society was registered on 27-10-1948. The number of members has increased from 31 in 1949-50 to 36 in 1951-52. The share capital has increased from Rs. 885/- in 1949-50 to Rs. 1,110/- in 1951-52. During the same period, the reserve fund has increased from Rs. 31/- to Rs. 37/- and the deposits from Rs. 25/- to Rs. 900/-. The main source of finance to the society was however, the D.C.C. Bank. The maximum borrowing capacity of the society has been fixed at Rs. 5,000/-. The maximum borrowing limits for individual members are Rs. 300/- for loans of less than 3 years duration and Rs. 500/- for loans of duration between 3 to 5 years.

(17.4) The reason for the very low borrowing capacity of the society is that the value of the assets of the society is very small. The village is an inam village and a large number of cultivators are merely tenants. Naturally majority of the members are tenant cultivators. This is a major obstacle in the way of the expansion of the society because loans can be advanced either against the security of land or against the guarantee of two sureties; and there are very few members having land and they have themselves borrowed and therefore, cannot stand as sureties till they repay their own loans.

(17.5) In the following table we give a few details of the working of the society during the years 1949-50, 1950-51 and 1951-52, as shown by its borrowings from the D.C.C. Bank on the one hand and its lending to its members on the other.

**Table 17.1.**

	Fresh loans from the D.C.C. Bank	Loans to members
1949-50		
Ordinary loans	Rs. 3,050/-	Rs. 3,550/-
Total	Rs. 3,050/-	Rs. 3,550/-
1950-51		
Ordinary loans	Rs. 1,650/-	Rs. 800/-
Total	Rs. 1,650/-	Rs. 800/-
1951-52		
Ordinary loans	Rs. 2,475/-	Rs. 2,475/-
Total	Rs. 2,475/-	Rs. 2,475/-



It is observed that the resources of the society though they are meagre make their appearance in the money lending operations of the society. In 1950-51 the society disbursed only Rs. 800/- by way loans because the inspector of the D.C.C. Bank strongly objected to the society's practices of advancing loans to tenant cultivators against the security of tenanted inam lands. The recovery of loans is very satisfactory and the society though small is most efficiently managed. The chairman takes keen interest in the society and himself does the secretarial work though there is one honorary secretary. In 1949-50 the society had incurred a loss of Rs. 112/- because it had engaged the services of a paid secretary even though the size of the society and the scale of its operations were too small to permit it. So from 1950-51 the society secured the services of an honorary secretary. Since the present chairman has come into office, the society has been making steady progress and has showed a profit of Rs. 113/- in 1950-51 and Rs. 151/- in 1951-52. The society has been given a subsidy of Rs. 98/- once, to meet the cost of secretarial work.

(17.6) Babanagar is a village in Bijapur taluka and is situated at a distance of 17 miles from Bijapur. The village is well served by irrigation wells there being as many as 50 irrigation wells in use. The main irrigated crops are - Sugarcane,

bananas, grapes and chillies. The main Kharif crops are Bajri, Groundnut and Maize and the main rabi crops are Jowar, wheat and cotton. The agricultural credit society was registered on 30-6-1946. Its growth has been rapid. By 30-6-1951, the society had collected Rs. 5,615/- by way of share capital and had a membership of 168. The reserve fund of the society has increased from Rs. 116/- in 1949-50 to Rs. 172/- in 1950-51. In accordance with the rapid growth of the society, the borrowing capacity of the society has also increased. Thus on 24-4-1950 the D.C.C. Bank revised the borrowing capacity of the society and raised it from Rs. 16,000/- to Rs. 30,000/-. The individual limits of borrowing for members are Rs. 300/- for loans of less than 3 years duration and Rs. 500/- for loans of duration between 3 to 5 years. However, in spite of substantial resources of its own the society continues to rely on the D.C.C. Bank for finance.

(17.7) In the following table we give the working of the society during 1949-51 as shown by its borrowings from the D.C.C. Bank on the one hand and by its lendings to its members on the other.

From the table given above it is obvious that the funds of the society are making increasing appearance in the money lending operation of the society. The recovery of loans has also been quite satisfactory in this society. The society

has made a profit of Rs. 548/- in 1949-50 and Rs. 308/- in 1950-51. Besides providing credit the society has undertaken to supply ploughs on hire to the members. At present the society owns ten ploughs. The society is trying to convert itself into a multipurpose society so that it may be permitted to undertake the marketing of the produce of its members. It has already passed a resolution to that effect.

**Table 17.2.**

	Fresh loans from the D.C.C. Bank	Loans to members
1949-50		
Ordinary loans	Rs. 7,260/-	Rs. 9,389/-
Total	Rs. 7,260/-	Rs. 9,389/-
1950-51		
Ordinary loans	Rs. 23,569/-	Rs. 26,575/-
Total	Rs. 23,569/-	Rs. 26,575/-

(17.8) Hittinhalli, a village in Bijapur Taluka is situated at a distance of 7 miles from Bijapur. The land of the village is mostly unirrigated. The main crops are Jowar, Groundnut and pulses. The village credit society was established in 1911. In all these years it has been able to collect only Rs. 3,090/- by way of share capital. However, the reserve fund is considerably large. In fact it amounted to Rs. 6,748/- in 1950-51. The deposits received by the society are negligible. It is interesting to note that the borrowing capacity of the society was only Rs. 5,000/- till 1946 and that even now, though the

society's share capital and reserve fund together exceed Rs. 10,000/- it has been fixed at Rs. 10,000/- only. The D.C.C. Bank is justified in not sanctioning higher credit limit because the society is reportedly mismanaged and the recovery of loans is very difficult. The individual limits of borrowing are Rs. 300/- for loans of less than three years' duration and Rs. 500/- for loans of duration between 3 to 5 years. The share capital of the society has increased from Rs. 2,820/- in 1949-50 to Rs. 3,090/- in 1950-51. The reserve fund has increased from Rs. 6,724/- in 1949-50 to Rs. 6,748/- in 1950-51. Other funds have on the contrary decreased from Rs. 491/- to Rs. 391/-. However, the society relies to a considerable extent, on the D.C.C Bank for its finance as its owned funds are locked up in outstanding loans.

(17.9) In the following table we give the working of the society during 1949-50 and 1950-51 as seen from its borrowings from the D.C.C. Bank on the one hand and its lendings to its members on the other.

As already stated, it is obvious that the society relies to a considerable extent on the D.C.C. Bank for its finance. The society had advanced crop loans and it has received a subsidy of Rs. 130/- on that account. As already stated the recovery of loans is unsatisfactory. The society is

also supplying ploughs on hire. It had 6 ploughs. But lately it has sold two of them. The society is managed by a group secretary and a managing committee of five members.

**Table 17.3**

	Fresh loans from the D.C.C. Bank	Loans to members
1949-50		
Ordinary loans	Rs. 6,275/-	Rs. 10,874/-
Total	Rs. 6,275/-	Rs. 10,874/-
1950-51		
Ordinary loans	Rs. 3,665/-	Rs. 3,815/-
Total	Rs. 3,665/-	Rs. 3,815/-

(17.10) Hunnur, a village in the Jamkhandi taluka, is situated at a distance of three miles from Jamkhandi and is connected to it by a motorable road. The main crops Jowar, Cotton, Groundnut and Pluses. The village is exposed to famine and is visited by it, on the average, once in five years. The villagers are progressive in outlook and have a municipality having an annual income of Rs. 1,400/-. Nearly half of the villagers are weavers and are engaged in the weaving of saris, which is an important industry of the village. The villagers are generally thrifty, about 70 per cent of them being completely free from debt. Even the remaining 30 per cent are not heavily indebted. Beside the village

multipurpose society, which is selected for study there is a weavers' society in the village, which is engaged in the distribution of yarn. The society is being managed most efficiently and is financially very very sound. In fact it has surplus funds running into thousands of rupees. The village multipurpose society was registered on 29-3-1949. The object of the society was not to provide credit to members but to undertake the marketing of agricultural produce and saries. But as soon as it came into existence it had to shoulder the responsibility of the distribution of food grains, sugar and kerosene. Naturally its capital was too small to permit it to undertake the marketing work in addition. So from 1950-51 the society started to supply credit to members and also to supply iron ploughs on hire and plough shares sale. The society is most efficiently managed. Among the selected societies, this is the only one where the managing committee actually supervises over the utilisation of the loans advanced by the society to its members. The society is alive to the needs of the villagers and is functioning very actively. The society is managed by a trained secretary and a managing committee of five members. The society though established very recently is making rapid progress. Thus its membership has increased from 108 in 1949-50 to 142 in 1950-51. Its share capital has increased from Rs. 1,100/- in 1949-50 to Rs. 1,795/- in 1950-51. The

reserve fund too has increased from Rs. 108/- to Rs. 142. Besides the society has been able to attract deposits amounting to Rs. 1,000/-. However, as pointed out earlier, the society is experiencing a shortage of finance to achieve its object. The situation was further aggravated by the fact that during that period there was no control financing agency. It was a period of transition. The state bank had stopped advancing and the D.C.C Bank Ltd., Bijapur, though it had established its branch office at Jamkhandi was not willing to advance and had not started advancing loans to societies in the Jamkhandi taluka, the erstwhile Jamkhandi state. Hence the members of the managing committee borrowed loans from the state Bank on their private accounts and advanced the amount to the society at the same rate charged to them by the bank. The society mainly depended upon these loans for its finance and this was an additional reason why the managing committee was so carefully supervising over the utilisation of the loans advanced by the society. Again this resulted in the adoption of a certain procedure of money lending which though not advisable under normal circumstances, was satisfactory in its working. Thus the society charged interest at the rate of 9 per cent for advances made to members as against a rate of 6.1/4 per cent prescribed by law. This was necessary because the society

itself borrowed the amount at about 6 per cent per annum. Again it was the practice to advance loans to members as and when necessary with the written consent of the chairman and one more member of the managing committee, and to get the loan application approved at the next meeting of the managing committee. The meetings of the managing committee were held as often as necessary and as soon as a loan was advanced without its proper sanction.

(17.11) In the following table (table 17.4) table we give the details of loans borrowed by the society from the members of the managing committee and the details of loans advanced by the society to its members:-

**Table 17.4**

	Borrowing from M.C. Members	Advance to members
1949-50		
Ordinary loans	Rs. 5,350/-	-
Total	Rs. 5,350/-	-
1950-51		
Ordinary loans	Rs. 5,000/-	Rs. 5,150/-
Total	Rs. 5,000/-	Rs. 5,150/-

The loans advanced to members are promptly recovered. In fact in 1950-51 out of total advances of Rs. 5,150/-, Rs. 3,850/- were recovered by the close of the co-operative year. Thus it is seen that the

society is doing good work. There appears considerable scope for developing this society, if adequate resources can be made available. Some suggestions and recommendations seem to have been made in this direction. One such suggestion is to allow the local weavers' society to invest its surplus funds in the local multipurpose society as it has reportedly expressed its willingness to do so. At present the society is borrowing from the members of its managing committee loans bearing interest at 6 per cent per annum. The cash credit provided by the bank also bears interest at 6 per cent per annum. It is therefore suggested that the society should be allowed to pay interest at 6 per cent per annum on deposits as it appears possible to raise considerable amount by doing so.

(17.12) With a view to studying the operations of the agencies supplying credit to cultivators as also the problem of marketing of agricultural produce, five important marketing centers were selected in the district. The selected centres were, Bijapur, Bagalkot, Indi, Hungund and, Jamkhandi. We shall present the results of investigation at these centres in subsequent chapters. However, along with other credit institutions, it was decided to study any co-operative credit societies if they were at these centres. There were ten such, six at

Indi, three at Hungund and one at Jamkhandi. In the following paragraphs, we shall briefly describe their working.

(17.13) Indi is an important marketing centre in the Bijapur district. It is the headquarter of Indi taluka and is situated at a distance of 3.1/2 miles from Indi Road a station on the Sholapur Hubli Section of the Southern Railway. The main crops are Jowar, wheat, cotton, groundnut, safflower and pulses. The soil is not so fertile, but a large area of land is irrigated by wells. However, Indi is often exposed to famine due to failure of crops either on account of excess of rains or is more often on account of complete failure of rains when even the wells dry up. The co-operative movement is highly developed in this talukas. In Indi itself there are six co-operative societies. Beside these there is a branch of the Bijapur District Central Co-operative Bank, Ltd., Bijapur and an Industrial Co-operative Society. This industrial co-operative society is a huge organisation with considerable resources. It owns two tractors and a large number of iron ploughs. It is engaged in the distribution of cloth, etc. It has many branch offices. As already stated there are six other societies at Indi. One of them is a multipurpose society and the remaining five are agricultural credit societies. Following are the names of the six societies referred to above.

Name of the Society	Date of registration
(1) Indi Village Multipurpose Society	10-5-1911
(2) Indi Muslim Agricultural Co-operative credit Society	3-1-1927
(3) Mahalaxmi Agricultural Co-operative Society	23-2-1927
(4) Sarvodaya Agricultural Co-operative Society	3-5-1928
(5) Depressed Class Agricultural Co-operative Society	3-12-1928
(6) Bhagyodaya Agricultural Co-operative Society	26-8-1950

All these six societies are of unlimited liability. Of these the first, third and fourth together form a group and have a group secretary. Recently the second society has also engaged the services of the same group secretary. The remaining two societies have their own secretaries. We will now deal with these societies one by one in that order.

(17.14) The Indi village Multipurpose Society is the oldest society in Indi and is also the only multipurpose society in Indi. The number of members is 65. In addition to providing credit to member the society supplies iron ploughs on hire. It was also running a cloth shop but closed it as it proved to be a losing proposition. Temporary redeemable shares had been issued to finance the cloth business and with its closure they were fully redeemed. This accounts for the sudden fall in the amount of share capital in 1950-51. Thus the share capital of the society has decreased from Rs. 2,495/- in 1949-50 to Rs. 2,060/- in 1950-51. Other funds have also decreased from Rs. 853/- to Rs. 798/-. Reserve fund however has increased but by Rs. 9/- only. The society

has been able to attract deposits. The deposits were from non-members only and amounted to Rs. 2,375/- in 1949-50 and Rs. 2,382/- in 1950-51. On 31-1-1950 the maximum borrowing capacity of the society as well as that of its members was revised. The maximum borrowing capacity of the society was raised from Rs. 15,000/- to Rs. 24,000/-; that of the members from Rs. 200 to Rs. 300/- and from Rs. 400/- to Rs. 500/- for short and intermediate term loans, respectively. The society has showed a profit of Rs. 635/- in 1949-50 and a loss of Rs. 117/- in 1950-51.

(17.15) In 1949-50, the society had borrowed Rs. 1,200/- from the D.C.C. Bank against which it had advanced only Rs. 550/- to its members. In 1950-51, it had borrowed Rs. 4,400/- from the D.C.C. Bank, but had advanced Rs. 6,700/- to its members. The society had in addition borrowed Rs. 8,000/- from the D.C.C. Bank in 1949-50 to finance its cloth business. The recovery position of the society was not very satisfactory. In 1949-50 out of total dues of Rs. 5,623/-, Rs. 4,948/- were overdue. In 1950-51, the

proportion of overdue loans was comparatively smaller; nevertheless the overdue loans amounted to Rs. 4,224/- of a total debt of Rs. 8,249/-. It is important to notice that the society had fully repaid all loans borrowed from the D.C.C. Bank. The owned funds of the society are considerable and amounted to Rs. 9,420/- in 1950-51. Yet as most of it is locked up in loans advanced to members and in the iron ploughs owned by the society, the society has to depend largely on the D.C.C. Bank for financing its money lending operations.

(17.16) The Indi Muslim Agricultural Co-operative Credit Society has as the name suggests a predominantly Muslim membership. The numbers of members was 75 in 1949-50 and 76 in 1950-51. Though it was registered as early as in 1927, it has not been able to collect more than Rs. 1,505/- by way of share capital. This is the only society other than the Indi Multipurpose Society which has been able to attract deposits to a considerable extent. In 1950-51, total deposits, which were mostly from non-members, amounted to Rs. 4,460/-. The share capital of the society has increased from Rs. 1,365/- in 1949-50 to Rs. 1,505/- in 1950-51. During the same period, the reserve fund increased from Rs. 4,387/- to Rs. 4,417/-, other funds increased from Rs. 569/- to Rs. 982/-, and deposits increased from Rs. 4,205/- to Rs. 4,460/-.

The maximum borrowing capacity is surprisingly enough, fixed at such a low amount as Rs. 5,000/-. The borrowing limits for members are Rs. 300/- for short term and Rs. 500/- for medium term loans. The society has showed a profit of Rs. 413/- and Rs. 114/- in 1949-50 and 1950-51, respectively.

(17.17) The society however does not depend upon the D.C.C. Bank for finance. It had not borrowed from the D.C.C. Bank either in 1949-50 or in 1950-51. Yet it had advanced Rs. 800/- in 1949-50 and Rs. 2,250/- in 1950-51. Here too the recovery position is not satisfactory, though lately it is improving. The society does not render any service to its members other than providing credit.

(17.18) The Mahalaxmi Agricultural Co-operative Credit Society has a predominantly Maratha membership. The number of members was 58 in 1949-50 and 57 in 1950-51. The society, though it was registered as early as in 1927, has not been able to accumulate much by way of reserve fund. The reserve fund was Rs. 400/- in 1949-50 and thereafter has increased by Rs. 3/- only. The share capital of the society has increased from Rs. 1,765/- in 1949-50 to Rs. 1,985/- in 1950-51. Other funds have decreased by Rs. 11/- during the same period. The society has not been able to attract any

deposits. The borrowing capacity of the society has been fixed at Rs. 10,000/-. The individual borrowing limits are Rs. 300/- for short term loans and Rs. 500/- for medium term loans. The society, in addition to supplying credit to members, supplies iron ploughs on hire. The society showed a loss of Rs. 57/- in 1949-50 and a profit of Rs. 280/- in 1950-51.

(17.19) The society had borrowed Rs. 3,950/- from the D.C.C. Bank in 1949-51. As against this it had advanced to members Rs. 3,400/-. In 1950-51, the society had borrowed Rs. 5,750/- from the D.C.C. Bank as against which it had advanced Rs. 5850/- to its members. These figures reveal that the society merely acts as an agent of the D.C.C. Bank and that its own funds do not make of any significant appearance in its money lending operations. This is because the recovery position is not so very satisfactory. In fact the society had been suspended in 1940 as the managing committee was not able to recover the overdue loans. It started functioning again in 1944. Though the recovery position has very much improved, it is not as satisfactory as it should be.

(17.20) The Sarvodaya Agricultural Co-operative credit Society was originally registered on 3-5-1928 in the name of the Brahmin Agricultural Co-operative Credit Society. On

13-5-1950 that name was changed and the present name was adopted in its place. The society has a predominantly Brahmin membership. The number of members was 27 in 1949-50 and 29 in 1950-51. The share capital of the society has increased from Rs. 590/- in 1949-50 to Rs. 1,210/- in 1950-51. The reserve fund was Rs. 464/- in 1949-50. Thereafter it had not increased to any appreciable extent. The deposits received by the society were negligible. The maximum borrowing capacity of the society has been fixed at Rs. 6,000/- and individual borrowing limits at Rs. 300/- for short term and Rs. 500/- for intermediate term loans. The society in addition to supplying credit, runs a cloth shop. The cloth shop is expected to yield a nice profit. In 1940-50 the society showed a profit of Rs. 290/- while in 1950-51 it was showed a loss of Rs. 120/-.

(17.21) The society's owned funds are locked up in overdue loans and in the cloth business. Hence it depends entirely on the D.C.C. Bank for financing its money lending operations. The recovery position of the society is very unsatisfactory. In fact, the society had been suspended in 1940 and remained suspended till 1948 as the managing committee was not able to recover the



accumulated overdue loans. It is unfortunate that the society should allow loans to become overdue so soon after it was allowed to function.

(17.22) The Depressed Class Society was registered in 1928. The number of members has increased from 82 in 1949-50 to 84 in 1950-51. The share capital has increased from Rs. 1,265/- in 1949-50 to Rs. 1,590/- in 1950-51. During the same period the reserve fund has increased from Rs. 2,900/- to Rs. 2,928/- and other funds from Rs. 227/- to Rs. 237/-. The society has not been able to attract any deposits. The maximum borrowing capacity of the society has been fixed at Rs. 5,000/- and individual borrowing limits are Rs. 300/- for short term loans and Rs. 500/- for intermediate term loans. The society does not provide to members any service other than supplying credit.

(17.23) In 1949-50 the society had advanced to members loans amounting to Rs. 2,260/- as against which it had borrowed only Rs. 1,360/- from the D.C.C. Bank; similarly in 1950-51 it advanced to members loans amounting to Rs. 3,250/- though it had borrowed only Rs. 2,400/- from the Bank. Thus it is obvious that the society utilises to some extent its own funds though of course the major portion of the finance is provided by the Bank. The recovery position of the society is

comparatively satisfactory. The society has recorded a profit of Rs. 48/- in 1949-50 and Rs. 36/- in 1950-51.

(17.24) The Bhagyodaya Society was registered on 26-8-1950 for the benefit of "Lamani" people who found it very difficult to obtain credit to meet their current farm expenditure. During 1950-51 the number of members was 38, the share capital was Rs. 725/- and the reserve fund was Rs. 38/-. It had not received any deposits. It had borrowed Rs. 1,750/- from the D.C.C. Bank and had advanced Rs. 2,250/- to its members. The members are regular in repaying their loans. The maximum borrowing capacity of the society has been fixed at Rs. 5,000/- and individual borrowing limits are Rs. 300/- for short term loans and Rs. 500/- for intermediate term loans. The society's resources are meagre and it therefore, relies entirely on the D.C.C. Bank for finance. The society showed a loss of Rs. 16/- in the very first year of its existence because it has employed a paid secretary, though the size of the society and the scale of its operations are too small to permit the employment of a paid secretary. This is purely an agricultural credit society and does not provide any service other than the supply of credit to members.

(17.25) From the foregoing paragraphs it is obvious that the recovery position of the societies with one or two exceptions

is generally not very satisfactory. This is partly due to the negligence of the managing committee. However it might be emphasised that recently their work has become all the more difficult because this taluka has experienced bad seasons successively for the last two or three years and consequently the cultivators are not in a position to repay their loans promptly.

(17.26) So far as the management of the societies is concerned, it must be emphasised that the managing committees are not at all functioning actively except in the case of the Indi Muslim Agricultural Co-operative Credit Society and the Depressed Class Agricultural Co-operative Credit Society. In the Depressed Class Agricultural Co-operative Credit Society the secretary is only a namesake and the managing committee looks after the entire work. In the Bhagyodaya Society, the secretary being the priest of the Lamani people who are the members of the society is able to function effectively and efficiently. The remaining four societies are being looked after by the group secretary. The system of having a group secretary is working satisfactorily at Indi.

(17.27) With the exception of the Bhagyodaya Society and the Indi Muslim Society all the societies had referred a few

of their overdue loans to arbitration. The amount involved in arbitration proceedings is in all Rs. 4,000/-.

(17.28) It is really surprising that there should be so many agricultural societies in Indi and not a single marketing society, though Indi is an important marketing centre and there are very few private traders and commission agents. If all the societies co-operate they can together collect and pool the produce of their members and sell them at an advantage especially as there is a regulated market at Indi.

(17.29) Hungund, the headquarter of Hungund taluka is an important marketing centre of the Bijapur district. It lies on the Bagalkot-Ilkal road, 29 miles from Bagalkot. The main crops of Hungund are Jowar, Cotton, groundnut and pulses. Of these cotton is by far the most important commercial crop and is extensively grown as the soil is best suited for growing cotton. The land is mostly unirrigated. Hungund - though an important assembling market for cotton - is more like a big village than a little town. The population is more rural than urban in character, tastes and habits and thus it accounts for the existence of three multipurpose societies and a marketing society. Besides there is a branch of the

Bijapur District Central Co-operative Bank, Ltd. The three multipurpose societies situated at Hungund are:-

(1) The Hungund Village Multipurpose Society, Unlimited.

(2) The Anjuman Multipurpose Society, Ltd. and

(3) The Mahantesh Multipurpose Society, Unlimited.

We will treat them one by one in that order.

(17.30) The Hungund Village Multipurpose Society is the oldest and the best of the three multipurpose societies at Hungund. It was registered in 1913 and has made great progress since then. In 1949-50 the society had 174 members. Its share capital was Rs. 5,760/-; its reserve fund, an enviable amount of Rs. 21,044/- and other fund amounted to Rs. 663/-. By 1950-51 membership of the society had increased from 174 to 187. During the same period the share capital of the society increased from Rs. 5,760/- to Rs. 6,660/-; the reserve fund from Rs. 21,024/- to Rs. 21,350/-. Other funds however had slightly diminished. The society has been highly successful in attracting deposits from members as well as from non-members. In 1949-50 the total deposits amounted to Rs. 20,219/- of which Rs. 4,796/- were from members. By 1950-51, the total deposits had

increased to Rs. 21,940/-; of these only Rs. 3,210/- were from members. The maximum borrowing capacity of the society has been fixed at Rs. 50,000/-. The individual borrowings limits approved by the D.C.C. Bank are Rs. 300/- for short term loans and Rs. 500/- for intermediate term loans. As the society has huge resources which are remaining idle in its bank account, it decided to give increasing credit facilities to its members. Hence they have passed a resolution that individual borrowing limits should be raised from Rs. 500/- to Rs. 800/-. Though reportedly the departmental authorities have favored this move, the D.C.C. Bank is not as a matter of policy prepared to sanction loans exceeding Rs. 500/- to any member. Hence the society is trying to explore other avenues for investing its funds. At present, in addition to providing credit, it runs a readymade clothes shop and a cloth shop. It supplies iron ploughs on hire. It owns a breeding bull and maintains a "Bandi Shala" to improve the breed of cattle. Formerly it was the sole distributor of food grains, sugar and kerosene but at present it has discontinued that business. The society showed a profit of Rs. 613/- in 1949-50 and Rs. 750/- in 1950-51. The commendable efficiency of the society is largely due to the chairman Shri P.K. Guddad who is at the helm of the affairs of the society since last 27 years.

(17.31) The society had borrowed in 1949-50 Rs. 5,104/- from the D.C.C. Bank as against which the society had advanced Rs. 14,505/- to its members. In 1950-51 the society borrowed Rs. 18,000/- from the D.C.C. Bank and advanced Rs. 25,810/- to its members. Besides the society had at the same time a balance of Rs. 23,000/- in its account with the D.C.C. Bank. Hence it is clear that the society has huge resources and does not depend much upon the D.C.C. Bank for financing it. In fact as stated earlier it is exploring new avenues for investing its idle funds. The recovery position of the society is quite satisfactory. In 1950-51 the overdue loans amounted to Rs. 450/- only in a total outstanding debts amounting to Rs. 34,113/-.

(17.32) The Anjuman Multipurpose Co-operative Society, Ltd. Hungund has a predominantly Muslim membership. The number of members was 58 in 1949-50 and 61 in 1950-51. The society was registered on 11-6-1947. But it has made rapid progress and by 1950-51 it had collected Rs. 7,050/- by way of share capital. The society's share capital has increased from Rs. 6,695/- in 1949-50 to 7,050 in 1950-51. During the same period the reserve funds has increased from Rs. 240/- to Rs. 248/- while other funds have remained stationary at Rs. 135/-. In 1949-50 there were no deposits. By

1950-51 the society had attracted deposits exceeding Rs. 5,700/- of which nearly Rs. 1,900/- were from non-members. The borrowing capacity of the society has not been fixed but it is defined in the bye-laws of the society as follows:- "The amount borrowed and the deposits received by the society should not at any time exceed eight times the sum of the share capital and the reserve fund of the society." The individual borrowing limits are Rs. 300/- for short term loans and Rs. 500/- for intermediate term loans. In addition to supplying credit, the society supplies seeds to its members and is engaged in the distribution of the food grains, sugar and kerosene. The society showed a profit of Rs. 61/- in 1949-50 and Rs. 441/- in 1950-51. The society has so far received in all Rs. 553-12-0 as subsidy.

(17.33) The society advances loans to members out of its own funds. Thus it had advanced Rs. 5,991/- in 1949-50 and Rs. 5,880/- in 1950-51. The recovery position of the society is satisfactory. The society however has taken loans from the D.C.C. Bank in the form of cash credit to finance its business activities such as the distribution of food grains, sugar and kerosene. The secretary as well as the members of the managing committee take keen interest in the work of the society.

(17.34) The Mahantesh Multipurpose Co-operative Credit Society was registered on 11-6-1947. It is promoted and largely influenced by the local traders. It is alleged that the trading community watched with great concern the growing activities of the Hungund village Multipurpose Society which was engaged in trading activities with visible success. And being apprehensive that if allowed to expand without check or hindrance, it may enter the field of marketing of agricultural produce and may prove a competent and successful rival, the trading community decided to establish another society to compete with and thereby sap the strength of Hungund village Multipurpose Co-operative Credit Society. Hence it was not at all difficult either to raise share capital or to attract deposits. The society was able to obtain from the Government the authority to distribute food grains, sugar, kerosene and cloth and was making nice profits in the distribution work. But soon it was discovered by the Mamlatdar in one of his inspectional visits to the shop run by the society that there was a shortage in the stock of food grains. Hence orders were passed to cancel the agency of the society to distribute food grains. Again it is alleged that in the meanwhile prices of gur had gone down and some members of the managing committee who were traders of gur liquidated their stocks by selling gur to the society

and back dating the entry. Consequently as is reported the society had to suffer a loss. When this came to the notice of the members a general body meeting was held. But as nothing could be proved against the members of the managing committee, it was decided to scrap the old managing committee. A new committee free from the merchant element was elected. Resenting this action of the general body the outgoing members of the managing committee induced some of the depositors to withdraw their deposits. This account for the sharp and sudden fall in the total deposits with the society. The present managing committee is not corrupt but it is negligent and does not take much interest in the work of the society.

(17.35) The number of members was 90 in 1949-50 and 95 in 1950-51. The share capital has increased from Rs. 3,560/- in 1949-50 to Rs. 4,140/- in 1950-51. During the same period the reserve fund has increased from Rs. 578/- to Rs. 662/- and other funds have increased from Rs. 124/- to Rs. 152/-. The deposits amounted to Rs. 11,005/- in 1949-50 and came down to Rs. 6,310/- in 1950-51 due to reasons mentioned earlier. The maximum borrowing capacity of the society has been fixed at Rs. 40,000/- and individual limits of borrowing have been fixed at Rs. 300/- for short term loans and Rs. 600/- for

intermediate term loans. In addition to supplying credit to members, the society is engaged in the distribution of food grains, sugar, kerosene and cloth. The society had showed a profit of Rs. 155/- in 1949-50 and Rs. 371/- in 1950-51.

(17.36) In 1949-50 the society did not advance any loans to its members. But during that year it had borrowed Rs. 14,495/- from the D.C.C. Bank for financing its marketing activities. In 1950-51 the society borrowed Rs. 10,000/- from the D.C.C. Bank and advanced Rs. 12,880/- to its members. Hence it is seen that the society largely depends upon the D.C.C. Bank for financing it. The society has invested a major portion of its resources in the various marketing activities under-takes by it. The recovery position of the society is satisfactory.

(17.37) From the preceding paragraphs it is clear that the societies at Hungund are all societies having huge resources. They have all been able to collect substantial amounts by way of share capital. They have all been able to attract deposits. The recovery position is also satisfactory in all the societies. Again two of them do not rely to any great extent on the D.C.C. Bank for finance. Thus it is seen that generally they are well off. The reason for this is that in the distribution of food grains, sugar, kerosene and cloth,

the societies have been able to make large profits so as to improve their financial condition, and to enable them to employ fully paid secretaries to manage their affairs. The success of the societies may also be attributed to a large extent to the able management. Again from the example of the Anjuman Multipurpose society it may be inferred that homogeneity in membership is conducive to a rapid development and successful working of a society especially when it is combined with good management.

(17.38) Jamkhandi, the headquarter of the Jamkhandi taluka, was the capital of the former Jamkhandi state prior to its merger within the Bombay State. It is situated at a distance of 48 miles north west of Bagalkot. It is a primary assembling market for cotton, groundnut, pulses, chillies and gur. It has no railway station, the nearest railway station being "KUDCHI" (36 miles) on Poona Bangalore line of the Southern Railway.

(17.39) There is only one co-operative multipurpose society at Jamkhandi and that is the Vividha Karyakari Sahakari Sangh, Aniyamit. The society was registered under that name with unlimited liability in 1949. That was the beginning of a long drawn out dispute between the members; because some of them took strong objection to the society having

unlimited liability especially as it had been established with the object of undertaking marketing activities. Ultimately in 1952 the dispute was settled by converting the society into one of limited liability. From the time it was registered to the time that the dispute regarding the liability of the society was settled, the society was not functioning. In the beginning the number of members was 74 and the share capital was Rs. 650/- and reserve fund Rs. 76/-. Beside this the society had no other resources. The society was not functioning during the years 1949-50, 1950-51 and 1951-52. But during 1951-52, after the dispute was settled, the society was able to increase the membership from 74 to 98 and the share capital from Rs. 650/- to Rs. 850/-. The society has incurred a loss of Rs. 1/- in 1949-50 and Rs. 6/- in 1950-51 as it had incurred some petty expenditure such as on postage. In 1950-51, however, the society incurred a loss of Rs. 26/- because the society had employed a paid secretary. It is really interesting to note that Rs. 147-8-0 have been paid by way of salary to the secretary when actually no business was transacted and the society was not functioning actively. And had it not been for the fact that the Government gave a subsidy of Rs. 150/- to the society, the society would have shown a loss very much bigger than Rs. 26/- shown at present.

#### **XVIII. CHARACTER OF CO-OPERATIVE CREDIT**

(18.1) In the three preceding chapters, we described the working of a total of 18 co-operative societies, which were selected for case studies. So far we did not attempt any analysis of the individual loans made by these societies, such as for instance, an analysis of the loans by size, by rate of interest, etc. We propose to do this in the present chapter. As a preliminary, we might present in a consolidated form the accounts of the 18 cooperative societies covered by our investigation. In table 18.1 we have give details of their membership and working capital during the two years 1949-50 and 1950-51. It should be noted that two of these societies, namely, the Amarawati village Multipurpose Cooperative Credit Society and the Bhagyodaya Agricultural Co-operative Credit Society, were registered and started functioning in 1950-51. Hence the figures for the year 1949-50 in table 18.1 and two subsequent tables, that is, tables 18.2 and 18.3 pertain to only the remaining 16 societies which were actually functioning during that period.

(18.2) In table 18.2, we give a few particulars of the annual transactions of the societies for the two years 1949-50 and 1950-51 separately.

(18.3) Thus during 1950-51, the 18 societies having a total

**Table 18.1. For 18 societies covered by the investigation.**

	For 16 societies	For 18 societies
Number of members	1,206	1,407
Owned funds:		
Paid up share capital	35,825	43,915
Reserve funds	45,414	46,251
Other funds	4,294	5,035
Total owned funds	85,533	95,201
Borrowed funds outstanding:		
Current deposits from members	170	3,291
Current deposits from non-members	67	988
Saving deposits from members	2,673	1,726
Saving deposits from non-members	6,896	7,487
Fixed deposits from members	4,000	4,800
Fixed deposits from non-members	24,301	24,620
Loans from District Central Co- operative Bank	43,059	86,371
Total borrowed funds	81,166	1,29,283
Total working Capital	1,66,699	2,24,484
Investments:		
Shares and debentures of cooperative institutions	8,420	11,170
Postal cash and National savings certificates	10	10
Others	1,544	1,488
Fixed deposits with approved banks	8,604	24,506

**Table 18.2**

	For 16 societies 1949-50	For 18 societies 1950-51
Fresh deposits from:		
Members	7,623	9,586
Non-members (individuals)	8,484	10,678
From non-members (institutions)	-	940
Fresh loans from the District Central cooperative Bank	67,286	1,03,034
Fresh loans to members	60,319	1,16,410
Repayment of loans by members (principal)	44,369	70,254
Repayment of loans by members (interest)	-	35



At the end of the year, loans outstanding with the members were as under:-

**Table 18.3**

	For 16 societies 1949-50	For 18 societies 1950-51
Outstanding loans	80,079	1,25,369
Of these, over dues and bad or doubtful debts were as under:-		
Over dues	23,851	28,716
Bad and doubtful	1,595	1,835

total membership of 1407, made fresh loans amounting to Rs. 1,16,410/-. In order to study the characteristics of individual loans, we extracted some information from the loan registers of the societies. Our copy of the loan registers shows that fresh loans during the year amounted to Rs. 1,14,320. The difference is small and might be attributed to copying and other errors. In subsequent parts, we shall take this latter figure.

(18.4) The total amount of Rs. 1,14,320 borrowed during the year comprised of Rs. 548 loans. In the following table, we

give a distribution of these 548 loans made during the year according to the amounts.

**Table 18.4.**

	No. of Loans	Total amount in Rupees
Less than Rs. 100	56	3,085
Rs. 100 - 199	201	22,520
Rs. 200 - 299	121	24,825
Rs. 300 - 399	89	26,770
Rs. 400 - 499	13	5,220
Rs. 500 - 999	61	30,800
Rs. 1,000 and over	1	1,100
Amounts not given	6	
Total	548	1,14,320

(18.5) In the following table we give the distribution of the loans by their term of repayment. (table 18.5) From the table it is obvious that only about one tenth of all loans amounting to Rs. 10,640/-, that is, to about 10 per cent of the total amount borrowed, were of one year or shorter duration. 65 per cent of the total loans accounting for 56 per cent of the total amount borrowed were of duration varying from 3 to 4 years. Therefore, it is obvious that the societies generally advance loans of duration varying from 2 to 4 years, that is they provide medium term finance.

**Table 18.5.**

Period of loan	No. of Loans	Total amount in Rupees
One year and less	56	10,640
1 to 2 years	1	50
2 to 3 years	355	64,395
3 to 4 years	105	27,635
4 to 5 years	-	-
Over 5 years	21	10,500
Not stated	10	1,100
Total	548	1,14,320

**Table 18.6**

Interest	No. of Loans	Total amount
6.1/4 per cent	498	1,06,145
9.3/8 per cent	34	5,150
Not stated	16	3,025
Total	548	1,14,320

It should be noted that two rates of interest are one anna and one and half anna per rupee per annum, respectively and that this is how they are usually expressed.

(18.6) In the following table we give the distribution of all loans by the rates of interest charged:-

(18.7) In the following table we give details of the loans according to the purposes for which they were borrowed:-

**Table 18.7.**

Purpose	No. of Loans	Total amount
Reclamation of land	1	150
Bunding and other land improvements	80	25,525
Digging and repairing of wells	5	600
Purchase of livestock	56	17,700
Purchase of implements, machinery etc.	31	7,600
Purchase of seed	17	2,050
Purchase of manure	6	850
Purchase of fodder	38	5,750
Payment of wages	157	24,225
General farm expenditure	95	19,675
Construction and repairs to buildings	8	725
Marriage and other ceremonies	1	300
General family expenditure	27	3,190
Not stated	26	5,980
Total	548	1,14,320

From the table it is obvious that the main purpose of borrowing are, bunding, purchase of agricultural livestock, payment of wages and general farm expenditure. Each of these purchases account for approximately one fifth of the total borrowing.

(18.8) out of 548 loans made during the year, 143 were chosen at random to study further, the operation of the societies. But no more information than that available in the loan registered could be obtained.

(18.9) An attempt was also made to obtain further information from the cultivators selected for farm Business Survey, by filling in a questionnaire about Government and institutional finance for agriculture. But the response to the questionnaire was very poor. Only one cultivator reported that he had borrowed from a cooperative society. He received the loan within two months after the date of application and the amount sanctioned was 50 per cent of the amount he had applied for. Three other cultivators had also applied for loans from cooperative societies. Two of these applications were rejected and the third was still under consideration at the time of our enquiry.

#### **XIX. THE DISTRICT CENTRAL CO-OPERATIVE BANK**

(19.1) It was earlier pointed out that the District Central Co-operative Bank is the principal source of finance for the societies. However to avoid ambiguity and confusion we must hasten to add that by the District Central Co-operative Bank we mean the Bijapur District Central Co-operative Bank, Limited, Bijapur. It finances all cooperative societies including industrial cooperative societies, even though there is in the district at Bagalkot another District Central Co-operative Bank for financing industrial cooperative and village industries. The Bijapur District Central Co-operative Bank has seven branches and three pay offices in the district. In the following paragraphs we present a few details regarding this bank. The Bank also has a land mortgage banking section, but that we propose to deal with in the next chapter.

(18.2) In 1949-50 the Bijapur District Central Co-operative Bank had 1555 members; of these 1152 were individual and the remaining 403 were societies. In 1950-51 the membership increased to 1870. Of these 1390 were individuals and 480 were societies. It should be noted that all the societies which were members of the District Central Co-operative Bank were not agricultural credit societies. In

fact they included multipurpose, marketing and industrial co-operative societies. The working capital of the bank was Rs. 53,95,953/- in 1949-50 and Rs. 65,23,932 in 1950-51. In the following table we give the composition of the working capital of the bank for the years 1949-50 and 1950-51:-

**Table 19.1.**

	1949-50 Rs.	1950-51 Rs.
Share capital	4,45,750	5,53,550
Deposits	46,69,075	51,55,144
Reserve fund	1,41,637	1,52,645
Other funds	1,39,391	1,52,968
Loans from B.P.C. Bank and Reserve bank of India	-	5,09,625
Total working capital	53,95,953	65,23,932

(19.3) In the following table (table 19.2) are given the details of loans advanced by the bank during the years 1949-50 and 1950-51. It is significant to note that while the loans advanced to the societies have registered a rise, the loans advanced to the individual members have registered a fall. As a result, though the total amount of loans advanced by the bank during the year 1950-51 was only about 25 per cent higher than that advanced in 1949-50, the total amount of loans advanced by the bank to societies during 1950-51 was more than 50 per cent higher than that

**Table 19.2**

	1949-50 Rs.	1950-51 Rs.
Loans to societies:		
Ordinary loans	11,76,142	14,63,845
Cash credit	4,50,626	11,43,767
Against agricultural produce and fixed deposits	1,57,862	2,07,401
Crops loans under B.A.D.R. Act.	26,502	11,047
Total	18,11,132	28,17,060
Loans to individual members:		
Against agricultural produce	4,22,730	2,75,224
Against valuables	1,60,514	1,03,403
Against fixed deposits	25,435	34,415
Total	6,18,688	4,13,122
Total loans advanced	24,29,820	32,30,182

that advanced in 1949-50. It may further be observed that the loans advanced to societies formed 75 per cent of the total loans advanced by the bank during 1949-50. The corresponding figure for 1950-51 is 87 per cent. It should also be noted that the crop loans formed a very small part of the total advances made to societies. In fact both during 1949-50 and 1950-51 they were about one per cent of the total advances made to the societies. It is also worth mentioning that the bank was providing industrial finance. In fact during the year 1950-51 it had advanced Rs. 12,00,000/- to industrial co-operative societies. In view of the fact that another district central co-operative bank has recently been established at Bagalkot in this district to finance industrial co-operative societies and village industries, it might be expected that in due course this amount of Rs. 12,00,000/- would also be available for advancing loans to agricultural credit societies.

(19.4) During 1950-51 the bank advanced Rs 18,17,060/- to the societies; of them Rs. 6,800/- were bad debts and Rs. 10,918/- were doubtful debts. Thus it is seen that the bad and doubtful debts were together less than one per cent of the total advances to societies. It should be noted that ordinary loans totalling to Rs. 14,63,845/- advanced to societies were outstanding at the end of the year, 1950-51. Of these Rs. 63,555/- were

overdue, so that, the proportion of overdues to total outstanding worked out to 4.3 per cent. The corresponding figure for 1949-50 was 4.9 per cent. Among loans advanced to individual members, there were no bad or doubtful debts.

(19.5) From table 19.1 it is obvious that the bank has been able to attract considerable amount of deposits and that deposits form the bulk of the working capital of the bank. It should also be noted that the bank does not depend to any considerable extent on loans from the Bombay provincial co-operative Bank or the Reserve Bank of India. Hence it may be stated that the bank is largely self sufficient.

N.B. Figures in table 19.2 are taken from a table in the Annual Report and Balance Sheet of the Bank for the year 1950-51. In the Annual Report, the figures have been reported as "Loans advanced". The comments in paragraphs 19.3 and 19.4 are based on that assumption. However, the amount of the outstanding loans as appearing in the Balance Sheet for the same year happens to be the same as the figure of loans advanced as appearing in the table in question. Hence it is doubtful whether the figures in table 19.2 are loans advanced during the year or loans outstanding at the end of the year. If they are loans outstanding and not loans advanced during the year, then the paragraphs 19.3 and 19.4 will have to be revised.

## XX. THE LAND MORTGAGE BANKING SECTION

(20.1) There is no independent land mortgage bank in the district to provide long term finance. However, as already stated, the Bijapur District Central Co-operative Bank has recently opened a land mortgage banking section, to provide long term finance. In this chapter we shall briefly describe its working.

(20.2) The land Mortgage Banking Section started functioning for the first time during 1950-51. During 1950-51 it received 353 loan applications. Of these only 13 were sanctioned. The total amount of loans sanctioned was Rs. 26,700/-. This formed about 70 per cent of Rs. 38,000/- the amount applied for by the sanctioned applicants. During 1951-52 upto January 1952, 25 loan applications had been received; of these 18 were sanctioned. The total amount of loans sanctioned was Rs. 42,550 while the total amount applied for by sanctioned applicants was Rs. 69,500/-. In the following table (table 20.1) we give an analysis of the total loans sanctioned during 1950-51 and 1951-52 according to the purpose for which they were sanctioned.

(20.3) In table 20.2 we give the distribution of the loans sanctioned during 1950-51 and 1951-52 according to their size.

(20.4) Finally it should be noted that the total amount amount sanctioned by the Land Mortgage Banking Section is very small. The small size and scale of operation of the Land Mortgage Banking Section make it uneconomic for the bank to run that section. In fact in 1950-51, the Land Mortgage Banking Section incurred a loss of Rs. 2,035/-. The fact that the Land Mortgage Banking Section has to adequate resources of its own and that it largely depends upon the Bombay Provincial Land Mortgage Bank for finance is a serious limiting factor in the way of its expansion of its scale of operations. Nevertheless, it is hoped that with the expansion of its scale of operation, the Land Mortgage Banking Section will become self-supporting.

**Table 20.1.**

Purpose	Amount sanctioned	
	1950-51 Rs.	1951-52 Rs.
Purchase of tractors	21,600	1,000
Land improvement	1,200	12,675
Debts redemption	1,400	19,175
Purchase of oil engine and pumping set	2,500	3,900
Digging and repairing of wells	-	1,600
Purchase of land	-	4,200

N.B.:- The figures for the year 1951-52 are upto January, 1952 only.

**Table 20.2.**

Size of the loan	1950-51 Sanctioned		1951-52 Sanctioned	
	No. of applications	Total amount	No. of applications	Total amount
Less than Rs. 1000	3	2,750	4	3,350
Rs. 1000 to Rs. 2000	4	5,350	5	8,550
Rs. 2000 to Rs. 3000	4	10,600	4	10,850
Rs. 3000 to Rs. 4000	2	8,000	3	10,600
Rs. 4000 to Rs. 5000	-	-	2	9,200
Total	13	26,700	18	42,550

### **XXI. MARKETING OF AGRICULTURAL PRODUCT**

(21.1) In earlier chapters attention was drawn to the fact that traders in agricultural commodities constitute an important source of credit to cultivators in this district. As a preliminary to examining the role of traders as an agency supplying credit to cultivators, we shall describe in the present chapter the general conditions relating to marketing of agricultural product in the district.

(21.2) Due to its important commercial crops, namely cotton and groundnut, agricultural marketing in Bijapur is well organised and now is everywhere regulated except in the merged areas comprising of Mudhol and Jamkhandi talukas. There are two marketing committees functioning in the Bijapur district, one at Bijapur and the other at Bagalkot. The market area of the Bijapur

Agricultural Produce Market Committee comprises of the five talukas, Bijapur, Indi, Sindgi, Bagewadi and Muddebihal. The committee has two branches one at Indi and the other at Talikoti in Muddebihal taluka. The Bijapur market committee started functioning from 26th of September, 1938, under the Bombay Cotton Markets Act of 1927. Upto 24th October, 1947 cotton alone was regulated. Thereafter, regulation was extended to groundnut, safflower, Linseed and sesamum. The Bagalkot Agricultural Product Market Committee has an area comprising of three talukas and one petha, namely Bagalkot, Badami and Hungund talukas and Bilagi petha. The Bombay Agricultural Produce Markets Act, 1939, was made applicable to the Bagalkot market area in respect of cotton in the year 1945 and the actual working started in the year 1946. At the end of the year 1946 regulation was extended to groundnut. Recently the

Bombay Agricultural Produce Markets Act has been made applicable to Jamkhandi and Mudhol talukas and a market committee has been set up at Jamkhandi with a market area comprising of Jamkhandi and Mudhol talukas. However the market committee has not yet started functioning. Hence during the period under report the market remained unregulated.

(21.3) Under the Bombay Agricultural Produce Markets Act, the State Government by notification declares its intention of regulating the sale and purchase of certain agricultural commodities in a specified area declared to be a market area. All wholesale buying and selling of regulated commodities within the market area can then be done only by licentiate traders and commission agents. Such licenses are required to be renewed every year. For each such market area, is constituted a Market Committee to enforce the provisions of the act. The committee consists of 12 or 15 members. Five or six of the members are representatives of the agricultural producers in the area and five area elected by the licentiate traders. Of the remaining one is a representative of the local authorities and the rest are nominees of the State Government. The market committee may levy fees on agricultural produce bought and sold in the market area according to prescribed rules. The State Government makes rules

generally or for each market area specifically, detailing the provisions of the act. They relate to the election of the office bearers and to the annual budget of the market committees, maximum fees to be levied in respect of produce purchased and sold in the market area, issue of licenses to trades, commission agents, brokers, weigh men, measurers, surveyors, warehousemen and other persons operating in the markets, weights and measures to be used, trade allowances, storing of produce, settling of disputes between buyers and sellers, regulation of advances given by brokers or traders to agriculturists, prevention of adulteration, grading and standardisation of produce, manner in which auctions shall be conducted and bids made in the market, prevention of brokers from acting on behalf of both buyers and sellers, etc.

(21.4) In the following statements we give a list of the regulated market in the district, showing for each, the area of its operation and the list of commodities regulated. (table 21.1) Besides, the Bagalkot Market Committee has its cess clerks posted at such places as Hungund and Ilkal to record the arrivals in the market and to collect cess.

(21.5) Licenses are issued to general commission agents, traders, brokers, weighmen, Hamals and cartsman. Among traders there are three classes,



"A" "B" and "C". Among general commission agents there are no classes in the Bijapur market while there are three classes "A", "B" and "C" in the Bagalkot

Table 21.1

Market place and area of operation	Regulated commodities
Bijapur with sub yards At Indi and Talikoti Bijapur, Indi, Sindgi Bagewadi and Muddebihal Talukas.	(1) Cotton ginned and unginned (2) Groundnut shelled and Unshelled. (3) Safflower (4) Linseed (5) Sesamum
Bagalkot with sb yard at badami  (Bagalkot, badami and Hungund talukas and Bilagi petha)	(1) Cotton ginned and unginned. (2) Groundnut shelled and unshelled

market. Similarly among weighmen there are no classes in Bijapur market while there are two classes "A" and "B" in the Bagalkot market. "A" class traders are allowed to buy and sell agricultural produce anywhere in the market area. "B" class traders can buy in the market area outside the market yard but can sell anywhere in the market area, "C" class traders are petty dealers or retailers who purchase cotton and oil seeds not in docras and bags but in Chungadis that is partially filled docras or bags. "A" class general commission agents license is issued to those dealing in more than 2,000/- docras of cotton or 5000 bags of oil seeds. "B" class general commission agent's license is issued to those who deal in 1000 to 2000 docras of cotton or 3000

to 5000 bags of oil seeds. "C" class commission agents' License is issued to those who deal in less than 1000 docras of cotton and 3000 bags of oil seeds. Separate Licenses are required for dealing in cotton and oilseeds so that any trader or commission agent desirous of trading both in cotton and groundnut will be obliged to take out two licenses. "A" class weighmen are allowed to operate only in the market while "B" class weighmen are allowed to operate in the market area outside the market. Licenses are issued after payment of the prescribed amount of fee. The license fee charged for different classes of traders, commission agents, weighmen, etc., at different markets are given below:-

**Table 21.2.**

Class of license	License fee per market year	
	Bagalkot market Rs.	Bijapur market Rs.
<b>Traders</b>		
<b>"A" Class</b>		
For cotton only	75	40
For oilseeds only	50	40
For cotton and oilseeds	100	80
<b>"B" Class</b>		
For cotton only	50	25
For oilseeds only	35	25
For cotton and oilseeds	70	50
<b>"C" Class</b>		
For cotton only	20	
For oilseeds only	5	
For cotton and oilseeds	25	10
<b>General Commission agents</b>		
For cotton only		40
"A" Class	75	
"B" Class	50	
"C" Class	30	
For oilseeds only		40
"A" Class	50	
"B" Class	35	
"C" Class	25	
For cotton and oilseeds		80
"A" Class	100	
"B" Class	70	
"C" Class	45	
<b>Brokers</b>		
For cotton only	30	30
For oilseeds only	25	
For cotton and oilseeds	40	
<b>Weighmen</b>		
Class "A"	10	5
Class "B"	5	
Cartman and Hamals	1	

In the following table, we give the number of licensed commission agents and traders at the two markets.

Table 21.3.

	Bagalkot market	Bijapur market
<b>"A" Class</b>		
For cotton only	4	6
For oilseeds only	130	142
For cotton and oilseeds	39	60
<b>"B" Class</b>		
For cotton only	2	33
For oilseeds only	63	256
For cotton and oilseeds	23	91
<b>"B" and "C" Class</b>		
Oilseeds only		98
<b>"C" Class (Retailers)</b>		1307
For cotton only	104	
For oilseeds only	196	
For cotton and oilseeds	10	
<b>General Commission agents</b>		
For cotton only	-	-
Class "A"	-	-
Class "B"	-	-
Class "C"	28	-
For oilseeds only	-	22
Class "A"	31	
Class "B"	16	
Class "C"	27	
For cotton and oilseeds only		154
Class "A"	13	
Class "B"	7	
Class "C"	44	

(21.6) The commission agents are called Adatyas and two types are distinguished. Kuchcha and Pakka. The former receive commission from both sellers and buyers and the latter only from buyers. It is interesting to note that pakka Adatyas generally hold the license of traders in addition to that of general commission agents. They are known locally as Kharedidars that is purchasers. The Kharedidars were generally working as representative of mills and other processing concerns like gins, etc., or of wholesalers and commission agents at important marketing centers like Bombay, Sholapur, Hubli, Barsi, etc., and purchase goods according to orders received from them. They often purchased on their own account in anticipation of a future order. As already observed pakka Adatya receive commission only from buyers and at a rate mutually agreed upon as this rate is not prescribed by the market committee.

(21.7) In the regulated markets, the commission charges have been fixed at Rs. 0-0-1.1/2 per rupee of sale proceeds from both buyers and sellers, for all regulated commodities. Hence a commission agent gets Rs. 1- 9- 0 for every Rs. 100 of sale proceeds. However, in the case of groundnut seeds the rate of commission has been fixed at Rs. 0- 0- 2 per rupee of sale proceeds from both buyers and sellers. For unregulated

commodities the rate of commission charged is Rs. 1- 9- 0 per Rs. 100/- of sale proceeds from both buyers and sellers. This rate is charged for all commodities at unregulated markets, namely markets in Jamkhandi and Mudhol talukas. The only exception to this is cotton for which commission is charged at Rs. 0- 0- 9 per maund of 28 lbs. at all unregulated markets.

(21.8) The working of the Bijapur market is supervised by a committee of 12 consisting of 5 representative of agriculturists, the same number of representatives of traders, the marketing inspector who is a nominee of the Government and a representative of the local authorities. The president of the committee is elected by the representatives of agriculturists and traders. The working of the Bagalkot market is supervised by the Bagalkot Market Committee which however, consists of 15 members, 6 representing agriculturists, 5 representing traders, 1 representing local authorities and 3 nominated by the Government. The president of the committee is elected by the representatives of agriculturist and traders. A sub-committee called the "Disputes sub-committee" is appointed for each market to settle disputes. It consists of one representative each of agriculturists, traders and local authorities and a nominee of the Government one of them being

elected a chairman. There is a provision barring the chairman of the market committee from being elected to the chairmanship of the disputes sub-committee. The disputes are in the first instance referred to and settled by the secretary of the market committee. It is only when the secretary fails to settle the disputes that they are referred to the disputes sub-committee. In the Bijapur market committee there is in addition to the disputes sub-committee, panels of 12 arbitrators, six of them are representatives of agriculturists while the remaining six are representatives of traders. When the secretary fails to settle a dispute, the two parties to the dispute are allowed to select one arbitrator each from this panel. The dispute is then referred to these two arbitrators. If the ward of the arbitrators is not acceptable to the parties to the dispute, the matter is referred to an umpire appointed by the arbitrators from amongst themselves. Any party or parties to the dispute may then appeal to the disputes sub-committee against the decision of the umpire if it seems to them to be unjust. The decision of the disputes sub-committee shall be final. The arbitrators and umpires are entitled to a fee of Rs. 1/-. The fees shall be paid by the parties to the dispute, in advance to the market committee. The disputes are as far as possible decided on the spot and on the same day. The markets in Jamkhandi and

Mudhol talukas are unregulated and hence the question of settling disputes does not arise at all.

(21.9) In 1950-51, 19 disputes were settled by the Secretary of the Bijapur Agricultural Produce Market Committee. No dispute was referred either to arbitrators or to umpires or to disputes sub-committee. The 19 disputes which had arisen were on account of the goods delivered not being upto the sample, or on account of the admixture of old and new cotton or on account of the admixture of earth and moisture. In 1950-51 only one dispute arose in the Bagalkot market and it was settled by the Secretary of the marketing committee. As a rule the disputes arise between commission agents and Kharedidars, that is, Purchasers.

(21.10) Following are the rates of market cess charged for different commodities at different regulated markets. (table 21.4) In the Bagalkot market area a partially filled docra or a bag is deemed as one docra or bag and a half pressed bale as a fully pressed bale for the purpose of collecting cess. In the Bijapur market area a partially filled bag of oilseeds such as that of groundnut, safflower, linseed or sesamum, is deemed as one bag while a partially filled docra of cotton ginned or unginned is deemed as half a docra for the purpose of collecting cess.

**Table 21.4.**

Commodity	Unit	Rates at market in Bijapur market area	Rates at market in Bagalkot market area
Cotton (unginned)	Per docra	0-0-6	0-0-6
Cotton (ginned)	Per docra	0-1-0	0-1-0
Cotton (ginned)	Per fully pressed bale	0-2-0	0-4-0
Cotton ginned and brought under T.P. Act.	Per docra	-	0-2-0
Groundnut unshelled	Per bag	0-0-3	0-0-3
Groundnut shelled	Per bag	0-0-6	0-0-6
Safflower	Per bag	0-0-6	-
Linseed	Per bag	0-0-6	-
Sesamum	Per bag	0-0-6	-

(21.11) The procedure of marketing of unregulated commodities at the regulated markets and of all commodities at unregulated markets is as follows:- usually the sellers bring the goods to the market in their own carts. On arrival, the cultivators approach their usual commission agents from whom they receive small advances. The goods are taken charge of by the commission agents. Normally the goods are not weighed immediately on arrival nor are they sold immediately. The goods are usually sold after a week or two of their arrival and are weighed only once at the time of the delivery to the purchaser. The goods are sold by the open auction when sold in bulk and by private agreement when they are sold in small quantities. The mode and time of payment and the time of delivery are decided by mutual agreement in spite of regulations laying down the time of payment and delivery. In the case of regulated markets and for regulated commodities the procedure is somewhat different. There the goods have to be weighed by a licensed weighman as soon as they arrive and the commission agent has to pass a receipt to the seller for goods received. The market cess is then collected by the clerk of the market committee from the seller through the commission agent. The goods to be sold are kept open for inspection and are sold by open auction in the presence of an official of the market committee. The highest bidder gets the produce. But the seller has the option of declining the highest bid as well as of postponing the sale. In the busy season, due to heavy sales, it is not possible for the officials of the market committee to be present at all sales. Hence traders and commission agents are permitted to enter into agreement to buy or sell and the agreement is later confirmed and attested by the

secretary or any other official of the market committee authorised in this behalf. This practice is prevalent in both Bijapur and Bagalkot, but especially in Bagalkot where the secretary is present at one or two auction sales at the beginning of the day and later, on the basis of the price fixed at these sales trading is done. It all marketing centers in Bijapur and Bagalkot market areas, where there are no officials of the marketing committee to superwise the working of the market, the traders enters into private agreement and it is alleged, charge commission at rates very much higher than those prescribed by the market committee. The Bombay market rates are announced on a public notice board at all regulated markets. The weighment charges are Rs. 0-0-6 per docra of cotton, ginned o unginne, Rs. 0-0-1.1/2 per bag of groundnut pools and Rs. 0-0-3 per bag of groundnut seed or other oilseeds.

(21.12) Some idea of the volume of business might be obtained from the following information collected from various markets. The two important commercial crops are of course cotton and groundnut. Cotton arrives in the market throughout the year. But the arrival is heaviest in the months of March, April, May and June. Cotton arrives in the market both is ginned and unginne form. At markets in the Bagalkot market area the arrival is mostly in the form of

ginne cotton while at other marketing centers it is mostly in unginne form. In the following table, we give the reported volume of sales at different markets during 1950- 51:-

**Table 21.5. Marketing of ginne and unginne cotton during 1950- 51.**

Market area	Volume of unginne cotton sold	Volume of ginne cotton sold
Bijapur	39402 docras	29757 docras
Bagalkot	14222 docras	44160 docras
Jamkhandi	7500 Bodhs *	-

\* A Bodh = 448 lbs.

In the following table are given the minimum and minimum price for different varieties of cotton at different markets. (table 21.6) Figures of volume of cotton ginne and unginne sold at the various market are actually figures of arrivals in those markets obtained from the respective market committees. However, as these figures do not differ materially from the volume of actual sales, they may be regarded as the actual volume of sales. The figures for the Jamkhandi market area (that is markets in Jamkhandi and Mudhol talukas) are based on data collected by the marketing officer in the course of a survey of the Jamkhandi and Mudhol markets prior to declaring them as a regulated area. It may be seen from the foregoing tables that both Bijapur and

**Table 21.6**

	Bijapur market Price per 224 Lbs.		Bagalkot market Price per 224 Lbs.	
	Minimum Rs.	Maximum Rs.	Minimum Rs.	Maximum Rs.
Jaywant unginne	83	88	77	95
Jaywant ginned	244	252	230	259
Jayathan unginne	-	-	90	130
Jayathan ginned	-	-	260	346
Laxmi unginne	-	-	102	181
Laxmi ginned	-	-	334	334
Jarilla unginne	85	102	-	-
Jarilla ginned	230	245	-	-

and Bagalkot are important cotton marketing centres. In the Bagalkot market cotton arrives mostly in ginned form, whereas in Bijapur market it arrives both in ginned and unginne form but comparatively more in unginne than in ginned form. It is also interesting to note that the range of variation in prices is very much smaller in Bijapur market than in Bagalkot market.

(21.13) The other important commercial crop is groundnut. Most of the groundnut coming to the market is in unshelled form. In the following table (table 21.7) we give the groundnut sales of different market during the year

1950-51.

**Table 21.7. Marketing of groundnut (shelled and unshelled)**

Market area	Groundnut unshelled No. of bags sold	Groundnut shelled No. of bags sold
Bijapur	5,64,317	6,828
Bagalkot	7,12,830	682
Jamkhandi	80,000	-
Total	13,57,147	7,510

In the following table are given maximum and minimum prices of different varieties of groundnut at different markets:-



**Table 21.8**

	Bijapur market Price per 224 Lbs.		Bagalkot market Price per 224 Lbs.	
	Minimum Rs.	Maximum Rs.	Minimum Rs.	Maximum Rs.
Bold (unshelled)	58	70	51	75
Ghungru (unshelled)	60	73/8	30	75

Both Bagalkot and Bijapur are important groundnut marketing centers. Taking all markets together the sale of unshelled groundnut amounted to 13,57,147 bags. As in the case of cotton, the variation in the price of groundnut was far greater in Bagalkot than in Bijapur. In fact for ghungru variety the maximum price at Bagalkot was 2.1/2 times its minimum price.

(21.14) Two other commodities of relatively minor commercial importance are chillies and gur. While chilly is an outgoing commodity of the district, Gur is mainly an incoming commodity and is imported from marketing centers like Kolhapur and Akluj. Information regarding the marketing of these two commodities could not be obtained as they were unregulated commodities.

(21.15) Among oilseeds other than groundnut, the district has safflower, linseed and sesamum. All the three are unregulated commodities throughout the district except in Bijapur market area. In

the following table we give their volumes sold in the Bijapur market area during 1950-51.

**Table 21.9.**

Commodity	Volume sold in bags
Safflower	1,00,160
Linseed	6,151
Sesamum	4,882

It is seen that safflower is by far the most important commodity of these three. Safflower is exported in the form of sweet oil after being crushed into oil either by Ghanis or by expellers.

(21.16) As stated in chapter 1, 78 per cent of the cultivated area is under food grains. Jowar alone accounts for 49 per cent of the total cropped area of the district Bijapur and wheat is also important crops of the district. Prior to the introduction of rationing a flourishing trade was being carried on in food grains especially Jowar, wheat and Bajri. But on account of the Government monopoly of purchase and distribution of cereals and

millets, free trade exists among food grains only in pulses. But as pulses are unregulated commodities throughout the district, no information could be obtained regarding their marketing.

(21.17) Five of the marketing centers were selected for a study of the marketing practices as also of the warehousing facilities available there. These are:- Bijapur, Bagalkot, Hungund, Indi and Jamkhandi. In the following paragraphs, we shall briefly describe the conditions at each one of these market places.

(21.18) Bijapur is the most important as well as the biggest market in the district for groundnut, cotton, safflower and pulses. There are eight ginning factories, four pressing factories, three expellers and 9 decorticators. Besides, there are a large number of oil presses worked by bullocks. In the following table are shown the volumes of different commodities marketed at the centers during 1950-51. (Table 21.10) Goods are stored in houses, shops, in open yards in the premises of shops, factories and other processing concerns and in godowns. The traders and commission agents together control 250 godowns measuring 40'x 60' each. Besides the ginning and pressing factories and have their own godowns. The government too has a number of

**Table 21.10.**

Commodity	Volume
Cotton (unginned)	36,654 docras
Cotton (ginned)	25,327 docras
Groundnut pods	5,12,280 bags
Groundnut seeds	4,311 bags
Safflower	76,248 bags
Cotton seed	50,000 bags
Other oil seeds	9,261 bags
Pulses	20,000 bags
Chillies	6,000 Gapes

Of godowns both owned and rented for storing controlled food grains and rationed cloth. There are no licensed warehouses nor are there any godowns at the disposal of the marketing authorities or the banks. Whenever the banks advance loans against produce, they store the goods in the godowns of the borrower and seal and supervise them. Godowns are available on rental but there is no system for charging on the basis of the goods stored in bulk or bags or docras or bales. The godowns are usually rented out on a long term basis, usually a year. The annual rental for a godown measuring 40' x 60' is Rs. 800/-. Storage charges payable by sellers to their commission agents for storing with them goods for marketing are prescribed by the marketing committee. They are Rs. 0-1-3 per docra of cotton per month and Rs. 0-0-3 per bag of groundnut or other oil seeds. Some of

the godowns are specially built for storing goods and have walls of stone and cement, floor of cobbled stones and roof of corrugated iron sheets. Normally cotton is stored for six months from March to August, groundnut for four months from December to March. Safflower for six months from April to August, and cotton seeds for four months from May to August. The existing storage facilities are fairly satisfactory and adequate and additional godowns if built will not find sufficient business all the year round. The marketing authorities are of the opinion that 50 godowns (40' x 60') will be required and that if built they will be utilised fully for six months in a year. No grading or classification is done at any of the godowns in this market.

(21.19) Bagalkot is the second important market in the district. There are eight ginning factories, five pressing factories, seven expellers and a few decorticators and pulse mills numbering in all to 16. As there is no sufficient business for all the ginning and pressing factories, the owner of these have by mutual agreement arranged to work only a few of them. In the following table are shown the volumes of different commodities marketed at the centers during 1950-51. (Table 21.11) figures of the volumes of other commodities traded in the market such as gur and chillies were

not available. The goods are generally stored in godowns and open yards belonging to traders.

**Table 21.11.**

Commodity	Volume
Cotton (ginned)	25,000 fully pressed bales
Groundnut	5,00,000 bags
Linseed	3,000 bags
Cotton seed	60,000 bags
Pulses	10,000 bags

Commission agents and the ginning and pressing factories, oil mills, decorticators and pulse mills. The traders and commission agents together control 30 godown structures containing 90 godowns of which 55 are big and 35 small. Each of the 30 structures has one or more godowns with open space surrounded by high walls on one or more sides and measures on the average 150' x 100' including open space. The bigger godowns are of dimensions 30' x 20' and smaller of 20' x 15' x 15'. All these 30 structures are situated in a compact area near the station about two furlongs from the market. All these godowns are of Kachcha construction and are available on lease usually for a period of one year for a payment varying from Rs. 500/- to Rs. 800/- according to the capacity of the godown. Besides the ginning and pressing factories, oil mills, decorticators and pulse mills together have another 90

godowns under their control situated in the premises of their factories. The Government also has a few godowns for storing controlled food grains. There is no licensed warehouses nor are there any godowns at the disposal of banks or the marketing authorities. There is however a marketing society having 6 rented godowns measuring 80 x 60' x 40'. The banks whenever they advance loans against produce store them in the godowns of the borrower and seal them and supervise them. The Bagalkot market committee has fixed the godown charges for different regulated commodities as follows:-

For cotton (ginned and unginned) Rs. 0-1-3 per docra for the first month and Rs. 0-0-6 per docra for each subsequent fortnight.

For groundnut (pods and seeds) the rate is Rs. 0-0-1 per bag per month provided it is stored for more than a fortnight.

The kachcha adatyas generally do not store goods for a long period. However, the traders and pakka adatyas store goods for a long period either on their own behalf or on behalf of their principals. Generally cotton is stored from March to August, groundnut from December to March, safflower from April to August and cotton seed from May to August. Gur

and chillies are also stored. The existing storage facilities are inadequate and unsatisfactory. But it is highly doubtful whether additional godowns, if constructed, will get business especially as the local merchants have old and outdated notions regarding warehousing and insurance of goods and feel that they are unnecessary. No grading or classification is done anywhere in the market. However, the Bagalkot purchase and sale union, a local marketing society and a loading trader at that centre, pools cotton brought by its customers and grades it before selling.

(21.20) Hungund is a taluka town with a population of about 9,000. It is mainly an assembling market for cotton. There are 5 ginning factories and 2 decorticators; but actually only 4 ginning factories are working. In the following table are shown the volumes of different commodities marketed at the center during 1950-51:-

**Table 21.12.**

Commodity	Volume
Groundnut	50,000 bags
Cotton (ginned)	15,000 docras
Cotton (unginned)	10,000 docras.

There are in all 20 godowns of an average size of 40' x 30' x 18'. These include godowns owned by traders, commission

agents, and the ginning factories. Besides, Government has five godowns to stores rationed foodgrains. There are no licensed warehouses. Nor are there any godowns at the disposal of the marketing authorities or the bank. Whenever the bank advances loans against goods it stored them in the godown of the borrower and seals them and supervises them. The existing godowns are not those specially built for that purpose but are parts of houses and shops converted into godowns. The godowns are available on lease for a period of one year. The annual rents for a godown measuring 40' x 30' x 18' is Rs. 200/-. However, the traders charge their customers, storage at the rate of Rs. 0-4-0 per docra of cotton per maund and Rs. 0-2-0 per bag of oilseeds per month. The existing storage facilities are adequate but unsatisfactory. In this market generally goods are not stored. For this is an assembling market, the selling market, the selling market being at Bagalkot. If any of the merchants want to store goods, they store them at Bagalkot and not at Hungund. No grading or classification is done at this market.

(21.21) Indi is a taluka place with a population of about 8,000. It is mainly a groundnut marketing center. There are three decorticators. In the following table are shown the volumes of different commodities marketed at the center during 1950-51:-

Table 21.13.

Commodity	Volume
Cotton unginned	468 docras
Groundnut pods	9553 bags
Groundnut seeds	1458 bags
Safflower	9517 bags
Other oil seeds	353 bags
Pulses	5000 bags

Due to bad agricultural season, the arrival of groundnut during 1950-51 was very small. Normally about one lakh bags of groundnut are marketed at this centre. There are in all eight godowns at this center to store the marketed goods. The existing storage facilities are adequate though somewhat unsatisfactory. For cotton is forwarded to Bijapur or Sholapur as early as possible for sale. Pulses are also forwarded as soon as a sizeable lot can be assembled. Only groundnut is stored and for that the existing storage facilities are adequate. No arrangements exist for grading or standardisation of goods marketed.

(21.22) Jamkhandi a former capital of the carstwhile State of Jamkhandi and a taluka headquarters at present has a population of about 21,000. There are four ginning factories, one ginning and pressing factory, four decorticators, an oil mill and a number of presses worked by bullocks. In the following table are shown the volumes of different commodities marketed at the centre during 1950-51:-

**Table 21.14.**

Commodity	Volume
Cotton (Unginned)	5,000 Bodhs *
Groundnut (pods)	60,000 Bags +
Safflower	30,000 bags
Gram	4,000 bags
Tur	5,000 bags
Chillies	3,000 bags 30 seers
Gur	25,000 Dheps. Dhep = 30 seers.

\*Bodh = 448 lbs. + Bag = 30 payalees.

The Kachcha Adatyas sell the goods as soon as they arrive. Hence they do not need storage facilities. The Pakka adatyas send cotton to the ginning and pressing factories for processing as soon as they purchase cotton. Formerly the State Government provided free storage facilities to traders. Even now ginning and pressing factories provide free storage facilities to their customers. There are about 25 godowns each of size 25' x 30' owned or rented by traders and commission agents. Besides the oil mill has two godowns, the private ginning and pressing factories have sheds as well as large open space for storing bodhs and fully pressed bales of cotton. In addition the State Government has a huge godown. The existing godowns are actually houses converted into godowns. They are Kachcha building and are infested with rats. The existing storage facilities though unsatisfactory are still adequate. No arrangement exists for the grading and standardisation of goods marketed.

## XXII. TRADERS IN AGRICULTURAL COMMODITIES

(22.1) In order to study the operation of individual traders, it had been decided to select and interview 20 traders at each of the five selected marketing centers. However, at two centres, namely Hungund and Indi the number of licentiate traders was less than 20. So at those two centres all the traders were interviewed. Lists of trades could be easily prepared from information gathered from the marketing commodities, banks, and merchants' associations, the last mentioned source having printed lists of members. From the list, prepared in consultation with one or more of those three sources were selected 20 traders at the three centres namely Bijapur, Bagalkot and Jamkhandi. The selection was done by our inspector in charge of the field work in the district. They were giving brief instructions regarding stratification and random sampling. As the conditions in different districts differed very much and could not be anticipated, the instructions could not be very precise. Naturally considerable discretion was left with the inspectors and the minimum requirement was that the selection should be objective. Actually the inspector took great care to select the traders by the method of random sampling as far as possible. In the following paragraphs we

shall briefly summarise the response to our questionnaire to the selected traders at each center.

(22.2) The method of selection adopted at Bijapur was as under "a list of traders", was prepared in consultation with the Bijapur District Central Cooperative Bank, Ltd., and the Bijapur Marchants' Association. The traders were listed in the descending order of their volume of business. There were 14 big and about 150 small traders. I decided to interview the first ten big traders and in case anyone refused to give information to interview one of the remaining four big traders. Two big traders refused to give information. The small traders were divided into ten equal groups and the first trader in each group was interviewed.

(22.3) In the questionnaire addressed to the traders when they were interviewed, a broad distinction was made between, commission agents, wholesalers and general merchants. Out of the 20 traders selected at Bijapur, nine were purely commission agents, nine were wholesalers and commission agents and the remaining two reported as combining all the three functions namely those of a wholesaler, commission agent and a general merchant. In the following paragraphs, we shall briefly describe the working of traders in each of the categories.

(24.4) Of the nine commission agents, in the first category, seven had no other profession. Of the remaining two, one was a big landlord and the other a shroff and a money leader. For both of the trading in agricultural commodities was a subsidiary occupation. The shroff and money lender expressed the opinion that trading in agricultural commodities helped him to recover loans made to his agriculturist clients. The land-lord also expressed a similar sentiment. According to him it was easier to recover cash rent as well as loans advanced to ones tenants, if one was a trader in agricultural commodities. The landlord had advanced in the previous year Rs. 40,000/- to his tenants. All the nine commission agents dealt in cotton, oilseeds and pulses while two of them dealt in cotton seed and chillies as well. Of the nine commission agents eight acted only on behalf of the sellers while one acted on behalf of both buyers and sellers. This agent made outright purchases of oilseeds on behalf of his principals. His total advances to his customers exceeded Rs. 4 lakhs. His own funds were adequate for the business and he did not borrow from other sources. Eight of the commission agents advanced short term loans. The loans were advanced for farm and/or family expenditure and without any security. Though the commission agents and traders profit by advancing loans to their customers, it must be emphasised that the loans are

made primarily to accommodate customers, to earn their goodwill and thereby retain their business. The commission agent who has stated that he has not advanced any loans is in fact one of the leading commission agent in the city and is alleged to have advanced a large amount. Thus all the nine had advanced loans but six of them were unwilling to divulge the figure of their total advances. Of the remaining one had advanced more than Rs. 4 lakhs another Rs. 40,000/- and the third only Rs. 7,000/-. All of them were in possession of godowns either owned or rented, having storage capacity ranging from 5,000 to 11,000 bags of oilseeds and 300 to 500 docras of cotton. At the time of enquiry eight commission agents held stores of cotton ranging from 50 docras to 500 docras and four of them held stocks of groundnut ranging from 1000 to 2500 bags. Three of them also held stocks of pulses about 100 bags each. There was one commission agent who did not hold any stocks of any commodity. Of the 9 commission agents, four had adequate resources of their own and did not borrow from any source; one did not have adequate resources nevertheless he did not borrow from any source. Of the remaining four who borrowed, three borrowed only from the bank and one from bank as well as indigenous bankers. The bank loans were advanced against the security of goods and carried interest at the rate 6 per cent per annum. The loans

from indigenous bankers were unsecured and bore interest at 6.1/2 per cent per annum.

(22.5) There were no exclusively whole-sale traders.

(22.6) Nine other traders combined the business of wholesaler and commission agent. Two of them were indigenous bankers and advanced loans to smaller commission agents against pledge of goods. Use of them also owned ginning factory and represented an oil mill and wholesaler of Bombay. He was also one of the biggest wholesalers of Gur in the market; but also dealt in cotton, oilseeds and pulses. He maintained in the previous year a stock of 10,000 bags of groundnut and 10,000 Dheps of gur. The other dealt only in oil, oil seeds, gur and pulses. This trader was one of the biggest wholesalers of groundnut in the district and an agent of a leading manufacturer of hydrogenated oil. He was also a wholesaler of sweet oil and gur. He had 12 godowns and during the previous year maintained a stock of 60,000 bags of groundnut for eight months, besides holding stocks of pulses, other oilseeds and oil. The remaining 7 dealt in cotton, oil seeds and other commodities. One of them was in addition a wholesaler in chillies other spices and condiments. Two of them were agents for about half a dozen concerns in



Bombay and Bhavnagar such as wholesaler and oil mills. With 2 or 3 exceptions none of these advanced any loans to agriculturists. They were more of wholesalers than commission agents and generally acted as purchasing agents for processing concerns, wholesalers or exporters at other important marketing centres, like Bombay, Sholapur, Hubali, Gadag, Nippani, Bhavnagr, Walchandnagar and Kolhapur. They generally made outright purchases with or without prior arrangements, though often they handled commodities purely on commission basis. All of them had storage facilities. Thus of them with one exception had godowns with storage capacity ranging from 10,000 to 60,000 bags of oil seeds. In addition they had space for storing cotton, Gur, Pulses and other commodities. It is important to note that very little storage space is kept for cotton. This is because arrangements exist for storing cotton with the processing concerns, namely, ginning and pressing factories. With the exception of two who had adequate resources and therefore did not borrow, all the 9 traders borrowed only from banks either as cash credit or against pledge of goods and one borrowed from bank as well as other sources. The interest paid on borrowings varied from 6 per cent 7.1/2 per cent.

(22.7) the remaining two combined the business of wholesaler, commission gent and a general merchant. One of them is an owner of a ginning factory and an agent of one of the leading wholesale import and export house of Bombay. He is one of the biggest wholesalers of cotton and groundnut and is the only wholesaler in hemp. He purchases and forwards hemp to wholesaler in Calcutta. He generally acts as an agent for buyers. Occasionally he handles goods on commission basis. He does not do much business with agricultural producers but has advanced above Rs. 10,000 to them. The other is also one of the leading traders in oil seeds. He is not only an agent for oil mills in Bombay, Sholapur and Barsi, but also acts on behalf of wholesalers at Trichanapally; Coimbatore and Wellore in Madras state and Surat in Bombay state. He too does not do much business with agricultural producers but has advanced about Rs. 10,000 to them. Both these traders have godowns with storage capacity exceeding 10,000 bags of oil seeds. None of the two was able to meet his requirements completely out of his own resources. One had borrowed entirely from indigenous bankers and the other partly from bank but mainly from indigenous bankers.

(22.8) Of the 20 traders selected at this center, 10 were Lingayats, 3 were Jain, 2 were Gujars, 2 were Marwadis, 1 was a

Vaishya, 1 was a Muslim and 1 was a Hindu who was unwilling to state his subcaste.

(22.9) The method by which 20 traders were selected at Bagalkot was as follows: "In consultation with the Manager of Local Bank and the President of the Local Merchants' Association a list of traders was prepared. There were in all 70 traders, 13 big and 57 small. Of the 13 big traders, 1 was the Bagalkot Co-operative Purchase and Sales Union. As that would be covered as a marketing society, it was specifically omitted. Thus, of the remaining 12 we had to select 10 for our investigation. My experience at Bijapur prompted me to go on investigating without bothering to select as one or two would always refuse to give information. And later, actually two big traders refuse to give information. Of the 57 small traders I selected 12 keeping a margin of 2 in case any body refused. Thus, I selected the 1st, 6th, 11th, 56th and as expected two traders refused to give information.

(22.10) Of the selected 20 traders, 5 were purely commission agents while the remaining 15 were wholesalers and commission agents. In the following paragraphs, we shall briefly describe the working of traders in each of the two categories.

(22.11) All the five commission agents combined money lending with trading in agricultural produce. One of them also did forward business on a small scale. All of them acted on behalf of sellers only, and dealt in cotton, groundnut and pulses. Two of them also dealt in cotton seeds, gunny bags and batars that is containers for cotton. All of them had godowns either owned or rented having capacity for storing 1000 to 4000 bags of oilseeds or pulses and 400 to 2000 docras of cotton. Thus, it is in seen that they had adequate storage facilities 4 of them advanced loans mainly to agriculturists and the fresh advances made by them during the previous year were Rs. 36,000/- Rs. 80,000, Rs. 90,000 and Rs. 1,00,000, respectively. One advanced mainly to middlemen. He had advanced in the previous year loans amounting to Rs. 60,000/-. Thus the five commission agents together reported total advances amounting to Rs. 3,66,000/-. But according to the returns submitted by these commission agents to the sub-registrar for moneylender, the total advances were Rs. 2,99,600/-. All of them borrowed from one source or another and one of them had accepted deposits, 2 of them borrowed only from private money lenders while the remaining 3 borrowed partly from banks but mainly from private money lenders. The advances from banks were in the nature of cash credits and in only one case

were goods pledged. Loans from private money lenders were mainly against the security of promissory notes or Hundis, and in only one case they were unsecured. Bank loans bore interests at 6.1/2 per cent to 7.1/2 per cent while loans from private money lenders bore interest at 6 per cent to 7.1/2 per cent if advanced against the security of pro-notes or Hundis and 9 per cent if unsecured. All the five commission agents were Lingayats.

(22.12) Of the 15 wholesalers and commission agents one was a leading indigenous banker and had wide business interests. Two others owned processing concerns, one a pulse mill and the other a ginning and pressing factory. The owner of pulse mill was in addition a wholesale dealer in tobacco, cigarettes and batars that is containers for cotton. A third was a leading wholesaler of silk and cotton yarn, which found a ready market as Ilkal and Guledgud. Of the 15 commission agents, 7 acted mainly on behalf of sellers while 8 acted mainly on behalf of the buyers. Of the 8 commission agents who acted mainly on behalf of the buyers many were purchasing agents of one or more oil mills, cloth mills, ginning or other processing factories, wholesalers or exporters. They had connections with wholesalers and processing concerns at

Bombay, Sholapur, Ahmedabad, Bhavnagar, Indore, Calcutta, Karnool, Coimbatore and all important marketing centers is Bombay state.

(22.13) The indigenous banker was a leading cotton broker and acted on behalf of many wholesaler from Bombay. He dealt only in cotton. The owner of ginning and pressing factory was also a leading cotton and groundnut merchants and purchased on behalf of cloths mills [at Bombay, Indore, Coimbatore and Calcutta] and oil-mills. The owner of pulse mills was a wholesaler in pulses and cotton only and handled other commodities on commission. The wholesaler is silk and cotton yarn was also a leading wholesaler in cotton. Another was a wholesaler who traded mainly in pulses and had connections with wholesalers at Kolhapur, Hubli, Shankeshwar, etc. The remaining dealt in cotton and groundnut, as well as in other commodities, such as cotton seed, chillies and sweet oil. Every one of these traders had in his possession godowns either owned or rented, having storage capacity ranging from 1,000 to 20,000 bags of oilseeds or pulses and 75 to 1500/- docras of cotton. Many of the traders held stocks of cotton and groundnut. One trader had at one time in stocks 40,000 bags of groundnut and 3,000 fully pressed bales of cotton.

(22.14) Most of the traders held money lending licenses. But only eight of them had advanced loans amounting is all to Rs. 5,26,925/-. The amount was advanced mostly to agriculturists. Now if we add to this Rs. 2,99,600/- advanced by the five commission agents, it would be seen that in all Rs. 8,26,525/- were advanced is the previous year by 13 of the 20 selected traders, the remaining 7 not having advanced any amount.

(22.15) Of the 15 wholesalers and commission agents four had adequate resources of their own and did not borrow free any other sources. 6 borrowed only from bank. Of these 4 borrowed against the security of goods, one against the security of goods as well as against personal security and one against personal security only. The rates charged were 6 per cent for loans secured against goods and 7.1/2 per cent for loans against personal security. One borrowed only from indigenous bankers. He borrowed from them against the security of hundis at 7.1/2 per cent. Of the remaining four traders, three borrowed partly (25 per cent) from banks but mainly (75 per cent) from indigenous bankers. Bank loans bore interest at rates varying from 5 per cent to 6.1/2 per cent and were secured against goods; loans from indigenous bankers were either unsecured or secured against hundis. Two were charged interest at 6 per cent and only one had to pay

interest at rates varying from 9 per cent to 12 per cent. The remaining trader had borrowed from four different sources. Among the 15 traders 2 had accepted deposits. Fixed deposits carried interest at 5 per cent to 6 per cent per annum, while short term deposits during the busy season carried interest at 7.1/2 per cent to 12 per cent per annum.

(22.16) The traders generally showed a district performance to banks in borrowing. The main reason for this was that bank rates were lower than those charged by private money lenders and indigenous bankers. Another reason was that the banks fixed individual limits of borrowing for each trader and within that limit he was allowed to borrow any amount without any security. The main grievance against banks however was that the individual limit as well as the hundi limit fixed by them for each trader was very much lower than his credit needs and sometime the bank was not in a position to advance amounts even upto the individual limit fixed. Further many big traders are of the opinion that the local banks are not sufficiently big and that they do not discount hundis of high denominations so that the trader are compelled to draw hundis of small amounts and discount them with different local banks or draw a hundi for a large amount and get it discounted at some other place. They also feel that whenever

goods are pledged to the bank they have to hand over the key of their godown to the bank, so that they are deprived of the use of the remaining storage space if any in the godown and also find it difficult to show their prospective buyers over the godown.

(22.17) Of the 20 traders selected at this center, 13 were Lingayats, 2 were jains, 2 were Hindus unwilling to state their castes, 1 was a Brahmin, 1 was a Devanga Hindu and 1 was a Maheshwari Hindu.

(22.18) The 20 traders at Jamkhandi were selected as follows:- "There were 35 traders at Jamkhandi 5 big and 30 small. All the five big traders were selected, remaining 15 were selected by taking every second trader, beginning with the second. Whenever a selected trader could not be contacted or refused to give information and there were 2 such cases, the trader immediately above him in the list was taken as a substitute. The list of traders had been arranged in descending order of the volume of their business as ascertained from local knowledgeable circles", we are quoting an extract from the report of our inspector.

(22.19) Of the 20 selected traders, 9 were purely commission agents, 9 were

wholesalers and commission agents and 2 were general merchants and commission agents.

(22.20) Of the 9 purely commission agents 7 had no other profession while two combined trading in agricultural commodities with other agency business. Of these one dealt in groundnut and gur only and had no godown for storing. The other dealt in all agricultural commodities and had 3 small godowns having combined storage space for 600 bags of oil seeds or pulses. He had advanced Rs. 4,000/- to cultivators while the other did not advance any loans and be borrowed from banks as well as private money lenders while the other had adequate resources of his own. The remaining seven commission agents dealt in cotton, groundnut, safflower, gur and other commodities. Most of them did not have any external connection and sold locally to wholesalers, retailers, oil Ghanis or oil mill. Only one trader had connection at Bombay and one other at Sangli and Kolhapur. All the seven advanced loans to cultivators, and the fresh loans so advanced during the previous year by these 7, amounted to Rs. 44,000/-. Only one of these traders did not have any godown for storing. Of the remaining 6, 3 had godown having storage space for 500 bags, while 3 others had godowns having storage space for 1000 bags. 5 of the traders borrowed only from bank

either as cash credit or as godown advances or by discounting hundis. One borrowed partly from bank and partly from private money lenders. Only one had adequate resources of his own and did not borrow from any other source. The banks generally charged interest at 9 per cent per annum. There were a few instances where interest had been charged at 7.1/2 per cent.

(22.21) Of the 9 wholesalers and commission agents 8 did not have any other profession while 1 had oil mill, consuming about 40,000 bags of groundnut. The oil was sold at Sangli, Kolhapur and Belgaum markets. He purchased outright groundnut for his oil mill and cotton to be sold to mills at Gokak, Sangli, Kolhapur and Bombay. He has godowns owned as well as rented adequate to store in all 34,000 bags of groundnut. He did not advance any loans to cultivators. He has not adequate resources of his own and borrows from the bank either secured or unsecured loans as the occasion demands. The remaining 8 traders dealt in all the commodities, but mainly in groundnut, safflower, cotton, gur and chillies. They dealt in these commodities either wholesale or on commission basis as the occasion demanded. 7 of them sold locally while only 2 forwarded the commodities to either Sangli, Kolhapur, Belgaum or Bombay. Two traders did not

have, and did not feel the necessity of godowns. Two others who had connections with other markets had godowns with storage capacity exceeding 4000 bags while the remaining four traders had godowns with storage capacity ranging from 500 bags to 1800 bags. Only 7 traders had advanced fresh loans to cultivators in the previous year and they amounted in all to Rs. 71,000/-. Two traders had adequate resources of their own and did not borrow from any source. Of the remaining 6, 3 borrowed only from banks while 3 others borrowed partly from private money lenders but mainly from banks. The rate of interest was generally 9 per cent for bank loans and 12 per cent for loans from private money lenders.

(22.22) There were two general merchants and commission agents. Both had grocer's shops. One of them dealt only in groundnut and gur. He purchased groundnut whole-sale and forwarded it to Bombay. He purchased gur whole-sale for distributing to local retailers. He did not advance any loans to cultivators, had storage space for 3000 bags and had not adequate resources of his own. He borrowed only from banks. The other was a big whole-sale merchant in cotton, groundnut, safflower and gur. He purchased cotton whole-sale and forward it to Bombay, Gokak, Sangli, Barsi, Kolhapur and Mysore. He purchased and

forwarded oil seeds to Bombay. He purchased gur whole-sale for selling locally to retailers and consumers. He had eight godowns having capacity for storing 25,000 bags of oil seeds and 10,000 Dheps of gur. He had advanced in the previous year Rs. 80,000 to cultivators. He did not have adequate resources of his own and borrowed from the banks. The borrowing rate of interest varied from 7.1/2 per cent to 9 per cent.

(22.23) Of the 20 selected traders, at this center 14 were Lingayats, 2 were jains, 1 was a Marwadi and 1 was a Brahmin. Of the remaining one was a company and the other was a partnership firm with 2 partners, one a Lingayat and the other a Muslim.

(22.24) There were only 16 traders at Hungund. Hence the question of selection did not arise at all. 15 of them were wholesalers and commission agents and only one was purely a wholesaler, in the sense that he purchased on his own account, though in small quantities, and sold locally to retailers or other traders. He did not have adequate resources of his own and borrowed from banks as well as from wholesalers. He had owned a godown with storage space for 800 bags.

(22.25) Of the remaining 15 traders 13 had no other profession while two were owners of ginning factories. One of them

also had cloth shop. All the 15 dealt in cotton, groundnut, safflower and pulses, some of them also dealt in gur, chillies and sweet oil. They handled commodities either wholesale or on commission basis as the occasion demanded. All of them had godowns either owned or rented but one of them did not have any godown in his possession at the time of investigation because he used to hire a godown only when it was absolutely necessary. The two owners of ginning and pressing factories and one more trader namely, the Bagalkot purchase and sale Union, have facilities for storing more than 3000 bags. Three others had facilities for storing about 2000 bags; the rest had facilities for storing not more than 1000 bags. In all 11 traders had advanced fresh loans to cultivators in the previous year. The total amount of the loans advanced was Rs. 2,35,000/-. Of this Rs. 1,25,000/- had been advanced by the Bagalkot Co-operative Purchase and Sale Union alone. The Bagalkot Co-operative Purchase and Sales Union has a branch office at this centre. It is the biggest wholesaler and commission agent in this market and advances loans to cultivators both in cash and in kind. 2 traders borrowed only from private money lenders or wholesalers while 14 borrowed from banks as well as private money lenders and wholesalers. Of these 9 depended for finance mainly on private agencies, 2 mainly on banks and the remaining three partly on banks

and partly on private agencies. The banks charged interest at 6 per cent to 9 per cent and private money lenders and wholesalers at 9 per cent to 12 per cent.

(22.26) Of the 16 traders, 15 were Lingayats the remaining one was a marketing society.

(22.27) There were only 4 traders at Indi. All the four were interviewed. Of these one was a purely commission agent while the other three were wholesalers and commission agents.

(22.28) The traders who did purely commission business acted on behalf of sellers only. He dealt in all the commodities and sold the goods collected on commission basis either to local Adatyas or retailers or to wholesalers at other marketing centres. He had two rented godowns with facilities for storing 2800 bags of oilseeds or pulses. He had, in the previous year, advanced to cultivators loans amounting to Rs. 20,000/- he had adequate resources of his own and did not borrow from any other source.

(22.29) Of three wholesalers and commission agents two were owners of mills decorticating groundnut. They dealt in groundnut, safflower, cotton and pulses either wholesale or on commission basis as the occasion demanded. Both forwarded cotton, groundnut and safflower to Bombay and Sholapur and

pulse to Hubli, Belgaum or Bagalkot. One of them had advanced in the previous year, Rs. 40,000/- to cultivators. None of them has adequate resources of his own and both borrowed from the bank by way of discounting hundis. Both have their own godowns one with facilities for storing 4000 bags and the other with facilities for storing 5500 bags. The remaining trader who had no other profession dealt in groundnut, safflower cotton and pulses either wholesale or on commission basis. He forwarded groundnut to Bombay and pulses to Hubli and Belgaum. He had godown facilities for storing 2000 bags and 200 docras. He did not advance any loans to cultivators. He had adequate resources of his own and did not borrow from any other source.

(22.30) Of the four traders, two were Lingayats and two were Bhatiyas.

(22.31) Some attempt was made to collect information regarding trade practices from the cultivators selected for the farm Business Survey. A few details were obtained relating to the actual sales which these cultivators had affected during the year. The information was obtained separately for the two periods April to September and October to March.

(22.32) In the first visit relating to the period from April to September, 1951, 13 of the 40 smaller cultivators reported 15



sales; and 50 of the 80 bigger cultivators reported 66 sales. We might therefore, say that 76 out of a representative sample of 160 cultivators reported a total 96 sales. Of these 12 were made to Gov-

ernment, 1 to co-operative society 78 to private traders and 5 to other agencies. The 96 sale transactions were of the following commodities:-

Wheat	2	Cotton	51
Millets	10	Oilseeds (mostly	
Gram	3	Groundnut)	22
Arhar	2	Garden crops	2
		Other fruit crops	4

In the following we give a few details relating to these sales :-

	No. of sales
Commodity was delivered in the village	5
Commodity was delivered at Market place	46
Price was settled before delivery	21*
Price was settled at delivery	72
Price was not settle even after delivery	1

\*This included 12 sales made to Government at prices fixed under compulsory procurement schemes.

Advance was received before delivery	7
Money was borrowed in anticipation of sales	24
Owed money prior to sale	8
Accounts settled at delivery	80

Of the 12 sales made to Government, 10 were of millets and 2 of wheat. These were under compulsory procurement schemes at fixed prices. The price was paid immediately on delivery.

(22.33) In the second visit relating to the period from October, 1951 to March,

1952, 28 of the 40 smaller cultivators reported 41 sales; and 58 of the 80 bigger cultivators reported 101 sales. We might therefore, say that 114 out of a representative sample of 160 cultivators reported a total 183 sales. Of these 41 were to Government, 1 to a co-operative society, 126 to private traders and the

remaining 15 to other agencies. The 183 sales were of the following commodities:-

Rice	2
Wheat	2
Milletts	40
Cotton	22
Garden crops	5
Other commercial crops	3
Gram	2
Arhar	9
Other pulses	4
Oilseeds (mainly Groundnut)	90
Fruit crops	4

In the following we give a few details relating to these 183 sales.

	No. of sales
Commodity was delivered in the village	39
Commodity was delivered at Market place	33
Price was settled before delivery	41*
Price was settled after delivery	142
Advances received before delivery	7
Money borrowed in anticipation of sales	20
Owed money prior to sales	3
Accounts were settled at delivery	175

\*These 41 sales are those made to Government at fixed prices under compulsory procurement schemes.

Of the 41 sales made to Government, 38 were of millets, 2 of rice and 1 of

wheat. The sales were made under compulsory procurement schemes at fixed prices. The price was paid immediately on delivery.

### XXIII. CO-OPERATIVE MARKETING

(23.1) On account of the application of the marketing Act, the marketing in the district is generally orderly. Therefore, conditions favorable for the development and growth of co-operative marketing prevail in the district. Further in this district the co-operative credit movement is well developed. One would therefore, expect that the co-operative marketing in the district is also equally well developed. Hence it must be emphasised at the outset that co-operative marketing in the district is, as yet, under developed. In fact during the period under report there were only five marketing societies functioning in the district. They did not receive any preferential treatment whatever; and functioned just like any other trader, in competition with other traders. As a result the volume of business handled by them was small compared with the total business at the markets where they were operating. Even in absolute terms, the volume of business handled by each of the marketing societies was, with the exception of one namely, the Bagalkot Purchase and Sale Union, quite small.

(23.2) There were three purchase and sale unions in the district. Of these two were at Bijapur and one was at Bagalkot. All the three purchase and sale union were covered by our investigation.

(23.3) In addition to the three purchase and sale unions, there were two fruits and vegetable sale societies in the district. Of these one was located at Bijapur and was covered by our investigation. Thus out of five marketing societies in the district four were covered by our investigation. They are:-

1. The Bijapur co-operative purchase and sale union, Bijapur.
2. The Bijapur cotton sale society, Bijapur.
3. The Bijapur Gardeners' and vegetable growers' co-operative supply and sale society, Bijapur
4. The Bagalkot Co- operative purchase and sale union, Bagalkot.

In the following paragraphs we give a brief description of the working of these societies. As in the case of primary credit societies studied by us, statements of annual accounts of the marketing societies were obtained for the two years 1949-50 and 1950-51. The statements of accounts of the primary societies were however supplemented by general notes on their working. On account of an oversight, in the instructions issued,

similar notes were not prepared on the working of the marketing societies. Nevertheless some data had been collected by our inspector for this district. In the following paragraph we present the statements of accounts of these marketing societies against the background of the data collected by him.

(23.4) The area of operation of the Bijapur Co-operative Purchase and Sale Union, extends over the three talukas, Bijapur, Indi and Sindgi. However the bye-laws of the society, forbid persons residing in villages within five miles of Bijapur, to become members of the society. The management of the society was not able to give any explanation whatsoever for this provision in the bye-laws. It is also interesting to note that the bye-laws of the society have laid down that the capital of the society shall not exceed Rs. 25,000/-. The society has three categories of members, namely societies, individual members (ordinary) and individual members (nominal). The first two categories of members have the right to vote while the last categories of members have no right to vote. It should also be noted that while the first two categories of members are share-holders of the society, the last category of members are not and that they are members in virtue of a payment of a nominal fee Re. 1. The society is managed by a secretary and a managing committee consisting of

nine persons. Of these five are elected representatives of member societies, two are elected representatives of individual members while the remaining two are nominated members. One of them is a nominee of the Assistant Registrar of Co-operative Societies and the other that of the Bijapur District Central Co-operative Bank. The society has a chequered history. At one time it was doing flourishing business. But later on due to reportedly indiscriminate lending and due to misappropriation, it began to experience shortage of cash resources and had to curtail its advances. Consequently both its business and reputation waned. Enquiries were instituted into the misappropriation of fund, responsibility was fixed and the amount was ordered to be recovered. Thereafter to improve the management of the society the co-operative department deputed a supervisor to act as the Secretary of the Society. At present the supervisor is still working as the secretary of the society. Since his appointment the management of the society seems to have improved for it is seen that the society has made all round progress. Thus during 1950-51 the society had as members 44 societies, 55 ordinary members and 55 nominal members as against only 38 societies and 53 ordinary members in 1949-50. Besides the owned funds of the society have registered sharp rise from Rs. 8,240/- in 1949-50 to 19,521/- in

1950-51. This is mainly due to an increase in the reserve from Rs. 140 in 1949-50 to Rs. 7,046/- in 1950-51. Other funds were nil in 1949-50 whereas in 1950-51 they amounted to Rs. 4,100/-. The deposits received by the society have also increased from Rs. 10,095/- in 1949-50 to Rs. 20,227/- in 1950-51. The society had borrowed loans amounting to Rs. 33,000/- from the D.C.C. Bank during the year 1950-51 while it had not borrowed anything during 1949-50. Thus it is seen that during 1950-51 the society's working capital was considerably more than what it was in 1949-50. The reason for borrowing such a large amount from the D.C.C Bank was that the society had advanced heavily against commodities. Thus the advances against commodities were Rs. 43,586/- during 1950-51 as against only Rs. 15,923/- in 1949-50. The society was also able to recover larger amounts. Thus during 1950-51 the recoveries amounted to Rs. 35,026/- as against only Rs. 15,066 in 1949-50. It should however be noted that the overdue loans were also larger in 1950-51 as compared to those in 1949-50. Thus the over dues amounted to Rs. 32,358/- in 1950-51 and Rs. 22,606/- in 1949-50. However, if we relate the over dues to the total amount advanced during the year, it will be seen that they were proportionately less in 1950-51 than in 1949-50. It should be noted that during 1949-50 the society had collected on commission

basis commodities of the value Rs. 44,730/-. The corresponding figure for 1950-51 was Rs. 73,362/-. Thus it is seen that the society is expanding its business. The society charges commission at the rate fixed by the market committee. The society borrows from the bank at either 5.1/2 per cent or at  $6\frac{1}{4}$  per cent while it charges on its advances interest at Rs. 9-6-0 per cent per annum. In addition to trading in agricultural commodities the society runs a ration shop, and has undertaken the distribution of iron, manure mixture and groundnut cakes. It is making profits in all these undertakings. The combined profit of all these undertakings amounted to Rs. 2,570/- in 1949-50 and Rs. 4,525/- in 1950-51. The society has no godowns either owned or rented.

(23.5) The Cotton Co-operative Sale Society was registered on 13-3-1924. It serves only Bijapur talukas. It has 388 members of which only 45 are societies. In 1950-51 the owned funds of the society amounted to Rs. 24,967/- and were slightly less than those in 1949-50. The society owes Rs. 1,350/- to the District Central Co-operative Bank. Due to an alleged dispute between the bank and the society regarding interest charged by the bank for the loan, the amount has been reportedly withheld by the society. During 1949-50 the society did not advance

any fresh loans. During 1950-51 it had advanced only Rs. 140/-. The whole of that amount was recovered by the end of the year. However, the overdue loans amounted to Rs. 5,342/- in 1949-50 and Rs. 5,204/- in 1950-51. These are old loans which are yet to be recovered. During 1949-50 the society had collected on commission basis commodities of the value of Rs. 15,186/-. The corresponding figure for the year 1950-51 was Rs. 29,895/-. The society was charging commission at the rate of 1.1/2 pies per rupee. The total commission earned by the society amounted to Rs. 237/- in 1949-50 and Rs. 331/- in 1950-51. This society was also running a ration shop. The net profits of the society amounted to Rs. 2,126/- in 1949-50 and Rs. 3,075/- in 1950-51. The society has no godown either owned or rented.

(23.6) The Bijapur Gardeners and Vegetable Growers Co-operative Supply and Sales Society, limited, Bijapur has its office at Bijapur and has an area of operation extending over the whole of Bijapur taluka. It is managed by a secretary and a managing committee. The number of members was 114 in 1949-50 and increased to 115 in 1950-51. It had in 1950-51, a share capital amounting to Rs. 1,635/- reserve fund amounting to Rs. 367/- and other funds amounting to Rs. 529/-. Thus its working capital was Rs.

2,531 in 1950-51. Besides it had borrowed from the Bijapur District Central Cooperative Bank, Rs. 5,000/- by way of cash credit. The society collected fruits and vegetables on commission basis. The value of the goods as collected amounted to Rs. 15,903 in 1949-50 and Rs. 10,732/- in 1950-51. The fruits and vegetables were sold as soon as they were received. For Bananas, sweet potatoes, onions and sugar cane, commission was charged only to the sellers. The rates charged were Rs. 2/- per cart load of sugar cane, Rs. 1 per thousand bananas and Rs. 1 per bag of onions or sweet potatoes. For all other vegetables commission is charged at the rate of Re. 0-1-0 per rupee of sale proceeds to sellers and at Rs. 0-4-0 per basketful of vegetable to the buyers. In the case grapes, commission is charged both to the buyers and sellers at the rate of annas four per case of eight lbs. the total commission earned by the society amounted to Rs. 1,902 in 1949-50 and Rs. 1,232/- in 1950-51. The society supplies to members seeds, fertilisers and chemical manures. The value of seeds and manure so supplied amounted to Rs. 654/- in 1949-50 and 1,825/- in 1950-51. This society also runs a ration shop. The society made a profit of Rs. 433/- in 1949-50 and Rs. 91/- only in 1950-51. It has received a subsidy of Rs. 124/- during 1949-50.

(23.7) The Bagalkot Co- operative Purchase and Sales Union is the biggest and the best managed marketing society in the district. It serves Bagalkot, Badami and Hungund talukas and Bilagi petha. The society was registered on 23-6-1939 under the name of the Bagalkot Co-operative Cotton Sale Society. The present name was adopted later on. The first three years of its working were uneventful. However, from the fourth year onwards the progress of the society has been steady and continuous. This is seen from the table given below. (table 23.1) It should be noted that in the course of seven years from 1943-44 to 1950-51 the owned funds of the society, that is, the total of share capital, reserve and other funds have increased from Rs. 16,311/- to Rs. 1,18,556/-. It should also be noted that as compared to the increase in the share capital, the increase in the reserve fund is larger as well as more rapid. The deposits received are also seen to have steadily increased till 1947-48, when they amounted to Rs. 80,850/-. During the next year, they declined to Rs. 65,200/-. However, by 1949-50 they rose to Rs. 95,000/- and in 1950-51 they stood at Rs. 96,125/-. Consistent with the increase in the owned funds and the working capital of the society the business turnover of the society, that is, the value of agricultural commodities collected on commission basis by it, has also steadily increased. Thus it amounted to Rs. 16,75,800/- 0-0-0

in 1949-50 and Rs. 23,00,100/- in 1950-51. It should however be noted that compared to the sales, the commission earned in 1950-51 is very much smaller than that earned in 1949-50.

**Table 23.1. Comparative statement showing the financial position and business turnover of the Bagalkot Cooperative Purchase and Sale Union during the eight year from 1943-44 to 1950-51.**

	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49	1949-50	1950-51
Share Capital	5650	5850	6775	7900	8225	26600	23700	29000
Reserve Fund	2356	5828	12428	22323	35916	47891	53691	61697*
Other funds	3260	533	8108	13808	21608	28806	33158	39501*
Deposits	5045	6970	23605	40050	80850	65200	95000	96125
Loans including loan on goods	90990	90592	117403	225885	237909	245006	296000	309571
Loans outstanding including loans on pledge of goods	90935	110324	140795	347310	481721	446970	522390	489274
Commission	4250	7912	8320	14959	28055	23760	22900	23187
Profit	1264	7198	14052	18759	25872	23950	13784	17569
Business turnover	176950	333236	607552	792934	1030950	1365960	1675800	2300100
Working capital	110354	138668	202700	422126	571919	597922	655290	684287
Dividends paid	4%	5%	5%	5%	5%	5%	5%	5%
Bonus to Customers	-	-	400	550	750	800	1250	300

This is explained by the fact that the revised rates of commission prescribed by the Agricultural Produce Market Committee, Bagalkot, came to be charged during 1950-51 and these revised rates were lower than those charged previously. It was pointed out earlier that the value of commodities collected on commission basis during 1950-51 amounted to Rs. 23,00,100/-. The majority of the commodities were those collected from members. During 1950-51 the society had 351 members of these 95 societies and 256 were individuals. In table 23.2 we give the volumes of different commodities collected from members during 1950-51. From the table it is obvious that the sale proceeds of commodities brought by members amounted to Rs. 13,20,074. They are also seen to account for more than 57 per cent of the total value of commodities collected on commission basis, during that year. The society helps its members in obtaining on credit improved varieties of seed. It also gives them financial assistance at the time of harvesting. Besides it is able to obtain better price for their produce as it pools, grades and then sells their produce in big lots. The society has in addition put into operation a scheme for giving bonus to cultivators who sell

their agricultural produce, through the society. Every year a part of the profits is kept aside for this purpose. Besides though it generally charges interest at the rate of Rs. 7-13-0 per cent per annum for advances made to customers, it charges regular customers interest at 6 per cent only. All these

**Table 23.2. Arrivals and sales of members' produce for the year ending June, 1952.**

Commodity	Total arrivals in Bengali maunds	Total sales in Bengali maunds	Total value of sales in rupees	Balance to be sold later in Bengali maunds
Cotton (unginned)	15,755	15,755	3,05,128	-
Cotton (ginned)	7,065	6,464	4,52,565	601
Groundnut (in pods)	31,421	28,971*	4,94,840	3,730
Pulses	2,415	2,240	51,320	175
Oil seeds other than groundnut	350	350	7,159	-
Chillies	60	60	1,430	-
Gur	1,036	639	7,632	397

\* These include sales of @ 1280 Bengali maunds of last year's stock.

these factors have, it appears, helped the society to become more and more popular and have made it the most successful institution of its kind in the district. The commendable efficiency of the society, it appears, is largely due to its present manager Shri Hadikyal, whose services have been lent to the society by the Co-operative Department. As already pointed out the society was advancing loans to its customers. The fresh advances amounted to Rs. 2,96,000/- in 1949-50 and Rs. 3,09,571/- in 1950-51. The total amounts recovered by the society from its members during these two years amounted, respectively to Rs. 2,90,363/-

and Rs. 3,36,456. Thus it is seen that the fresh loans advanced as well as the total amounts recovered were both larger in 1950-51 than in 1949-50. Further in 1950-51 recoveries were in excess of fresh advances during the year indicating that some of the old debts were also recovered. The total amount due to the society from its members stood at Rs. 5,22,390/- in 1949-50 and Rs. 4,89,274/- in 1950-51. Thus it is seen that in consistent with greater recoveries, the outstanding dues were smaller in 1950-51 though as already indicated the fresh advances were larger during that year. It



was stated earlier that the business turnover of the society during 1950-51 was Rs. 23,00,100/-. It should be noted that this refers to only the business handled on commission basis. In addition to handling commodities on commission the society was doing business on its own account, in batars, gunnies, cotton and groundnut seeds for sowing. In fact the society is the main agent of the Agricultural Department for the distribution of improved varieties of cotton seeds for sowing. On an average it distributes every year about 2,80,000 lbs. of improved varieties of cotton seeds such as Jayadhar, Jaywant and Laxmi. The society also distributes groundnut seeds. The society is the wholesale agent for the distribution of manure mixture and groundnut cakes for the whole district and retail agent for three talukas and one Petha namely Badami, Bagalkot and Hungund talukas and Bilagi petha. The society is also the wholesale agent for the distribution of iron, steel and cements, for five talukas and one petha namely Bagalkot, Badami, Hungund, Mudhol and Jamkhandi talukas and Bilagi petha. It is also the retail agent for the distribution of iron, steel and cement for Badami, Bagalkot and Hungund talukas and Bilagi petha. The margin of profit in all these other business undertakings is large and the resultant heavy profits have helped the society to improve and consolidate its financial

position by increasing the reserve and other funds. The society has at Hungund a sale depot, controlled by the head office. Finally, the society has six hired godowns of the size 80' x 60' x 40' to store its own goods as well as the goods of the customers. The society does not own any trucks; but it generally has 3 to 4 hired trucks at its disposal. The hiring charges of these vehicles amount annually to about Rs. 15,000/-.

#### XXIV. PRIVATE FINANCING AGENCIES

(24.1) We have already studied the various aspects of government and cooperative finance. In this chapter we propose to study private finance and private financing agencies. Of these, we have already studied the traders. The other private financing agencies supplying credit are commercial banks, indigenous bankers and private money lenders. We had mentioned earlier that the district has good banking facilities. In addition to the District Central Co-operative Bank, with its large number of branches and pay offices and the several urban cooperative banks, there are in the district a number of branches and head offices of several commercial banks. There were in all 38 banks in the district; of these 11 were at Bijapur, 8 at Bagalkot and 3 each at Jamkhandi and Banahatti. At no other place were there more than 2 banks. Four scheduled banks have their

branch offices in this district. The central bank of India has a branch office at Bagalkot, the Punjab National Bank at Bijapur. The Canara Industrial and Banking Syndicate at Bijapur as well as at Bagalkot and the Sangli bank at Tardal and at Rabakavi.

(24.2) As a part of our investigation, we had mailed a questionnaire to the local offices of the commercial banks, scheduled and non-scheduled, requesting information regarding their advances and loans to agriculturists. As the purpose for which the advance was made might not have been noted in the books of the banks, we enquired specifically about the advances against agricultural produce. Eleven non-scheduled banks and six branch offices of scheduled banks replied to the questionnaire.

(24.3) The Bagalkot branch of the Central Bank of India had advanced loans against oil seeds, cotton, gur and pulses other than gram and arhar on 30-9-1951 the advances amounted to Rs. 2,34,263/- and were made to 19 accounts, all of the commission agents. The demand for loans was reported to be heavy in June.

(24.4) The Bijapur branch of the Punjab National Bank had advanced loans against groundnut, safflower, gur, and cotton. On 30-9-1951 the advances amounted to Rs. 36,590/- and were made

to six accounts, all of commission agents. The demand for loans was heavy during October to march and repayments took place during April to September.

(24.5) The agent of the Canara Industrial and Banking Syndicate at Bijapur reported that advances against cotton and groundnut outstanding on 30-9-1951 amounted to Rs. 89,700 and were made to three accounts, one of a wholesaler and the remaining two of commission agents. Of the total advances 77 per cent were to commission agents and 23 per cent were to the wholesalers. The wholesalers utilised the loan for general trading purposes. The branch of this bank at Bagalkot had advanced Rs. 2,200/- only. The advances had been made to two wholesalers against the security of Arhar. 50 per cent of the advances had been utilised for general trading purposes, and 25 per cent cash for the purchase of agricultural produce and for financing agriculture.

(24.6) The Manager of the Rabakavi branch of the Sangli Bank reported that advances against groundnut, safflower and arhar stood at Rs. 1,61,510/- on 30-9-1951. The advances were made to four accounts, all of wholesalers. The loans were utilised for general trading purposes. The demand was heavy during the period from July to September and the repayment was heavy during the period

from October to December. The branch of this Bank at Terdal reported that advances against groundnut outstanding on 30-9-1951 amounted to Rs. 21,010/- and were made to only on account that of a commission agent.

(24.7) The advances made by the six branches of the scheduled banks in the district together amounted to Rs. 5,45,273/-. Of these 34 per cent were made to wholesalers and 66 per cent to commission agents. However, only 20 per cent of the accounts were of wholesalers and 80 per cent of commission agents. Almost the whole of the amount advanced to wholesalers was utilised for general trading purposes. Of the total number of accounts 83 per cent were loan accounts and 17 per cent were cash credit accounts. However, of the total advances 74 per cent were to loan accounts and 26 per cent to cash credit accounts.

(24.8) As stated earlier, 11 non-scheduled banks had replied to our questionnaire. Of these only 9 were advancing against agricultural produce. The total amount advanced by these 9 banks amounted to Rs. 2,82,098/- on 30-9-1951. The advances had been made to 58 accounts; of these 9 were of wholesalers, 29 of commission agents and 20 of cultivators. However, the amount advanced to these was 6, 90, and 4 per cent, respectively, of the total

advances. All the advances were to loan accounts and were made mostly against the security of groundnut, safflower, cotton seeds, chillies, pulses, cotton and gur. It should be noted that only one bank namely, the pay office of the United Bank of Karnataka at Bilagi had advanced loans to cultivators. On 30-9-1951 its advances to cultivators stood at Rs. 10,000/-. They were made to 20 accounts of cultivators against the security of groundnut, safflower, cotton seeds, and pulses. It should also be noted that of the total loan of Rs. 2,82,098/- advanced by these 9 banks, Rs. 1,74,396/- were advanced by a single bank, namely. The Union Bank of Bijapur and Sholapur. Hence it is seen that the remaining 8 banks have together advanced a sum just exceeding Rs. 1,00,000/-. It is therefore, obvious that their total advances are generally small.

(24.9) It is thus clear that the commercial banks do not generally finance the agriculturists directly and that their finance in this direction, generally goes to traders. The principal private financing agency for agricultural finance in this district is therefore, the private money lender. To study their operations, it was intended to select a sample of about 20 moneylenders, at each of the selected marketing centers. Under the Moneylenders' Act, every moneylender is required to take a license and a list of such

licensed moneylenders was available at each centre. It was therefore, convenient to make the selection from out of the list. It was possible however that there were moneylenders who were not licensed and hence who did unauthorised business. But there were no means of knowing their names, etc., and even if that could be known, it was little use interviewing them. The following information, therefore, is based on the interview with licensed money lenders only and naturally would relate to their authorised business only.

(24.10) There were 32 moneylenders at Bijapur only 20 of them had reported that they had advanced loans during the year. All these 20 moneylenders were selected for interview. At Bagalkot there were 72 licensed moneylenders. Many of them were not doing any business. Hence a list of moneylenders who actually carried on the business of money lending was prepared. Of these moneylenders, ten had advanced more than Rs. 60,000/- during the year. All of them were selected for interview. The names of the remaining moneylenders were then arranged in the descending order of the volume of their advances. Then ten equal divisions were made and the last moneylender in each division was selected for interview. However one of the bigger and the two of the smaller moneylenders refused to give information. Hence, three other

moneylenders were later selected from among these ten divisions as substitutes. At Jamkhandi there were only 23 licensed moneylenders. Of these 4 or 5 had stopped advancing fresh loans. They were desirous of winding up their moneylending business and had taken licenses only to recover old dues. Hence excluding three of these, the remaining 20 were interviewed. At Hungund there were only six money lenders and at Indi there was only one moneylender. Hence all these 7 moneylenders were selected. Thus a sample of 67 licensed moneylenders was selected and interviewed. Most of the licensed moneylenders at Bijapur were goldsmiths, bullion merchants and jewellers, those at Bagalkot and Hungund were mostly traders in agricultural commodities. At Jamkhandi traders in agricultural commodities as well as goldsmiths, bullion merchants and jewellers were doing money lending business. The moneylender at Indi was a goldsmith bullion merchant and jeweller. In the following we present the information collected by interviewing these 67 selected moneylenders.

(24.11) Of the 67 moneylenders 27 were traders, or shopkeepers, 20 were goldsmiths and jewellers, 14 were traders as well as goldsmiths and jewellers, 3 were non-cultivating landowners, 2 were cultivators and only one was a moneylender without any other business or occupation.

Of the 27 traders and shop keepers, 15 were cultivators, 6 were non-cultivating landlords and 6 others were purely commission agents. Of the 20 goldsmiths and jewellers, 11 had no land, 3 were cultivators and 6 were non-cultivating land lords. Of the 14 money lenders who were traders as well as goldsmiths and jewelers, 7 were cultivators and 5 were non-cultivating landlords while remaining two did not have any other business or occupation. Of the 67 moneylenders 37 were in business for more than 25 years; another 13 for more than 10 years; another 10 for more than 6 years and the remaining were in business for a period not exceeding five years. In the case of 30 out of 67 moneylenders the agriculturists formed more than 75 per cent of their clientele; in the case of another 18, the agriculturists formed more than 50 per cent of their clientele. In the case of 18 moneylenders, more than 75 per cent of their business was with agriculturists; in the case of 16 others; this proportion was more than 50 per cent. Thus out of 67 moneylenders 34 had more than 50 per cent of their business with agriculturists. Of the 67 moneylenders, 31 advance up to Rs. 1,000/- to a single cultivator if sound security is offered. Of these 31, 19 advance upto Rs. 2,000/-; of these 19, 11

advance upto Rs. 5000/-; of these 11, 3 advance upto Rs. 10,000/- to a single cultivator against sound security. The rate of interest which the moneylenders said they would consider reasonable on secured loans was 12 per cent per annum for loan of one years duration or less and 9 per cent for loans of duration longer than one year. 40 of the 67 moneylenders said that their owned funds were not adequate for their business. They borrowed from other sources such as moneylenders, commercial banks, or indigenous bankers. Of the 40 moneylenders in the case of 23, the amount borrowed from moneylenders formed more than 50 per cent of their total borrowings; in the case of 12, the borrowings from commercial banks exceeded 50 per cent of their total borrowings; in the case of 4 others the borrowings from the indigenous bankers amounted to more than 50 per cent of their borrowings. In the case of the remaining moneylender, borrowings by drawing hundis formed more than 50 per cent of his total borrowings.

## XXV. REVIEW OF SITUATION

To be done



# **JOURNAL OF INDIAN SCHOOL OF POLITICAL ECONOMY**

## **Index of Vol. XXXII (2020)**

### **AUTHOR INDEX**

Chitre, V.S., Professor L. K. Deshpande: A Tribute, Vol. 32, Nos. 1&2, Pp. 37-43.

Kurup, Hema S., and K.S. Hari, Neither in Employment nor in Education or Training: A Study on India, Vol. 32, Nos. 1&2, Pp. 3-23.

Patne, Purva and Avinash Shrivastava, Enhancing Supply Chains Using Smart Contracts Through Blockchain, Vol. 32, Nos. 1&2, Pp. 25-36.

Patra, D. C., Auto Fuel Pricing in India: An Empirical Study on Prevailing Price Level & Volatility, Vol. XXXII, Nos. 3&4, Pp. 351-407.

Sriraman, S., From the Editor, Vol. XXXII, Nos. 1&2, Pp. 1.

### **SUBJECT INDEX**

#### *Down Memory Lane*

Chitre, V.S., Professor L. K. Deshpande: A Tribute, Vol. 32, Nos. 1&2, Pp. 37-43.

#### *Editorial*

Sriraman, S., From the Editor, Vol. XXXII, Nos. 1&2, Pp. 1.

*Logistic and Supply Chains*

Patne, Purva and Avinash Shrivas, Enhancing Supply Chains Using Smart Contracts Through Blockchain, Vol. 32, Nos. 1&2, Pp. 25-36.

*Petroleum Pricing*

Patra, D. C., Auto Fuel Pricing in India: An Empirical Study on Prevailing Price Level & Volatility, Vol. XXXII, Nos. 3&4, Pp. 351-407.

*Training and Employment*

Kurup, Hema S., and K.S. Hari, Neither in Employment nor in Education or Training: A Study on India, Vol. 32, Nos. 1&2, Pp. 3-23.

*Documentation*

1. Prof. V.M. Dandekar, Articles published in 1951 to 1958.
2. Reserve Bank of India, All-India Rural Credit Survey District Monographs Poona (Bombay State)
3. Prof. V.M. Dandekar, Articles published in 1959 to 1961.
4. Reserve Bank of India, All-India Rural Credit Survey District Monographs Bijapur (Bombay State)



# INDIAN JOURNAL OF AGRICULTURAL ECONOMICS

(Organ of the Indian Society of Agricultural Economics)

Vol. 75

July-September 2020

No. 3

## CONTENTS

### ARTICLES

Technical Efficiency of Saffron Cultivating Farm in Kashmir Valley: Post National Saffron Mission Implementation *Imtiyaz ul Haq and Asif Tariq*

Surge Pricing and Catch - Income Sustainability Paradox in Marins Fisheries in Maharashtra *Naorem Dinesh Singh, Nilesh Pawar, V.R. Kiresur, N. Sivaramane, V. Ramasubramaniua and M. Krishnan*

Impact of Climate Change on Average Yields and their Variability of the Principal Crops in Assam *Raju Mandal and Pratiti Singha*

Estimation of Harvest and Post-harvest Losses of Cereals and Effect of Mechanisation in Different Agro-Climatic Zones of India *R.K. Vishwakarma, S.N. Jha, Anil K. Dixit, Anil Rai and Tauquir Ahmad*

### RESEARCH NOTE

Economic Analysis of Brinjal Seedling Nursery Enterprise in Karnataka *N. Ashoka, Y. Ravi, S. Raveesha, and R.A. Yeledhalli*

### BOOK REVIEW\*

### PUBLICATIONS RECEIVED\*

### ABSTRACT OF PH.D. THESIS IN AGRICULTURAL ECONOMICS\*

### OBITUARY: DR. Isher Judge Ahluwalia\*

### Annual Subscription Rates

Individual Membership Fee	: Rs. 1,000.00; £ 50.00; \$ 100.00.
Life Membership Fee	: Rs. 10,000; £ 500.00; \$ 1000.00.
Institutional Subscription	: Rs. 3,000.00; £ 75.00; \$ 350.00.

Please address correspondence to the Hon. Secretary & Treasurer, The Indian Society of Agricultural Economics, C-104, First Floor, Sadguru Complex I, Near Vagheshwari, Gen. A.K. Vaidya Marg, Goregaon (East), Mumbai - 400 063 (India).

# INDIAN JOURNAL OF AGRICULTURAL ECONOMICS

(Organ of the Indian Society of Agricultural Economics)

Vol. 75

October-December 2020

No. 4

## CONTENTS

### INSTITUTIONS FOR AGRICULTURAL DEVELOPMENT: FARMERS' COLLECTIVES/PRODUCERS' ORGANISATIONS INCLUDING EFFICIENT SUPPLY-CHAIN MANAGEMENT

- Production of termeric in North East Hill Region of India: A Value Chain Analysis *Ram Singh, S.M. Feroze and Shiv Kumar*
- Groundwater Market and Agricultural Tenancy: A New Form of Collective Inter-Linkage in West Bengal *Achiransu Acharyya*
- Prospects of Agri Value Chain for Wheat in Haryana: Its Economics, Market Surplus and linkage with Processors *Sher Singh Sangwan*
- Impact of Micrifinance on Farm Income of Small and Marginal Farmers in Western Tamil Nadu *R. Sudha and K.R. Ashok*
- Startups with Open Innovation: Accelerating Technological Change and Food Value Chain Flows in India *Chandra S.R. Nuthalapati, K. Srinivas, Neha Pandey and Rajeesh Sharma*
- Summaries ... ..

### AGRICULTURAL LABOUR, SKILL DEVELOPMENT, LABOUR PRODUCTIVITY AND EMPLOYMENT

- Factors Affecting Migration of Labourers from Domestic Agriculture and Its Impact on Household Crop Income in Assam *Bodrul Islam and Pradyut Guha*
- Changing agricultural Labour Market and Its Effects on Farm Economy in India *S.K. Srivastava, Jaspal Singh, Nalini Ranjan Kumar, N.P. Singh and Nasim Ahmed*
- Is Labour Productivity of Irrigated Crops Better than Rainfed Crops?: A Meta-Data Analysis *A Narayanamoorthy, R. Suresh and K.S. Sujitha*
- Agricultural skilling and Its Impact on Agricultural Commercialisation Crop Diversification and Employment Choice of Small Holder Agricultural Households: A Study Based on 70th Round of NSSO *Sagarika Dey*
- Rising Capital Intensity and Employment Potential of Indian Food Processing Industry *M.L. Nithyashree and Suresh Pal*
- Summaries ... ..

# JOURNAL OF INDIAN SCHOOL OF POLITICAL ECONOMY

## AGRICULTURAL TRADE WITH SPECIAL REFERENCE TO PLANTATION CROPS AND INTERNATIONAL TRADE AGREEMENTS

Performance and Determinants of Exports of Coffee from India: A Post-WTO Scenario	<i>Arghyadeep Das, R. Raju T.M. Kiran Kumara and Siddayya</i>
Revealed Comparative Advantage, Competitiveness and Growth Performance: Evidences from India's Foreign Trade of Agricultural Commodities	<i>O.P. Singh, M. Anoop and P.K. Singh</i>
Dynamics of Palm Oil Import on Prices, Income and Trade of Indian Edible Oil Sector	<i>A. Indhushree and K.M. Shivakumar</i>
Trade Competitiveness and Market Access Issues in India's Coconut and Cashew Nut Trade	<i>Shaikh Mohd Mouzam</i>
Summaries	... ..

## RAPPORTEURS' REPORTS

Institutions and Efficiency in Supply Chain Management for Agricultural Development	<i>Brajesh Jha</i>
Agricultural Labour, Skill Development, Labour Productivity and Employment	<i>S.S. Kalamkar</i>
Agricultural Trade with Special Reference to Plantation Crops and International Trade Agreements	<i>P. Indira Devi</i>

## Annual Subscription Rates

Individual Membership Fee	: Rs. 1,000.00; £ 50.00; \$ 100.00.
Life Membership Fee	: Rs. 10,000; £ 500.00; \$ 1000.00.
Institutional Subscription	: Rs. 3,000.00; £ 75.00; \$ 350.00.

Please address correspondence to the Hon. Secretary & Treasurer, The Indian Society of Agricultural Economics, C-104, First Floor, Sadguru Complex I, Near Vagheshwari, Gen. A.K. Vaidya Marg, Goregaon (East), Mumbai - 400 063 (India).

Telephone: 022-28493723; Fax: 091-022-28493724; e-mail: [isaeindia1939@gmail.com](mailto:isaeindia1939@gmail.com) website: [www.isaeindia.org](http://www.isaeindia.org)

## INDIAN SCHOOL OF POLITICAL ECONOMY

### OTHER PUBLICATIONS

#### *Marathi Monthly:*

*ARTHABODH-PATRIKĀ,*

(Subscription Rs. 100/- per year)

#### *Books and Booklets:*

1. *Bhāratāteel Lok-Sankhyā Wādhichā Prashna:*  
*Santati-Niyamanāchee Jaruree Wa Tyāteel Yash,*  
(The Problem of Population Growth in India:  
The Need for Family Planning and its Success) (in Marathi)  
by Kumudini Dandekar, Pp. 60, Rs. 30/-.
2. *Compulsory Primary Education -*  
*Opportunities and Challenges,* Second Edition,  
(in English and Marathi),  
by Jayakumar Anagol, Pp. 54 and 61, Rs. 30/-.
3. *Shodh Ghetay Tay Shikshan,*  
(To Searches is Education), (in Marathi),  
by Ramesh Panse, Pp. 67, Rs. 50/-.
4. *Kartā-Karvitā, Adhunik Mendu-Sanshodhan va Aple Jeevan,*  
by Ramesh Panse, Rajyashree Kshirsagar, Anita Belhekar-Deshmukh,  
Pp. 242, Rs. 350/-.
5. *Governance, Supervision and Market Discipline: Lessons from Enron*  
by Jayanth R. Varma, Pp. 87, Rs. 100/-.  
Reprint from (*Journal of Indian School of Political Economy*,  
Vol. XIV, No. 4, October-December 2002)
6. *Poverty in India,* (Reprint 2008), by V.M. Dandekar and N. Rath,  
Reprinted by Books for Change Bangalore, Pp. vi+140, Price Rs 200/-