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JOURNAL OF INDIAN SCHOOL OF POLITICAL ECONOMY is devoted to the study of the Indian Economy, Polity and Society. Emphasis is primarily on reviewing developments since Independence with roots in the British administration where relevant. However, papers with a similar focus but not necessarily reviewing developments since Independence will also be considered. When a review is based on statistical data, full statistical base data are presented as far as possible.

ANNOUNCEMENT

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Editorial communications should continue to be sent to the Editor, *Journal of Indian School of Political Economy*, at the above address. Comments on articles and documentation appearing in the Journal are welcome.

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Dr. Purushottam S. Palande

July 5, 1937 - February 13, 2008

It was with a great shock and deep sadness that all of us at the Indian School of Political Economy learnt about the sudden passing away of Dr. P.S. Palande on the 13 th of February 2008.

Every one knew Dr. Palande as a very able and public spirited administrator and a keen analyst of issues in urban governance and municipal finance, industrial development and policy, and insurance. He had deep insights in the working of the various Acts and institutions.

Dr. Palande joined the Indian Administrative Service in 1961 and sought voluntary retirement in 1982. His work as the Industries Commissioner of Maharashtra state and his contribution to the development of Pune city as the Municipal Commissioner will be always widely remembered and appreciated.

After his retirement from the Indian Administrative Service, he was actively associated with a number of public institutions and served as an independent Director on the Board of Directors of a number of public sector and private sector companies. He worked as Economic Adviser to Bajaj Tempo Ltd. for a few years and was Director of National Insurance Academy, Pune, from 1993 to 1999. He also devoted considerable time and energy to intensively coaching candidates appearing for the Union Public Service examinations.

Dr. Palande was Director of the Indian School of Political Economy from February 1990 to February 1993. During his tenure as Director and ever since then Dr. Palande had endeared himself to all of us here because of his affable nature and personal concern for the people with whom he came in contact. As Director and even later on, he associated with a number of academic activities of the School and made valuable contributions in them. He published an article based on a detailed case study on the unique experiment in the late 'eighties by the workers in Kamani Tubes Ltd. of addressing the problem of industrial sickness through labour participation in ownership and management and a number of book reviews and review articles in this journal. In recent years, his contribution to organising the seminar on Urban Governance at the School and in preparing material for discussion for it is particularly noteworthy.

His other scholarly writings include the books, *Coping with Liberalisation* (2000) and *Insurance in India: Changing Policies and Emerging Opportunities* (2003).

In Dr. Palande's sad and untimely demise, we have lost an active participant of the city's public life. And many of us have lost a very dear friend.

Vikas Chitre
Indian School of Political Economy
Pune 411016

[Editor's Note: As the present - October- December 2006 - issue of the Journal is the first issue which is being published after the demise of Dr. P. S. Palande on February 13, 2008, we are printing the above obituary here.]

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CURRENT INFLATION

Nilakantha Rath

This brief paper traces the changes in the Consumer Price Index for Industrial Workers since 1991 till May 2008, and draws attention to the fact that the inflation during the last two and half years has not been as high as in most of the years in the 1990s, nor has it been higher during the first five months of this year compared to the same period in the previous two years. It lists the trend in per capita availability of foodgrains during the last two decades to suggest that its trend influences the price level. It discusses broadly the food and crude oil situation and suggests that the trend in the price of the latter is irreversible and the economy should be reoriented to take care of this.

The announcement that the inflation index has reached nearly 11.8 per cent rise in the latest week over the level a year ago has excited political parties. People and parties are worried when they hear that the inflation index has topped its 13-year record.

The ordinary urban householder, however, appears rather confused. Her/his experience in course of household purchases does not quite give the impression of such sharp and rather sudden price rise. She says that while prices are higher than what they were two-three years ago, except in case of edible oil there has not been such sharp rise in very recent months.

But, that is the impression of some urban consumers. What is the real situation so far as all the urban consumers are concerned?

The inflation index (which in effect is the Wholesale Price Index) that is being put out every week, and makes headlines in the newspapers, is an index designed to measure the over-all inflation in the economy. That Index has heavy weightage of different types of minerals produced in the country, of cement, of steel, of manufactured intermediate products, of the services like IT, of different energy products, besides of foodgrains and other agricultural products and manufactured consumer goods. Such an index is useful to tell the manufacturers, industrial investors, producers of infrastructure products about the trend in prices in the economy.

But, this index does not, and can not, give a correct picture of the trend in prices relevant to the price situation faced by the householders. Steel, cement, minerals, intermediate producer goods have no direct impact on the prices that the consumer has to pay for the various commodities and services she buys routinely. Those prices may have an impact over a longer period in an indirect way, like slowly rising house rents due to increased cost of cement and steel in the construction of new houses.

The price index that would indicate the changing price situation faced by the consumer from week to week, month to month, is indicated in our country by three different consumer price indices routinely put out by the Labour Bureau of the Government of India. They are: (i) the Consumer Price Index (CPI-IW) for Industrial Workers; (ii) the Consumer Price Index for Agricultural Labour (CPI-AL); (iii) the Consumer Price Index for Rural Labour (CPI-RL). These three different indices naturally do not show the same price change from month to month. But, their trends are similar. Of course, since foodgrains have a heavier weightage in the family expenditure of the Agricultural Labour and also of the Rural Labour, their Index would move faster or slower than that of the CPI-IW, depending on the way the food price index changes over time. So, to avoid cluttering this article with too many indices, we shall use only the CPI for industrial workers, which is currently the most widely used index for most relevant policy purposes in the country.

Nilakantha Rath is President of Indian School of Political Economy, Pune 411016. E-mail: <ispe@vsnl.net>

[Editor's Note: The present article on current inflation specifically analyses the price behaviour in the recent period up to 2008, and is of current topical interest. We are, therefore including it in the present - October-December 2006 - issue of the Journal, the publication of which has been delayed.]

1. The first fact to notice is that this CPI-IW for India recorded a 6.2 and 6.7 per cent increase during 2006 and 2007 respectively, over the annual average price index of the preceding year in each case. The average CPI for the first five months of this year (2008) has registered a 6.9 percent rise over the average index for the first five months of 2007. The price index for these five months in 2007 had also registered a 6.9 per cent rise over the average price index for the first five months of 2006. Even the indices for the month to corresponding-month of the preceding year for the months of March, April and May of this year were 7.9 per cent only. This is much lower than the rise in the Inflation Index for the entire economy being put out routinely in newspapers. It also does not show that till the end of May 2008 the inflation index for the CPI-IW had risen any faster than what had happened in the preceding two years.

Table: Consumer Price Index for Industrial Workers in India (1982 = 100)

Year	Index	% rise over preceding year
(1)	(2)	(3)
1990	186	8.8
1991	212	14.0
1992	237	11.8
1993	252	6.3
1994	278	10.3
1995	306	10.1
1996	334	9.1
1997	358	7.2
1998	405	13.1
1999	424	4.7
2000	441	4.0
2001	458	3.9
2002	477	4.1
2003	496	4.0
2004	514	3.6
2005	536	4.3
2006*	569	6.2
2007*	607	6.7
2008**	633	6.9

Source: Index data from the Labour Bureau, Government of India
Note: * These are the new Indices, with 2001 = 100, multiplied by the factor of 4.63 to link them to the 1982 based Index.
** This is the average index for the first 5 months of 2008, and the percentage change in over the average of the first 5 months of 2007.

2. It is also interesting to note is that the rise during the last two years as well as during the first five months of 2008, for which CPI-IW data have been put out, is much lower than the rise in the price index for the Industrial Workers (CPI-IW) during the years 1990 to 1998. During these nine years, the average annual CPI-IW had risen by 9 to 14 per cent, except in the two years, 1993 and 1997, when it had increased by 6.3 and 7.2 per cents respectively. In fact, the years in the 1990s, except for 1999, were years of high inflation for the urban as well as rural consumers, much higher than what is recorded for the last two and half years.

3. During these nine years, the month to twelve-previous-month rise in the (CPI-IW) index was very high in the years 1991 and 1998 - between 14 to nearly 20 per cent for large parts of these two years.

4. During the seven years after 1998, till 2005, the average annual CPI increased between 3.6 and 4.7 per cent. These were years of comparatively low inflation from the consumers' point of view.

The inflation rate for the urban consumers during the last two and a half years, and specifically in the last five months, has not been as high as during the 1990s, about 50 per cent higher than in the seven years since 1999, and has shown only an almost unchanging rate of increase during the last two and half years.

It is surprising that the PMO, the Finance Ministry, the Planning Commission as well as the AICC office have never even by mistake brought this to the attention of the public as well as of the media. This is an election year and it should be of interest to the party or parties in power! In any event, it would correct the impression that the ordinary citizen is getting about the scale of inflation at present, and its psychological implications.

What has led to this increase in inflation during the last two and half years? Currently, there is a mention of two reasons: One, the food price situation, and two, the crude oil price. Let us look at these two, one by one.

(i) Per capita availability of foodgrains (cereals+pulses) has shown a steady mild declining trend during the 21 years since 1986. Per capita availability is calculated by the Union Agricultural Ministry by taking the total production of foodgrains during the year and adding to it the net change in export/import and the net change in stock with the Food Corporation of India, and then dividing the amount by the estimated population of India in that year. It is necessary to remember that this availability figure does not take into account the changes in stock with the trade and private households. The availability includes the quantity consumed by individuals and households at home and outside, and the amount fed to poultry and livestock and the amount used for non-food, non-feed purposes. While the trend is declining - the average annual decline has been a little less than 2 grams or about 40 grams per capita per day and about 0.4 per cent per year - the per capita availability has been lower than the trend value in the last three-four years. This is likely to be the reason for the greater rise in food prices since the end of 2005. The CPI-IW shows that the rate of increase in that index depends largely on the price index of the food component in it. When the increase in the CPI-IW is high, the rise in the food component of that index is higher than that of the total, and when the CPI rises less, the rise in the index of the food component is less than of the over-all index. Thus, the rise in the price index of the consumer is mainly due to the rise in the food prices. The declining trend in the per capita availability of foodgrains is sure to result in a pressure on the prices of foodgrains and food in general. The sharper the decline in availability, the greater will be the rise in prices of foodgrains and food articles. [Parenthetically, it is surprising that when the USA administration, beginning with its President, says that the world food price rise is because Indians and Chinese are eating more, the Deputy Chairman of our Planning Commission says: what is wrong for a poor country eating more, with growing income! This is counter to the fact of declining per capita availability of foodgrain in the country. He seems to be shy to own up that our people are consuming less over the years.]

(ii) The price situation becomes worse if, during the period of declining trend in foodgrain availability, the average per capita real income of the people continues to rise. This is what has been happening during the last one and half decades. Of course, the fluctuation in per capita real income from year to year has been somewhat higher than in the availability of foodgrains. But, it should be obvious that with rising trend in per capita real income and declining per capita availability of foodgrains, the price of food, and therefore of the CPI, will continue to rise. The rise will be higher in years when the availability declines more than the trend line indicates, with the per capita income rising more than the trend in it. This is what has happened during the last few years.

(iii) While availability is in physical terms and per capita income is measured here in real terms (that is, excluding from it the pure monetary element), the price in the market is also influenced by monetary factors. If people have more money in hand against an unchanging or small changing real availability of goods, then its market price will rise. In India the total supply of money has increased faster than what is appropriate for an economy growing at the rate ours is growing. One reason for this has been the conversion of the large amount of dollars being brought into the country by outsiders for business purposes. These dollars are

converted in to rupees and this increased currency supply goes to inflate the total money supply in the economy. This larger money, in the hands of individuals and institutions, is used to purchase goods and services in the economy, the supply of which has not been increasing at the rate at which this monetary demand is increasing. The result is the rise in prices of goods and services. Naturally, the demand for, and therefore the prices of, minerals, metals, cement and intermediate producer goods are increasing faster than that of foodgrains, thanks to the very skewed income distribution in our economy. One way the Reserve Bank of India can check this rise in money supply is by withdrawing rupees from circulation in the economy. In recent years the increased supply of dollars and consequently the increased demand for rupees led to a decline in the price of dollar in terms of the rupee. This made imported goods cheaper in India and exported goods from India dearer abroad, adversely affecting our exports. But, the Reserve Bank did not intervene to control the supply of rupee since our import of crude oil was becoming cheaper in rupee terms at home. But, at the same time, it contributed to an across the board rise in prices of commodities. If the Reserve Bank were to withdraw the rupees from circulation, this can lead to a contraction in money supply. Of course, it will make dollars more expensive and lead to higher prices of imports, mainly oil.

(iv) We do not have free international trade in most agricultural commodities produced or demanded in our country. But, we export as well as import many agricultural commodities, particularly commodities featuring in consumer demand, like edible oil and pulses, and occasionally wheat, and export limited quantity of rice. When there is domestic shortage of any of these, we tend to increase import and or restrict export. Edible oils and pulses are being routinely imported. But, during the last two years, and particularly during the last six months, prices of oils and oil seeds as well as of cereals have very significantly increased in the international market. The reasons are two-fold: Firstly, due to very adverse seasonal condition, major wheat and soybean producing countries, like Argentina and Australia have suffered massive decline in production These counties being the major suppliers in the international market, the prices of these commodities have gone up. Secondly, due to rising world price of crude oil and its products, many developed countries have adopted policies to encourage use of some cereals and oilseeds for production of ethanol - a diesel substitute. USA is in the forefront of this. The result has been diversion of corn and soybean to ethanol production, raising price of these commodities for food. This has resulted in the price of edible oil and wheat and corn and even rice in the international market rising very steeply. Our economy can not be entirely free from the influence of this international price rise, since we import significant amounts of these for our use.

(v) Now, turning to oil, crude oil price has risen phenomenally in recent months. This has affected the cost of our crude oil imports. Our government has been making its own oil importing companies suffer loss in order to protect our consumers. But, this is an unsustainable effort. So, diesel and petrol prices have risen and must rise. It has and will have impact on costs of production of different commodities, like gas, fertilizer, electricity, all types of synthetic products, including even medicines, besides, of course, transport costs.

It is necessary to note that the circumstances leading to the rise in the prices of food articles and in crude oil-based products are not identical. The loss of crops due to adverse weather is not a perennial situation. The weather will improve and to that extent supply situation will also improve,

bringing some relief in the food price front. In the long run, varietal improvement, better and more economic use of irrigation water, and use of green manures and bio-fertilizers can lead to greater areas under irrigation, better and less costly production of crops. Thanks to cheap chemical fertilizers - all oil-based, the use as well as development of the organic substitutes have been neglected. The point to recognize is, there is scope for long term increase in supply of agricultural products.

But, that can not be said about crude oil. This is a mineral that is ultimately exhaustible. Right now there is a serious debate the world over about whether the production of oil has reached its peak, meaning the daily or annual production in the world can not increase any more. And, once that level is reached, the next phase is the decline in total production and availability. Important sources of mineral oil have already registered decline, like the north-sea oil. Trying to increase the rate of daily extraction from known and abundant sources, like the wells in Saudi Arabia, will prove to be far more expensive. This can be done only if the price of crude oil is much higher; and this in turn will lead to faster decline in the reserve there. New sources, like the newly discovered vast reserves in the Amazon off-shore in Brazil, will require very expensive, special types of drilling equipment to extract oil from very deep in the underground. So, only higher price can justify that effort. The important point is, unlike the rise in food prices, the rise in oil price is irreversible. (The fluctuations around the rising trend, due to a variety of local reasons, like strike in Nigeria, or speculation about a war in west Asia, should not distract us from the irreversible rising trend in the price of oil). The world will have to redesign its economy to accommodate to this more costly material. Oil price can come down in the very long run when the world economy has found alternative economic sources of energy. The present high price of oil can only be a triggering factor for intense efforts in this direction.

For the Indian economy, the Reserve Bank can and should take measures to control money supply. The Indian and state governments should take steps to distribute irrigation water more economically and rationally, should push scientific research for better varieties of crops, and should propagate use of green manures, organic manures like composted dung and night-soil, and bio-fertilizers. And, it should adopt a rational policy about oil and chemical fertilizers, such that the unsustainable policy of huge subsidy is gradually given up. This will persuade farmers to try alternatives, which in turn will require more economic supply and use of irrigation water. The unhealthy and dangerous urban transport scene can fortunately change for the better if motor fuel price is permitted to reflect the changing international relative price situation. In fact, in this context, the government was unwise in not raising the price of petroleum, diesel and gas during the last four years, as and when the international price of these increased. Sudden sharp increase at long interval is undesirable and harmful. The economy should be gradually prepared for a regime of high price of oil and oil products.

WERE DISTRICT CHOICES FOR NFFWP APPROPRIATE?

Santanu Gupta

The National Food for Work Programme (NFFWP), launched in 2004, identified 150 backward districts, where employment guarantee scheme was to get started. The 150 districts were identified by the Planning Commission on the basis of three criteria, Scheduled Castes/ Scheduled Tribes (SC/ST) population, agricultural productivity per worker, and agricultural wage rate in the district. We find that the final choice for the NFFWP was not consistent with the methodology mentioned, nor can it be defended by using other measures of backwardness. We investigate whether political factors have determined the choice of these districts.

Preceding the actual implementation of the Employment Guarantee Act, the government has already launched a National Food for Work Programme (NFFWP) in 150 most backward districts of the country in 2004. The main document of the NFFWP[1] states that the districts have been identified by the Planning Commission (PC) on the basis of prevalence of poverty indicated by SC/ST population, agricultural productivity per worker, and agricultural wage rate.[2] The *Annual Report of the Ministry of Rural Development for 2004-05* gives more details on the criteria of selection of these 150 most backward districts.[3] For states (other than special category states and states of the North Eastern Region except Assam), the most backward districts were chosen on the basis of the three parameters mentioned in the NFFWP document. The same criterion was followed for Assam. For special category states and states in the North Eastern Region, except Assam, districts were identified from the list selected under the *Rashtriya Sam Vikas Yojana* (RSVY) [2004]. At least one district was selected from each state, other than Goa. While selecting these districts suggestions received from the State Governments were also considered.

Whatever the methodology used, we expect that it was done in right earnest, with the best of intentions. However, evidence seems to prove otherwise. In a document of the Planning Commission titled, *Report of the Task Force: Identification of Districts for Wage and Self Employment Programmes* (TF), published in May 2003, 447 districts, from 482 districts from 17 states, for which the relevant data was available, but excluding districts with urban agglomerates of over one million population, as per the 2001 Census, and also excluding all the state capitals, were ranked on the basis of percentage of total SC/ST population in the district (1991 Census), Agricultural Wages (Rs/day) 1996-97, and Output per Agricultural Worker (1990-93), the very same variables mentioned in the NFFWP. An index was computed for each variable. For agricultural productivity per worker and agricultural wages, the index was computed as thus: (Actual Value - Minimum Value)/ (Maximum Value - Minimum Value). The lower the index value, the more backward would be the district. In case of SC/ST population, it is presumed, *a priori*, that districts with a higher proportion of SC/ST population would be more backward. To ensure that the index values in the three values moved in the same direction, the index for SC/ ST population was calculated as thus: (Maximum Value - Actual Value)/(Maximum Value - Minimum Value). The districts with a higher percentage of SC/ST population would have a lower index value. The three indexes were *added* to work out a composite

Santanu Gupta is Associate Professor, XLRI, School of Business and Human Resources, C.H. Area (East), Jamshedpur 831001. E-mail <santanu@xlri.ac.in> or <topigupta@yahoo.com>

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index and rank the districts. The Task Force was of the view that one third of the 447 districts should be considered for wage employment. As such, the first 150 districts from 447 districts were identified for taking up intensive wage employment programmes. The only reason for differences in the NFFWP list and that of the TF may be due to the effort in the former to include the 11 states, left out from the latter, namely, Jammu and Kashmir, Himachal Pradesh, Uttaranchal, Arunachal Pradesh, Goa, Sikkim, Tripura, Meghalaya, Mizoram, Manipur and Nagaland, on which data on these variables were not available. It is apparent from the final lists of states, included in both the documents, that Goa was left out from both the lists. However, differences between the two lists go beyond this. Table 1 gives the profile of the distribution of districts by states in the TF list and that in the NFFWP. It is clear from the table that Bihar and Uttar Pradesh were the largest gainers in the NFFWP list relative to TF, while the largest losers were Orissa, Madhya Pradesh, Jharkhand and Chattisgarh.

Table 1. Distribution of Backward Districts Identified by TF and NFFWP

(by states)

State	No. of Districts by TF	No. of Districts by NFFWP	Difference: (Column 3 - Column 2)
(1)	(2)	(3)	(4)
Bihar	6	15	9
Uttar Pradesh	7	15	8
Andhra Pradesh	6	8	2
Jammu & Kashmir	0	2	2
Tamil Nadu	2	4	2
Uttaranchal	0	2	2
Arunachal Pradesh	0	1	1
Haryana	0	1	1
Himachal Pradesh	0	1	1
Kerala	0	1	1
Manipur	0	1	1
Meghalaya	0	1	1
Mizoram	0	1	1
Nagaland	0	1	1
Punjab	0	1	1
Sikkim	0	1	1
Tripura	0	1	1
Karnataka	4	3	-1
West Bengal	7	6	-1
Assam	7	5	-2
Gujarat	8	6	-2
Rajasthan	7	5	-2
Maharashtra	15	11	-4
Chattisgarh	15	10	-5
Jharkhand	19	14	-5
Madhya Pradesh	20	15	-5
Orissa	27	18	-9
TOTAL	150	150	

Even when choosing districts amongst states, there have been glaring instances of districts less backward, as computed by the Planning Commission's own index, being selected as the most backward. Table 2 gives information on backward districts within states excluded while non- backward districts included in the NFFWP. The most glaring example is in Gujarat, where the very backward districts of Valsad, Bharuch and Navasari were excluded in favour of Banaskantha. In West Bengal, East/South Dinajpur and Birbhum were excluded in favour of Midnapur West and Murshidabad. In Andhra Pradesh, Chittur was excluded in favour of Cuddapah, Nalgonda and Anantapur.

Table 2. Backward Districts Excluded and Non-Backward Districts Included in NFFWP (Backwardness by TF Index)

State	District in TF but not in NFFWP	Backward ness Rank* of District in TF, not in NFFWP	District in NFFWP, not in TF	Backward ness Rank* of District in NFFWP, not in TF
(1)	(2)	(3)	(4)	(5)
Andhra Pradesh			Cuddapah	287
			Nalgonda	170
	Chittur	145	Anantapur	198
Gujarat	Valsad	36		
	Bharuch	37		
	Navasari	54	Banaskantha	317
West Bengal	East / South Dinajpur	98	Maldah	283
	Birbhum	108	Midnapur West	199
			Murshidabad	339

* Note: In case of rank, a higher number indicates less backwardness.

Table 3 and Table 4 give information on the choice of candidates made by these districts, especially where misallocation seems to have occurred within the same state, as mentioned in Table 2. It is clear that of the seven Non-Backward districts included in the NFFWP, five had Congress Members of Parliament, which form the ruling coalition, and two were from the Communist Party of India (CPI), the party supporting the government from outside. For the six backward districts excluded in the NFFWP (see Table 4), 2 are from the Bharatiya Janata Party (BJP), one from the Telgu Desam Party (TDP), which form part of the opposition. Of the rest three, two are from the Communist Party (Marxist) (CPM) and Revolutionary Socialist Party (RSP), which are supporting the government from outside. The only district, which had elected the ruling party and deserved to be included yet left out, is Valsad in Gujarat, which falls in the Bulsar constituency. It should be noted that Bulsar is also a declared ST constituency, where only ST candidates can contest. Therefore there is strong evidence that whenever there have been mis-targeting within states, it can be argued that the non-deserving yet included were incorporated, due to political connections, but the same cannot be said for districts deserving yet left out.

Table 3. Electoral Choice of Seven Non-Backward Districts in NFFWP (Backwardness by TF Index)

No.	State	District in NFFWP not in TF	Lok Sabha Constituency	Candidate	Party*
(1)	(2)	(3)	(4)	(5)	(6)
1.	Andhra Pradesh	Cuddapah	Cuddapah	Y. S. Vivekananda Reddy	INC
2.	Andhra Pradesh	Nalgonda	Nalgonda	Suravaram Sudhakar Reddy	CPI
3.	Andhra Pradesh	Anantapur	Anantapur	Anantha Venkata Rami Reddy	INC
4.	Gujarat	Banaskantha	Banaskantha	Chavda Harisinhaji Pratapsinhaji	INC
5.	West Bengal	Maldah	Malda	A. B. A Ghani Khan Choudhury	INC
6.	West Bengal	Midnapur West	Midnapore	Prabodh Panda	CPI
7.	West Bengal	Murshidabad	Murshidabad	Abdul Mannan Hossain	INC

Table 4. Electoral Choice of Six Backward Districts Excluded in NFFWP (Backwardness by TF Index)

No.	State	District in TF not in NFFWP	Lok Sabha Constituency	Candidate Won	Party
(1)	(2)	(3)	(4)	(5)	(6)
1	Andhra Pradesh	Chittur	Chittoor	D. K. Audikesavulu	TDP
2	Gujarat	Valsad *	Bulsar	Kishanbhai Vestabhai Patel	INC
3	Gujarat	Bharuch	Broach	Vasava Mansukhabhai Bhanjibhai	BJP
4	Gujarat	Navasari	Surat	Kashiram Rana	BJP
5	West Bengal	East / South Dinajpur	Balurghat	Ranen Barman	RSP
6	West Bengal	Birbhum	Birbhum	Ram Chandra Dome	CPM

* Note: We are unable to map Valsad district to the appropriate Lok Sabha constituency.

It might be that the Planning Commission had other aspects of backwardness in mind, though not explicitly stated, while selecting the districts. It is interesting to see how these selected districts fare in backwardness by some other criteria. A study on districts by Debroy and Bhandari (DB) [2003] identified backward districts of the country on the basis of six criteria, namely, poverty by the head count ratio (HCR), food sufficiency (FS), infant mortality rate, percentage of children fully immunized, literacy rate, and enrolment ratio.[4] If a district happened to be in the bottom 25 per cent in four or more of these criteria, the district was classified as backward.

Table 5. Profile of Deprived Districts in NFFWP

(1)	Total (2)	HCR and FS (3)	HCR or FS (4)	Neither HCR nor FS (5)
NFFWP	150	36	90	60
All India	596	67	232	364
% of similar districts covered by NFFWP	25.16	53.73	38.79	16.48

Notes: HCR indicates districts that are backward by poverty by the head count ratio in DB [2003].
FS indicates districts that are backward by the food sufficiency criterion of DB [2003].

Table 5 gives the profile of districts in NFFWP and the profile of districts in the country, as a whole. If a district happens to be backward by both, HCR and FS criteria, it must be having acute food security problem. There are 67 such districts all over India, and 36 of them or 53.73 per cent figure in the NFFWP list, whereas ideally all these 67 districts should have been covered.[5] If we relax the criterion slightly and consider districts that are backward by either the HCR or the FS, one finds that there are 231 districts with some level of food security problem, of which 90 (or 38.79 per cent) are covered by the NFFWP, when the potential coverage could have been as high as 64.65 per cent (150/232*100).

Table 6 gives a profile of the 60 districts, which meet neither HCR nor FS criterion, and are included in the NFFWP. Of these, 31 districts appear in the TF list and may have been included in the NFFWP because they need wage employment through public works programme; for, providing such employment is stated to be a major objective of the NFFWP. Focussing on the remaining districts, if we remove from these the districts from the 11 states, left out from the TF study, namely, Jammu and Kashmir, Himachal Pradesh, Uttaranchal, Arunachal Pradesh, Goa, Sikkim, Tripura, Meghalaya, Mizoram, Manipur and Nagaland, what remains can be considered as examples of miss-targeting, and there are 20 such districts.

Table 6. Profile of 60 Non-Backward Districts in NFFWP (Backwardness by DB Criterion)

No. of Districts in NFFWP not backward either by HCR or FS criterion		
In TF	Districts from states left out in TF	Remaining Districts
31	9	20

Table 7. Profile of Candidates Elected by 20 Non-Backward Districts in NFFWP (Backwardness by Both, DB and TF Criteria)

	In NFFWP not Backward by HCR nor FS, and not in TF			2004 Parliamentary Election	
No. (1)	State (2)	District (3)	Lok Sabha Constituency (4)	Winner (5)	Party (6)
1	Andhra Pradesh	Anantpur	Anantpur	Anantha Venkata Rami Reddy	INC
2	Andhra Pradesh	Cudappah	Cuddapah	Y. S. Vivekananda Reddy	INC
3	Andhra Pradesh	Nalgonda	Nalgonda	Suravaram Sudhakar Reddy	CPI
4	Bihar	Katihar	Katihar	Nikhil Kumar Choudhary	BJP
5	Bihar	Madhubani	Madhubani	Shakeel Ahmad	INC
6	Gujarat	Banaskantha	Banaskantha	Chavda Harisinhaji Pratapsinhaji	INC
7	Haryana	Mohindergarh	Mahendragarh	Inderjit Singh	INC
8	Kerala	Waynad	Calicut	M. P. Veerendra Kumar	JD(S)
			Cannanore	A. P. Abdullakutty	CPM
9	Madhya Pradesh	Seopur	Vidisha	Shivraj Singh	BJP
			Hoshangabad	Sartaj Singh	BJP
10	Madhya Pradesh	Shivpuri	Guna	Jyotiraditya Madhavrao Scindia	INC
11	Maharashtra	Hingoli	Hingoli	Suryakanta Patil	NCP
12	Punjab	Hoshiarpur	Hoshiarpur	Avinash Rai Khanna	BJP
13	Rajasthan	Karauli	Sawai Madhopur	Namo Narain	INC
14	Tamil Nadu	Nagapattinam	Nagapattinam	Vijayan, A. K. S	DMK
15	Uttar Pradesh	Banda	Banda	Shyama Charan Gupt	SP
16	Uttar Pradesh	Chitrakoot	Banda	Shyama Charan Gupt	SP
17	Uttar Pradesh	Hamirpur	Hamirpur	Rajnarain Alias Rajju Mahraj	SP
18	Uttar Pradesh	Lakhimpur Kheri	Kheri	Ravi Prakash Verma	SP
19	Uttar Pradesh	Mahoba	Hamirpur	Rajnarain Alias Rajju Mahraj	SP
20	Uttar Pradesh	Mirzapur	Mirzapur	Narendra Kumar Kushwaha	BSP

We have information on the choice of the 22 candidates made by these 20 districts in Table 7, and their party affiliations in Table 8. Of these 22 candidates, nine are from the ruling coalition, seven are from the parties giving outside support, and six are from the opposition. Given that 16 of these 22 candidates are from the ruling coalition or their supporters, it is enough evidence to say that the choice of these 20 non-backward districts was political.

Table 8. Party Affiliations of 22 Candidates Elected by 20 Non Backward Districts in NFFWP (Backwardness by Both, DB and TF Criteria)

	Coalition Parties in UPA Govt.	Coalition Parties Supporting Govt. from Outside	Coalition Parties in Opposition
Party Names	INC, DMK, NCP	CPI, CPM, SP	BJP, JD (S), BSP
Number	9	7	6

There are 67 districts in NFFWP that are backward by both the HCR and the FS criterion of DB. Of these 36 are included in NFFWP. Table 9 gives a profile of the remaining 31 districts, which are backward by both the HCR and FS criteria and yet not included in the NFFWP. Of these, 17 are not in the TF list of backward districts, so there may be a justification in their not being included but the remaining 14 districts can be taken as instances of mis-targeting.

Table 9. Profile of 32 Backward Districts not in NFFWP (Backwardness by DB Criterion)

Not in NFFWP but backward by HCR and FS criteria	
Not in TF	In TF
17	14

We have information in Table 10 on the choice of the candidates made by these 14 districts in the TF list and their party affiliations in Table 11. Of the 17 candidates chosen by these 14 districts, eight are from the ruling coalition, eight are from the opposition and one is from a party giving outside support. Therefore, it is difficult to come to a conclusion regarding these districts being deliberately left out for political reasons.

Table 10. Profile of Candidates Elected by 14 Backward Districts Excluded in NFFWP (Backwardness by Both, DB and TF Criteria)

Not in NFFWP but Backward by HCR and FS and in TF			Lok Sabha Constituency	2004 Parliamentary Election	
No. (1)	State (2)	District (3)	(4)	Winner (5)	Party (6)
1	Assam	Bongaigaon	Barpeta	A.F. Golam Osmani	INC
			Kokrajhar	Sansuma Khunggur Bwiswmuthiary	IND
2	Assam	Goalpara	Dhubri	Anwar Hussain	INC
			Guahati	Kirip Chaliha	INC
3	Chhattisgarh	Janjgir-Champa	Janjgir	Karuna Shukla	BJP
4	Chhattisgarh	Korba	Janjgir	Karuna Shukla	BJP
5	Jharkhand	Bokaro	Giridih	Tek Lal Mahto	JMM
6	Jharkhand	Giridih	Giridih	Tek Lal Mahto	JMM
7	Jharkhand	Purbi Singhbhum	Jamshedpur	Sunil Kumar Mahato	JMM
8	Karnataka	Gulbarga	Gulbarga	Iqbal Ahmed Saradgi	INC
9	Madhya Pradesh	Harda	Betul	Khandelwal Vijay Kumar (Munna Bhaia)	BJP
10	Orissa	Anugul	Dhenkanal	Tathagata Satapathy	BJD
11	Orissa	Bargarh	Sambalpur	Prasanna Acharya	BJD
12	Orissa	Bhadrak	Bhadrak	Arjun Charan Sethi	BJD
13	Orissa	Gajapati	Berhampur	Chandra Sekhar Sahu	INC
14	West Bengal	Jalpaiguri	Jalpaiguri	Minati Sen	CPM

Table 11. Party Affiliations of 16 Candidates Elected by 14 Backward Districts Excluded in NFFWP (Backwardness by Both, DB and TF criteria)

	Coalition Parties in UPA Govt.	Coalition Parties Supporting Govt. from Outside	Coalition Parties in Opposition
Party Names	INC, JMM	CPM	BJP, BJD, IND
Number	8	1	7

Note: The independent candidate is being considered as a member of the opposition in this table.

One may wonder as to whether these 14 districts happen to be neglected by both, the ruling coalition and the opposition parties, and if so, why. Or, have they been excluded from the NFFWP because they are covered by some other programme? One such important programme is the *Rashtriya Sam Vikas Yojana (RSVY)* [2004]. It may be noted that of the 14 backward districts not included in the NFFWP, enumerated in Table 10, four, namely, Giridih, Gulbarga, Gajapati and Jalpaiguri, also figure in the *Rashtriya Sam Vikas Yojana's (RSVY)* [2004] list of 100 backward districts. The remaining 10 backward districts that are not included either in the NFFWP or in the *RSVY* [2004] are Bongaigaon, Goalpara, Janjgir-Champa, Korba, Bokaro, Purbi-Singhbhum, Harda, Anugul, Bargarh, and Bhadrak. Of these 10 districts, four districts, namely, Bongaigaon, Goalpara, Korba, and Bokaro, find their way into the Backward Regions Grant Fund (BRGF) list of 250 backward districts started in 2006, while Janjgir-Champa, Purbi-Singbhum, Harda, Anugul, Bargarh and Bhadrak are left out.

While the NFFWP sought to identify 150 most backward districts and to provide substantial resources in the form of cash and food grains 'to generate additional supplementary wage employment and to create productive assets in them, the *RSVY* [2004] identified 100 backward districts and 32 additional districts, 'which are affected by Left Wing Extremism', 'to address the problems of agricultural productivity, unemployment and to fill critical gaps in physical and social infrastructure'[6] and aimed at instituting focused development programmes with the co-operation of District Administration/ Panchayati Raj Institutions in preparing the district plans. 'The identification of backward districts within a State has been made on the basis of an index of backwardness comprising three parameters with equal weights to each: (i) value of output per agricultural worker; (ii) agriculture wage rate; and (iii) percentage of SC/ST population of the districts. The number of districts per State has been worked out on the basis of incidence of poverty'.[7]

Now, the parameters used here are exactly the ones on which the TF study is also based. If the methodology of constructing the index of backwardness (not clearly explained in the *RSVY* [2004] document) was the same as the one used in the TF, the two lists should be more or less similar if not identical. Since the *RSVY* [2004] contains less districts, all districts in the *RSVY* [2004] should appear in the TF, except that districts in states with relatively high incidence of poverty may get included in the *RSVY* [2004] but not in the TF. However, this is not the case. For example, though the *RSVY* [2004] list for Kerala consists of Palakkad and Waynad, the first two districts according to the TF ranking of backwardness should have been Palakkad and Idukki; and, surprisingly, only Waynad, which is much less backward even by the TF ranking of districts in Kerala, finally got selected for inclusion in the NFFWP.

Table 12. Summary of RSVY and NFFWP Districts from 11 states Excluded in TF

No. of Districts in RSVY	No. of Districts in RSVY and in NFFWP	No. of Districts not in RSVY and not in NFFWP
18	10	2

It is also interesting to note that the districts selected in the NFFWP from the 11 states, left out in the TF study, are from the 100 backward districts chosen by the RSVY, as claimed in government documents.[8] The 11 states left out in the TF study are Jammu and Kashmir, Himachal Pradesh, Uttaranchal, Arunachal Pradesh, Goa, Sikkim, Tripura, Meghalaya, Mizoram, Manipur and Nagaland. No district from Goa has been selected in the RSVY, and none appears either in the TF list or the NFFWP. From the other 10 states, 18 backward districts have been identified by the RSVY, of these 10 are included in the NFFWP as reported in Table 12. We have in this case too instances of mis-targeting in the sense of non RSVY districts making their way in the NFFWP, and RSVY districts not making it to the NFFWP, even from the same state. For instance, in Meghalaya, South Garo Hills was selected by the NFFWP, while the district identified by the RSVY was West Garo Hills. In Mizoram Saiha was included in the NFFWP, while the district identified by the RSVY was Lawngtlai.

The Backward Regions Grant Fund started since 2006 identified 250 backward districts to correct regional imbalances in development. The then existing *Rashtriya Sam Vikas Yojana* [2004] has been subsumed in the BRGF programme. Additional funds are being provided to these districts for overall development.[9] The districts were ranked on the basis of 17 parameters, relating to income deprivation, health and educational status, and infrastructural inadequacy.[10] It is to be noted that 125 of the 150 districts identified by the Task Force for wage and self employment schemes find their way into the BRGF. However, all the 150 districts of the NFFWP appear in the list of 250 backward districts of the BRGF. Attempts should, therefore, be made to ensure that whenever a new study of backward districts is conducted, it addresses why its methodology, if different, is different from the earlier one. If the list does not contain districts that were included in the earlier list, it must give adequate justifications to classify the same as non-backward or to drop the same.

The National Food for Work Programme was started with a new government coming into power, which wanted it to be identified with the programme and not to address the need for wage and self-employment programmes, as identified by the Task Force in 2003. The rationale of the selection of backward districts in the NFFWP was, therefore, not transparent even by its own selection process. It can be stated that to some extent political reasons played a part whenever there have been instances of inclusion of non-backward districts, but the same cannot be said for the exclusion of backward districts from the NFFWP. In order to ensure that the limited public resources are made available to the districts most needy, the Planning Commission should spell out clearly the criteria along with the appropriate weights used in the selection process. This may not now be so relevant given that the government is in the process of expanding the NFFWP to all districts in the country, but in situations in public policy, where similar selection has to be done, it must be done in a rational manner that is fair to one and all, and is transparently so.

ABBREVIATIONS

BJD	Biju Janata Dal
BJP	Bharatiya Janata Party
BSP	Bhahujan Samaj Party
CPI	Communist Party of India
CPM	Communist Party of India (Marxist)
DMK	Dravida Munnetra Kazhagam
INC	Indian National Congress
IND	Independent
JD(S)	Janata Dal
JMM	Jharkhand Mukti Morcha
NCP	National Communist Party
RSP	Revolutionary Socialist Party
SP	Samajwadi Party
TDP	Telugu Desam Party

NOTES

1. See http://rural.nic.in/nffwpguidelines.htm for the text of the document National Food for Work Programme (NFFWP).

2. Though the National Food for Work Programme Document mentions no reference about the source of the indicators or the data to arrive at the 150 districts, I believe, the appropriate reference is the *Report of the Task Force: Identification of Districts for Wage and Self Employment*

Programmes, Planning Commission, May 2003, Chapter IV of this document gives the exact methodology.

3. See http://rural.nic.in/annualrep0405/chapter2.pdf

4. The data sources for the six indicators are as follows:

1) 'Poverty by the Head Count Ratio: District level Estimates', by Amaresh Dubey and Laveesh Bhandari, 2003 (National Sample Survey Organisation (NSSO), 55th Round). The poverty line is the one specified by the Planning Commission, Government of India, in 1979 at 1973-74 prices. It is computed to be Rs 49.09 per person per day for the rural population and Rs 56.64 for the urban population.

2) Food Sufficiency: District level Estimates by Amaresh Dubey and Laveesh Bhandari, 2003 (NSSO, 55th Round).

3) Infant Mortality Rate: The infant mortality rates used in the Debroy and Bhandari data set are for 78 regions and from the Registrar General of India, 2001. Regions comprise districts having similar demographic characteristics. While district level estimates are not available, the regional level estimates provide a reasonable idea about the health status in a set of similar districts.

4) Percentage of children fully immunised: National Commission on Population's District wise Indicators, 2000. This data is reproduced in Debroy and Bhandari [2003].

5) Literacy Rate: Census, 2001

6) Enrolment Ratio: Selected Educational Statistics 2000-01

5. It should be mentioned that the names of the districts in Debroy and Bhandari [2003] are by the 2001 Census, whereas those of the NFFWP are by the Census before it. Therefore, both may not be strictly comparable, and some adjustments have to be made in the figures reported. In Jharkhand, Saraikela is part of the new West Singhbhum, Latehar of Palamu, Jamtara of Dumka, and Simdega of Gumla. In Tamil Nadu, South Arcot forms a part of Cuddalore and Villupuram. In Orissa, the district Phulbani is now Baudh and Khandamal. If one were to make for these adjustments, the number of districts covered by the NFFWP, which have both HCR and FS, would increase by 4, to 40.

6. Quote from p. 1 of the *Rashtriya Sam Vikas Yojana* [2004] document.

7. Quote from p. 1 of the *Rashtriya Sam Vikas Yojana* [2004] document.

8. See http://rural.nic.in/annualrep0405/chapter2.pdf

9. See, http://brgf.gov.in/

10. See Chapter 2 of the *Report of the Inter-Ministry Task Group on Redressing Growing Regional Imbalances,* Planning Commission, Government of India, 2005.

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WATERSHED DEVELOPMENT PROGRAMMES IN INDIA AND INSTITUTIONAL IMPERATIVES

B.S. Kalra and Anil Kumar Mishra

India is endowed with annual average rainfall of nearly 1,200 mm but a very small proportion of it is managed effectively. The various estimates on potential for rainwater harvesting suggest vast opportunities for mitigating the shortages. However, the socio-administrative measures in vogue do not encourage participation by the beneficiaries. There are several success stories in rainwater harvesting, but these initiatives are rarely institutionalised at national level. There is need to incorporate the characteristics of such organisations into the already existing decentralised institutions, by restructuring them. A local broad based organisation, having more legal and administrative powers and explicit focus on procedures and functioning, can go a long way to effectively implementing the watershed development programmes.

I. INTRODUCTION

In view of the Indian agricultural sector's slow growth rate during the past few years, there is all round concern for raising production and productivity immediately. The continuous slow growth rate of slightly more than two per cent in the preceding ten years is a pointer to some fundamental malaise afflicting this sector, which is defying solutions from the on-going policies and measures [Government of India, 2007a]. Technological fatigue in irrigated areas, low capital formation, and inability to harvest rainwater and make rain fed areas equal partners in the growth process are some of the basic factors responsible for the current state of affairs. However, providing irrigation facilities is fundamental to potential breakthrough. The areas amenable to easy centralised control and distribution under dams and canal networks, and deep tube well technologies have almost exhausted the scope for further expansion of irrigated area in the current circumstances. Out of the net sown area of 1, 41,101 thousand hectares, 54,682 thousand hectares (38.75 per cent) is the net irrigated area. Three states, namely, Haryana, Punjab and Uttar Pradesh, which constitute the granary of the country, together have 25,402 thousand hectare net sown area and 19,374 thousand hectare net irrigated area. Separately, these states have 83.90 per cent, 84.47 per cent, and 72.76 per cent of the net sown area under assured irrigation, respectively. In the rest of the country, out of the 1,15,699 thousand hectare of the net sown area, only 35,308 thousand hectare, which constitute only 30.51 per cent of the net sown area, is under irrigation [Government of India, 2007b]. Thus, the vast rain fed areas, not necessarily water deficient, need to develop irrigation facilities based on rain water harvesting and surface and sub-surface water conservation measures.

The South West monsoon brings most of the rainfall in the country but has highly variable, irregular and undependable rainfall pattern, in terms of distribution and amounts. It has been estimated that the mean annual average rainfall in the country, over space and time, is 1,170 mm. It generates a run-off equivalent to 400 million hectare meters (m ha-m) of water. Out of this, nearly 180 m ha-m surface run-off is available for harnessing, but most of it (150 m ha-m) flows into the sea and a small quantity (30 m ha-m) is stored or used directly through diversions and other measures [Raju, et al, 2004]. As regards the distribution of the rainfall in the country, only a small proportion of total geographical area (mostly in west Rajasthan) gets annual average rainfall of less than 500 mm. In such situations, it is generally recognised that water conservation efforts offer vast scope for enhancing the water availability and mitigating shortages. The Central Ground Water Board, on the basis of availability of monsoon run-off and storage potential of

B.S. Kalra is Senior Scientist (Ag. Econ), Water Technology Centre, Indian Agricultural Research Institute, New Delhi - 110 012. E-mail: <bskalra@iari.res.in>

Anil Kumar Mishra is Senior Scientist (Soil and Water Conservation Engineering), Water Technology Centre, Indian Agricultural Research Institute, New Delhi - 110 012.

vadose zone (unsaturated zone between the land surface and the zone of saturation), estimates 21.42 m ha-m additional ground water storage, of which 16.05 m ha-m can be utilised [Central Ground Water Board, 2004]. Thus, depending upon the rainfall patterns and the land features, a good combination of rainwater harvesting and ground water recharge measures offer ample opportunities for attaining self-sufficiency in water resources in most of the regions in the country.

The growing scarcity of water, amidst plenty, points to inadequate efforts to conserve and store water, when it is freely available. The same is also evident from the inability of agriculture to cope with the impact of fluctuations in the rainfall. The serious manifestation of this phenomenon is over exploitation of ground water resources. It is evident from the fact that over exploited and dark blocks[1] in the country have increased from 253 in 1985 to 1,098 in 2004, besides recording a steep decline in ground water levels in 300 districts over the years [Government of India, 2007b]. One estimate puts a quarter of India's harvest at risk from ground water depletion [Seckler, 1999]. The World Water Council observed, 'The crisis, however, is not about having too little water to satisfy our needs. Rather it is poor management of available water resources that has created an artificial gap between demand and supply of water' [Cosgrove and Rijsberman, 2000]. Further, observations of Hayami and Ruttan [1985] justifiably sum up the state of affairs in under developed economies. They state: 'We indicated that (the) basic factor(s) underlying the performance was neither the meagre endowment of natural resources nor the lack of technological potential to increase output from available resources at a sufficiently rapid pace to meet the growth of demand. The major constraint limiting agricultural development was identified as the policies that impeded rather than induced appropriate technical and institutional innovations. As a result, the gap widened between the potential and the actual productive capacities of LDC (Less Developed Countries) agriculture'.

India has a history of programmes for conservation of soil and water resources by adopting *in situ* moisture conservation and increased irrigation through tank and aquifer based water harvesting. After some initial soil and water conservation programmes, many of them implemented by research institutions and pilot projects by various agencies, the country embarked upon massive area development plans following watershed approach after 1994. The programmes, such as, National Watershed Development Project for Rain-fed Areas (NWDPRA), Watershed Development in Shifting Cultivation Areas (WDSCA), Drought Prone Areas Programme (DPAP), Desert Development Programme (DDP), Integrated Watershed Development Project (IWDP) and Employment Assurance Scheme (EAS), are in operation. They were recommended for implementation on the basis of watershed approach. These six programmes account for about 70 per cent of funds under watershed programmes in the country [Government of India, 2000a]. A working group of the Planning Commission proposes in its report to develop estimated degraded and rain fed areas of 88.5 m ha in a period of 20 years at a cost of Rs 72,750 crore, with people's participation through various watershed development projects of three Central Ministries (Agriculture, Rural Development, and Environment & Forests) as well as several externally aided projects [Planning Commission, 2001]. The Central Ground Water Board based on experience gained through implementation of pilot schemes, has a Master Plan for artificial recharge to groundwater -- to recharge 36,155 million cubic meter of surface run-off in about 4,48,760 sq km of water deficit areas in the country. The Plan envisaged construction of 225 thousand recharge structures in rural areas at an estimated cost of Rs. 19,880 crore over a period of ten years, in collaboration with local communities/*Panchayats* and non-governmental organisations (NGOs).

II. PEOPLE'S PARTICIPATION IN GOVERNMENT PROGRAMMES

The National Water Policy, while emphasising the development and management of water resources on a hydrological unit basis, advocate that 'management of water resources for diverse uses should incorporate a participatory approach by involving not only the various governmental agencies but also the users and other stake-holders, in an effective and decisive manner, in various aspects of planning, design, development and management of the water resources schemes. Necessary legal and institutional changes should be made at various levels for the purpose, duly ensuring appropriate role for women. Water User's Associations and the local bodies, such as municipalities and *Gram Panchayats* should particularly be involved in the operation, maintenance and management of water infrastructure /facilities at appropriate levels progressively, with a view to eventually transferring the management of such facilities to the user groups/local bodies' [Government of India, 2002]. Thus, in line with this, and the general liberalisation and decentralisation process initiated in 1991 in the country and based on recommendations of various high-powered committees, Government of India formulated the *Guidelines for Watershed Development* [Government of India, 1995]. These Guidelines were put in operation with effect from (w.e.f.) April 1995. In a continuous process of evaluation and change, these guidelines were subjected to modifications, in order to bring about convergence among various departments and make these guidelines functionally more useful and efficient. Thus, the Common Approach for Watershed Development [Government of India, 2000a], the Guidelines for Watershed Development (Revised - 2001) [Government of India, 2001], and the *WARSA Jan Sahabhagita:* Guidelines [Government of India, 2000b] have been brought out. The latest version of these guidelines - *HARIYALI* guidelines [GOI, 2003]- has sought the partnership through constitutionally recognised Panchayati Raj Institutions (PRIs). These reports contain suggestions, which could be called revolutionary, with far reaching consequences. There are major departures from previous approaches, which promise to lay the foundation for a paradigm shift in institutional arrangements to manage water and other natural resources.

These reports recommended participatory approach at grass root level. Local inhabitants are empowered to initiate activities, which they consider most appropriate to meet their requirements and also involve the implementation ability of the beneficiary population at the local level. In this scheme, the planning and the execution work under the projects have been entrusted to the local community. The local community is free to choose appropriate technology, which may be local innovations evolved by the community. The various provisions under the Guidelines provide for a regime, where power is exercised 'by' the people. The Project Implementing Agency (PIA) is another very crucial agency in this process of watershed development. While the main development activities will be carried out by the watershed community itself, the overall facilitation by way of organising watershed committees, providing technological input, coordinating with other agencies, like credit institutions, research organisations and state government departments, etc., will be the responsibility of the PIA. The PIA is also empowered to engage persons with specialisation in required fields of interest, like agronomy, horticulture, agricultural engineering, forestry, animal sciences or other basic sciences, to carry out the task scientifically and efficiently.

But the vast number of mid-term reviews, and impact evaluation and exploratory studies suggest that the programmes implemented by the state departments in partnership with local communities are not a success story. The effectiveness of programmes is low across the states, and the problem of poor delivery is endemic [Pangare,1998; World Bank, 1998; Fan et al, 2000; Shah, 2001a, 2001b; Kerr et al, 1998;

Jodha, 2002; Mitter, 2005; Government of India, 2007]. The models of decentralising management have also some serious flaws and some of them are summarised below:

* Legal status: The user groups have no property rights and statuary authority over the resource, independent of particular department programme or project. They have little autonomy to develop strategy for the development of resources.

* The schemes are left to be planned and executed by district level officers who, in most cases, are also PIAs. Under the hierarchical bureaucratic set up, the capability of these officers to do planning and involve masses at grass root level is extremely limited. Decision-making power rests with those at the apex of the organisation, and project activities simply require delivery of the off-the shelf technological activities. The ability to respond to clients' needs is hardly built up in the procedures, and they are not accountable to local community. Their interest is limited to financial expenditure alone. Once money is spent, physical progress is automatically taken for granted. Structures are abandoned because of lack of post-project maintenance. Many times, the farmers are not convinced about their need at all.

* NGOs are considered to work in close association with local people and take into account the needs of the people and work judiciously. This facilitating role has some success, but the overwhelming evidences are that the benefits are not sustainable in the long term, and livelihood base remains only marginally improved if at all.

A high level committee, headed by Prof. Hanumantha Rao, comprehensively reviewed in 1993 the watershed development programmes and delineated on the following major factors for their unsatisfactory performance [Government of India, 1994].

* Multitude of activities over widely dispersed areas of very small sizes.
* Ad-hoc planning without people's involvement.
* Non-viable work plans in the absence of multi-disciplinary agency at watershed, block and district levels.
* Plans not oriented to local needs and activities not taking cognisance of indigenous technologies.
  No appropriate mechanism for maintenance of created assets.

Panchayati Raj Institutions & Watershed Development Programmes

The Constitution (Seventy-Third Amendment) Act, 1992, created three-tier *Panchayati Raj* Institutions (PRIs) for local self-governance, in which *Gram Panchayat* is the village level body of elected representatives. *Gram Sabha* (the general village assembly), which is an inseparable part of a *Gram Panchayat,* is the forum, where the marginalised poor can influence decisions affecting their lives. Several arguments have been made for PRIs, especially the *Gram Panchayats,* playing a central role in the decentralised watershed management programmes. *Gram Panchayats* have rights over the natural resources within their boundaries, and also have the mandate to plan local development and integrate various activities. The PRIs together, by definition, are able to 'scale-up' activities, as they are vertically integrated into a political structure. *Gram Panchayats* have a constitutional commitment to represent the marginalised sections of the community through reserving a third of the seats for them. It enables these groups to mobilise around their needs and place their demands systematically, for these to be recognised. Given the particular dependence, which women and Scheduled Castes/Scheduled

Tribes often have on natural resources, their involvement in PRIs could be of particular importance for the powerless groups.

Despite the apparent potential, there are many reasons why PRIs may not be the appropriate institutions to ensure local development. There is very urgent need to look into the detailed working of *Gram Panchayats* in these respects, and to explore whether or not they provide adequate framework for decentralised watershed management.

* A *Gram Panchayat* is very often elected on the basis of many social issues in the village. The question of suitable development strategies is not the main issue, over which a *Gram Panchayat* is elected. *Gram Panchayat* members, including Sarpanch (the chairman), have little interest, knowledge or aptitude to understand the development needs and problems of the public and to make suitable plans accordingly. Members, generally illiterate, have little idea of the role they are supposed to play.

* By the Seventy-Third Constitutional amendment, more responsibilities are delegated to the *Gram Panchayats,* and there is increased fund flow. Therefore, elections to Panchayats have also assumed more prestige and powers. The seats are mostly cornered by persons with money and muscle power, and they represent the interests of the rich and influential section. The poor and unprivileged continue to have little voice in the working of *Gram Panchayats.* Seats are reserved for women and the unprivileged category of social groups, but the impact is less due to the prevailing patriarchal system and proxy candidates.

* Once elected, a *Gram Panchayat* tends to become a sovereign, autocratic body. There are no communication channels with *Gram Sabha.* Regular meetings do not take place and level of participation of women and poor households is low. In a study, in the state of Uttar Pradesh, collective decisions regarding public works had been taken only in about 20 per cent of Panchayats [Srivastava, 2002].

* Mechanisms for ensuring transparency within *Gram Panchayats* remain weak. Budgetary transactions are rarely discussed in *Gram Sabhas* or Panchayats and are shrouded in secrecy. No records of the meetings are maintained.

* *Gram Panchayats* lack the technical expertise and the financial capacity to hire technical experts, in order to intervene in watershed management on their own.

* *Gram Panchayats* have become more accountable to the district officials than to the *Gram Sabha.* The programmes are not prepared on the basis of general consensus in the village. The plans prepared by the state department officials are generally endorsed by the *Gram Panchayats,* without formal discussions in the *Gram Sabha.*

* The programme implementation procedures through contractors under supervision of state officials have not changed much. Despite devolution, the block functionaries continue to have an upper hand, and there is hardly any diminution in their powers in the post Seventy-Third Amendment scenario. In the process, the *Gram Panchayats* have come to stay as the lowest rung of bureaucratic delivery system.

* *Gram Panchayats* are not active in education, health, promotion of Self- Help Groups, which require people to come together as equals and work through consensus.

III. SUCCESSFUL WATERSHED DEVELOPMENT PROGRAMMES: SOME FACTS AND INSIGHT INTO THE PROCESS

Water conservation programmes, once part of local tradition and rituals in all the regions, became the responsibility of the State, with the advent of colonial rule and the State taking control of all natural resources. There was not much change in the situation even after the Independence. The Indian Constitution empowers the states to legislate in this regard, and in most cases colonial laws are still in force. The much more recent Bihar Irrigation Act, 1997 also provides that all rights in surface water vest in the Government [Cullet, 2007]. The general alienation of the masses and the scanty implementation machinery of the State led to a situation, in which conservation and management of natural resources was grossly neglected and, in the absence of efforts for regeneration, natural resources stood over-exploited. In this scenario, some isolated local initiatives in various parts of the country successfully implemented water conservation programmes. Therefore, an insight into these processes will be in order, to understand the factors behind their success.

Technology

Local variants for water conservation measures were adopted in each case. These methods do not allow the rain-water to get collected and give rise to a flood-like situation. Rain-water, upon falling on ground, is either stored in the vicinity or given the opportunity to percolate into the ground or a combination of these two methods is used. Based on relief, slopes, soil type, soil depth and geology, etc, the array of structures with different shapes and sizes has been used at various locations.

In Ralegan Siddhi, district Ahmednagar, Maharashtra, the watershed development process led by Anna Hazare, started with construction of Nullah bunds. It proved successful and the water level in the wells improved. Next, a percolation tank, already constructed by the state department, which was not holding water, was renovated by re-laying its foundation and strengthening its walls. These successes were followed by extensive treatment of catchment area. To check run-offs, contour trenches, *gully plugs,* loose boulders, and *gabion* structures were constructed along the hill slopes. More *nullah bunds,* check dams, and cemented *bandharas* were put in place at strategic locations. These measures increased the infiltration of harvested water and recharged the ground water. It resulted in regeneration of 85 wells and 8 bore wells, and they were viable all through the year.

In Khandwa district, in the state of Madhya Pradesh, fast depleting vegetative cover, high soil erosion, impermeable black cotton soil, and continuous basalt formation has led to high run-off conditions. Coupled with over exploitation of ground water and cultivation of water intensive crops, it has resulted in sever depletion of sub-surface water, creating a crisis. In this situation, 50,000 hectares of land in 1,067 villages was treated with water conservation structures. In all, 17,60,439 *kundies* (deep percolation trenches), 2,430 km continuous contour trenches (CCTs) and 4,087 km field bunds were put in place. In addition to these trenches, 7,303 earthen checks, 3,060 *Khandwa* Hydraulic Structures - a modified form of ponds to suite the local topographical and physical conditions, 729 tanks, and 208 dams were constructed. The contour trenches were laid down on all kinds of terrains, like forests, agricultural fields, and barren wastelands with various soil types and depths. The contour intervals, their depths, and other structures were adjusted in the given terrain to absorb and store volume of water generated with 10-15 cm rain-water at any point of time. Thus, the peak rainfall was also absorbed and no run-off was allowed to be generated. The sub-surface retention of water ensured increased soil moisture and enhanced the capacity to survive the dry spells. In subsequent years, wells got recharged with a few rainfall events, and the water availability as well as the cropping intensity was better even in drought years. It indicates that less

rainfall does not necessarily mean shortage of water. It was estimated that 17 per cent of the average rainfall of the district was enough to provide the required amount of water. The post monsoon winter *rabi* crop was sown in almost 70-90 per cent of area. At some places, water was still available to grow summer crops during drought years [Gupta, 2003].

At Alwar, in Rajasthan state, a voluntary agency, *Tarun Bharat Sangh* (TBS) spotted the neglect of tradition that had sustained the area and its populace in the past. They started working on *Johads* to address wide range of social and economic issues [Khalakdina, 1998]. *Johad* is a simple mud and rubble barrier built across the contours of slope to arrest rain-water. Sometimes, a series of them are constructed depending upon the type of slope and terrain. These structures have high embankments on three sides while the fourth is left open for entry of rain-water. The height of the embankment is such that the capacity of *johad* is more than the volume of run-off coming from the catchments. The cover area, i.e., water storage area of *johads* varies from 2 hectares to maximum 100 hectares. Nearly 2,500 such water harvesting structures in 500 villages were created or renovated. Besides, TBS also stressed other water measures, like field bunding on individual farm-land, and protection of forest-land. The cumulative effect of all these measures helped increase ground water table in this region. A survey conducted by TBS, with the help of Action for Food Production (AFPRO) in 1988, suggested that out of 970 wells in 120 villages, only 170 wells were operational, and that the rest did not have any water. The same team in 1994 found all wells (970) in use and providing perennial supply of water. The conversion of seasonal streams to perennial rivers is also attributed to water harvesting measures.

At village Laporia, in semi-arid state of Rajasthan, an indigenous method of *Chauka and Santra* - a system of bunds and trenches on the common pasture land, and re-building of almost lost village ponds helped increased percolation, storing water on ground and arresting top soil erosion [Gandhi Peace Foundation, 1998]. The protection of common land by adopting social measures against tree felling, grazing and encroachments paved the way for natural regeneration. Meticulously planned and organised planting of indigenous trees and shrubs reinforced the water harvesting efforts. The village with its about 500 hectares of land reported tremendous increase in productivity and cropping intensity.

Similarly, in Gaya district, Bihar, Mahesh Kant and Sarita, a social activist duo, led nearly 35,000 people in 40 villages and helped reviving a 45 km long canal with branches into 170 village tanks. This age old traditional system, known as *ahar-paine* or tank-canal system, allowed abundant river water in monsoon to flow into village tanks (ahars). From the tanks, water is carried to the farms for irrigation [Gokhale, 2004].

The Deendayal Research Institute (DRI) in Satna district, Madhya Pradesh, has implemented an extensive and integrated watershed management project in collaboration with the District Rural Development Agency (DRDA), Satna, under Rajiv Gandhi Watershed Mission sponsored by the Government. The watershed area was situated in Vindhya Hills range with an approximate area of 12,536 hectares comprising 17 micro-watershed areas and 18 villages. The annual rainfall in the area varies from 800 mm to 1,100 mm. The soils in the hillocks are rocky, stony and gravely, with steep slopes, undulating topography, and dispersed/impoverished vegetal cover. Water flows freely on the surface due to poor percolation and compact nature of soil. The physical measures taken included staggered contour trenches, contour/field bunding, cattle proof trenching, loose boulder check dams, percolation tanks, and farm ponds. A key to the watershed management strategy was the use of locally available material for construction of the

required structures. Steel or cement was used sparingly and mainly for spillways, etc. [DRI, 2002].

Vijay Kedia - an engineer turned farmer - invented low cost, individual and independent method of rain water harvesting, which he called Kedia-Farm Pattern (KFP) *bandhara* (storage) and advocated it as a solution to no rain, low rain and heavy rain situations. KFP *bandhara* is 60 cm wide, nearly three meters deep, and 30-40 meters long trench just prior to the boundary of a field. A PVC sheet is placed vertically on the walls of the bandhara opposite to the flow of water and two feet horizontally on the bottom. The *bandhara* is refilled with porous excavated soil. During monsoon season, in normal course, rain-water does not percolate two feet below ground and the farmers cut the field boundary to drain collected water out to the neighbouring field. In KFP bandhara water travels along the PVC sheet vertically downward upto the bottom of the trench where the PVC is laid at the bottom also. The water starts flowing backward and percolates into the soil through this artificial recharging path. Percolation accelerates due to pressure head created by trench depth. Within 2-3 weeks, the reservoir water percolates into the ground completely and *bandhara* is again ready to receive another spell of rainwater. In one monsoon season, KFP *bandhara* can recharge water 4-5 times of its holding capacity. With this method it is possible to capture almost the full amount of rainfall, which charges the nearby aquifers and the wells [Kedia, 2004].

The use of check dams in water conservation and storage is amply demonstrated at Jhamka village in Junagarh district in Saurashtra region of Gujarat. This region, consisting of northern arid region (less than 400 mm precipitation) and the south-western semi-arid region (precipitation ranging from 500 mm to 1,000 mm), is subject to drought hazards with an average frequency of once in every three years. The intensive agriculture in the last many years has put pressure on groundwater resources. The water level has gone down 120 meters to 210 meters at many places. In this situation, check dams and percolation ponds caught the fancy of the populace, to combat droughts and water shortages. Mansukhbhai Suvagia - an employee in the state soil conservation department with training in water management- thought of having a cluster of check dams at one place, in order to have maximum impact, in contrast to having check dams here and there with marginal impact. He also addressed the problem of high costs of construction, by putting in place reinforced cement concrete (RCC) dams, selecting sites with maximum natural advantages, and voluntary labour of the participating villagers. The impact of this strategy was brought out very ostensibly at village Jhamka. In a span of five months, i.e., from July 1999 to November 1999, 51 check dams and two ponds were put in place, some of them big enough to store more than 1,00,000 cubic meters of water. The water level, which had gone down to more than 200 meters in last 15 years because of proliferation of electric tube wells, came up to less than five meters. The main targets were recharge of soil, and raising groundwater level. They were carried out as one time activity with not much post-project maintenance and distribution management. The high quality of construction, due to people's direct participation, also ensured little post project maintenance.

Under the Indo-German watershed development programme (IGWDP), soil and water conservation is carried out through construction of physical structures, promoting plantations and forestry, and encouraging right farming practices. The Project, while recognising the importance of indigenous knowledge and practices, found it necessary to augment them by modern techniques and management practices. The activities like hydrological and sediment monitoring, thematic maps for improved planning, participatory rural appraisal (PRA) techniques, and training of field level staff in operation and maintenance of hydrological

equipment and soil and water conservation techniques were the important components of the programme.

Organisation and People's Participation

The most successful programmes have their genesis in the philanthropic initiatives of some persons having at heart native interest in the region. The public service with selfless motives, understanding of local social and agro-economic problems, and an appeal to the local community to ameliorate their own lot are the main characteristics of the process. The local community, after developing strong faith in the leadership, organise themselves in the form of village level management committees, which undertake measures for soil and water conservations.

Anna Hazare, the chief architect of the transformation at Ralegan Siddhi, after his voluntary retirement from Indian army, decided to dedicate himself to work for welfare of the society. He demonstrated his unselfish motives, and the village began to rally behind him. A sense of solidarity developed and the villagers started assembling under his leadership, to discuss their problems related to the welfare of the village. They together decided to wipe out alcoholism and forced the closure of illicit liquor brewing units in the village. Jointly, the village lads were helped to get jobs in government-run employment schemes. To improve the water availability for agricultural activities, the water harvesting activities were initiated, and ultimately the village society was able to harness this resource without financial help from outside agencies.

At Laporia, the process started with the initiative of a local youth - Lakshman Singh - with the formation of a strong *Gram Sabha.* In addition to soil water conservation measures, enforcement of a strict code of conduct and regulation against illegal felling and cutting of trees and killing of wildlife on the pasture lands were introduced. Fortnightly and monthly meetings were held to plan, execute and monitor the work.

Mahesh Kant and Sarita, at Gaya, led the powerless downtrodden people with the central theme that people should act for themselves, and that the work of someone acting on their behalf was not sustainable. However, in the absence of strong law and order enforcement in the state, the flag bearers paid the price by laying down their lives, when the feudal lords in the area had felt threatened by the empowerment of the poor, and killed the duo.

At Jhamka, the sheer magnitude of the problem faced by the rural folks, and the workable solution in sight under a noble leadership helped them to organise themselves at local village level, to ameliorate water shortage and improve their agriculture and income. The leadership induced instant formation of village committees, once the site and other technical details were finalised. The watershed development programme undertaken by the Deendayal Research Institute (DRI) is an example of successful implementation of government schemes with stipulated guidelines through an NGO. The DRI, equipped with highly skilled scientific manpower and monetary resources, adopted an integrated approach of resource conservation, development and management. The Institute apprised the resource poor villagers of their problems through participatory rural appraisal methods, and educated them in the methods of watershed management, to alleviate these problems. People's participation was actively sought in the preparation of the action plan, fixing the priorities for work, and the execution of the projects within the programme. The persistent efforts could generate a surge of voluntary participation, which became a part and parcel of the implementing process. However, the leadership role rests with the DRI. The DRI, having permanent local establishment, adopted the project and continued to play this role.

The IGWDP promotes cooperation between state government departments (SGDs) and NGOs, in order to combine and utilise the respective strengths of the partner organisations towards the common objective of watershed management. The activities, planned by SGDs and NGO with their mutual consultation, are sponsored and supervised by the IGWDP. But the goal of all these organisations is to organise local watershed committees and local institutions having representation of all the socio-economic groups. The objective is to strengthen the watershed committee by all the partners in such a way that the committee is capable to handle all watershed management activities on its own after termination of the project. Under Indo-German Watershed Development Programme (IGWDP), investment in physical capital begins only after ascertaining that people will work together to maintain investments on both, private and community, lands. One important early project activity under the IGWDP was to plant trees and grasses in the catchment areas and to protect I them. Only after people demonstrated such social discipline, does the project invest larger amounts of funds in new watershed structures. Help of smaller local NGOs was sought to organise various village level committees, with an aim to transfer all post-project responsibilities to the successful NGO and the village community. In the programme, there was a strong emphasis on developing the village social capital. Vijay Kedia, however, demonstrates that water-harvesting measures can be undertaken without the community joining hands, and that there exists a low cost technology, which can be implemented individually. Widespread dissemination of the technology is vital and some organised efforts to demonstrate the technology is the basic requirement.

In all these experiments, an important aspect of the people's activity has been the process and the manner, in which the activity was implemented. The watershed management activities started as a collective effort, in response to the common constraints. Implementation processes were based on the local socio-economic conditions, sound delivery mechanism owned by the local community, and commitment from the project implementing agencies, which happened to be the local committees working under the guidance of a local leader. These projects created forums for collective decision-making, and for ensuring representation of all the stake-holders. These forums enjoyed autonomy, had resources of their own or were entrusted with public money, and worked to address their immediate constraints. The additional monetary resources were generated, once a sound project implementation system was put in place. Empowerment of the poor, through building their capabilities, and providing access to sustainable livelihood and opportunities for off-farm work was part and parcel of the processes adopted. It demonstrated that improved watershed management was not so much a matter of monetary allocations, as of processes and governance.

Scaling Up

All these major successes were emulated in the states of their origin at the state level in the country. The Government of Maharashtra launched *Adarsh Gaon Yojna* (Ideal Village Scheme) to replicate the Ralegan Siddhi model in 300 villages by combining technical staff of the government departments with social NGOs. People in each village selected a local NGO to help them in social organisation, implementation, maintenance of records and accounts, and monitoring of the project activities. The local NGO was also instrumental in coordinating with the appropriate government department, to access funding and the technical guidance. The soil and water conservation department of the state government was entrusted with implementation of technical work. [There are at present Water Conservation, Water Resources, and Rural Development Departments of the Government of Maharashtra].

At Jhamka, the ingredients of the success story helped in spreading the movement in voluntary mode to the other parts of the state. Local village societies in other regions, under the leadership of Mansukhbhai, undertook the same feat in more villages. The local public contributed both money and voluntary labour. Nearly 500 more check dams were constructed. Many industrialists and charitable institutions in the area joined the movement. They raised money for this cause and developed some remarkable water conservation sites. At village Khopala in Bhavnagar district, 210 check dams were constructed. In November 1999, the Gujarat government announced the Sardar Patel Participatory Water Conservation Programme on Jhamka pattern, which was officially launched in January 2000. Under this programme, the beneficiaries raise 40 per cent the cost of check-dams and the balance 60 per cent is contributed by the government. Till August 2004, 41,758 check dams have been constructed in Gujarat, benefiting nearly 4,18,000 hectares. These check dams have an average height of 1.5 to 2 meters with water storage capacity of 1,50,000 cubic meters to 3,50,000 cubic meters. Further, the government has the agenda of constructing another 1,50,000 check dams in the next five years. This movement has made the state famous for its check dams.

At Laporia, the village assemblies, *padyatras* (i.e., group of persons going around in the village on foot), folk songs and bhajans (holy hymns), and religious rituals of worshipping land and trees, rejuvenated and strengthened the local awareness of environmental protection. It very strongly spread the message in 80 more neighbouring villages and they were galvanised to undertake similar activities. At Khandwa, a government servant, the Chief Executive Officer (CEO) of the Khandwa *Zilla Parishad,* demonstrated the technology, and the idea caught up very fast, due to its efficacy and profitability. The public, at large, created their own water harvesting structures to help re-charging their wells. Similarly, Mahesh and Sarita provided the leadership and opportunity to the masses to come together to manage their systems.

The IGWDP is an example of collaboration between the government and non-governmental organisations that seek to scale up the success of small NGO programmes [Farrington and Lobo 1997; WOTR, 2000; NABARD, 1995]. Its guiding philosophy was the need for collaboration among village level organisations, NGOs, skilled in social organisation, and government organisations, having monetary and technical resources. The IGWDP also developed elaborate procedures to cut through bureaucratic, time consuming and inefficient procedures, to ensure that funds move quickly. As of July 2000, the IGWDP has developed 123 villages covering about 1,30,000 ha, with the help of 74 grass root level NGOs [WOTR, 2000].

IV. MAKING INTEGRATED WATERSHED DEVELOPMENT A NATIONAL PROGRAMME

Need for Effective Grass Root Level Institution for Watershed Management

In the existing statutory framework, inherited from the colonial era, and further strengthened after the Independence with new enactments, the state is the owner of most of the natural resources, including water.[2] The various state departments manage these resources on behalf of the State.

However, existing arrangements are proving inadequate, and it has led to a trade off between ever increasing demand for these resources and sustainability and ecological considerations. Moreover, there are international initiatives, to reform water governance law and policy in the developing countries, in recognition of the impending water crisis and the need to improve access to fresh water by the masses. Both, domestic and international factors are favouring decentralised management, and the state is called upon to change its role from that of service provider to a regulator. The overriding thrust is to transfer part of the existing government

prerogatives to the users. The natural consequence of this change in the policy thrust is the need of new governing bodies at local levels to take over these responsibilities. However, in the absence of such grassroot level institutions, the existing institutional framework of government departments, *Gram Panchayats* and NGOs, is roped in, and efforts are on to transform them for this new role. The new emphasis on partnership programmes of state departments with local communities is, thus, the transition phase. The existing ground level institutions, not set up and equipped for this role, are involved in a relatively un-coordinated and ad-hoc manner. The state, on its part, is also reluctant to transfer access or ownership rights to local communities through these institutions and still maintains almost full control over the resources and the management processes.

As stated earlier, most of the successful programmes in different regions were taken up by the respective state government departments for implementation in partnership mode on a larger scale. However, these programmes ended up with hegemony of government departments, and could not replicate the success stories in collaborative mode. For many performance indicators, the government projects did not perform any better than non-project villages. The government programmes bring in monetary resources and the legitimacy to the projects but lack the dynamics of interaction with the local population with different expectations and behavioural norms. The government officials have not learnt to take up the position of a local leader, whom people trusted and volunteered to work in unison. The NGOs possess skills necessary for community involvement and their target-oriented existence contributes to the success of the programme. However, there is a very small number of such organisations and, given their voluntary nature, development of such institutions is also not common.

Need for Socio-economic Base for the Poor in Rain Areas

In India, the rain fed areas are home to most of the poor and deprived population, and the majority of them are dependent on agriculture. Fragmented small agricultural holdings, lack of resources and infrastructural services, and illiteracy are the hallmark of these regions. These regions, with small contribution to the national exchequer and low consumption level, witness low level of economic activity. The failure of the earlier approaches to rural development programmes to transfer resources in favour of the rural poor (top-down approach), and the recent efforts of the decentralised watershed management by actively involving local communities in project formulations and implementation process (bottom-up approach), can be traced to weak socio-economic institutional bases or a complete absence of these in rural areas. Thus, the lack of institutional facilities for technology transfer and development, soil and water conservation measurers, organised markets, banking, extension activities, and other institutional support services is both, the cause and consequence, of non-integration of local population with the rest of the market economy. The inability to address stagnating growth in agriculture amidst liberalisation and high growth rate of the rest of the economy is a pointer to this low level of integration. The farming communities in these areas need to be organised around some local grass-root level institution for their empowerment and generation of organised pressure for investment in and effective implementation of programmes meant for them.

In literature, people's participation is conceived, in principle, as an umbrella term that covers participation from policy planning and project design to management of water and other farm based rural activities. But, the changes effected so far in project implementation focus on participation of the ordinary rural folk at the tail end of the process. The broader participation is

possible, if there exists a framework of administrative management, capable of generating appropriate environment of general participation and assuming responsibilities enshrined in such thinking. The available body of literature provides woefully small hints on such initiatives, and suggests fragmented approach, mostly tinkering with existing institutions at the margin. Such changes are unlikely to impact situation and produce results at a faster pace.

Framework for Grass Root Level Institutions

Based on the empirical assessment of watershed management programmes in the country, a novel institutional framework incorporating the general trend of decentralisation and people's participation is proposed in this study for effective implementation of such programmes. The framework is the possible frame of reference, within which relevant issues for implementing watershed and agricultural development programmes can be identified, addressed and resolved at grass-root levels. The proposed framework is visualised from the following perspective:

1. Agricultural Technologies: identification and dissemination for livelihood enhancement in watershed areas.
2. Planning, implementation, and post-project maintenance of physical water harvesting measures in watershed areas in socially sustainable manner; and
3. converging programmes of various government departments and other organisations with watershed development programmes.

It is suggested that these perspectives can be operationalised in two institutional environments:

1. Open chain network, with dynamically evolving partners and local communities.
2. Closed vertical activity-based chain network, within clearly defined participatory agro-business enterprises.

1. Open Chain Network: Organisational Model

The open chain network model allows the existing institutional framework to embrace both, decentralised and knowledge based, management of watershed development activities. The watershed development programmes with new guidelines on decentralisation and people's participation spell out arrangements of collaboration between various partners, like District Rural Development Agency (DRDA), government line departments, *Gram Panchayats* and sub-committees under *Gram Panchayats*, NGOs, and subject matter specialists from other public autonomous institutions.[3] However, as pointed out earlier, these constituent units have inherent problems in their functioning and, together, do not put in place a cohesive and responsible body at village level or any other intermediate level, for effective implementation of projects in partnership mode. Some initiatives, not necessarily directly related with watershed programmes, like District Planning Committee (DPC) and Agricultural Technology Management Agency (ATMA) at district level were introduced[4] to overcome such problems, but not much success can be attributed to them. Similarly, the *Gram Sawaraj* Act of Madhya Pradesh and the provision of *Block Sansad* and *Zilla Sansad* of Bengal are efforts to improve the role of the PRIs and ensure better participation of the beneficiary public. But, a comprehensive analysis of the scenario points to a need for metamorphic version of existing arrangements and, preferably, a new body or institution free from the legacy of previous organisations. However, the method to create such an institution without an abrupt break from existing arrangements poses a big question mark. Nonetheless, it does not obliterate the need for such an exercise. In an environment, where more

and more responsibilities[5] are assigned to *Gram Panchayats*, there is opportunity to transform and strengthen them in a new form. Some of the characteristics of such transformed institution, at village or some intermediate level, which may be called Village Development Society (VDS), are contemplated and given below. Although VDS is postulated as the transformed *Gram Panchayat*, its characteristics may be considered independent of the previously existing institutions, in order to highlight its role as a body capable of implementing programmes effectively with changed processes and procedures.

Already, the Constitution (Seventy-Third Amendment) Act, 1992, provides for administrative, financial and legislative powers of the PRIs, which can be extended to a VDS. Under Article 243G, the legislature of a state can make a law to empower the *Gram Panchayat* to prepare plans 'for economic development and social justice', apart from other matters specified in the Eleventh Schedule to the Constitution. The topics in the Eleventh Schedule include minor irrigation, water management and watershed development, fisheries, drinking water, waterways, health and sanitation, public distribution system, and maintenance of community assets. Similarly, Article 243H authorises *Gram Panchayat* to impose taxes, duties, tolls and fees, and receive grants-in-aid from the state. It also has a provision for constitution of a Finance Commission every fifth year, to review the financial position of the *Gram Panchayats* and to make recommendations to the government on (a) the principles, which should govern the distribution between the state and the *Gram Panchayats* of the net proceeds of the taxes, (b) duties, tolls and fees leviable by the state, and the determination of the taxes, duties, tolls and fees, which may be assigned to, or appropriated by, the *Gram Panchayats*, (c) the grants-in-aid to the *Gram Panchayats* from the Consolidated Fund of the state. However, this scheme of decentralisation of powers is yet to be effectively put into practice, and the VDS provides states the opportunity to fulfil this constitutional obligation.

Village Development Society: Two Tiers of Management

The successful programmes implemented in different parts of the country have genesis in the honest, sincere and benevolent local leadership, which generated self-help to implement the desired programme by the community itself. Providing leadership and opportunity to the unorganised but willing population to fulfil their dreams was the key to the successful implementation of the programmes. This important aspect cannot be over looked while making watershed development plans people's own programme for its effective implementation. The above-mentioned qualities should form the basic requirement of the personnel holding positions in a Village Development Society (VDS). The commitment, dedication and communication skills of such persons should help them play the role of a facilitator, and create a niche position for themselves in the local community. However, such leadership is not common and cannot be instituted easily in the management system. Moreover, this also does not alleviate the need for such elements in the grass-root level institutions. It is necessary that persons with high moral and ethical standards form the core of the VDS.

Thus, the VDS may consist of a core group of personnel and a peripheral one. The core group personnel, preferably from the local area, will be the persons of repute with impeccable record of honesty and devotion for rural development. They will be technically competent persons capable of manning the office of high authority. Small group of such persons will together provide the leadership and oversee the managerial and coordinating functions of the VDS. The position will be voluntary and the office is not likely to offer any material benefits. There is no dearth of public-spirited individuals in any region who are

prepared to voluntarily contribute in such efforts. The local respectable members of the society, known for their honesty and uprightness, will also be the members of the core group. Some mechanism may be devised to include such persons in the VDS. To further strengthen such organisations, rules and procedures can be incorporated to make them transparent in their working.

The peripheral group of persons will consist of technical officers derived from different functional areas. Each one will be the programme leader for the programme proposed and planned by him/her or their departments. Any stakeholder will be free to operationalise the programme mechanisms for technology development, dissemination and value addition. As a measure to strengthen and develop the rural economy, government may encourage all types of personnel to take part in the activities of a VDS. Persons from all walks of life like, industry, banking, administration, police, law, and religion may be extended incentives to become members of the VDS and promote their programmes.

VDS: Autonomous and Accountable Body

A VDS will be the society of all stake-holders having interests in agriculture and rural development. It will include government officials, technical experts, industry representatives and NGOs. General public, along with the members of the core and peripheral groups, will constitute the *Gram Sabha.* Experts, if not belonging to the watershed area, will not have the voting rights. This will be the decision-making body and members, through informal meetings among themselves, will evolve consensus over the issues of common interest. The role of core and peripheral group members will be very important in building up the consensus. Their impartial, sincere, and knowledge-based facilitating advice will help creating a congenial atmosphere in this process. The successful case studies have demonstrated that active and responsible participation by the local inhabitants rests with responsible and transparent behaviour of the managing agency. This, in turn, generates a sense of fruitful and rewarding involvement of the general public. This is the crucial element which is not there in existing formal institutions and sought to be inculcated in VDS. Decisions taken in *Gram Sabha* will be implemented by respective programme leaders (peripheral group) and supervised by the core group of VDS.

A VDS will be the focal point institution to coordinate efforts of all the agencies interested in rural development. This approach will facilitate collaborations with business groups, key NGOs, and other agricultural experts for commonly agreed framework, action plan, and outcome. Government programmes can also be implemented through this body. NGOs and private sector can initiate interventions on behalf of rural population. Thus, the VDS will play a mix of roles of coordinator, facilitator, enabler, and regulator. It will be a regulator of the village development programmes in the sense that it will monitor and evaluate the progress of these programmes. Members of the VDS are planners also, and mid-term reviews will help introduce required changes in programmes under progress. Members of the VDS will work out system description, problem diagnosis, search for appropriate technology, monitoring, and evaluation. Direct participation and observation of the expert group in the VDS, and the relevant stake-holders, having capacity and the willingness to intervene, will quickly reveal the major bottlenecks. Experts will represent different public and private organisations concerned with rural development. Among themselves or by inviting relevant organisation, they will suggest and introduce schemes to solve the problem. The whole arrangement will ensure an ambience of innovation and demand-driven assistance, rather than pushing pre-determined technology packages and programmes. The programmes in the villages will be implemented through individual households or users groups or self-help groups.

In order to impart local characteristic to a VDS, it will have the power to make rules and bye-laws for its conduct of business, and amend, add or delete them from time to time. There are always informal unwritten rules of local governance in the form of conventions or rituals regarding use and maintenance of natural resources, which are evolved over long period of time. They are, however, easily displaced or extinguished by new laws that fail to even acknowledge their existence. Such local level arrangements may be implemented as code of conduct by the VDS. The Panchayats (Extension to the Scheduled Areas) Act, 1996 (PESA) already empowers state legislatures to frame such laws in respect of Scheduled Areas and Tribal Areas. Such provisions can be made selectively by the state in respect of watershed areas.

A VDS will also be empowered to create administrative, technical, and other posts and make appointments thereto. The Constitutional amendment has cleared the ground to create self-sufficient, autonomous, democratic, and responsible *Gram Panchayats* or VDS, free from hierarchical syndrome, to manage local natural resources at village level or slightly higher intermediate level. However, these provisions have not been implemented so far, and there is need to delegate powers to grass-root level institutions by the states. This is the crux of the issue. It does not require further legislation. Measures, like mobilisation of public opinion or Supreme Court intervention are the courses ahead. The VDS may emerge as an institution, to which these powers may be delegated without much hesitation. These changes also constitute the wish list of reforms in agriculture sector.

Livelihood Enhancement, Capacity Building and Empowerment

The watershed development so far remained synonymous with soil and water conservation by implementing physical measures, like water and soil harvesting structures. This did not automatically lead to higher productivity and sustained livelihood. In fact, development of livelihood, which includes farm production methods as well as off-farm livelihood methods, continues to receive low attention under watershed programmes. The national agricultural support programmes, like fertiliser, power, and irrigation subsidies, procurement and price support, by-passed the rain-fed agriculture, because the farmers in rain-fed areas, with small holdings, no irrigation, low input use, nil or small marketable surpluses, are not in a position to benefit from subsidies. This historic neglect has created a very high degree of indifference on the part of farmers and business towards rain-fed agriculture.

The VDS needs to conceive both the production method and the incentive support system for promoting rain-fed farming and watershed activities. Thus, it has to work for assured irrigation, and water harvesting and conservation facilities, technological inputs in methods of water application, low water consuming cropping pattern and crop varieties, efficient farm practices, etc. Realisation of better prices, through farm level processing and linkages to marketing centres, is also necessary for sustainable rain-fed farming. These activities should not become project-based one-time activity but convert rain-fed farming into productive and livelihood generating enterprise. The VDS, by virtue of a conglomerate of resource persons, will also be the rural knowledge society steering knowledge-based rain-fed farming and other agro-business activities.

The VDS will ensure capacity building of the local community in agricultural development, by facilitating organisation of farmers into associations and cooperatives in marketing, agro-processing, and other agriculture-related activities. Resource-poor and illiterate farmers stand little chance to organise themselves on these lines in the absence of such efforts. For quite some time, self-help groups (SHGs) have also emerged as a powerful tool of socio-economic empowerment of the poor in rural areas. An SHG

is a small homogeneous group of 5-20 persons for pursuing self-employment activities in a coordinated manner. These groups, spearheaded vigorously by the National Bank for Agriculture and Rural Development (NABARD) as a mechanism to link banking to the unorganised poor rural masses, and very often led by women, have become a common rural phenomenon in many states. Now, different departments of the state and central governments find it convenient to implement their poverty alleviation and social intermediation programmes in education, health, access to land and water, etc, through these groups. However, there is urgent need to build up capacities and nurture these groups, prior to establishing their linkages with banks and other organisations. The VDS, by employing skilled personnel, will actively facilitate them in their working. Such arrangements gain importance, in view of the on-going process of market liberalisation, and the new opportunities emerging in the rapidly expanding economy. The VDS will also ensure that the benefits of the government schemes are availed un-hindered by the targeted community, and the community is protected from vested interests. It is possible that some of the vested interests, being stake-holders also, will be influential members of the VDS. However, the decision-making process of the VDS, which is necessarily open, free and transparent, due to the participation of the core and peripheral group members in *Gram Sabha,* may expose and/or prevent, at least to some extent, the vested interests from influencing the decision-making in their own favour. This is in contrast to the existing arrangements, in which *Gram Sabha* meetings are not frequent, and convened to fulfil statutory requirements only. The decisions of the influential members of the *Gram Panchayat* are hardly discussed, and are considered as final. The VDS will help canalising financial support through credit institutions and private investments, and also help the training for skill up gradation.

With growth and modernisation, there is a major shift from production-driven agriculture to market-driven farming. This cannot be possible without a fast information flow from the rest of the world to the local community. The VDS will provide the information on sources, quality, the potentials of different techniques and the technology used for production and processing of agricultural produce in an appropriate format that farmers have capacity to access, analyse and act upon. In addition, the VDS, concerned with sustainability issues, will need to maintain a wide variety of information about spatial (geographical) conditions and their impacts on natural resources and production systems, and the socio-economic profile of the region in question.

2. Closed Vertical Chain Business Model

VDS can successfully endeavour to create an environment to build partnerships locally with other organisations, active in rural services and development. Such partnerships with defined participating local and business groups and value-adding business activities, identified and selected by the VDS, are fully amenable to closed vertical business supply chain network. The VDS will negotiate on behalf of the farmers and arrive at terms favourable to farmers, so that the participating local and business groups are not allowed to exploit the farmers, as before. Demand aggregation and increased market penetration will provide the incentive for rural infrastructure development, like food processing, storage and transport, etc. The higher cost of infra-structure will be absorbed through this business model, which will help lowering transaction costs and achieving higher business volumes. The business models also provide technical support and advice to produce quality farm output, and arrange for supply of good quality farm inputs. The technical support for limited or specific activities may also be obtained through out-sourcing to experienced resource persons/ organisations, identified by the VDS. However, the pre-requisite for this closed chain business model to be viable and sustainable, is sound business plans and strategies, based on

all conceivable value-addition and distribution practices. Developments, like e-Choupals, agro-business centres, organised supermarket chains, food-parks, certified organic production of seeds, herbs, and medicinal plants, formation of real estate companies by farmers themselves, are examples of increasing integration of agricultural sector with the rest of the economy. However, there is need of a body to enhance competitive strength of farmers, and promote such activities wherever necessary. The intimate understanding of the social and economic conditions, and mutual trust fostered by the VDS will help integrating rural masses with main stream economic activities.

The large number of successful programmes in rainwater harvesting implemented by social leaders or local organisations have demonstrated the possible suitability of the business model to this sphere of activity, too. In comparison to the major dam- and canal-based irrigation projects, the cost of watershed development is very low, and in many cases, the local community of the watershed raised the whole amount through their personal contributions and donations in cash and kind. In the absence of cumbersome procedures and rent-seeking elements, conditions which the setting up of the VDS is likely to result into, the local community could accomplish the task at much lower cost with superior quality of construction, with the VDS providing a mechanism for more effective and transparent inter-agency co-ordination and decision-making. The immediate solution provided by these measures made the investments quite attractive and the local society reaped the benefits immediately. However, these experiments have not shown much interest in generating revenue, and maintaining and improving the capacity of such endeavours, possibly, due to absence of institutional and legal backing. These popular movements need to become a part of the local grass-root level institution, that is, the VDS or the existing PRI, and should be strengthened as a platform for providing services in irrigation and common property resources, like pasture lands and minor and major forests produce. The PRIs have the provision for collection of fees for such services, but this option has not been explored so far and needs to be developed and strengthened.

V. CONCLUSION AND THE WAY AHEAD

The development of grass-root level institutions is central to sustainable agricultural development, inclusive of healthy natural resource base, and maintenance of high economic growth rate in the country. The reform process, initiated in agricultural sector as a sequel to general decentralisation and liberalisation in the economy, needs to be strengthened by conclusively targeting the basic requirements of this sector. A grass-root level institution, enabling hitherto non-participating or, at best, passively participating rural population to be party to economic growth, is the foremost requirement for a sustained and continuous growth in the agricultural sector. *Gram Panchayat,* along with *Gram Sabha,* barring a few exceptions, has not made any dent in local development. There is no general participation. In fact, they have become the lowest rung of the local state departments. Many such problems are enumerated in this paper. The VDS will work in close association with rural masses, and will have responsibility to protect their interests. It will create strong and transparent processes in local resource management, to enable the local communities to be part of it and respect it. In fact, the social issues in natural resource management are the real challenges, which the VDS will face, and through it justify its own existence. It is expected that VDS will be able to put in place a social regulatory mechanism for these activities. The cooperation and assistance rendered in the rest of the activities, and the existing social conventions and laws will provide enough authority to the VDS to this end. However, looking at the physiographic and ethnic diversity in the country, no single model can ever be applied across the country. Institutional innovation at the community level has to be a continuous process and must be experimented with, in order to evolve a functional VDS. In addition to an effective grass root level

institution, a general liberal policy framework in public domain, like easy access to capital, creation of alternate marketing channels in procurement, processing, storage, and trans-border movements will also be important requirements for this model to be successful. Fully defined and clear property rights, and entitlement to benefits from public land will help creating necessary capital resources in rural sector

NOTES

1. The development block in the country have been classified White, Grey, Dark and Over Exploited on the basis of net annual ground water draft and total utilisable ground water resource for irrigation. The white and grey blocks have net annual draft less than 65 percent and 65 to 85 percent, respectively. The Dark blocks have 85 percent to less than 100 percent net annual draft and Over Exploited blocks have net annual draft over 100 percent of utilisable ground water resource [Ground Water Resource Estimation Methodology, 1997].

2. The Northern India Canal and Drainage Act, 1873 is still the backbone of the laws governing irrigation water. It confers on the government the right to 'use and control for public purposes the water of all rivers and streams flowing in natural channels, and of all lakes'. The Indian Constitution, after Independence, gave powers to the states to legislate in this area. Thus, the states have the exclusive power to regulate water

3. A District Rural Development Agency (DRDA), headed by Additional Deputy Commissioner (ADC), has overall responsibility for watershed programme implementation in the district. It selects one Project Implementing Agency (PIA), in most cases an existing state department, like agriculture, soil conservation, or forest, to implement the programme. A PIA is assisted by a Watershed Development Team (WDT), selected by DRDA, consisting of personnel from agriculture, engineering, life sciences. or social sciences. A Watershed Association (WA) in the selected watershed area is synonymous with *Gram Sabha, and it appoints a Watershed Committee (WC) to interact with the PIA in programme implementation. Physical construction* activities are carried out through contractors, adopting usual departmental construction work procedures.

4. Under Article 243ZD of the Constitution of India, a District Planning Committee (DPC) need to be constituted at the district level in every state to consolidate the plans prepared by the Panchayats and the Municipalities in the district, and to finalise them technically and financially for adoption and implementation by local bodies. The DPC in this endeavour is also mandated to consult other institutions, constitute sub-committees and appoint consultants. However, DPCs have not been created in a number of states. Where operational, they are yet to function as envisaged in the Constitution. They neither consolidate nor prepare draft district developmental plans. 'Planning' is of poor quality and is generally a mere collection of schemes and works. Integration of *Gram Panchayat* plans into the District plan, even when done, also tends to be a mere summation and not a synergistic integration. (Planning at the Grass-roots Level: An Action Programme for the Eleventh Five Year Plan, Report of the Expert Group, Ministry of Panchayati Raj, March 2006, New Delhi.)

ATMA is a society of key stakeholders responsible for all the technology dissemination activities at the district level. It is a focal point for integrating research and extension activities and decentralising day to day management of the public Agricultural Technology System (ATS). It is a registered society responsible for technology dissemination at the district level. Research and extension units within the project districts, Krishi Vigyan Kendras (KVKs) and the key line departments, like agriculture, animal husbandry, horticulture and fisheries etc. are constituent members of ATMA. Each unit would retain its institutional identity and affiliation but programmes and procedures concerning district-wise activities would be determined by ATMA Governing Board and implemented by its Management Committee (MC).

5. (In his budget speech for 2006-07, the Union Finance Minister stated that the bulk of the resources under Centrally Sponsored Schemes would go to eight flagship programmes, namely, Sarva Shiksha Abhiyan, Mid-day Meal Scheme, Drinking Water Mission, Total Sanitation Campaign, National Rural Health Mission, Integrated Child Development Services, National Rural Employment Guarantee Programme, and Jawaharlal Nehru Urban Renewal Mission. Except for, the Urban Renewal Mission, these schemes fall within the core functions of *Gram Panchayats.* Along with these flagship programmes, a few more Central Programmes could be considered as important from the point of view of giving a clear and precise role to *Gram Panchayats* in planning and implementation. These also include relevant programmes under 'Bharat Nirman', aimed at rapid improvement of rural infrastructure. These programmes are: Swarnajayanti *Grameen Swarozgar Yojana* (SGSY), Rural Housing, Indira Awas Yojana (IAY), Pradhan Mantri *Gram Sadak Yojana* (PMGSY), Adult Education, Rajiv Gandhi *Grameen Vidyutikaran Yojana,* and Remote Village Electrification Programme.

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UNDERSTANDING CONCEPTUAL AND ADMINISTRATIVE BOUNDARIES OF BONDED LABOUR SYSTEM ABOLITION ACT, 1976

J. John

The Bonded Labour System Abolition Act, 1976, sets the conceptual and administrative boundaries of bonded labour. The Paper looks into how these boundaries were defined, by examining the political economy of the international and the Indian definitions. The Indian definition of bonded labour is drawn from the international definitions of slavery and forced labour, as they evolved in the course of civil society and state interventions against these human rights abuses. While examining the international definitions, this Paper argues that the Atlantic slave trade, colonialism, and the Cold War were the three defining phases of history in the evolution of the concept. The ethical basis of the project against slavery and forced labour comes from the abolitionists. However, all abolitionists were not guided by ethical considerations alone; abolition served the political and economic compulsions of colonial and capitalistic exploitation. The Indian definition of bonded labour, a legislative expression of the constitutional provision against forced labour, was evolved during the Emergency years. Apoliticism and an overbearing administration left an indelible mark on the definition of bonded labour and the implementation procedures for its abolition. The characterisation of bonded labour as a feudal vestige further delimited the boundaries of bonded labour.

The prevalence of bonded labour in today's India, a nation poised to emerge as an economic super power, is a blemish on its pride. There may be many who debate whether bonded labour still exists in India; at times, there are staunch denials from the government. Yet, empirical evidence, as produced by various independent studies, such as, the recurrent news in the media on the release of bonded labourers from captivity by the administration, the Supreme Court[1] authorising the National Human Rights Commission (NHRC), in 1997, to act as the monitoring agency for the implementation of the Bonded Labour System Abolition Act (BLSAA), and the global report on forced labour produced by the International Labour Organisation (ILO) in 2005, largely proves the prevalence of bonded labour in India even today.

The BLSAA, which came into force in 1976, sets not only the conceptual boundaries of bonded labour but also the boundaries of administrative procedures to address the problem. The early attempts by the Judiciary to broaden the boundaries of the definition of bonded labour[2] received stoic resistance from the administration, and remained non-starters. A number of important academic contributions, for example, bonded labour as degrees of 'unfreedom'. [Jodhka, 1994, Pp. A-102-06] and indebtedness in circular migration [Bremen, 1996], did not alter the boundaries of bonded labour, as set by the Act.

I. SLAVERY AS PROJECT OF COLONIALISM

The Government of India [2002, Pp. 80-84] usually establishes a relationship between the Indian and international definitions of bonded labour by making references to international instruments, including the ILO Convention on Forced Labour[3] (No. 29) of 1930; the ILO Convention on the Abolition of Forced Labour[4] (No. 105) of 1957; the Universal Declaration of Human Rights of 1948; the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights, both of 1966; the League of Nations Slavery Convention of 1926; the UN Supplementary Convention on the Abolition of Slavery of 1956; and the ILO Convention on Fundamental Rights and Principles at Work, 1997. However, the discussions never go beyond superficial linkages, and no attempt is made at examining the mercantile and colonial contexts,

J. John is Executive Director, Centre for Education and Communication, 173-A Khirki Village Malviya Nagar, New Delhi - 110017. E-mail: <cec@nda.vsnl.net.in>

in which these instruments had evolved, or at examining how such information helps to better understand the evolution of the Indian concepts and instruments on slavery and forced labour.

Recent debates on 'reparations' to Africa, in lieu of the historic injustice the 'civilised world' had done to it, have thrown up rich literature that establishes the connection between slavery and capitalism as well as the need to understand the movement of 'abolition', stripped of its moralistic significance. These discussions forcefully put forward the argument that the Atlantic slave trade from the late fifteenth to the late nineteenth centuries, and its subsequent abolition were instrumental in the imperialist expansion by the European colonisers. Among them, Toyin Falola [2004], Nigerian historian, has extensively dealt with how, due to slavery, the Atlantic region became an active trading network that united three continents (Africa, Europe and the Americas) in the exchange of people, goods and capital. The African slave labour sustained the enterprises of the European settlers in the New World. He says, 'Credit and capital also developed as a result of slave trade. European merchants invested large sums of money in ships and goods; guns and other goods were produced in large quantities to sell in exchange for slaves.' He makes references to Joseph E. Inikori's studies on the economic history of Britain, in which Inikori establishes how the Atlantic commerce and the African labour contributed to the completion of the industrialisation process between the mid-seventeenth and the mid-nineteenth centuries. J.F. Ade Ajayi[5] [2002], another African scholar brings out the relationship among Christianity, commerce and civilisation, and the paradox how even the anti-slavery movement of the missionaries, though successful in stopping the trans-Atlantic slave trade, had stopped short of making reparations for damages done by the slave trade to Africa, and at a later stage compromised with slave owners.[6] The Protestant revolution of the sixteenth and seventeenth centuries clung to the argument that slavery was not condemned in the Bible as a sin. Ajayi points out that in 1834, 'Because of this failure to accept that the Atlantic slave trade was not compatible with the Biblical notion of neighbourly love, it was able to come to a compromise with the powerful West Indian planters in Parliament. Parliament voted 23 million pounds in 1834, now worth at least 23 billion to compensate the slave owners, but not one penny to compensate the slaves'. Abolitionism was a mass movement deriving its strength from moral appeals against slavery.

The affinity of slavery with imperialism, when slavery moved into other forms including forced labour and indentured labour, is pointed out by many historians and political thinkers. Frangoise Verghs [1999] calls for the reassessment of the place of the slave trade and of slavery in the constitution of French identity. She says, slavery is not an evil or immoral activity but it is an early system of 'bio-power', an expression of the desire for limitless power over other human beings. She further argues that abolitionism has an intimate relationship with French imperialism; for instance in 1848 the government, which issued the decree of abolition, declared Algeria to be a French department. She says, French abolitionism was the doctrine, which justified the colonisation of Africa, Indochina and Madagascar. Slavery was replaced by forced labour, and new laws and new techniques of discipline were introduced to convert slaves into obedient workers of colonial states - into 'colonised citizens'. The theme that slavery, as an employer-employee relationship, reinvented itself as forced labour, after abolition movements had succeeded in formally abolishing chattel slavery in Europe, in European colonies, and in the United States, also appears in the writings of Suzanne Miers[7] [2004, p. 17] Labour freed from chattel slavery was needed by the colonial masters for porterage, for building railways, docks and roads, for mining, agriculture, plantations and domestic service, in order to keep their colonies viable. Towards this end, the colonial states created new institutions and practices, and, in some cases, improved upon already existing

forms, mostly as forced labour and labour in relation to debt, to control workers and use their labour power for the creation of wealth - 'pawning of crops, of trees, and of the poor used debts to create access to cheap labour' [Falola, 2006].

As is often stated, slavery, chattel slavery in particular, is not an exclusive phenomenon of feudalism. The great trans-Atlantic competitive slave trade that linked European, African and American continents operated clearly as a project of capitalism. The British, French and American abolitionism under reformed Christianity freed the slaves only to exploit them as cheap labour for the economic interests of the colonial masters supported by religion, commerce and the notion of supremacy of European civilisation. Abolitionism approached slavery as a moral question and failed to address it as a political system; consequently, the victims were never compensated for the destruction caused to them. The colonial powers created and sustained legal instruments and institutions to continue to exploit freed labour and to exert control over them. The evolution of international instruments against slavery is not independent of these trends and influences.

II EVOLUTION OF INTERNATIONAL INSTRUMENTS AGAINST SLAVERY

Broadly, three stages are discernible in the international history of the abolition of slavery, and the institutions and practices similar to slavery. The first, the abolition of feudal slavery within European societies, as a project of *enlightenment,* marked by the declaration of the 'the rights of man and of citizens' by the French Constituent Assembly in 1789; the second, the abolition of chattel slavery in the British colonies in 1833 and in the French colonies in 1848, and the subsequent abolition movement in the United States, which emancipated the black slaves in the country; the third, the League of Nations Slavery Convention of 1926, and the ILO Convention on Forced Labour, 1930. Later, the UN came up with the Supplementary Convention on Institutions and Practices Similar to Slavery, and the ILO in 1957 with the Abolition of Forced Labour Convention (No. 105), which outlawed the use of forced labour for political repression, economic oppression, and labour discipline. As observed in the previous section, these stages in the intervention against slavery largely corresponded to the different forms slavery had taken in the world of work.

Slavery and the slave trade were essential parts of mercantile capitalism, and the declarations of abolition of slavery were intended to abolish forms of chattel slavery. The symbolic formal ending of the chattel slavery in Europe happened in 1890, when the leading colonial and maritime powers[8] signed the Brussels Act, the first multilateral treaty against the slave trade. At the end of the First World War, the victorious allies abrogated the Brussels Act, claiming slavery was dying out, though slave-like and forced labour practices thrived in various parts of the world, under the imperialist ambitions of the European nations. Under pressure from the anti-slavery movements, the newly established League of Nations and the ILO both, made commitments to protect labour from the new forms of slavery. Despite opposition from the colonial powers, the League of Nations appointed the Temporary Slavery Commission in 1924, of which the ILO was also a party, to collect evidence on slavery in all its forms. This Commission extended the definition of slavery to include serfdom and peonage, practised particularly in the Americas, and debt bondage, widespread in the colonial Indian sub-continent. However, the Slavery Convention passed in 1926[9] was a compromise formula arrived at by the colonial powers. It banned both, slave trade and slavery, but did not cover all the practices the Commission had identified as slavery, including forced labour, peonage and debt bondage [Miers, 2004]. Meanwhile, the ILO adopted the Forced Labour Convention of 1930 (No. 29), which defined forced labour as 'all work and service which is exacted from any person under the menace of any penalty and for which the said person did not offer himself voluntarily' The ILO looked at forced

labour as a human rights violation at work, and not exclusively as a moral question. It also addressed post-abolition situations of labour exploitation. Miers points out that in theory, it differed from slavery because it was neither lifelong nor hereditary, and the workers were not saleable.

The League of Nations appointed a new committee on slavery in 1932, which was called the Advisory Committee of Experts on Slavery. After the Second World War, the UN, which replaced the League, became the forum for intense competition between the capitalist and socialist blocks. Under constant pressure from the anti-slavery movements, the UN, in 1950, appointed an ad-hoc committee of experts to consider slavery and practices resembling it, such as, peonage and forced labour. This resulted in the adoption of the Supplementary Convention on the Abolition of Slavery, Slave Trade, and Institutions and Practices Similar to Slavery of 1956, by the UN. The Supplementary Convention was followed, in 1957, by the ILO's Abolition of Forced Labour Convention (No. 105). This outlawed the use of forced labour for political repression, economic oppression and labour discipline - a clear attack on the gulags and forced labour conditions in the Soviet Union [Miers, 2004]. After the Second World War, nations liberated from the colonial yoke, like their colonial masters, were not very keen to alter social customs and practices that amounted to 'practices similar to slavery'. Again, under consistent pressure from the Anti-Slavery International[10] and other human rights groups, the United Nations authorised in 1974 a Working Group of five members, one from each of the five blocks -- the Soviet and the Western blocks, Africa, Asia and Latin America. This group is called the Working Group on Contemporary Forms of Slavery[11] under the United Nations Office of the High Commissioner for Human Rights.

Thus, international instruments against slavery and the institutions and practices similar to slavery emerged from an interplay of various forces, including anti-slavery movements, the capital's urge to innovate means to control and extract labour power, and the Cold War. The early twentieth century witnessed intense lobbying by rival camps of capitalist states and communists - the latter, as advocates more of economic and social rights and the former, as advocates more of human rights and individual freedom.[12] Suzanne Miers reminds us that slavery and forced labour became pawns in this game. This period also witnessed sustained pressure from international pressure groups, such as the Anti-Slavery International, on the issue of abolition of slavery.

III EVOLUTION OF INDIAN LAW ON BONDED LABOUR AND ITS INTERNATIONAL FOUNDATIONS

The evolution of the Indian definition of slavery, the legal instruments, and the administrative mechanisms are not immune to the international developments and influences discussed above. It is argued here that the Indian law on bonded labour, the Bonded Labour System Abolition Act, 1976 (BLSAA), draws heavily from the ILO Forced Labour Convention, 1930 and the UN Supplementary Convention on the Abolition of Slavery, Slave Trade, and Institutions and Practices Similar to Slavery, 1956.[12] We have already seen that the ILO Convention No. 29 addresses exploitative employment practices not historically conceived of as 'slavery', which are neither lifelong nor hereditary and where the workers were not saleable. The UN Supplementary Convention brought in debt-bondage, forced marriages, and adoption for exploitation as forms of slavery. According to the UN Supplementary Convention, in order to qualify as a bonded labourer, a person must (1) be in debt, (2) must be underpaid, and (3) the person must pledge to work in this condition until the debt is paid off. Although the ILO Convention No. 29 on forced labour does not explicitly address bonded labour, the practice has subsequently been presumed to fall within its

scope. The ILO defines forced labour as work or service exacted from a person under threat or penalty, which includes penal sanctions and the loss of rights and privileges, where the person has not offered himself or herself voluntarily. The ILO has categorised 'forced labour' into five key areas. These categories include slavery and abduction, misuse of public and prison workers, forced recruitment, debt bondage, domestic workers working under forced labour situations, and internal or international human trafficking [Ruwanpura and Rai, 2004]. Of particular interest to us is the ILO's inclusion of debt bondage under the category of 'forced labour'.

The 2001 *Global Report* under the follow-up to the ILO Declaration on Fundamental Principles and Rights at Work [ILO, 2001] distinguishes between two traditional categories of debt bondage - *peonage and serfdom* more seen in Latin America, and *bonded labour* seen in South Asia. *Enganche* in Latin America is a coercive recruitment practice, in which indigenous people are recruited by indebting their subsistence living, for which they have to produce goods and services [ILO, 2001]. Similarly, financial advances are used to induce indebtedness among indigenous people, largely, in sugar cane and charcoal production, before the agricultural harvesting time, which leads to these people working to pay off their debts. *Bonded labourer* in India differs from *peonage* in Latin America in that their *period of indebtedness usually extends indefinitely* with many occasions of *inter-generational bondage* (emphasis added) [ILO 2001; Ruwanpura and Rai, 2004]. The distinction made here, in terms of duration, inter-generational character, and socio-cultural basis, locates Indian debt bondage, decisively, in traditional agrarian relationships, as distinct from debt bondage in Latin America, 'which can be shown to be more closely linked to global economic relations and not simply local conditions' [ibid]. The next section briefly looks at how relevant this characterisation of debt bondage is in India today. It will also look briefly at the historical evolution of the concept of bonded labour in India.

IV. SLAVERY, BONDED LABOUR AND COLONIALISM IN INDIA

Opinions differ on the issues whether *bonded labour* is the Indian form of slavery, and on the antiquity of slavery in India, though most agree on the fact that under colonialism bonded labour existed widely as a system of labour control and exploitation. The historians of slavery in early Indian history emphasise that slavery and debt bondage co-existed in India; but debt bondage emerged as the major instrument for providing a pliant labouring class ever since the Mauryan period (321-181 BC). Uma Chakravarti says, 'In the past though slave labour existed, it has never preponderated over free labour, and the *dasas* invariably featured along with the *karmakaras*, even though the difference between them was not always easy to perceive' [Chakravarti, 1985, Pp. 35-75]. She also argues that the caste system in India has provided for the creation of perpetually indebted workers among the untouchables, as a result of Brahmanical laws that weighed heavily against them. She further argues that the distinction between slavery and debt bondage invariably disappeared with the 'free' and 'unfree' merging into the category of the dependent labourer, and the dependence and bondage were created through debt. For Tanika Sarkar [1985, Pp. 97-126]), though slavery and bondage are two separate forms theoretically, in practice, it would be extremely difficult to distinguish one from the other (*in the colonial period*) with absolute certainty, since the two constantly overlapped and merged into each other. Based on the history of the relationship between *kamias* and *maliks* in the nineteenth century Bihar, Gyan Prakash [1990, 1997], from a subaltern perspective, demonstrates that 'it was the British rule that universalised capital by reconstituting a range of unequal relations of dependence and unfreedom'. For him, bonded labour is indeed a colonial construct. In order to establish that bonded labour is indeed a colonial

construct, Gyan Prakash argues that the patron-client relationship that existed between *kamias* and their *maliks* cannot even be considered slavery.[14] Gyan Prakash, holds that in the pre-colonial period *karmakaras* were 'marked by status, and that, even when they were involved in debt-relationships, the notion of labourers rendered unfree by loans was irrelevant to these groups' [Prakash, 1990, p. 4]. The British land tenure relations that objectified labour relations, and the insistence on contractual relationships between *kamias* and *maliks* are cited as examples of the reconstitution of unequal relations of dependence and unfreedom. Jan Breman [2007], based on his empirical studies in Gujarat, however, puts forward *halipratha* as a patron-client relationship, departing from Gyan Prakash's position of positing the pre-colonial local economy as a closed one. Bremen finds debt-bondage during colonialism a continuity in the hegemonic confluence that justified it as a labour arrangement during the pre-colonial period [Breman, 2007].

The British colonisers, while addressing the issue of slavery in India, followed a policy of non-interference in the early years, allowing the natives to administer their own laws in matters of property, inheritance and contract. The India Law Commission, appointed in 1835, with Macaulay as its head, submitted its anti-slavery report of 1841, which identified three different forms of slave labour in India, namely contract labour, slave labour, and bonded labour. However, in a deliberate move, the Anti-Slavery Act of 1843 only covered the category of slaves, and ignored the categories of bondsmen and contract labour because the British and other European colonisers used the debt-induced indenture system to export workers from India to the plantations in places, such as Ceylon, Mauritius, Fiji, Guyana, South Africa and the West Indies [Dingwaney, 1985, Pp. 273-347]. The 1843 abolition thus established state as the guarantor of citizens' rights; released kamias from slavery, but unleashed bondage by the objectification of agrarian relations in land, and by juridically approving contractual relationships founded on advance of loans between *kamias* and *maliks* [Prakash, 1990, 1997]. The gradual increase in production for the market, and the monetisation of economic exchange resulted in a radical intensification of control over labour power during the colonial period [Bremen, 2007]. Thus, the Indian experience has not been different from that of all around the colonial world; abolition of slavery led to the institutionalisation of new forms of labour control, administrative mechanisms, and juridical systems.

From 1834, even before the adoption of the Anti-Slavery Act in 1843, the British colonial authorities had introduced the system of emigration of *indentured* Indian workers to plantations in India and abroad from the port cities of Calcutta and Madras. The competing colonial powers became strange bed-fellows in this matter: following the abolition of slavery in the French and the Dutch colonies in 1846 and 1873, respectively, the French and the Dutch planters reached agreements with the British authorities in India, to obtain labourers under the same system [Kadekar, 2005]. Jamaica, Trinidad, Mauritius, Fiji, Guyana, Natal and Surinam governments maintained emigration agencies in Calcutta and Madras. Studies on the other side of emigration phenomenon [Cohen, 1995; University of Utrecht, 2006; Wickramasinghe and Cameron, 2002] corroborate this observation. The emancipation of African slaves in 1838 led to a severe shortage of labourers working in the sugar, coffee, tea, cocoa, rice, and rubber plantations in the colonies. Indians were imported as commodities, and as an affordable alternative workforce to revitalise the labour intensive plantations in these countries. 'With slavery abolished (1834) and apprenticeship terminated (1838), the indentured labourer became the means to ensure continuation of the economic plan called colonial plantation agriculture' [University of Utrecht, 2006].

Indebtedness was used to control immigrant workers in their respective places of work. Indentured employment relations were legalised through contracts. 'Indenture contracts agreed upon by the Indian workers to the Caribbean involved a five year contract of indenture with provision of return passage, free housing, and standard rations, in return for work for around nine hours per day, six days per week' [Vertovec, 1995, Pp. 57-62]. The case of indentured workers exported from South India to the Sri Lankan British plantations was not different: 'There is absolutely not a single coolie on any one estate without debts. The only question is about the difference of amount. The debt of each coolie varies from Rs 50 to Rs 200 and more. Seldom does a coolie owe less than Rs 50. The average debt of the coolie is roughly Rs 100. These debts are said to be accumulated in different ways. First, the amount advanced by the *kangany* before recruiting and the travelling expenses. Secondly, value of things bought from the kangany from time to time. Thirdly, cash lent by *kangany* during illness and other occasions'.[15] Wikramasinghe *et. al* conclude that the labour recruitment and patterns of exploitation that planters adopted resulted in the emergence of a unique system of bonded labour relations - the *kangani* system in Sri Lanka. British culpability in legalising the debt-bondage system through indentured labour is again exemplified in the various measures they took to protect mass recruitments to their plantations in India. The Labour Codes of Colonies Act of 1837 legalised the contract or indentured labour system. The Workmen's Breach of Contract Act of 1859 was designed to stop breaches of contract by workers. It effectively stopped all possibility of escape for workers from tea estates. This was followed by the Act of 1863, which allowed planters the right to arrest runaway coolies. The Inland Immigration Act of 1882 allowed uncontrolled recruitment without licence, and further tightened the planter's control over labour [Sarkar, 1985].

Although the indentured system was abolished in 1915, and the 1859 Act was repealed in 1926 under continuous pressure from the All India Trade Union Congress [Sarkar, 1985] at the time of Independence (1947), debt bondage and forced labour were realities for millions of workers in India. The social and economic situation of the Indian poor at the time of Independence is eloquently captured by S.R. Sankaran [2001], a former bureaucrat, in his J.P. Memorial Lectures 2001 as follows: 'Historically, and at the time of Independence, the socio-economic scene in rural India has been characterised by wide spread inequalities, especially in the ownership of land and wealth. A small minority of big landholders owned a major portion of the agricultural land, while millions of small peasants weighed down by perpetual indebtedness eked out a precarious existence on tiny fragmented holdings. More than half of the cultivated land was under tenancy and the bulk of the tenants enjoyed no security of tenure or fixity of rent. At the bottom of the agrarian pyramid, there was a vast army of landless agricultural workers whose social and economic status was pathetic'. The impoverishment of the rural and urban poor was a stark reality that the country faced at the time of Independence; and this unfinished agenda of social and economic freedom became a theme of the Indian Constitution, which incorporated provisions for social transformation in it.

V. BONDED LABOUR SYSTEM ABOLITION ACT, 1976

(a) Bonded Labour System Abolition Act - Constitutional Legacies

It is ironical that in 1950, the Indian Constitution celebrated 'justice, liberty, fraternity, and equality'[16] in a country, where poverty, inequality, and the worst kinds of caste oppression, exploitation, and religious strife were hallmarks. Yet, others [Austin, 1999] reason that the celebration was not of what was achieved through political struggle, but in anticipation, as an instrument of social and economic revolution that was yet to be achieved. The framers of the

Indian Constitution wanted it, to complete the unfinished agenda of social and economic transformation through Constitutional means. It is argued that the Indian Constitution embodies three strands: 'protecting and enhancing national unity and integrity; establishing institutions and spirit of democracy; and fostering a social revolution to better the lot of the mass of Indians'. In the same vein, commenting on Anna Arendt's position on the founding of nations, Uday S. Mehta [2005] argues that in the founding of India as a new nation, the writing of a new Constitution, and in the articulation of the powers of the state, the commitment to social uplift and equality was at the centre. The Constitution of India attempted to address the questions of destitution and social inequality experienced by the millions of Dalits, Adivasis, and the landless poor, prospectively, within a political framework, mainly, through compensatory discrimination sanctioned by the Constitution and the government. Moreover, intervening in the *Constituent Assembly Debates* on the Draft Constitution of India, Dr. B.R. Ambedkar, Chairman of the Constituent Assembly, defended the inclusion of the Directive Principles of State Policy,[17] as a means of achieving economic democracy as distinct from political democracy.[18] However, non-enforceability of the Directive Principles has come in the way of the realisation of this dream.[19]

The prohibition of traffic in human beings, *begaar* and forced labour, as an enforceable right, in Article 23 of Indian Constitution[20] should be seen in this perspective - the lofty objective of social and economic transformation realised through Constitutional means. It is also worth noting that the Indian Constitution, which came into force in January 1950, chose to use the word *forced labour* rather than *slavery*, when articulating the fundamental 'right against exploitation' of Indian citizens. Though enacted twenty- six years after the adoption of the Constitution, the BLSAA, 1976,[21] besides having its roots in international definitions of slavery and forced labour, flows directly from Article 23 of the Indian Constitution. The statement of the Object of the BLSAA, 1976, acknowledges the fact that even then there existed in different parts of the country a system of usury, under which the debtor or his descendants or dependants had to work for the creditor without reasonable wages or with no wages, in order to extinguish the debt, and traces Article 23(1), which prohibits *'begaar'* and other similar forms of forced labour.

(b) Definition of Bonded Labour in BLSAA, 1976

The BLSAA, 1976, abolishes the bonded labour system and states that every bonded labourer is now 'freed and discharged from any obligation to render any bonded labour' (Ch. II, Sec. 4(1)). The Act also explicitly prohibits the giving of advances so as to bond labourers (Ch. II, Sec. 4(2(a)), cancels all outstanding bonded debts (Ch. III, Sec. 6), and orders local governments to rehabilitate freed bonded labourers (Ch. V, Sec. 14 (b)). The penalty for enforcing the bonded labour system in contravention of this Act is up to three years in prison and a fine of up to Rs 2,000 (Ch. VI, Sec. 16).

Central to our discussion here is the definition of bonded labour as provided in the Act. The BLSAA defines, in Ch. I, Sec. 2(g), bonded labour as:

> *'the system of forced, or partly forced labour under which a debtor enters, or has, or is presumed to have, entered, into an agreement with the creditor to the effect that:*
>
> *in consideration of an advance obtained by him or by any of his lineal ascendants or descendants (whether or not such advance is evidenced by any documents) and in consideration of the interest, if any, due on such advance, or*
>
> *in pursuance of any customary or social obligation, or*
> *in pursuance of an obligation devolving on him by succession, or*

for any economic consideration received by him or by any of his lineal ascendants or descendants, or by reason of his birth in any particular caste or community, he would render, by himself or through any member of his family, or any person dependant on him, labour or service, to the creditor, or for the benefit of the creditor, for a specified period or for an unspecified period, either without wages or for nominal[1] wages, or

forfeit the freedom of employment or other means of livelihood for a specified period or for an unspecified period, or

forfeit the right to move freely throughout the territory of India, or forfeit the right to appropriate or sell at market value any of his property or product of his labour or the labour of a member of his family or any person dependent on him,

and includes the system of forced, or partly forced, labour under which a surety for a debtor has, or is presumed to have, entered, into an agreement with the creditor to the effect that in the event of the failure of the debtor to repay the debt, he would render the bonded labour on behalf of the debtor.

The definition has an overarching principle that defines bonded labour within the framework of *forced labour* and of a *debtor-creditor relationship.* The definition further introduces five primary sub-clauses, which define the debtor-creditor relationship in terms of *inter-generational and customary bondage.* This sub-clause says that if a person is made to work as a descendent of someone who could not repay an advance taken, or as being born into a caste or ethnicity, the person would be a bonded labourer. The definition also brings in four secondary sub-clauses, which introduce the effect of *forfeiture of constitutional and legal rights* of the person, including wages, freedom of employment, movement, and the right over produce. The explanatory note[22] says that a migrant labourer or a contract labourer, whose conditions of employment are in conjunction with the provisions of the Act, will fall under bonded labour. Moreover, nominal wages are explained as those less than (statutory) minimum wages or, if no minimum wage is stipulated, the customary wage for a given type of work in a given locality.

The organic link between the Constitutional provision against forced labour under Article 23 and its legislative interpretation in the BLSAA has been clearly established by various cases. The Supreme Court, *in People's Union for Democratic Rights and Ors v. Union of India and Ors* (Writ Petition No. 8,143 of 1981, decided on 18 September 1982) rules that begaar or unpaid work is forced labour. The two-judge bench of Justice P.N. Bhagwati and Justice Baharul Islam observe, 'The word "force" must be construed to include not only physical or legal force but also force arising from the compulsion of economic circumstances which leaves no choice of alternatives to a person in want and compels him to provide labour or service even though the remuneration received for it is less than the minimum wage. Therefore, where a person provides labour or service to another for remuneration, which is less than the minimum wage, the labour or service provided by him clearly falls within the scope and ambit of the words "forced labour" under Article 23'. In the same judgement, the Honourable judges make two other significant observations: one, that a forced labour situation cannot be condoned even if it involves a voluntary contract and, two, if the contract involves the liquidation of a debt or remuneration, it falls within forced labour. Later, in *Bandhua Mukti Morcha v. Union of India and Ors* (Writ Petition No. 2,135 of 1982, decided on 16 December 1983), dealing with the bonded labourers in the quarries of Haryana, Justice P.N. Bhagwati, Justice R.S. Pathak and Justice Amarendra Nath Sen said that bonded labour falls within forced labour as provided under Article 23. The judgment said, 'Whenever it is shown that a labourer is made to provide forced labour, the court would raise a presumption that he is required

to do so in consideration of an advance or other economic consideration received by him and he is, therefore, a bonded labourer. This presumption may be rebutted by the employer and also by the state government if it so chooses but unless and until satisfactory matter is produced for rebutting this presumption, the Court must proceed on the basis that the labourer is a bonded labourer entitled to the benefit of the provisions of the Act'.

VI. INTERPRETING UNFREE LABOUR: LIMITATIONS OF THE ACT

The BLSAA, 1976, a progressive legislation by all standards, locates Indian slavery in adverse debtor-creditor relationships in employment, but *primarily in inter-generational customary bondage* and its effect, in terms of forfeiture of the constitutional and legal rights of the person. Such a position arises from the conception that at the time of bringing the Act into force, debt bondage in India was largely found linked to the agrarian economy. A precursor to the Act was a study on bonded labour in India by the Lal Bahadur Shastri National Academy of Administration, Mussoorie [NAA, 1990], which, based on field studies in the Jaunsar-Bawar area of Uttar Pradesh and, subsequently, in the Bhandaria block of Palamau district in Bihar in 1972, positioned debt bondage as an agrarian, inter-generational, and customary phenomenon.

(a) Free and Unfree Labour in India

Several academics also deal with the agrarian characteristic of debt bondage. Positioning debt bondage as an agrarian phenomenon, Tanika Sarkar says that like agrestic slavery, debt bondage too was both, among the agricultural labour and the impure castes / untouchables [Sarkar, 1985, Pp. 97-126]. In a forceful argument, Utsa Patnaik argues that during the colonial period, rural India, particularly agriculture, was characterised by acute under-employment, which had followed from the policies of the colonial state, including the free import of cheap manufactures, and the application of laws of alienation of property. This had led to a massive displacement of artisans, on the one hand, and pauperisation of large sections of indebted peasantry into landlessness, on the other. 'The destitute labourer, "freed" from his hereditary ties, or the pauperised peasant took a loan and mortgaged thereby his own capacity to labour as well as that of his descendents' [Patnaik, 1985, 273-347]. She takes this discussion to the post-Independence phase, when she says that the land reforms initiated by the government of India in the first few decades after Independence had aggravated the situation of landlessness and pauperisation of the peasantry; 'The net effect of the implementation of land reform laws on the labouring poor, so far, has been *to perpetuate the old, sem-ifuedal forms of bonded and attached labour* (emphasis added) on an increasingly more monetised base while providing an impetus towards capitalist production for profit' [Patnaik, 1985, 273-347].

These analyses correctly establish debt bondage in India as a monetised form of slavery. However, two other assumptions could be discerned in these arguments: one, that debt bondage is an agrestic phenomenon, in spite of the incontrovertible evidence of bonded labourers employed in mines, construction, and plantations ever since the colonial period; and two, that the debt bondage is a semi-feudal phenomenon. By implication, then, the debt bondage is the result of an incomplete transition to the capitalist mode of production, and it might come to an end when labour is completely 'free' or proletarianised. It further implies that 'unfree' labour is incompatible with capitalism. Many labour and social historians of early capitalism in the West and of the growth of capitalism in the South challenge this linear and reductionist conception of labour subsumption under capitalism. E.P. Thompson, influential labour historian, challenges the concept of proletarians as a pure social category by explaining that the capitalist growth in Britain was uneven, and that the working class in Britain included hand-workers of town and country, semi-independent outworkers, and skilled workers, all of whom

were exploited, consequent to the Industrial Revolution, powered by the machinery of the factory system [Thompson, 1991]. Similarly, Robert J. Steinfeld [2001], comparing the British and American labour laws up to the late nineteenth century, concludes that free and unfree labour are but part of a continuum. He observes that free labour is not innate to the free market; on the contrary, employers and lawmakers perpetuated unfreedom in labour contacts. Basing himself on the 'free'/'unfree' dualism, Gyan Prakash [1997, Pp. 9-26], in a colonial context, argues that freedom is not the project of free market, and that bonded labour as unfreedom was the creation of capitalism to defend the system. He says that 'slavery as a system of domination cannot mean the persistence of 'unfreedom' '. For him, bonded labour, as the 'other' of 'free labour', is a colonial construct. He says, 'to project the universalisation of free labour as the *raison d'etre* of history, therefore, was to stage the bourgeois mode of production as History. Thus, even as capital reinforced and profited from slavery, it composed the servile relations of production in the inverse image of free labour ...as the history of *kamias* in [the] colonial India demonstrates, it was British rule that universalised capital by reconstituting a range of unequal relations of dependence as unfreedom' [Prakash, 1997, Pp. 9-26]. While agreeing with Prakash on the existence of bonded labour or unfree labour as a contemporary phenomenon, Bremen [2007] departs from economic determinism in Prakash's position, and stresses that there was an 'awareness on the part of both landowners and landless that the unequal relationship between them was clearly given an extra dimension by the subjugation that secured a far-reaching and permanent claim on the labour power of the *hali*'. Bremen brings in the significance of the agency of labour, even in the worst forms of employer-employee relationships. It is this agency of labour that Surinder S. Jodhka has [Jodhka, 1995, Pp. 2011-13; Jodhka, 1996, Pp. 1286-87] emphasised in a series of literary dialogues with Tom Brass[23] on the issue of debt bondage among the attached labour, siris, in the agricultural fields of Punjab. Brass points out that movement from pre-capitalism to capitalism does not mark a progressive 'unfreedom' to 'freedom'; and discusses contemporary forms of debt bondage as processes of 'deproletarianization' in broadly two ways; one, in which they prevent the complete severance of workers from the means of production, and two, in which unfree forms of labour are instituted by the capital to prevent workers that behave in 'proletarian' ways, such as demanding higher wages, migrating, forming unions, etc. Jodhka, like Bremen, departs from this position and emphasises the agency of workers in debt bondage. He holds that contemporary forms of agrarian bondage is different from the older practices of complete attachment to a single employer or landlord in that, in many cases, workers negotiate contracts for shorter durations and, in practice, change employers.

These approaches (of Prakash, Jodhka and Bremen) enhance the scope of understanding contemporary forms of debt bondage in India in a variety of manifestations. Given the diversities in Indian agrarian economy, it would be presumptuous to make a simplistic conclusion on the cessation of agrestic bondage in India. Agrarian debt bondage among workers and peasants are still being reported from different parts of the country in the form of *sagri* in Rajasthan, *siri* in Punjab and Haryana, *gothi* in Orissa, *kamia* in Chhatisgargh and agricultural *coolies* in Karnataka. Various studies on many of these situations [Brass 1990, Pp. 36-87, 1995, Pp. 697-98; Jodhka, 1994, Pp. A-102-06; Singh, 1995, Pp. 3,390-92] have shown that agricultural operations are no more feudal but capitalistic, and bonded labour is compatible with capitalist mode of production in agriculture. Moreover, it is also established that inter-generational bondage is no more a typical characteristic of bonded labour. Circular migration and short-term contracts characterise bonded labour in agriculture [Bremen, 1996; Olsen and Murthy, 2000]. As we have already seen, the Indian case law on bonded labour, after the BLSAA, 1976 came into

force, is based on workers in debt bondage in non-agricultural sectors.[24] Incidents of bonded labourers are reported from sectors, like silk industry [Human Rights Watch, 2003], brick kilns (various newspaper reportages), stone quarries, mines and zari industry. In a globalizing India, bonded labour exists as part of commodity production for the Indian and/or global markets, whether the product is silk, garments, zari, marble, sandstone or bricks [Human Rights Watch, 2005]. In all these situations, workers sell their labour power. They are controlled by the employers by means of an advance or delayed payment or non-payment of minimum wages. The employers curtail their mobility, restrict their freedom of expression and right to organise, and provide less than the market value for their produces. Vulnerabilities, rooted in caste and ethnic inequities, and exclusion, exacerbate such situations. Often, at the lower end of the value chain of commodities, where bonded labour exists, employers face severe competition, and try to supply the product at the lowest possible cost, compounding the condition of the proverbial 'downward spiral of labour rights'. As Toyin Falola [2004] says, 'The desire of those who seek labour and those who seek the means to survive converge in ways that create servile conditions' in contemporary forms of bonded labour.

The official position of the government of India has been to take refuge in the traditional character of bonded labour, in order to escape facing the hard facts of contemporary forms of debt bondage. The section on bonded labour in the *Annual Report 2002-03* of the Ministry of Labour begins thus: 'The system of bonded labour is an outcome of certain categories of indebtedness, which have been prevailing for a long time involving certain economically exploited, helpless, and weaker sections of the society. This system emerged from the uneven social structure characterized by feudal and semi-feudal conditions.'

(b) Administrative Distortions

Section 12 of the BLSAA, 1976, lays the duty on a District Magistrate or an officer specified by him to enquire whether any bonded labour or any other form of forced labour is being enforced by or on behalf of any person. Section 13 enjoins the state governments to constitute vigilance committees in each district and each sub-division with District Magistrate as the Convenor. The vigilance committee would facilitate the identification and rehabilitation of the released bonded labourers. The power of implementing the Act has been vested with the District/Sub-Divisional Magistrate, or any other official appointed by him.

What is missing in this elaboration is the role of labour administration, trade unions, and a mobilising strategy. The paternalistic and bureaucratic solution offered in the Act forgets the fact that bonded labour is essentially an employer-employee relationship, in which debt is used by the employer as a labour-control mechanism. The apolitical administrative solution to the bonded labour problem can be traced to the Emergency years, during which the BLSAA was passed by the Congress government under the then Prime Minister Indira Gandhi, as a part of the 20-point programme. The Emergency, declared in June 1975, abrogated the fundamental rights (civil and political rights) of Indian citizens, including the freedom of speech and association; it also put severe curbs on trade union rights. Consequently, all the powers for implementing the Act vest with the District Magistrate. In the absence of any inherent provision in the Act on the methods of identifying bonded labourers, the District Magistrate and the vigilance committee at his/her disposal wielded largely subjective and authoritarian control over the matters of identification, release and rehabilitation of bonded labourers. The government argued that the Emergency would strengthen the implementation capability of the administrative machinery, and would help carry out measures for the benefit of the rural poor.

However, the class bias of the administration remained a stumbling block, '...the bureaucracy itself is drawn from the upper classes and is used to administrative methods which are attuned to the service of the economically entrenched classes. The position of [the] landed gentry and the rich farmers have (sic) been, therefore, if anything, further strengthened by the emergency' [BM., 1977, p. 166]. Personalised, authoritarian, and bureaucratic solutions to the bonded labour problem have been further accentuated by the fact that *panchayati raj* and *nagar palika* institutions are not involved in any way in the implementation of the bonded labour problem.

VII. CONCLUSION

While understanding the definition of bonded labour in India, it is grossly inadequate to make cursory references to the international concepts of slavery and forced labour in the UN and the ILO, but rather it should locate its origins in the politics of colonialism and the Cold War. Slavery, and 'institutions and practices similar to slavery' are integral elements of mercantile capitalism and colonialism. In India, the colonial powers first accommodated slavery. Later, the abolition of slavery was selectively carried out, creating in its place an indentured system of labour, using contract and bonded labour forms of slavery for the commercial interests of the colonial powers. The framers of the Indian Constitution envisaged that the Constitution would be the harbinger of the unfinished social and economic revolution in India, and would provide for the prohibition of all forced labour in Independent India. The BLSAA, 1976, although a unilateral declaration of the freedom of the bonded labourers, has inherent constraints in addressing contemporary forms on bonded labour in agriculture and non-agricultural sectors, because the administrative interpretation of bonded labour has a bias towards 'feudal', 'traditional' agrestic forms of bondage. It has also failed to address agrarian bondage, because of the class character of the implementing authority and the concentration of power in the District Magistrate, who is not bound by any democratic process of accountability.

NOTES

1. In Writ Petition (Civil) No. 3,922 of 1985 (*PUCL* v. *State of Tamil Nadu* and Others)

2. *People's Union for Democratic Rights (PUDR) and others* v. *Union of India and others* 1982 AIR 1473; *Bandhua Mukti Morcha* v. *Union of India and others* 1984 AIR 802; *Neerja Chaudhary* v. *Government of Madhya Pradesh.*

3. India ratified the ILO Convention, No. 29 of 1930 in 1954.

4. India ratified the ILO Convention, No. 105 of 1957 in May 2000.

5. J.F. Ade Ajayi (University of Ibadan, Nigeria) presented this paper --*Unfinished business: Confronting the legacies of slavery and colonialism in Africa*-- during a lecture at Kolkata, India, in 2002, organised by the South-South Exchange Programme for Research on the History of Development (SEPHIS) and the Centre for Studies in Social Sciences, Calcutta (CSSSC).

6. 'The anti-slavery movement focused its attention on stopping the trans-Atlantic slave trade. It was not designed as such to repair the ravages done to Africa by the slave trade. We could say that the missionary movement that grew out of the anti-slavery movement did attempt some reparation in its policy of combining Christianity, Commerce and Civilisation. But the effectiveness of the missionary movement was greatly compromised by its failure to accept the slave trade as a sin incompatible with the teachings of the Bible. The missionaries were, therefore, willing to compromise with slave owners once again. When they discovered that they needed to promote internal slavery and slave trade, in order to promote agricultural production for European industries, they did not hesitate to make the compromise. From the 1840s to the 1880s, they promoted what they called legitimate trade by encouraging a wide expansion of the use of so-called domestic slaves for the production and transportation of palm produce and other commodities to exchange for imported ammunition to continue the wars that continued to yield the slaves'. *ibid*

7. She agrees that 'The suppression of slavery was part of the ideological package, which, with Christianity, commerce, and civilization, made up the colonial mission'.

8. Seventeen Powers were represented in the Brussels Anti Slavery Conference, viz., Germany, Austro-Hungary, Belgium, Denmark, Spain, the Independent Congo State, the United States of America, France, Great Britain, Italy, the Netherlands, Persia, Portugal, Russia, Sweden and Norway, Turkey and Zanzibar [Ghait, 1892, Pp. 287-96].

9. Article 1 of the Slavery Convention, 1926, defines Slavery as 'the status or condition of a person over whom any or all of the powers attaching to the right of ownership are exercised'.

10. Claude E. Welch Jr. argues that the two major twentieth century treaties - the 1926 League of Nations' *Slavery, Servitude, Forced Labour and Similar Institutions and Practices Convention;* and the 1956 Supplementary Convention (*Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery* - opened a definitional morass. Both treaties owed a great deal to behind-the-scene work by Anti-Slavery,

founded in 1839 in London. Anti-Slavery identifies six forms of twenty-first-century slavery: bonded labour; forced labour; forced marriage; worst forms of child labour; human trafficking; and slavery by descent [Welch, 2008].

11. 'The Working Group on Contemporary Forms of Slavery* has the general responsibility in the United Nations for the study of slavery in all its aspects. Meeting for the first time in 1975 as the Working Group on Slavery, the group was renamed in 1988. The Working Group consists of five independent experts* chosen on the basis of fair geographical representation from the membership of the Sub-Commission on Prevention of Discrimination and Protection of Minorities. The group meets for one week each year and reports to the Sub-Commission' [United Nations Office of the High Commissioner for Human Rights, 1991].

12. Suzanne Miers illustrates this argument by citing the case of adoption of UNCHR. She says that when the UN drafted the Universal Declaration of Human Rights in 1948, it incorporated perspectives from the West, which regarded human rights as a set of freedoms, including freedom of speech, assembly, information, etc., and the perspective of the Soviet Union, which stressed freedom from want and discrimination, and equal opportunity.

13. The 1956 convention added four institutions and practices to the 1926 agreement: (1) Debt bondage, in which the value of services of a debtor is not applied to liquidating the debt, or the length and nature of these services are not limited and defined; (2) Serfdom, in which a tenant is bound by law, custom or agreement to live and labour on another's land and is not free to change his or her status; (3) Certain (marriage) institutions and practices, i) when a woman is given or promised to be given in marriage, without the right to refuse, for payment in money or kind, ii) when a woman may be transferred by her husband, his family or his clan to another for value received, or iii) widow inheritance by another person; and (4) institutions and practices of child exploitation, in which a child or young person under 18 is delivered by a parent or guardian to another person, whether for reward or not, with a view to the exploitation of the child or young person or of his labour.

14. *Ibid.* Gyan Prakash says, 'My essay explores this connection between servitude and freedom in the context of the history of *kamias,* a group of agricultural labourers distinguished by their long-term ties to landlords known as *maliks.* ...a *kamia* worked all his life for the same landlord, earning wages for the days he was employed and expecting assistance in times of need. For his son's marriage, he received some grain, money and a small plot of land from the landlord. Following this transaction, called *kamiauti,* the son, too, became the malik's *kamia.* Women also became attached to the same master through the labour relationship of their husbands. These relations were structured as dependent ties that represented the landlord as a munificent patron and the labourer as his dependent subject. This *kamia-malik* relationship, classified as slavery and serfdom initially, was reformulated as debt-bondage after the abolition of slavery in 1843. Advances of grain, money and land became loans, and the *kamias* came to be reported and administered as bonded labourers'.

15. This paragraph from Thaigaraja, 1917, 'Indian Coolies in Ceylon Estates', *Indian Review,* March, has been quoted in D.W. Ananda Wickramasinghe and D.C. Cameron [2002].

16. The Preamble of the Indian Constitution says, that the people of India constitute India into 'a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens JUSTICE, social, economic and political; LIBERTY of thought, expression, belief, faith and worship; EQUALITY of status and of opportunity; and to promote among them all FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation'.

17. Part III of the Indian Constitution guarantees the 'Fundamental Rights' to all the citizens. The fundamental rights are enforceable in the High Courts and the Supreme Court. In writ petitions before these courts, a person or a citizen can seek enforcement of the fundamental rights, and redress for their breach. On the contrary, The Directive Principles of State Policy are contained in Part IV, Articles 36 to 50, of the Indian Constitution. Many of the provisions of the Directive Principles correspond with the social, economic, and cultural rights. Article 37 of the Constitution declares that the Directive Principles 'shall not be enforceable by any court, but the principles therein laid down are nevertheless fundamental in the governance of the country and it shall be the duty of the state to apply these principles in making laws.

18. Intervening in the debate in the Constituent Assembly, Dr. B.R. Ambedkar, Chairman of the Constituent Assembly, said, 'Because we did not want merely a parliamentary form of Government to be instituted through the various mechanisms provided in the Constitution, without any direction as to what our economic ideal, as to what our social order ought to be, we deliberately included the Directive Principles in our Constitution. I think, if the friends who are agitated over this question bear in mind what I have said just now that our object in framing this Constitution is really two-fold: (i) to lay down the form of political democracy, and (ii) to lay down that our ideal is economic democracy and also to prescribe that every Government whatever, ... it is in power, shall strive to bring about economic democracy, much of the misunderstanding under which most members are labouring will disappear'.

19. The relationship between enforceable civil and political rights (the fundamental rights), and non-enforceable social, economic and cultural rights (the directive principles), has been a recurrent subject matter of the Constitutional Case-law in India. *Keshavananda Bharati* v. *State of Kerala* [1973] 4 SCC 225; *State of Madras* v. *Champakam Dorairajan* [1951] SCR 525; *Chandra Bhavan* v. *State of Mysore* [1970] 2 SCR 600; *Minerva Mills* v. *Union of India* [1980] 3 SCC 625; *A.K. Gopalan* v. *State of Madras* [1950] SCR 88; *Vincent Pannikulangura* v. *Union of India* [1987] 2 SCC 165; *Paschim Bangal Khet Majoor Samity* v. *State of West Bengal* [1996] 4 SCC 37; *Vishaka* v. *State of Rajasthan* [1997] 6 SCC 241; are examples.

20. Article 23 of the Indian Constitution reads, 'Traffic in human beings and begaar and other similar forms of forced labour are prohibited and any contravention of this provision shall be an offence punishable in accordance with law'.

21. On 24 October, 1975, the President of India promulgated the Bonded Labour System (Abolition) Ordinance, 1975. By the said Ordinance, the bonded labour system was abolished, bonded labourers were freed and discharged from any obligation to render any bonded labour and their bonded debts were extinguished. To replace the Ordinance, the Bonded Labour System (Abolition) Bill, 1976, was introduced in the Parliament.

22. Explanation for the removal of doubts, it is hereby declared that any system of forced, or partly forced labour under which any workman being contract labour as defined in Cl. (b) of subsection (1) of Sec. 2 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970), or an inter-State migrant workman as defined in Cl. (e) of sub-section (1) of Sec. 2 of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 (30 of 1979), is required to render labour or service in circumstances of the nature mentioned in sub-clause (1) of this clause or is subjected to all or any of the disabilities referred to in sub-clauses (2) to (4), is 'bonded labour system' within the meaning of this clause.

23. This dialogue appeared in issues of *Economic and Political Weekly* dated September 24, 1994; April 1, 1995; August 5-12, 1995; January 27, 1996, Pp. 237-40; May 25, 1996 and August 17, 1996.

24. The *PUDR* case pertained to construction workers and *Bandhua Mukti Morcha* case pertained to quarry workers.

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DOES GROWTH NEED MORE SECURITY OR HUMAN CAPITAL? EXPERIENCE FROM TWO ASIAN GIANTS

Purna Chandra Parida

This paper examines the impact of both productive and unproductive public expenditure on economic growth of two Asian giants, namely, India and China during the period 1980 to 2004. The unwarranted rise of military expenditure in south Asian sub-continent, particularly in India and China, and the creeping decline of public expenditure on education encourage us to examine the impact of these factors on real GDP. Nevertheless, we are also keen to know the growth led effects on expenditure patterns of these two countries. In this context, we have applied cointegration and VECM techniques to know the long run and causality relationships among the variables of interest. The empirical findings of the study suggest that both countries required better human capital than high security to foster higher real GDP. Further, it finds that military expenditure and human capital are influenced by higher levels of real GDP in these two countries.

Key words: human capital, security and economic growth

I. INTRODUCTION

The theoretical literature in development economics suggests that a country's economic development and growth depend upon the quality of human resources. A country requires both financial resources and proper planning to improve the quality of human resources. The inability of the government to fulfil both of these has led to development of public and private partnership in various sectors. Economic theory suggests that higher spending on social heads could generate better quality of labour force, which is by virtue of means being considered as an important input in the production process. The relationship between public spending and economic growth has extensively been debated in economic literature, and which could be dated back to Wagner's hypothesis on public expenditure and Keynes' theory on aggregate effective demand. It has been argued on the one hand that public expenditure is seen as an exogenous factor that can be used as a policy instrument to influence economic growth. On the other hand, public expenditure is seen as an endogenous factor or as an outcome, not a cause of growth in national income. The causality relationship between the two has been examined extensively for developed and developing countries. The findings were mixed, in some cases unidirectional causality from expenditure to income (or income to expenditure) or bi-directional causality between the two aggregates [Oxley, 1994, Pp. 286-293; Khan, 1990, Pp. 115-123; and Bird, 1971]. Using cross-section data, neo-classical economists examined the impact of overall government expenditure on long-run economic growth [Feder, 1983; Romer, 1986, Pp. 1002-1037; Barro, 1990, Part 2, Pp. S103-S124; 1991; Levine and Renelt, 1992, Pp. 942-963; Devaranjan *et. al.*, 1996 and Sala-i-Martin, 1997, Pp. 178-183]. The most common result of these studies is that government expenditure is detrimental to economic growth.

Another critical issue, which has dominated the public expenditure literature, is that military expenditure and its negative impact on economic growth. Excessive military expenditures impose a heavy fiscal burden on a country, crowd out private investment or high productive public expenditure [Gupta, Schiff and Clements, 1996]. The decline of private investment and public expenditure on productive activities reduces economic growth as well [Knight *et. al.*, 1996, Pp. 1-37]. The empirical literature, however, found a mixed evidence on the relationship between military spending and economic growth. Diamond [1990] argues that defence expenditure, by ensuring the maintenance of security and public order, may be an essential precondition for healthy investment environment. However, Arora and Bayoumi [1994] argue that reduction

Purna Chandra Parida is Associate Fellow, National Council of Applied Economic Research (NCAER), Parisila Bhawan, I.P. Estate, New Delhi - 110002. E-Mail: <paridaapc@yahoo.co.in> or <paridapc@gmail.com>

in world military spending would offer significant long-term benefits for private investment and private consumption, especially for developing countries. Using a cross-section growth regression analysis, Benoit [1973, 1978] found a positive relationship between government spending in military activities and economic growth for 44 developing countries for the period of 1950 to 1965. In contrast, other studies found negative relationship between military spending and economic growth [Fiani *et. al.,* 1984; Lim, 1983, Pp. 106-138; Deger and Smith, 1985]. Using causality analysis based on time series data, Dakurah *et. al.* [2001] did not find any relationship between military spending and growth for 62 countries.

The issue of a trade-off between military expenditure and social expenditure is very critical for policy decision-making, especially for emerging economies like those in south-east Asia and the Latin American countries. A group of studies argued that higher defence spending in developing countries may have negative consequences for socio-economic development programmes such as education and health. This has been supported by economic theory [Fosu, 2001; Adebiyi, 2003 and Tomori and Adebiyi, 2002]. A study by Smith [1980] reported that defence spending does not significantly affect the social wage (including education and health), the burden of higher defence outlays primarily falling on investment. In contrast, Gyimah-Brempong [1998, Pp. 590-616] found that there is a trade off between military spending on the one hand and spending on social services, investment in physical and human capital on the other. Dunne and Mohammed [1995] also found military spending in African countries substitute for investment in human and physical capital.

In this paper, the above three issues are discussed for the two largest economies in south Asia, namely India and China, during the period of 1980 to 2004. These issues uphold critical importance in the present context, where both the countries are on high growth trajectories. In order to sustain the high growth rate, it is most important to improve the public expenditure on human capital and achieve higher productivity and growth. But, the growing tension of security in the south Asian sub-continent, the presence of a threat of war and the arms race have probably compelled each country to allocate more funds for defence. A question arises here: Are these countries diverting resources from social services to defence? Is security much more important than human capital to sustain the high growth rate? Or, is it the high growth rate, which is responsible for the unwarranted spending on security in India and China? The discussion of all these issues could provide valuable insights to policy makers and researchers.

II. ECONOMIC GROWTH AND EXPENDITURE PATTERN OF INDIA AND CHINA

In this section, we analyse the trend pattern of economic growth, public spending on education and health and public spending on military for India and China by using information from World Development Indicators, World Bank.

> *On Aug 07, 2007, International Monetary Fund managing director Rodrigo Rato said that: "China and India are the new engines of world economic growth, replacing the United States and other developed countries. He also pointed out that China would overtook the United States this year to become the biggest contributor to world economic growth".*

The glorious success of these two Asian giants could be due to economic reforms they have carried out for more than one decade. The Chinese economy considered as a command economy during the Mao era, opened itself to the world economy with the economic reforms in 1979. As compared to China, India started economic reforms late. The initial initiative of economic reforms was undertaken in early eighties, but the full-fledged economic reforms of integrating Indian economy with the rest of the world started after the balance of payments crisis in 1991. Both the economies experienced extraordinary growth during the last decade. Figure 1 shows that both China and India maintained higher economic growth rate during 1990s. If we compare the

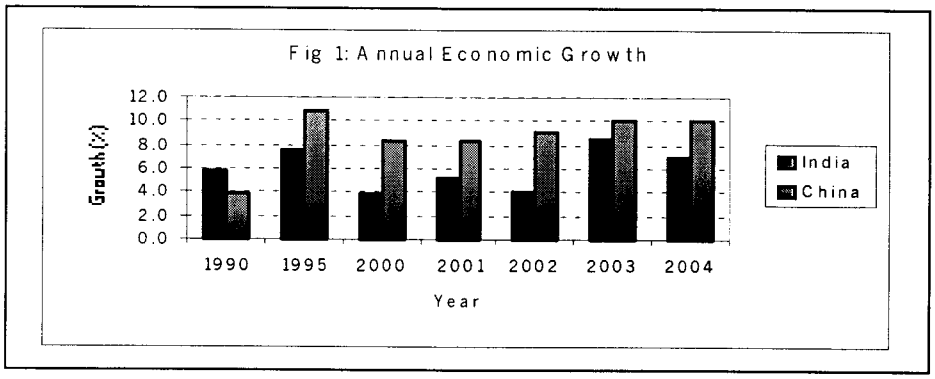


Fig 1: Annual Economic Growth
Growth (%)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1990
1995
2000
2001
2002
2003
2004
Year
India
China

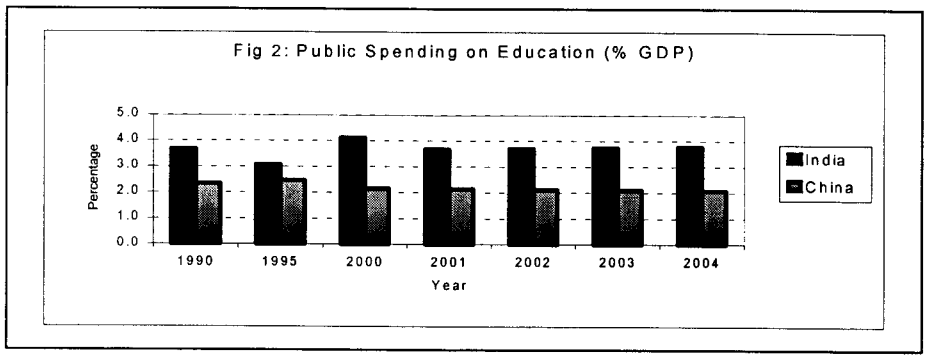


Fig 2: Public Spending on Education (% GDP)
Percentage
5.0
4.0
3.0
2.0
1.0
0.0
1990
1995
2000
2001
2002
2003
2004
Year
India
China

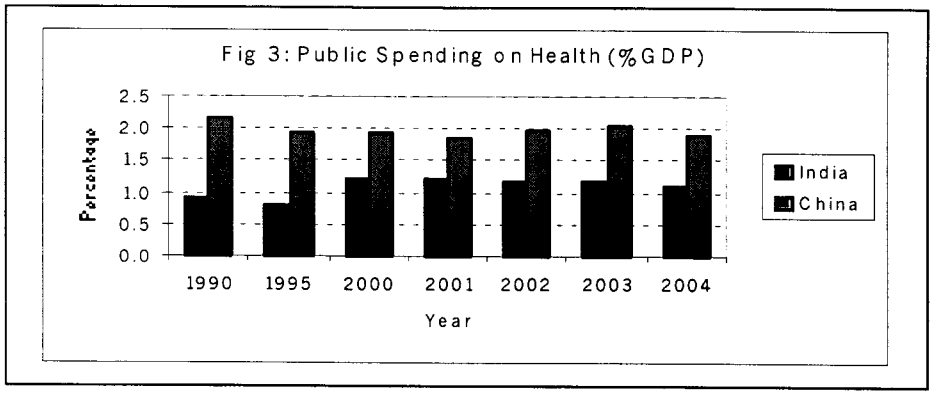
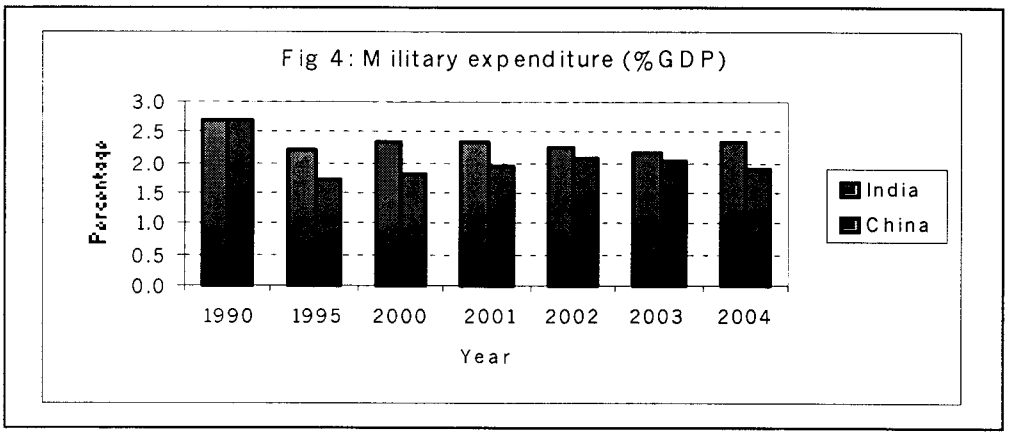


Fig 3: Public Spending on Health (%GDP)
Percentage
2.5
2.0
1.5
1.0
0.5
0.0
1990
1995
2000
2001
2002
2003
2004
Year
India
China



growth rate of two countries, China surely overtakes India in all years except 1990. Before 1990 also, China had registered higher economic growth than India except for a few years. Since 1980 till date, China has achieved higher economic growth than India except for a few years such as 1981, 1989 and 1990. Overall growth trend shows that China has already surpassed the dream growth rate of 10 per cent level and India is approaching the same level.

As compared to the trend of economic growth, the pattern of public spending on the social sector, particularly on education and health, however, is dismal both for India and China. Public spending on education (only central government) and health (both centre and federal states) in case of India was 2.8 per cent of GDP in 1980, which was increased to 3.8 per cent in 2004, a mere 1 percentage point rise during the span of 25 years. In case of China, the scenario is more pathetic, where the public spending as percentage of GDP instead of rising, had declined from 2.5 per cent in 1980 to 2.1 per cent in 2004. Figure 2 shows the trend of public spending on education as percentage of GDP for China and India. For India, while the ratio has relatively increased from 2001 onwards, it has declined for China after 1995.

Public expenditure on health is abysmally low both in India and China in relation to their economic growth. Figure 3 demonstrates that public spending on health as percentage of GDP has continuously declined in India since 2001. In case of China, the expenditure scenario on health is not optimistic either, where it has declined continuously since 1990 till 2001 before a slight improvement thereafter. It is also astonishing that while both the countries have achieved incredible economic growth rate, the public expenditure on health as percentage of GDP has never crossed more than 2.5 per cent in China and 1.5 per cent in India since 1980. It suggests that the social sector in these two countries has remained neglected at least from the government side, though it has got the attention of private sector during the last few years. A lot of effort is still required from both public and private agents to improve the current situation of social sector.

The paralysed growth of public spending on the social sector, particularly on education and health, and a relatively higher spending on defence both in India and China is a matter of concern from the economic point of view. It goes against the general perception that military spending is a non-developmental expenditure and does not add much value to total production and is considered as an unproductive activity. But

looking at the growth and expenditure scenario in India and China, a question which arises is: Is the economic growth of these two emerging economies explained by high security? Figure 4 shows that military spending as percentage of GDP for India was 2.7 per cent in 1990 and which declined to 2.2 per cent in 1995. Since then, it has slightly moved up till 2004 except for a dip in 2003. China had spent an equal percentage of GDP in military activity in 1990, as in India. The expenditure on military, however, declined to 1.7 per cent of GDP in 1995. But, since then China has been spending a higher percentage of its GDP on military activities. Overall, the trend analysis of growth rate and expenditure pattern of India and China suggest that higher economic growth rate is associated with sluggish expenditure on education and health and higher spending on military activities.

III. THEORETICAL FRAMEWORK

The Keynesian theory of effective demand emphasised the dominant role of fiscal policy over monetary policy in influencing economic growth. According to Keynes, government can play a pivotal role during the economic recession, by stimulating effective demand through its spending on various activities. An increase of government spending generates more employment, output and growth of the economy at least in the short run. This contrasts with the views of Classical economists that market plays a dominant role in clearing the demand and supply constraints and maintains equilibrium in the economy. The argument of Classical economists was well supported by the Neoclassical economists, in that they argued that fiscal policies are ineffective in view of the well-known crowding-out phenomenon.[1]

But the Keynesian argument that fiscal policies enhanced economic growth was well supported by the new-growth theorists.[2] The new-growth theorists argued that government intervention creates a temporary effect during the transition to equilibrium, and also a possible long-term effect from public expenditure on economic growth. Lucas [1988, Pp. 3-42] stated that public expenditure on human capital would lead to increase of economic growth either through higher productivity of human capital inputs or through existing stock of knowledge that leads to innovation and spills over to the rest of the economy. The Neo-classical endogenous growth theory emphasises the role of government spending in general and spending on services like education and health in particular, required to improve human capital, which enhances productivity and economic growth in the long run.

To sum up, while the Classical and the Neo-classical economists argued that government expenditure has negative effect on economic growth, Keynes and the new-growth theorists advocated an opposite view. Nevertheless, a common view of all these economists is that causality runs from expenditure to economic growth. In contrast, a different theory developed by Wagner's [1890] states that the direction of causality between government spending and economic growth runs the other way round. It postulates that, during the industrialisation process, as the per capita income of a nation increases, the share of public spending in total expenditures also rises. Wagner offered three possible explanations why this was the case [Bird, 1971]. First, the administrative and protective functions of a state would extend with population density and urbanisation in order to maintain efficient functioning of the economy, public order and security. Second, demand for public services such as education and other socio-economic and cultural services are poised for a rise on account of an income elasticity exceeding unity. Last, there is a need for the state to embark upon large-scale capital spending in order to meet the technological requirements of an industrialised society.

Besides public expenditure on human capital, there are other expenditures that also affect economic growth of a country. Out of those, public expenditure on military is one, which got the attention of researchers after Benoit [1978]

found positive impact of military expenditure on economic growth. Benoit's study utilized a cross-sectional sampling of 44 LDCs between 1950 and 1965 to determine the relationship between military expenditures, growth rates, investment rates, foreign aid receipts, and certain other variables. Using correlation and regression analysis, the study reported that military expenditure was positively and significantly correlated with economic growth. It states that public expenditure on military contributes to the civilian economy indirectly by providing education and vocational and technical training, which can improve the human capital and economic growth. However, a study by Biswas and Ram [1985] argued that Benoit's sample selection was biased against the poorer LDCs. Out of total sample of 44 countries, the study had chosen only seven as low-income LDCs, which makes their sample t probably not a representative one as far as the classification of World Bank Development Report is concerned. By adding several least developed LDCs and then dividing the new group into separate subgroups, Biswas and Ram found consistently negative correlation between military expenditure and economic growth for the LDCs. A study by Taylor [1981] on sixty-nine states and using cross-section analysis found a negative relationship between military expenditure and economic growth. But while doing the time series analysis for each state separately, it found no significant relationship for 50 cases, negative relationship for 14 cases and positive relationship for 5 cases. Overall, it concluded that there was no significant relationship between military expenditure and economic growth. Another study by Joerding [1986, Pp. 35-40] examined the causality relationship between economic growth and military spending. The study reported that causality runs from the former to the latter. He claims that a growing country may want to strengthen itself against foreign or domestic threats by increasing its military spending as proportion to GDP.

From the above theoretical discussion, we derive the following hypotheses and test them using econometrics tools:

* Real GDP (level), real public expenditure on education (level) and real public expenditure on military (level) have long run and short run relationships (H1).
* An increase of real public expenditure on health, education and military leads to an increase of real GDP (H2).
* An increase in real GDP leads to more real public spending on education and military (H3).
* Real GDP and real public expenditure on human capital are complementary to each other (H4).

IV. DATA SOURCE AND METHODOLOGY

The present study uses annual data for the period from 1980 to 2004. For real GDP, we have taken gross domestic product at constant 2000 US$ for both India and China. Human capital has been measured in terms of real public expenditure on education (REDUEXP). The term security is measured by real public expenditure on military (RMTEXP). It includes all current and capital expenditures on the armed forces, including peacekeeping forces; defence ministries and other government agencies engaged in defence projects; and paramilitary forces. Data for all three indicators are taken from various *World Development Indicators* CD-ROMS. It is important to note here that data on military expenditure as percentage of gross domestic product for India is taken both from WDI indicators, World Bank (for the period 1986 to 2004) and Economic Survey, Government of India (for the period 1980 to 1985). For China, data on military expenditure is taken both from WDI and Asian Development Bank (Data series are given in Table A1 in Appendix). All the variables are measured in millions of US dollar and are taken in terms of log level for estimation.

Methodology used in this paper serves two purposes. First is to examine the long run and run relationship between real GDP and public expenditure on education and military using the Johansen-Juselius [1990, Pp. 169-210] cointegration technique. Second is to find out Granger causality among the variables under examination here using vector-error-correction (VEC) model. The details of the econometric methods used in this paper are explained below. Long run relationship For the long run analysis, first it is necessary to examine the unit root properties of each variable of interest. According to the standard cointegration techniques, the variables need to be non-stationary and be stationary at the same order.[3] For this purpose, we use the Augmented Dickey Fuller (ADF) [Dickey and Fuller, 1981] test. This test analyses unit root of a variable in the following form:

$$\Delta y_t = \alpha_0 + \alpha_t t + \beta y_{t-1} + \sum_{j=1}^{k} \gamma_j \Delta y_{t-j} + \varepsilon_t \qquad \ldots.(1)$$

where, y_t is a time series variable, Δ is the first difference operator and ε_t is stationary random error. The null hypothesis is that y_t is a non-stationary series and it is rejected when β is significantly negative. The constant and the trend terms are retained only if significantly different from zero. The optimal number of lags, *k* for each variable, is determined by minimizing the Akaike Information Criteria (AIC).

After finding that all the variables are stationary at their first difference, the long run analysis is carried out using the Johansen-Juselius maximum likelihood cointegration technique, which is considered as a superior technique over the Engle-Granger technique [see Enders, 1995, Pp. 385].[4] According to Johansen [1988, Pp. 231-254] and Johansen and Juselius [1990], a *p-dimensional* vector auto-regressive model with Gaussian errors can be expressed by its first-difference error correction forms as:

$$\Delta y_t = \Pi y_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta y_{t-i} + B x_t + \varepsilon_t \qquad \ldots.(2)$$

where, $\Pi = \sum_{i=1}^{p} A_i - I, \Gamma_i = \sum_{j=i+1}^{p} A_j$

y_t is a k-vector of non-stationary I(1) variables, x_t is a d-vector of deterministic variables, A is coefficients matrix, I is identity matrix and ε_t is an independently and identically distributed n-dimensional vector with zero mean and variance matrix $\sum_{\varepsilon}$. The rank of Π equals the number of co-integrating vectors. In order to test the number of co-integrating vectors, Johansen [1988] and Johansen and Juselius [1990] proposed two test statistics, namely, the trace (λ_{trace}) and the maximum Eigen value (λ_{max}) statistics.[5] The first statistic tests the null hypothesis that the number of distinct cointegrating vector is less than or equal to r number of cointegrating vectors against a general alternative. The second statistic tests the null that the number of cointegrating vectors is r against the alternative of r+1 cointegrating vectors. The lag length of cointegration VAR is being decided on the basis of AIC.

Short Run Dynamics

In order to find the causality effects among the variables such as RGDP and REDUEXP and RMTEXP, we have applied error-correction model (ECM). Granger [1988] points out that if a cointegrating vector exists among the variables, there must be causality among these variables at least in one direction. Engle-Granger [1987] provides a test of causality, which takes into account information provided by the cointegration properties of the variables. The tri-variate error correction model used in this study is as follows:

$$\Delta Y_t = \alpha_0 + \sum_{m=1}^{M} \beta_{1m} \Delta X_{t-m} + \sum_{n=1}^{N} \phi_{2n} \Delta Y_{t-n} + \sum_{q=1}^{Q} \gamma_{3q} \Delta Z_{t-q} + \lambda e_{t-1} + \varepsilon_t \qquad \ldots.(3)$$

where Y_t, X_t and Z_t are three time series variables, λe_{t-1} is error correction term (ECT), which is nothing but the $\lambda[Y_{t-1} - \hat{a}_0 - \hat{a}_1 X_{t-1} - \hat{a}_2 Z_{t-1}]$. According to Granger [1988] and Miller and Russek [1990], there are two possible sources of causation of Y_t by X_{t-j} in the causal model like equation (3), either through a_{ij} or through the ECT (i.e., whether or not $\lambda = 0$). Here, ECT measures the long run causal relationship amongst the above three variables while aij measures their short run causal relation. It contrasts the standard Granger causal relation that exclusively deals with combined significance of the coefficients of the lagged terms of X_t in explaining Y_t and with combined significance of the coefficients of the lagged terms of Y_t in explaining X_t. The lag length of each variable in the ECM is determined through Akaike Information Criteria (AIC).

V. EMPIRICAL RESULTS

The ADF unit root test results of different variables for India and China such as RGDP, REDUEXP and MTEXP are reported in Table 1. The results evidence that all the variables are non-stationary at log levels and stationary at first difference, which explains that variables under consideration for each country are integrated at an order of 0, i.e., they are I(0).

Table 1. ADF Unit Root Test

Variables (1)	Variables at level (2)	Variables at first difference (3)
INDIA_RGDP	0.669	-4.642*
INDIA_REDUEXP	-0.363	-4.491*
INDIA_MTEXP	-0.216	-6.753*
CHINA_GDP	-0.327	-4.651*
CHINA_REDUEXP	-0.461	-4.103*
CHINA_MTEXP	1.064	-4.940*

Note: All variables are taken in log form.
* Significant at 1% level
** Significant at 5% level.

Since, variables are stationary at the same order, we have applied Johansen-Juselius [1990] (hereafter JJ) maximum likelihood multivariate test to find out the long run equilibrium relationship among them. The results of JJ cointegration for India and China are reported in Table 2 and 3, respectively.

Table 2. JJ Cointegration Results for India

Johansen Cointegration Test [ln(RGDP), ln(REDUEXP), ln(MTEXP)]							
No of Cointegrating vectors(r) (1)	Eigenvalue (2)	Trace Statistic (3)	5% Critical Value (4)	Prob.** (5)	Max-Eigen Statistic (6)	5% Critical Value (7)	Prob.** (8)
None *	0.80	50.20	29.80	0.00	36.79	21.13	0.00
At most 1	0.43	13.41	15.49	0.10	12.83	14.26	0.08
At most 2	0.02	00.58	03.84	00.45	00.58	03.84	0.45

Normalized cointegrating coefficients

Ln(RGDP)	Ln(REDUEXP)	Ln(MTEXP)
1.00	-0.82	0.10
	(0.02)	(0.05)

Note: * denotes rejection of the hypothesis at the 0.05 level
** MacKinnon-Haug-Michelis [1999] p-values
Standard error in parentheses

The JJ cointegration result for India shows that both trace statistic and max-eigen statistic are significant at 5 per cent significance level. It implies that at least one cointegrating vector exits among the variables for India. In other words, all three variables, real gross domestic product, real expenditure on education and real expenditure on military, shared a long run equilibrium relationship.[6] This supports our first hypothesis (H_1) partially that all three variables have a long run relationship. The long run normalised cointegrating coefficients of variables are displayed in lower part of the Table 2. The standard error of both EDUEXP and MTEXP is very low, which suggests that the coefficients of both the variables are statistically significant. Further, the sign of each variable indicates that EHEXP and MTEXP are, respectively, positively and negatively related to RGDP in the long run.[7]

Similar to the results in case of India, the cointegration results of China evidence a single cointegrating vector. The results reported in Table 3 show that both trace statistic and max-eigen statistic are significant at 5 per cent significance level. This implies that variables for China also evidence a long run relationship. The long run normalised cointegrating coefficients demonstrate low standard errors for both the variables. This indicates that both the variables are possibly statistically significant. Significantly, both EDUEXP and MTEXP possess expected signs similar to the case of India. This contradicts the findings of earlier studies that military expenditure leads to high economic growth.

Table 3. JJ Cointegration Results for China

Johansen Cointegration Test [ln(RGDP), ln(REDUEXP), ln(MTEXP)]							
No of Cointegrating vectors(r)	Eigenvalue	Trace Statistic	5% Critical Value	Prob.**	Max-Eigen Statistic	5% Critical Value	Prob.**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
None *	0.74	38.18	29.80	0.00	28.06	21.13	0.00
At most 1	0.36	10.12	15.49	0.27	9.48	14.26	0.25
At most 2	0.03	0.64	3.84	0.42	0.64	3.84	0.42

Normalized cointegrating coefficients

Ln(RGDP)	Ln(REDUEXP)	Ln(MTEXP)
1.000	-1.334	0.036
	(0.065)	(0.156)

Note: * denotes rejection of the hypothesis at the 0.05 level
** MacKinnon-Haug-Michelis [1999] p-values
Standard error in parentheses

The presence of long run relationship among the variables facilitates to explore the short-run adjustments. In this context, ECM is used to find out the direction of causality among the variables. Tables 4 and 5 demonstrate error-correction results for India and China, respectively. In case of India, the error-correction term is negative and statistically significant at 5 per cent level only for education expenditure equation. The negative sign suggests that the ECT acts as a force, which causes the integrated variables to return to their relationship in the long run when they deviate from it. From the second equation in Table 4, we see that for India, the error-term is statistically significant, which implies that real GDP and real public expenditure on military have strong impact on public expenditure on education in the long run.

Table 4. Error-correction Results for India

Dependent Variables (1)	DRGDP (2)	DREDUEXP F-statistics (probability) (3)	DRMTEXP (4)	ECM(-1) coefficients (t-statistics) (5)	Causal inferences derived from F-statistics and t-statistics (6)
DRGDP	0.17	2.89*	0.03	0.07	REDUEX ——SR——> RGDP
	(0.88)	(0.10)	(0.97)	(0.61)	
DREDUEXP	2.54*	1.57	0.71	-0.97*	RGDP ——SR——> REDUEXP
	(0.10)	(0.24)	(0.51)	(-2.87)	RGDP, RMTEXP ——LR——> REDUEXP
DMTEXP	3.97**	0.31	0.77	-0.15	RGDP——SR——> RMTEXP
	(0.05)	(0.74)	(0.48)	(-0.96)	

Note: All variables are taken in log form. SR and LR indicate short and long run causality.
* significant at 10% level
** significant at 5% level

As far as short run impact is concerned, the F-statistics evidence that real public expenditure on education is statistically significant and has strong impact on real GDP. It suggests that real GDP and public expenditure on human capital (i.e., education) are supplementary to each other that proves our fourth hypothesis is true for India. It also suggests that our second hypothesis holds true partially, where public expenditure on human capital but not military expenditure has a strong impact on RGDP. Military expenditure on the other hand, has no impact on real GDP either in the short run or in the long run, rather it is influenced by RGDP in the short run. Our results do not support the findings of earlier literature that military expenditure supplements economic growth of developing countries. In nutshell, the causality analysis for India suggests that higher RGDP is the driving force behind higher military expenditure, which supports our third hypothesis. In addition to this, our result demonstrates that there exists bi-directional causality between real GDP and public expenditure on human capital in India.

In case of China, the error-correction results demonstrate similar kind of outcomes like India except for the short run effect of education expenditure on real gross domestic product. Overall, the error-correction results for China suggest that higher real GDP is associated with higher public expenditure on human capital (i.e., here, education) in the short run. In the long run, neither public expenditure on human capital nor public expenditure on military influences real GDP. But the higher level of real GDP in China has helped that country to spend more on military expenditure in the short run and on human capita in the long run.

Table 5. Error-correction Results for China

Dependent Variables (1)	DRGDP (2)	DREDUEXP F-statistics (probability) (3)	DRMTEXP (4)	ECM(-1) coefficients (t-statistics) (5)	Causal inferences derived from f-statistics and t-statistics (6)
DCHINA_RGDP	5.20	2.89	0.57	0.02	EHEXP ——SR——> RGDP
	(0.00)	(0.10)	(0.58)	(0.27)	
DCHINA_EHEXP	0.71	1.83	2.23	-0.74*	RGDP, MTEXP —LR—> EHEXP
	(0.51)	(0.20)	(0.15)	(-2.98)	
DCHINA_MTEXP	2.91	1.26	0.84	-0.15	RGDP ——SR——> MTEXP
	(0.10)	(0.32)	(0.45)	(-1.17)	

Note: All variables are taken in log form.
* Significant at 5% level

The causality analysis for India and China suggests that higher levels of real GDP have led to higher military expenditures by the government, while the reverse does not hold. Further, higher levels of RGDP are accompanied by more public spending on human capital in case of both countries. The study does not find any evidence on trade-off between public spending on military and that on human capital. Basically, it is the higher level of RGDP, which has led to more public spending on human capital as well as military in both the countries.

VI. CONCLUSION

The philosophy behind conducting this study was to assess the causal relationship between economic growth and public expenditure on human capital and military expenditure for two newly emerging economies, namely, India and China. These are likely to be the most relevant issues for these two countries because of their economic growth as well as tendency for more spending on military. At the same time, these two countries have not substantially improved their expenditure performance for achieving better human capital, as evidenced from the low and stagnating proportions of GDP accounted for by public expenditures on education in both the countries (see Appendix Table 1). In order to examine these issues, we have used time series tools to find out the long and short run relationship among the three key variables, namely, real GDP, real public expenditure on education and real expenditure on Military. Besides, the direction of causality was also examined among the variables. The empirical findings of the study suggest that the two Asian giants required improvement of human capital more than the provision for higher spending on military to accelerate economic growth. Both the countries experienced a significant role for public expenditure on human capital (i.e., education) in achieving higher levels of RGDP in the short run. But more importantly, higher levels of real GDP achieved through high economic growth have helped these two countries to spend more money (in absolute amount) on human capital as well as military. From a policy prospective, therefore, it is important for both the countries to undertake decisive policy decisions on the pattern of public expenditure to accelerate and sustain the high economic growth.

Appendix

Table A1. Gross Domestic product and Public expenditure on Education and Military for India and China

Year	GDP (Constant 2000 US$) (mill)		Public Spending on Education, Total (% of GDP)		Military Expenditure (% of GDP)	
	India	China	India	China	India	China
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980	152619	182942	2.8	2.5	2.5	6.0
1981	162328	192455	2.6	2.5	2.6	5.1
1982	168262	209968	2.8	2.6	2.6	4.4
1983	180172	232855	3.0	2.6	2.7	3.8
1984	187603	268249	3.2	2.5	2.7	2.9
1985	198164	304462	3.3	2.5	2.6	3.5
1986	207749	331255	3.2	2.6	2.7	3.2
1987	216617	369681	3.0	2.3	2.8	2.9
1988	237975	411455	3.5	2.2	3.1	2.6
1989	253306	428324	3.7	2.2	2.9	2.7
1990	268020	444601	3.7	2.3	2.7	2.7
1991	270450	485504	3.5	2.2	2.5	2.5
1992	284707	554445	3.4	2.0	2.3	2.6
1993	298573	632068	3.3	1.9	2.4	2.1
1994	320858	714869	3.3	2.4	2.3	1.8
1995	345390	792789	3.1	2.5	2.2	1.7
1996	370930	872068	2.9	2.5	2.1	1.8
1997	387541	953171	3.1	2.5	2.2	1.7
1998	410744	1027518	3.2	2.2	2.2	1.8
1999	440025	1105609	4.0	2.1	2.3	1.8
2000	457371	1198480	4.1	2.2	2.4	1.8
2001	480934	1297954	3.7	2.1	2.3	2.0
2002	500610	1416068	3.7	2.1	2.2	2.1
2003	543695	1557675	3.7	2.1	2.1	2.0
2004	581223	1715000	3.8	2.1	2.3	1.9

Note: Data on public spending on education and military refers to expenditure incurred by the Central Government in both the countries.

Source: Economic Survey, Ministry of Finance, Government of India, 1987-88 World Bank, 'World Development Indicators', CD-ROM, 1997 and 2007. Asian Development Bank, 'Key Indicators of Developing Asian and Pacific Countries', 1999.

NOTES

1. The crowding-out effects state that as public spending rises, public goods merely substitute for private goods, thus causing lower private spending on education, health and other public activities.

2. See Romer [1986, Pp. 1002-1037] and Lucas [1988, Pp. 3-42].

3. Standard cointegration technique is referred here as Engle-Granger (EG) cointegration.

4. EG cointegration method emphasised on two-variable models and both variables are required to be integrated of the same order. In case of three or more than three variables, this technique does not spell out any systematic procedure to infer more than one cointegrating vector. To overcome such problems, Johansen and Juselius [1990] (JJ) introduced a multivariate cointegrating technique. In case of JJ cointegration, both the variables could be integrated of different orders, but it is wise to take the order variables, which are integrated of the same order, to avoid the difficulties of interpreting the coefficients.

5. For details, see Enders [1995].

6. We have not incorporated other variables such as labour employment, real money supply and external factors into the model, to avoid the possibility of a mis-specification bias on account of omitted variables, as suggested by the referee. This may be considered a possible limitation in interpreting the present empirical findings.

7. The normalised coefficients are derived from the cointegrating vector. If the cointegrating equation is $\mu_t = RGDP_t - \alpha_1 REDUEXP_t - \alpha_2 MTEXP_t$, where μ_t is I(0), the cointegrating vector and the vector of normalised coefficients is $(1, -\alpha_1, -\alpha_2)$, corresponding to the variables $RGDP_t$, $REDUEXP_t$, $MTEXP_t$, respectively. While interpreting a normalised coefficient, it carries opposite sign with the left-hand side variable, i.e., RGDP. That is, $RGDP_t = \alpha_1 REDUEXP_t + \alpha_2 MTEXP_t$ gives the long run relationship

among the variables.

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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.

In the present section, we publish the Following:

1.* Report of the Task Force, Identification of Districts for Wage and Self Employment Programmes, Planning Commission, May 2003, Chapters I to VI, Appendix I and Annexures I-IV.

2. National Food for Work Programme (NFFWP) Guidelines, Government of India, Ministry of Rural Development, Department of Rural Development, Krishi Bhawan, New Delhi, Chapter I.

3. Backward Districts Initiative - *Rashtriya Sam Vikas Yojana* - The Scheme and Guidelines for Preparation of District Plans, Planning Commission, Government of India, (MLP Division).

4.* Report of The Inter-Ministry Task Group on Redressing Growing Regional Imbalances, Planning Commission, January 2005, Chapters 1 to 6 and Annexures I to IV.

* We are grateful to the Planning Commission, Government of India, for giving permission to us to re-print these Reports.

REPORT OF THE TASK FORCE IDENTIFICATION OF DISTRICTS FOR WAGE AND SELF EMPLOYMENT PROGRAMMES PLANNING COMMISSION, MAY 2003

CONTENTS

CHPATER - 1 INTRODUCTION

The Planning Commission had set up a Working Group and a Steering Committee on Rural Poverty Alleviation Programmes for formulation of the Tenth five-year plan. The Working Group reviewed schemes for self-employment, wage-employment and other programmes for poverty alleviation and submitted its recommendations to the Steering Committee. The Working Group was of the view that wage employment programmes were not needed in all the regions. There was a need to implement public works programmes that generated wage employment lean agricultural only in those districts where employment opportunities for wage labour were limited. The working group stated that:

> There should be better targeting of the districts for the wage employment. Wage employment programmes are not needed in all the regions. There is a need to focus these programmes in limited areas. Programmes focusing on (wage) employment should cover only the backward and poor districts where there is demand as well as supply of labour. Such districts can be selected on the basis of some set norms.

The recommendation of the Working Group was also endorsed by the Steering Committee. Pursuant to the recommendation of the working group, the Ministry of Rural Development set up a Task Force in August 2001 to identify districts for wage and self-employment schemes headed by Dr. Rohini Nayyar, Adviser (Rural Development) Planning Commission. The composition and the Terms of Reference of the Task Force are at Annexure I.

The Task Force met several times and deliberated on the parameters that could effectively capture dimensioons of backwardness for wage and self-employment programmes. The Task Force also reviewed the work of other Committees set up in the past by the Government for ensuring balsnced regional development. The Report is prepared on the basis of the discussions in the Tast Force meetings and inputs provided by Members of the Task Force.

The Report is organised in six Chpaters. Chapter I oulines the rationale for setting up the Tast Force. Chapter II summarizes the methodology adopted by some of the Committees set up in the past for identification of backward districts. Chapter II discusses the paramenters identified by the Task Force for selecting districts. Chapter IV describes the analysis carried out for identifying districts for wage employment. Identification of districts for self employment is analysed in Chapter V Conclusions are presented in Chapter VI.

CHAPTER II
IDENTIFICATION OF DISTRICTS FOR BALANCED GROWTH

Balanced regional development has been given a very high priority in the planning process. To accomplish development of the backward regions of the country, many schemes and programmes have been taken up by the Centre and the State Governments. Several committees have undertaken identification of backward districts at various points of time. However, the indicators of backwardness were different depending on the priority at that point in time.

One of the first attempts at identification of backward areas was made in the 1960. The Second five year Plan brought to the fore the importance of heavy and capital goods idustry as the prime mover of growth. Therefore, the districts, which were identified as backward, were the ones which did not have any major industry. The focus on government initiatives was on promotion of capital goods and heavy industries. Many of these industries were located in backward areas either because of the industrial policies or on account of the fact that raw material for the heavy industries were available in the backward regions of the country. Location of steel plants is a prime example.

The 1960's also witnessed greater attention to the agricultural sector in the country. Drought in the early 1960's and the resultant food crisis almost coincided with the emergence of the green revolution technology internationally. The Government quickly seized the wondow of opportunity provided by the High Yielding Variety seeds and an elaborate structure that underpined the spread of this technology to the northwestern parts of the country was put in place by 1965. Food Corporation of India. Agricultural Prices Commission fertiliser subsidy, and minimum support prices were some of the important ingredients for promotion of green revolution in the country. The technology, which was initially confined to northwest region and wheat. The hyv seeds of wheat spread to other parts of the country during 1970's. Technological breakthrough in rice also took place during this peirod. By 1975-76, country had attained self-sufficiency in food at the national level. The development of dairy industry in this period also provided incresed income opportunities to people in the rural areas.

With the success of green revolution technology, the emphasis on industrial development for economic growth got considerably weakened in the 1980s and the 1990s and the 1990s as it was realised that industrial growth had failed to give a boost to the development of backward areas asnd the agricultural growth itself could push these backward areas on a high growth path. The sixth and Seventh Plan clearly recognised that industrial development alone would not eliminate regional disparity and agricultural growth would have to be promoted in the non green revolution areas to accelerate the growth process. As a result, programmes for increasing crop production were launched in eastern and central parts of the country. Special attention was placed on expanding area under irrigation, provision of credit and marketing linkages.

There has been a shift in development paradigm in the last decade of the 20th century from economic growth to human development. Health, education, sanitation and other basic amenities were incorporated in the analysis of backwardness. Governance has become another key concern. Districts have been identified for operating programmes specifically aimed at upgrading the health and educational status of the people. Similarly, National Commission on Population (NCP) set up by the Government in 2000, has identified backward districts on demographic parameters so that family planning programmes could be intensively implemented in these districts to achieve population stabilisation.

Most of the Committees set up by the Government in the past for identification of backward districts have followed an index-based approach. These Committees identified variables which captured economic, social or infrastructure status of a district and converted these variables into a single numeraire. The weights assigned to the parameters reflected the importance attached by the Committee to those parameters. The Committees which followed this index-based approach include the Committee on Dispersal of industries set up by the Government in 1960, the Pandey Committee set up by the Government pursuant to the directive of National Development Council in 1968 and the Sukhmoy Chakrabarty Committee set up by the Planning Commission on backward areas in 1974.

In contrast to the index-based approach, the National Committee on Development of Backward Areas appointed by Planning Commission in 1978 under the Chairmanship of Shri B. Shivraman, identified problem areas as backward for planned development. The problem areas identified by the Committee were:

* Chronically drought prone area
* Desert area
* Tribal areas
* Hill areas
* Chronically flood affected areas
* Coastal areas affected by salinity.

The Government introduced special programmes for development of these areas.

In the 1990's again, three committees identified backward districts for specific programmes on the initiative of the Ministry of Rural Development (MoRD). Jawhar Rojgar Yojna was initiated by the Government in 1989-90. After review of the scheme in 1992-93, the Government decided to identify 120 backward districts in different States where there was a concentration of unemployment and under-employment. Extensive public works programmes were to be taken up in these districts for increased employment opportunities. A number of variables were analysed for identification of 120 backward districts but finally two variables, viz., Scheduled Castes / Scheduled Tribe population (1991 Census) and inverse of agricultural productivity per worker were the two indicators which were given equal weightage to develop a composite index.

The MORD also identified blocks in selected districts in 1993 for Employment Assurance Scheme. The objective of the scheme was to provide assured employment to the rural poor residing in the blocks covered by revamped public distribution system. These blocks were located in the remote and backward parts of the country covered under Integrated Tribal Development Project, Drought Prone Area, Desert Prone Area and Modified Area Development Approach Blocks. Over the years, the coverage was gradually increased and finally it was universalised.

Though the DPAP and DDP programmes were initiated in 1970's the MoRD set up a Technical Committee under Dr. C.H.H. Hanumantha Rao to identify blocks for operation of DPAP and DDP programmes. The Committee recommended selection of blocks based on moisture index which is defined as:

$$\text{Moisture Index} = \frac{\text{Precipitation - Potential Evapo-transpiration}}{\text{Potential Evapo-transpiration}} \times 100$$

The Committee also recommended that blocks that had irrigation coverage above certain a percentage were to be excluded from the programme ambit. The criteria for inclusion and permissible programme in a block recommended by the committee are presented in the table below:

Table 2.1. Criteria for Selection of Blocks for DPAP, DDP

M.I. (Moisture Index) (1)	Programme Permissible (2)	Ecosystem (3)	% Irrigated Area (4)
< - 66.7	DDP	Arid	50%
-66.6 to -33.3	DPAP	Semi-arid	40%
-33.32 to 0	DPAP	Dry sub-humid	30%

Blocks with higher area under irrigation than those indicated were to be excluded from programme coverage. Pursuant to the recommendations of the Committee, the MoRD identified blocks for inclusion under DPAP and DDP programmes and issued detailed guidelines for execution of DPAP, DDP and integrated Wasteland Development Project (IWDP) on Watershed basis.

The Government under Common Minimum Programme (CMP) announced in 1996 had decided to identify backwards districts for special action plan for infrastructure development. E.A.S. Sarma Committee was set up to identify 100 most backward districts of the country in 1997. The E.A.S. Sarma Committee developed a composite index. The Committee considered indicators of deprivation, social infrastructure, economic infrastructure and it assigned different weights to each variable. The parameters and their weights are given below:

EAS Sarma Committee: Criteria for identification of Districts

* Incidence of Poverty (2, 6.5, 13, 19.5, 22.5)
* Education (2)
* Health (2)
* Water Supply (1)
* Transport and Communications (2)
* Power and Electricity (1)
* Post Offices /Banks (1)
* Agriculture (3)
* Industry (1)

All indicators, other than incidence of poverty were assigned a weight of 13. The weights for poverty ratio were super imposed for the sensitivity analysis. Five scenario with different weights attached to poverty ratio were worked out. These are presented in the Table 2.2 below:

Table 2.2. Relative Weights for Sensitivity Analysis

(1)	S1 (2)	S2 (3)	S3 (4)	S4 (5)	S5 (6)
Poverty Ratio	13.33	33.33	50.00	60.00	63.40
Other Indicators	86.60	66.67	50.00	40.00	36.60
Total	100.00	100.00	100.00	100.00	100.00

Districts that figured in the first 100 districts in at least three scenarios were identified as backward districts. Of the 100 most backward districts identified by EAS Sarma Committee, 38 districts were in Bihar, 19 in Madhya Pradesh and 17 in Uttar Pradesh. 10 districts of Maharashtra also figured in the list of backward districts. These districts are largely tribal and fall in arid or semi-arid agro-climatic zones. North-eastern States and Jammu & Kashmir were excluded from the analysis as the Committee fell that 'they had problems which were specific and peculiar to them which would require an approach different from those appropriate for the other poor and backward districts of the country'. Sikkim, however, was included in the analysis. No district from Gujarat, Goa, Kerala, Punjab, Andhra Pradesh and Tamil Nadu figured in the list of backward districts. In Uttar Pradesh, none of the districts that form part of the newly created state of Uttaranchal figured in the list of the backward districts.

CHAPTER III
CRITERIA FOR IDENTIFICATION OF BACKWARD DISTRICTS

Wage Employment Programmes have been implemented in the country from the 1960s. The major objectives of the programmes are to improve the infrastructure in the area so that productive employment in the medium and long term can be generated due to the increased economic activity. In the short-term the programmes provide supplementary wage-employment to meet subsistence needs of the poor; they also raise wages in the area by creating increasing demand for wage labour on public works. By providing employment and income opportunities in lean agricultural season, they also ensure food security for the rural poor. These programmes have been greatly enlarged and upscaled over successive plan periods to meet the needs of the poor, whose numbers have been increasing due to population pressure and inadequacy of the system to provide employment to the growing work force.

This Task Force considered the following parameters as critical for the selection of districts as backward:

* Incidence of poverty;
* Unemployment rate;
* Agricultural wage rate;
* Per hectare agricultural productivity;
* Productivity per agricultural worker;
* SC/ST population;
* Drought-proneness and desert-proneness;
* Rural connectivity.

The Task Force evaluated the data available at the regional and district level. For some variables, data is available only at the regional level. In some cases, data is available only at the district level. In a few cases, though data is available both at the regional and district level, sources of data differ for the regions and the districts. For example, agricultural wages rates are available at regional level from NSSO; however, district-wise wage rates are available only from the Ministry of Agriculture.

NSSO has provided at the regional level data for the 55th round of survey conducted in 1999-2000 on wages and unemployment rates on usual primary status and current daily status basis. Comparable data on the incidence of poverty is, however, available for only the 50th round (1993-94). The regional data was collected and analysed for the following parameters:

* Regional Poverty Profile
* Unemployment rate on current daily status (CCD), and
* Wage rates for agricultural labour

District level data was collected for the following variables:

i) Per hectare agricultural productivity
ii) Productivity per agricultural worker
iii) Agricultural wages
iv) Scheduled Caste / Scheduled Tribe population
v) Drought prone and desert prone, and
vi) Rural connectivity.

The Task Force was of the view that incidence of poverty and rate of unemployment were two most critical parameters for identifying districts for wage employment. However, data on these parameters is available only at the regional level. In the absence of this data, the Task Force decided that at the district level variables that captured average income levels would be the most appropriate variables for constructing an index of backwardness.

The following paragraphs describe, in detail, the variables considered by the Task Force and the reasons for their inclusion or exclusion in the computation of the index.

Incidence of Poverty - District-wise incidence of poverty is not available at present. A few attempts have been made by some states to calculate district-wise income. However, this information is not available for all the states and districts of the country. Poverty estimates based on the 50th round of National Sample Survey Organisation's (NSSO) survey are available for 78 regions of the NSSO. Though the samples for NSSO regions are drawn from all the districts within the region, given the small sample size in each district, district level incidence of poverty has not been calculated thus far. The Task Force was of the view that it would not be prudent to use regional incidence of poverty as a proxy for incidence of poverty in a district. (It may be recalled that Sarma Committee did use regional poverty as a proxy for the district-level incidence of poverty.) The data on agricultural productivity and agricultural wage rates available at the district level also support the view that all districts in a region may not have a similar poverty profile. The Task Force, therefore, decided not to use poverty profile at the regional level as a variable for district level analysis. The Task Force felt that district-wise data on incidence of poverty should be generated by the Government as it is a very important parameter for selection of districts or

blocks for many schemes of the Government. NSSO and State Statistical Organizations could pool their resources to generate this data.

Unemployment and Wage Rates - Data on unemployment is available from the NSSO only. The region-wise unemployment data is available on current daily status and usual principal status basis. The deficiencies of regional poverty profile enumerated above for district-wise analysis, apply equally to the unemployment data. Secondly, the data do not classify unemployment rates separately for educated and uneducated. Regions or districts with high levels of educated unemployment would not require wage-employment programmes. For example, unemployment rates in Kerala have been reported to be one of the highest in the country in 1999-2000. However, wage-employment available on public works programmes would hardly be a solution to the unemployment problem in Kerala, as the educated unemployment would not be available for such work. The Task Force, therefore, decided against use of unemployment rate as a variable for this analysis. NSSO also reports data on wage rates by regions. However, these were not considered by the Task Force as district-wise wage rates were available from other sources.

Per Hectare Agricultural Productivity and Productivity Per Agriculture Worker - The demand for labour in agriculturally prosperous areas is generally high. Employment opportunities for agricultural labour in district of high agricultural productivity would be substantial. The need for public works programmes would not arise in such a situation. However, in districts with low agricultural productivity, the employment opportunities would be limited. These districts are also likely to be single crop districts where employment opportunities for agricultural labour would largely be available during the kharif season only. Public works programmes would become necessary in such districts.

The data on agricultural productivity per hectare and productivity per agricultural worker capture the level of agricultural development in a district. Data on agricultural productivity at district level not available from Ministry of Agriculture. However, the Planning Commission in 1979 had commissioned a study by Prof. Bhalla and Prof. Alagh to analyse the growth performance of the agricultural output at district level. The study was later updated in 1989 by Prof. Bhalla and Dr. Tyagi. This data was used in 1993 to identify districts for intensive Jawahar Rozgar Yojana (IJRY), Prof. Bhalla and Dr. Gurmall Singh updated the data again in 2001. Production of 35 major crops has been used for calculating the agricultural productivity of the district. Data on agricultural productivity per hectare and productivity per worker pertain to 1990-93 period. The Task Force was of the view that productivity per agricultural worker was a better indicator of the ability of the agricultural system to provide wage employment to the agricultural worker. The lower the agriculture productivity per worker, the lower would be the capacity of farmers to engage hired labour. The Task Force, therefore, decided to use productivity per agricultural worker as an indicator of agricultural performance of a district.

Agricultural Wages - High agricultural wages show high demand for agricultural labour. Again in such districts, there would be no need for a public works programme. Low agricultural wages, however, would indicate a district with low economic activity, poor infrastructure and low employment opportunities. The Task Force was of the view that agriculture wages were a very good indicator of income levels of the rural population in a district. The information on agricultural wages at the district level is available from the Directorate of Economic and Statistics, Ministry of Agriculture. The Ministry of Agriculture compiles month-wise information by four different types of workers. These are:

* Skilled labour (blacksmith and carpenters);

* Field labourers (ploughman, sower, weeder, reaper and harvesters);
* Other agricultural labourers (coolies, diggers, load-carriers, well-diggers);
* Herdsmen

Wage rate in each category and sub-catagories is further available separately for male, female and child workers. The Task Force decided to use the information on wages for field workers. Ideally, to work out a weighted wage-rate for field workers, information at district level is required on (i) employment pattern of male, female and child labour by sub-categories of field worker; and (ii) Wage rate for male, female and child labour for all districts. This data for all categories is not available. Therefore, for consistency of information across the districts, the average of monthly and category-wise wages of male workers in each district has been used in the analysis. The source for this data is "The Agricultural Wages in India; 1995-97", A Publication of directorate of Economic and Statistics, Ministry of Agriculture, New Delhi, published in 2001.

Scheduled Caste / Scheduled Tribe Population - Many Committees that have been set up in the past have used the district-wise SC/ST population as an indicator for identification of districts for different programmes. The Scheduled Castes and Scheduled Tribes population comprise the bulk of the agricultural labour class in the rural areas. Though the number of agricultural labourers in a district would be a more appropriate indicator for selection of districts for wage employment programmes, given the pre-ponderence of Scheduled Castes and Scheduled Tribes population in the agricultural labour class, the Task Force considered district-wise SC/ST population as the most appropriate. In addition, the infrastructure facilities in the districts, which have a concentration of Scheduled Castes and Scheduled Tribes population, are relatively poor. The educational and health status of the SC/ST is also low. The Task Force was of the view that district-wise SC/ST population also indicate the backwardness of an area. The SC/ST population for 1991 census has been considered in the analysis, as 2001 Census figures are not available at present. In any case, the proportion of SC/ST population in a district is unlikely to vary significantly during the two Census periods.

Drought prone and Desert prone areas - As mentioned in Chapter II, drought-prone and desert prone areas have been identified for special attention by the Government. Environmentally, these are more fragile areas of the country. Special programmes for restoration of the lands in these areas have been undertaken. These programmes have been given a greater thrust during the Ninth Plan and Tenth Plan period. The Task Force felt that the density of population in these areas was low and the employment needs of these districts / blocks could be taken care of under the existing programmes. The major problem in these districts was that of the recurrent droughts. In view of the fact that the government to tackle natural calamities has initiated a specific plan of action, the Task Force decided not to give any weightage to DPAP and DDP areas in the identification of backward districts.

Rural Connectivity - The road length in the district is an important indicator of the infrastructure available in the district. District-wise status of rural connectivity is available only for the 1991 census. The Task Force was of the view that in the absence of authentic data on district-wise rural connectivity, it may be prudent to use SC/ST population as a proxy for under developed road net-work.

In view of the reasons outlined above, the Task Force selected three variables for computing an index of backwardness, which could be used for selecting districts for wage employment programmes. These are:

* Agricultural productivity per worker;
* Agricultural wage rate;
* SC/ST population.

It was also decided to use incidence of poverty and output per hectare to carry out sensitivity analysis. The analysis is presented in the next Chapter.

CHAPTER IV
IDENTIFICATION OF DISTRICTS FOR WAGE EMPLOYMENT

The variables that were considered for ranking of districts have been discussed in the previous Chapter. Data on agricultural productivity per worker was available only for 17 States. As a result Goa, all special category States except Assam and union territories were excluded from the analysis. Information on 4482 districts was available in respect of 17 States. The Task Force, however, decided to exclude districts with urban agglomerates of over one million population as per 2001 census. The state capitals were also excluded. It was felt that these urban centres would generate economic activities that would obviate the need for public works programmes. As a result, 35 districts were excluded from the analysis and exercise for ranking districts was confined to 447 districts. Annexure II provides information on States selected for analysis and the districts that have been excluded. In most States, the number of districts has increased since 1991 due to bifurcation of the districts. In such cases, the SC/ST population proportion for the original district in 1991 has been applied to the new districts created by the division of the district. Similarly for agricultural wages and agricultural productivity per worker, data for the original district has been used. However, in case of agricultural wages, data on wage rates for a few districts is not available, in such cases the wage rates of a contiguous district have been used for computing the index.

In the exercise for ranking the districts, both distributional and economic parameters have been used. Scheduled Caste and Scheduled Tribe population is a distributional parameter, while output per agricultural workers and agricultural wages represent average income level parameters. The index was computed for each variable. For agricultural productivity per worker and agricultural wages, the index was computed as under:

$$\frac{\text{Actual Value - Minimum Value}}{\text{Maximum Value - Minimum Value}}$$

The lower the index value, the more backward would be the district. In case of Scheduled Caste and Scheduled Tribe population, it is presumed a priori that districts with higher proportion of SC/ST population would be more backward. To ensure that the index values in the three variable moved in the same direction, the index for SC/ST population has been calculated as under:

$$\frac{\text{Maximum Value - Actual Value}}{\text{Maximum Value - Minimum Value}}$$

The districts with higher percentage of SC/ST population will have a lower index value.

The three indexes were added to work out the composite index and rank the districts. The districts with low wages, low productivity and high SC/ST population would be ranked as backward on this index. Annexure III gives ranking of all 447 districts in this study. The Task Force was of the view that 1/3rd of the 447 districts should be considered for wage employment. As such, first 150 districts from 447 districts were identified for taking up intensive wage employment programmes. These districts are indicated in Appendix I.

Sensitivity analysis by assigning different weights to the three variables was not attempted. Every variable was given a weightage of 33.3 per cent. However, another index with two additional variables was computed to test the robustness of the parameters for selection of backward districts. The second index considered agricultural wages, productivity per agricultural worker, agricultural productivity per hectare, SC/ST population and poverty ratio. As district-wise data for poverty was not available, the regional incidence of

poverty was taken as a proxy for district data. Equal weights were assigned to all the five variables. For poverty ratio, index is computed in the same manner as it has been calculated for SC/ST population. Lower poverty index value indicates a backward district. In case of agricultural productivity per hectare index has been computed similar to the computations for agricultural wages and output per worker. Lower index value indicates a backward district. The detailed information on 447 districts for 5 variables is at Annexure IV. An exercise was also carried out to find out districts that were common in both the indexes. 111 districts figured in both the indexes. These districts in a way form the core of the most backward districts in the country. The distribution of districts in both the exercises and the common districts in the two indexes are indicated in the Table 4.1 below:

Table 4.1. Distribution of Backward Districts

Sl. (1)	State (2)	Index Based on Three Parameters (3)	Index Based on Five Para meters (4)	Common Districts in Both Indexes (5)
1.	Andhra Pradesh	6	-	-
2.	Assam	7	7	6
3.	Bihar	6	27	6
4.	Chattisgarh	15	15	15
5.	Gujarat	8	3	3
6.	Jharkhand	19	20	19
7.	Karnataka	4	-	-
8.	Madhya Pradesh	20	22	17
9.	Maharashtra	15	18	13
10.	Orissa	27	19	19
11.	Rajasthan	7	3	3
12.	Tamil Nadu	8	-	-
13.	Uttar Pradesh	7	13	7
14.	West Bengal	7	3	3
	Total - 14 States	150	150	111

The analysis presented above shows that Punjab, Haryana, and Kerala do not have any district in first 150 districts, which could be categorised as backward. The results of the sensitivity analysis indicate that if poverty were also to be taken as a criterion for identification of districts, Andhra Pradesh, Tamil Nadu and Karnataka would not have nay backward districts as the incidence of poverty in these States is considerably lower than in the other States. In fact, if incidence of poverty were to be considered the distribution of backward districts would largely be confined to central and eastern parts of the country. Even based on the index for three parameters, viz.; agricultural wage rates, agricultural productivity per worker and SC/ST population, the bulk of the backward districts would still fall in the central and eastern regions of the country.

CHAPTER V
IDENTIFICATION OF DISTRICTS FOR SELF-EMPLOYMENT

The Task Force was also required to identify districts where self-employment programmes could be taken up. Task Force was of the view that self-employment programmes have a greater potential for success in areas, which have good infrastructure facilities. However, the Task Force considered the paradigm shift that was being attempted by the Government and the civil society for promotion of self-help movement in the country. Self-help movement has taken firm roots in many districts, some of which have identified for wage employment in the present study. In any district, many of the self-help groups would reach the stage of micro trading and service activity. Some may also reach the stage of micro enterprise. It is, therefore, necessary to provide support to the self-help movement even in poorer districts. Individual beneficiaries are also assisted under self-employment programmes. Even in the most backward districts, there would be families close to the poverty line who could be assisted. In the existing programmes for self-employment, land based activities could be taken up even in the poorest of the poor districts. In the long run self-employment ventures are the only solution to the problem of poverty and unemployment. The Task Force, therefore, decided against identification for self-employment and recommended that self-employment programmes may be taken up in all the districts.

CHAPTER VI
CONCLUSION

The issue before the Task Force was to identify districts where it was necessary to take up programmes for creation of wage employment to provide income opportunities to people in the absence of other avenues of employment. The Task Force was of the view that the parameters which would effectively capture backwardness of an area for initiating wage-employment programmes would be unemployment rate, incidence of poverty, agricultural wage rates, agricultural productivity per hectare and the infrastructure facilities available in the district. However, given the data limitations and data gaps, the Task Force carried out the analysis on three parameters for which reliable data is available. These parameters are agricultural wages; output per agricultural worker and SC/ST population of the district.

The Task Force is of the view that wage employment programmes may be implemented in 150 backward districts, which form the core of under developed areas of the country. These districts are largely distributed in the central and eastern parts of the country. Very few districts from northern and southern States get identified as backward districts. Given the fact that SC/ST population was one of the parameters for identification of backward districts, tribal districts dominate the list of backward districts. It has to be noted that in any exercise for identification of backward districts, which follows an index based approach, there could be some aberrations in the districts identified as backward. However, such aberrations can be taken care of in consultation with the State Governments.

The Task Force was also required to identify districts for self-employment programmes. The Task Force was of the view that in order to promote self-help movement in the country, self-employment programmes may be undertaken in all districts of the country.

Appendix I

150 Districts Identified For Wage-Employed

Sl. (1)	State (2)	District (3)	Rank (4)
1.	Andhra Pradesh	Adilabad	61
2.	Andhra Pradesh	Khammam	87
3.	Andhra Pradesh	Mahbubnagar	94
4.	Andhra Pradesh	Warangal	119
5.	Andhra Pradesh	Rangareddy	122
6.	Andhra Pradesh	Chittur	145
7.	Assam	North Cachar Hills	24
8.	Assam	Karbianglong	42
9.	Assam	Kokrajhar	59
10.	Assam	Dhemaji	60
11.	Assam	North Lakhimpur	91
12.	Assam	Bongaigaon	105
13.	Assam	Goalpara	132
14.	Bihar	Gaya	104
15.	Bihar	Vaishali	112
16.	Bihar	Samstipur	120
17.	Bihar	Sheohar	121
18.	Bihar	Jamui	141
19.	Bihar	Nawadah	142
20.	Chattisgarh	Bastar	6

(Contd.)

Appendix I *(Contd.)*

Sl. (1)	State (2)	District (3)	Rank (4)
21.	Chattisgarh	Dantewada	7
22.	Chattisgarh	Kanker	8
23.	Chattisgarh	Jaspur	33
24.	Chattisgarh	Kobra	34
25.	Chattisgarh	Raigarh	35
26.	Chattisgarh	Koria	39
27.	Chattisgarh	Sarguja	40
28.	Chattisgarh	Bilaspur	55
29.	Chattisgarh	Jangir-Champa	56
30.	Chattisgarh	Kawardha	57
31.	Chattisgarh	Dhamatri	85
32.	Chattisgarh	Mahasamund	86
33.	Chattisgarh	Rajnandgaon	92
34.	Chattisgarh	Durg	102
35.	Gujarat	Dangs	1
36.	Gujarat	Dohad	16
37.	Gujarat	Panch Mahals	17
38.	Gujarat	Valsad	36
39.	Gujarat	Bharuch	37
40.	Gujarat	Narmada	38
41.	Gujarat	Navasari	54
42.	Gujarat	Sabarkantha	143
43.	Jharkhand	Simdega	4
44.	Jharkhand	Gumla	5
45.	Jharkhand	Lohardagga	14
46.	Jharkhand	Saraikela	19
47.	Jharkhand	Singhbhum West	20
48.	Jharkhand	Dumka	50
49.	Jharkhand	Jamtara	51
50.	Jharkhand	Sahebganj	68
51.	Jharkhand	Pakur	69
52.	Jharkhand	Chatra	70
53.	Jharkhand	Garhwa	71
54.	Jharkhand	Palamau	72
55.	Jharkhand	Latehar	73
56.	Jharkhand	Godda	76
57.	Jharkhand	Bokaro	100
58.	Jharkhand	Singhbhum East	111
59.	Jharkhand	Hazaribagh	115
60.	Jharkhand	Koderma	116
61.	Jharkhand	Giridih	130
62.	Karnataka	Chitradurga	117
63.	Karnataka	Davanagere	118
64.	Karnataka	Bidar	127
65.	Karnataka	Gulbarga	131
66.	Madhya Pradesh	Jhabua	3
67.	Madhya Pradesh	Mandla	9
68.	Madhya Pradesh	Barwani	21
69.	Madhya Pradesh	West Nimar	22
70.	Madhya Pradesh	Dhar	25
71.	Madhya Pradesh	Seoni	29
72.	Madhya Pradesh	Umaria	31
73.	Madhya Pradesh	Shahdol	32
74.	Madhya Pradesh	Chindwara	41
75.	Madhya Pradesh	Sidhi	47

(Contd.)

Appendix I *(Contd.)*

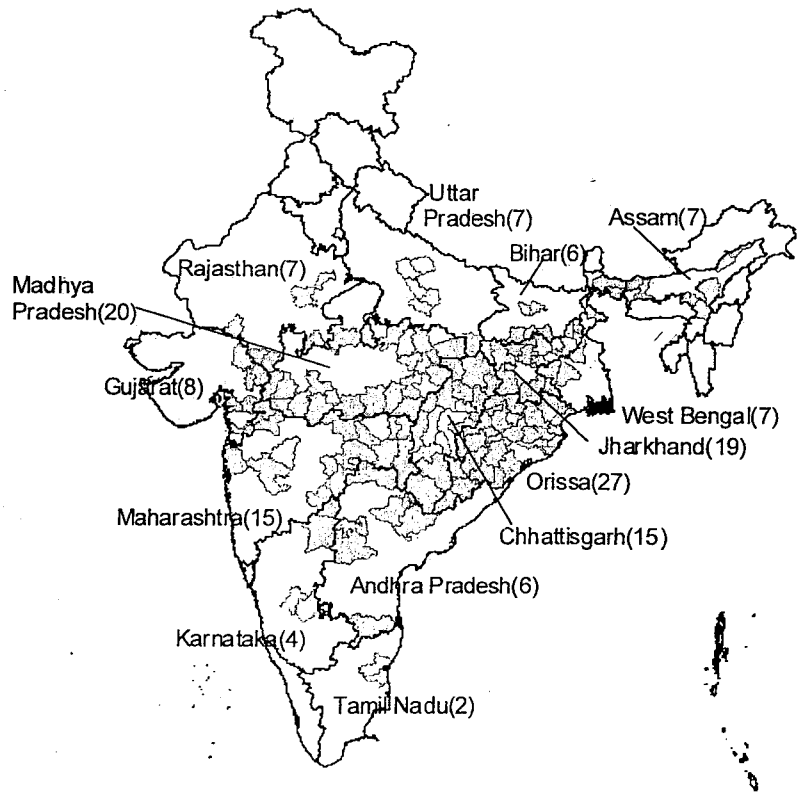
Sl. (1)	State (2)	District (3)	Rank (4)
76.	Madhya Pradesh	Betul	52
77.	Madhya Pradesh	Harda	53
78.	Madhya Pradesh	East Nimar	77
79.	Madhya Pradesh	Satna	78
80.	Madhya Pradesh	Balaghat	80
81.	Madhya Pradesh	Panna	89
82.	Madhya Pradesh	Katni	123
83.	Madhya Pradesh	Dewas	133
84.	Madhya Pradesh	Chhatarpur	139
85.	Madhya Pradesh	Guna	150
86.	Maharashtra	Gadchiroli	26
87.	Maharashtra	Dhule	48
88.	Maharashtra	Nandurbar	49
89.	Maharashtra	Bhandara	58
90.	Maharashtra	Chandrapur	63
91.	Maharashtra	Gondia	75
92.	Maharashtra	Hingoli	83
93.	Maharashtra	Nanded	84
94.	Maharashtra	Aurangabad	90
95.	Maharashtra	Ahmednagar	103
96.	Maharashtra	Yawatmal	109
97.	Maharashtra	Thane	110
98.	Maharashtra	Amarawati	113
99.	Maharashtra	Latur	124
100.	Maharashtra	Wardha	129
101.	Orissa	Koraput	10
102.	Orissa	Malkangir	11
103.	Orissa	Nabarangpur	12
104.	Orissa	Rayagada	13
105.	Orissa	Mayurbhanj	15
106.	Orissa	Sundergarh	18
107.	Orissa	Phulbani	27
108.	Orissa	Boudh	28
109.	Orissa	Keonjhar	30
110.	Orissa	Nuapada	45
111.	Orissa	Kalahandi	46
112.	Orissa	Sambalpur	64
113.	Orissa	Bargarh	65
114.	Orissa	Deoghar	66
115.	Orissa	Jharsuguda	67
116.	Orissa	Sonepur	81
117.	Orissa	Bolangir	82
118.	Orissa	Angul	106
119.	Orissa	Dhenkanal	107
120.	Orissa	Balasore	134
121.	Orissa	Bhadrak	135
122.	Orissa	Jaipur	136
123.	Orissa	Gajapati	137
124.	Orissa	Ganjam	138
125.	Orissa	Jagatsinghpur	147
126.	Orissa	Kendrapara	148
127.	Orissa	Cuttack	149
128.	Rajasthan	Banswara	2
129.	Rajasthan	Dungarpur	23
130.	Rajasthan	Udaipur	44

(Contd.)

Appendix I *(Concld.)*

Sl. (1)	State (2)	District (3)	Rank (4)
131.	Rajasthan	Sirohi	101
132.	Rajasthan	Jhalawar	114
133.	Rajasthan	Dausa	128
134.	Rajasthan	Tonk	140
135.	Tamil Nadu	South Arcot/Cuddalore	125
136.	Tamil Nadu	Villupuram	126
137.	Uttar Pradesh	Sonbhadra	62
138.	Uttar Pradesh	Sitapur	93
139.	Uttar Pradesh	Unnao	95
140.	Uttar Pradesh	Raebareli	96
141.	Uttar Pradesh	Hardoi	99
142.	Uttar Pradesh	Fatehpur	144
143.	Uttar Pradesh	Lalitpur	146
144.	West Bengal	Jalpaiguri	43
145.	West Bengal	Purulia	74
146.	West Bengal	Cooch Bihar	79
147.	West Bengal	Bankura	88
148.	West Bengal	West / North Dinajpur	97
149.	West Bengal	East / South Dinajpur	98
150.	West Bengal	Birbhum	108

Distribution of 150 Backward Districts-State wise **Appendix I**



Appendix I *(Concld.)*

Sl. (1)	State (2)	District (3)	Rank (4)
131.	Rajasthan	Sirohi	101
132.	Rajasthan	Jhalawar	114
133.	Rajasthan	Dausa	128
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136.	Tamil Nadu	Villupuram	126
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138.	Uttar Pradesh	Sitapur	93
139.	Uttar Pradesh	Unnao	95
140.	Uttar Pradesh	Raebareli	96
141.	Uttar Pradesh	Hardoi	99
142.	Uttar Pradesh	Fatehpur	144
143.	Uttar Pradesh	Lalitpur	146
144.	West Bengal	Jalpaiguri	43
145.	West Bengal	Purulia	74
146.	West Bengal	Cooch Bihar	79
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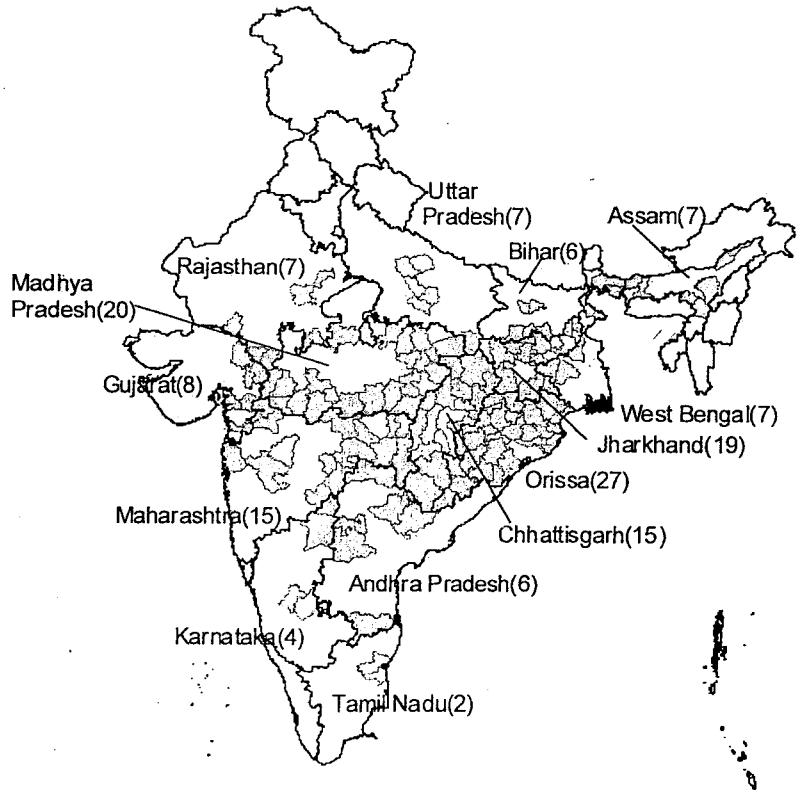
Distribution of 150 Backward Districts-State wise **Appendix I**



Annexure I

No. 25011/1/2001/SGSY.III
Government of India
Ministry of Rural Development
Krishi Bhavan, New Delhi,
Dated 3rd August, 2001

Subject: Task Force to identify districts for programmes of Wage Employment and Self-Employment

It is proposed to set up a Task Force to identify districts separately for wage employment and self-employment programmes.

2. The composition of the Task Force will be as under:

(i)	Dr. Rohini Nayyar, Adviser (RD), Planning Commission, New Delhi. Tel: 23096592	Chairperson
(ii)	Prof. Indira Hirway, Director and Prof. of Economics, Centre for Development Alternatives, E-71, Akash, Near Chief Justice Bunglow, Bodakdev, Ahmedabad. Tel: 079/6852850	Member
(iii)	Dr. S. Mahendra Dev, Director, Centre for Economics and Social Study, Nizamiah Observatory Campus, Begumpet, Hyderabad. Tel: 040/6570480	Member
(iv)	Dr. Ravi Srivastava, Prof. of Economics, Centre for the Study Regional Development, Jawaharlal Nehru University, 1328, Poorvanchal, JNU Campus, New Delhi Tel: 011/26185829 (Resi.), 26107676 (Off.)	Member
(v)	Prof. Gurmail Singh, Economic Deptt., Chandigarh (Punjab), (Res. 3383 Sector 15 D, Chandigarh) Tel: (O) 0172 / 779140 and (R) 783196	Member
(vi)	Shri Nagesh Singh, Director (RD), Planning Commission, Yojana Bhavan, New Delhi. Tel: 011/ 23096544	Convenor

3. The Task Force will undertake identification of the districts separately for wage employment and self-employment programmes in the same manner as the Districts have been identified under the Desert Development Programme (DDP) and the Drought Prone Area Programme (DPAP) for specific purposes of drought proofing, etc.

4. The Task Force will submit its final report immediately.

Sd/-
Srikara Naik,
Director (SGSY)

Distribution:

(i) Chairperson of the Task Force
(ii) All Members of the Task Force

Copy also to:

(i) PS to Member of Rural Development, Govt. of India
(ii) PS to Minister of State for Rural Development (M)
(iii) PS to Minister of State for Rural Development (V)
(iv) Sr PPS to Secretary (RD)
(v) PS to AS&FA
(vi) PS to JS (LR)
(vii) PS to JS (PA)

Annexure II

Statewise Details of Districts Covered under Exercise

Sl. (1)	States (2)	Total No. of Districts in State (3)	Total No. Of Districts Covered (4)	Number and Name of Districts Left Out (5)
1.	Andhra Pradesh	23	21	2 - Hyderabad and Vishakapatnam
2.	Assam	23	23	--
3.	Bihar	37	36	1 - Patna
4.	Chhatisgarh	16	15	1 - Raipur
5.	Gujarat	25	20	5 - Ahmedabad, Gandhinagar, Vadodara, Surat and Rajkot
6.	Haryana	19	18	1 - Faridabad
7.	Jharkhand	22	20	2 - Ranchi and Dhanbad
8.	Karnataka	27	26	1 - Bangalore (Urban)
9.	Kerala	14	13	1 - Thirunathapuram
10.	Madhya Pradesh	45	42	3 - Bhopal, Jabalpur and Indore
11.	Maharashtra	35	30	5 - Mumbai, Mumbai Suburb, Nasik, Nagpur & Pune
12.	Orissa	30	30	--
13.	Punjab	17	15	2 - Amritsar and Ludhiana
14.	Rajasthan	32	31	1 - Jaipur
15.	Tamil Nadu	29	26	3 - Chennai, Madurai, Coimbatore
16.	Uttar Pradesh	70	64	6 - Lucknow, kanpur (Urban) Allahabad, Varanasi, Agra & Meerut
17.	West Bengal	18	17	1 - Howrah
	Total	482	447	35

Total Number of States - 28
Total Number of States Covered - 17
Total Number of States Left Out - 11
Name of 11 States Left Out - Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Arunachal Pradesh, Goa, Sikkim, Tripura, Meghalaya, Mizoram, Manipur and Nagaland.
Total Number of Districts in 17 States - 482
Total Number of Districts Covered in 17 States - 447
Total Number of Districts Left Out in 17 States - 35

Annexure - III
Ranking of 447 Districts on Index of Backwardness*
(3 Parameters - SC & ST, Agri. Wages, Output per Agri. Worker) - Districtwise

Sl.	State	District	Total SC/St Pop. in %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker (Rs./Agr. Worker) 1990-93	Index	Comp. Index (Col. 5+8+11)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Gujarat	Dangs	94.7	0.000	20.00	0.0490	3143	0.029	0.078	1
2	Rajasthan	Banswara	78.5	0.176	20.00	0.0490	4279	0.043	0.269	2
3	Madhya Pradesh	Jhabua	88.3	0.070	34.00	0.1863	3287	0.031	0.287	3
4	Jharkhand	Simdega	76.1	0.202	22.00	0.0686	3162	0.029	0.300	4
5	Jharkhand	Gumla	76.1	0.202	22.00	0.0686	3162	0.029	0.300	5
6	Chattisgarh	Bastar	73.3	0.233	28.00	0.1275	4034	0.040	0.401	6
7	Chattisgarh	Dantewada	73.3	0.233	28.00	0.1275	4034	0.040	0.401	7
8	Chattisgarh	Kanker	73.3	0.233	28.00	0.1275	4034	0.040	0.401	8
9	Madhya Pradesh	Mandla	66.0	0.312	23.00	0.0784	2871	0.025	0.416	9
10	Orissa	Koraput	69.3	0.276	24.00	0.0882	6390	0.071	0.435	10
11	Orissa	Malkangir	69.3	0.276	24.00	0.0882	6390	0.071	0.435	11
12	Orissa	Nabarangpur	69.3	0.276	24.00	0.0882	6390	0.071	0.435	12
13	Orissa	Rayagada	69.3	0.276	24.00	0.0882	6390	0.071	0.435	13
14	Jharkhand	Lohardagga	60.2	0.375	22.00	0.0686	2694	0.023	0.467	14
15	Orissa	Mayurbhanj	64.9	0.324	25.00	0.0980	5207	0.055	0.478	15
16	Gujarat	Dohad	50.9	0.477	15.00	0.0000	3146	0.029	0.505	16
17	Gujarat	Panch Mahals	50.9	0.477	15.00	0.0000	3146	0.029	0.505	17
18	Orissa	Sundergarh	59.5	0.383	20.00	0.0490	7481	0.085	0.517	18
19	Jharkhand	Saraikela	59.7	0.381	28.50	0.1324	1362	0.006	0.519	19
20	Jharkhand	Singhbhum West	59.7	0.381	28.50	0.1324	1362	0.006	0.519	20
21	Madhya Pradesh	Barwani	56.0	0.421	23.00	0.0784	4445	0.046	0.545	21
22	Madhya Pradesh	West Nimar	56.0	0.421	23.00	0.0784	4445	0.046	0.545	22
23	Rajasthan	Dungarpur	70.4	0.264	42.00	0.2647	2969	0.027	0.556	23
24	Assam	North Cachar Hills	68.1	0.289	35.00	0.1961	6948	0.078	0.563	24
25	Madhya Pradesh	Dhar	60.4	0.373	30.10	0.1480	5718	0.062	0.583	25
26	Maharashtra	Gadchiroli	50.9	0.477	25.00	0.0980	2425	0.019	0.594	26
27	Orissa	Phulbani	56.0	0.421	25.00	0.0980	7196	0.081	0.600	27
28	Orissa	Boudh	56.0	0.421	25.00	0.0980	7196	0.081	0.600	28
29	Madhya Pradesh	Seoni	47.8	0.510	20.00	0.0490	4454	0.046	0.605	29
30	Orissa	Keonjhar	56.0	0.421	27.00	0.1176	6226	0.069	0.607	30
31	Madhya Pradesh	Umaria	54.0	0.443	30.00	0.1471	2682	0.023	0.613	31
32	Madhya Pradesh	Shahdol	54.0	0.443	30.00	0.1471	2682	0.023	0.613	32
33	Chattisgarh	Jaspur	59.9	0.379	35.00	0.1961	4267	0.043	0.618	33
34	Chattisgarh	Korba	59.9	0.379	35.00	0.1961	4267	0.043	0.618	34
35	Chattisgarh	Raigarh	59.9	0.379	35.00	0.1961	4267	0.043	0.618	35
36	Gujarat	Valsad	57.4	0.406	27.50	0.1225	8495	0.098	0.626	36
37	Gujarat	Bharuch	49.8	0.489	20.00	0.0490	8720	0.101	0.638	37
38	Gujarat	Narmada	49.8	0.489	20.00	0.0490	8720	0.101	0.638	38
39	Chattisgarh	Koria	59.2	0.386	37.00	0.2157	3992	0.040	0.642	39
40	Chattisgarh	Sarguja	59.2	0.386	37.00	0.2157	3992	0.040	0.642	40
41	Madhya Pradesh	Chindwara	46.7	0.522	19.00	0.0392	7674	0.087	0.649	41
42	Assam	Karbi Anglong	55.3	0.429	35.00	0.1961	5167	0.055	0.680	42
43	West Bengal	Jalpaiguri	58.0	0.399	38.00	0.2255	6702	0.075	0.700	43
44	Rajasthan	Udaipur	45.1	0.540	30.00	0.1471	2828	0.025	0.711	44
45	Orissa	Nuapada	46.9	0.520	27.00	0.1176	7355	0.083	0.721	45

(Contd.)

Annexure - III *(Contd.)*

Sl.	State	District	Total SC/St Pop. in %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker (Rs./Agr. Worker) 1990-93	Index	Comp. Index (Col. 5+8+11)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
46	Orissa	Kalhandi	46.9	0.520	27.00	0.1176	7355	0.083	0.721	46
47	Madhya Pradesh	Sidhi	41.8	0.576	30.00	0.1471	2906	0.026	0.748	47
48	Maharashtra	Dhule	46.2	0.528	33.00	0.1765	4714	0.049	0.753	48
49	Maharashtra	Nandurbar	46.2	0.528	33.00	0.1765	4714	0.049	0.753	49
50	Jharkhand	Dumka	48.6	0.502	40.00	0.2451	1700	0.010	0.757	50
51	Jharkhand	Jamtara	48.6	0.502	40.00	0.2451	1700	0.010	0.757	51
52	Madhya Pradesh	Betul	48.3	0.505	35.00	0.1961	5274	0.056	0.757	52
53	Madhya Pradesh	Harda	48.3	0.505	35.00	0.1961	5274	0.056	0.757	53
54	Gujarat	Navasari	39.8	0.597	16.00	0.0098	12559	0.150	0.757	54
55	Chattisgarh	Bilaspur	41.1	0.583	29.00	0.1373	4108	0.041	0.762	55
56	Chattisgarh	Jangir-Champa	41.1	0.583	29.00	0.1373	4108	0.041	0.762	56
57	Chattisgarh	Kawardha	41.1	0.583	29.00	0.1373	4108	0.041	0.762	57
58	Maharashtra	Bhandara	31.6	0.687	20.00	0.0490	2965	0.026	0.762	58
59	Assam	Kokrajhar	44.9	0.542	35.00	0.1961	3206	0.030	0.768	59
60	Assam	Dhemji	50.3	0.483	40.00	0.2451	4003	0.040	0.768	60
61	Andhra Pradesh	Adilabad	35.5	0.644	26.00	0.1078	3098	0.028	0.780	61
62	Uttar Pradesh	Sonbhadra	42.5	0.568	35.00	0.1961	2686	0.023	0.787	62
63	Maharashtra	Chandrapur	33.6	0.665	25.00	0.0980	3614	0.035	0.798	63
64	Orissa	Sambalpur	44.9	0.542	30.00	0.1471	9360	0.109	0.798	64
65	Orissa	Bargarh	44.9	0.542	30.00	0.1471	9360	0.109	0.798	65
66	Orissa	Deoghar	44.9	0.542	30.00	0.1471	9360	0.109	0.798	66
67	Orissa	Jharsuguda	44.9	0.542	30.00	0.1471	9360	0.109	0.798	67
68	Jharkhand	Sahebgunj	44.4	0.547	39.50	0.2402	1758	0.011	0.798	68
69	Jharkhand	Pakur	44.4	0.547	40.00	0.2451	1758	0.011	0.803	69
70	Jharkhand	Chatra	43.2	0.560	39.00	0.2353	1539	0.008	0.804	70
71	Jharkhand	Garhwa	43.2	0.560	39.00	0.2353	1539	0.008	0.804	71
72	Jharkhand	Palamau	43.2	0.560	39.00	0.2353	1539	0.008	0.804	72
73	Jharkhand	Latehar	43.2	0.560	39.00	0.2353	1539	0.008	0.804	73
74	West Bengal	Purulia	38.6	0.610	32.00	0.1667	3215	0.030	0.807	74
75	Maharashtra	Gondya	31.6	0.687	25.00	0.0980	2965	0.026	0.811	75
76	Jharkhand	Godda	33.6	0.665	30.00	0.1471	1382	0.006	0.818	76
77	Madhya Pradesh	East Nimar	38.2	0.615	30.00	0.1471	5305	0.057	0.819	77
78	Madhya Pradesh	Satna	31.6	0.687	25.00	0.0980	3637	0.035	0.820	78
79	West Bengal	Cooch Bihar	52.4	0.460	41.00	0.2549	9443	0.110	0.825	79
80	Madhya Pradesh	Balaghat	30.2	0.702	25.00	0.0980	3294	0.031	0.831	80
81	Orissa	Sonepur	35.9	0.640	25.00	0.0980	8284	0.095	0.833	81
82	Orissa	Bolangir	35.9	0.640	25.00	0.0980	8284	0.095	0.833	82
83	Maharashtra	Hingoli	29.9	0.705	25.00	0.0980	3866	0.038	0.841	83
84	Maharashtra	Nanded	29.9	0.705	25.00	0.0980	3866	0.038	0.841	84
85	Chattisgarh	Dhamatri	32.7	0.675	27.00	0.1176	5616	0.061	0.853	85

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Annexure - III *(Contd.)*

Sl.	State	District	Total SC/St Pop. in %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker (Rs./Agr. Worker) 1990-93	Index	Comp. Index (Col. 5+8+11)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
86	Chattisgarh	Mahasamund	32.7	0.675	27.00	0.1176	5616	0.061	0.853	86
87	Andhra Pradesh	Khammam	41.5	0.579	35.50	0.2010	6678	0.074	0.854	87
88	West Bengal	Bankura	41.7	0.577	36.00	0.2059	7005	0.079	0.861	88
89	Madhya Pradesh	Panna	35.3	0.646	33.00	0.1765	4231	0.043	0.866	89
90	Maharashtra	Aurangbad	27.1	0.736	25.00	0.0980	3942	0.039	0.873	90
91	Assam	North Lakhimpur	31.6	0.687	28.50	0.1324	5309	0.057	0.876	91
92	Chattisgarh	Rajnandgaon	35.5	0.644	35.00	0.1961	3747	0.037	0.877	92
93	Uttar Pradesh	Sitapur	32.2	0.680	30.00	0.1471	5582	0.060	0.877	93
94	Andhra Pradesh	Mahbubnagar	25.0	0.758	25.00	0.0980	3475	0.033	0.890	94
95	Uttar Pradesh	Unnao	30.6	0.697	30.00	0.1471	4414	0.045	0.890	95
96	Uttar Pradesh	Raebareli	30.0	0.704	30.00	0.1471	4334	0.044	0.895	96
97	West Bengal	West/North	38.8	0.608	37.00	0.2157	6437	0.071	0.895	97
98	West Bengal	Dinajpur	38.8	0.608	37.00	0.2157	6437	0.071	0.895	98
99	Uttar Pradesh	East/South	31.5	0.688	30.00	0.1471	5787	0.063	0.898	99
100	Jharkhand	Dinajpur Hardoi Bokaro	23.9	0.770	28.00	0.1275	914	0.000	0.898	100
101	Rajasthan	Sirohi	42.6	0.567	40.00	0.2451	7798	0.089	0.901	101
102	Chattisgarh	Durg	25.2	0.756	25.00	0.0980	4633	0.048	0.902	102
103	Maharashtra	Ahmednagar	19.6	0.817	19.00	0.0392	4774	0.050	0.906	103
104	Bihar	Gaya	29.7	0.707	34.00	0.1863	1983	0.014	0.907	104
105	Assam	Bongaigaon	28.2	0.724	31.00	0.1569	3109	0.028	0.909	105
106	Orissa	Angul	28.6	0.719	29.00	0.1373	5111	0.054	0.911	106
407	Orissa	Dhenkanal	28.6	0.719	29.00	0.1373	5111	0.054	0.911	407
108	West Bengal	Birbhum	37.6	0.621	35.00	0.1961	8297	0.095	0.913	108
109	Maharashtra	Yawatmal	32.4	0.678	34.00	0.1863	4876	0.051	0.915	109
110	Maharashtra	Thane	23.3	0.777	26.00	0.1078	3541	0.034	0.919	110
111	Jharkhand	Singhbhum East	33.7	0.664	40.00	0.2451	2006	0.014	0.923	111
112	Bihar	Vaishali	19.9	0.814	25.00	0.0980	1878	0.012	0.924	112
113	Maharashtra	Amrawati	31.9	0.683	34.00	0.1863	5281	0.056	0.926	113
114	Rajasthan	Jhalawar	29.1	0.714	30.00	0.1471	6370	0.070	0.931	114
115	Jharkhand	Hazaribagh	27.7	0.729	35.00	0.1961	1583	0.009	0.934	115
116	Jharkhand	Koderma	27.7	0.729	35.00	0.1961	1583	0.009	0.934	116
117	Karnataka	Chitradurga	34.4	0.656	33.00	0.1765	8904	0.103	0.936	117
118	Karnataka	Davanagere	34.4	0.656	33.00	0.1765	8904	0.103	0.936	118
119	Andhra Pradesh	Warangal	30.9	0.694	35.00	0.1961	4618	0.048	0.938	119
120	Bihar	Samastipur	18.0	0.835	24.00	0.0882	2414	0.019	0.942	120
121	Bihar	Sheohar	18.0	0.835	24.00	0.0882	2414	0.019	0.942	121
122	Andhra Pradesh	Rangareddy	21.5	0.797	27.00	0.1176	3124	0.029	0.943	122
123	Madhya Pradesh	Katni	30.7	0.696	36.00	0.2059	4175	0.042	0.944	123
124	Maharashtra	Latur	21.3	0.799	25.00	0.0980	4645	0.048	0.945	124
125	Tamil Nadu	South Arcot/ Cuddalore	28.3	0.723	30.00	0.1471	6767	0.076	0.945	125

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Annexure - III *(Contd.)*

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
126	Tamil Nadu	Vilupuram	28.3	0.723	30.00	0.1471	6767	0.076	0.945	126
127	Karnataka	Bidar	29.0	0.715	33.00	0.1765	5221	0.056	0.947	127
128	Rajasthan	Dausa	44.5	0.546	50.00	0.3431	5658	0.061	0.951	128
129	Maharashtra	Wardha	29.7	0.707	34.00	0.1863	5490	0.059	0.953	129
130	Jharkhand	Giridih	25.5	0.753	35.00	0.1961	1217	0.004	0.953	130
131	Karnataka	Gulbarga	27.7	0.729	33.00	0.1765	4599	0.048	0.953	131
132	Assam	Goalpara	22.7	0.783	27.00	0.1176	5107	0.054	0.955	132
133	Madhya Pradesh	Dewas	33.2	0.669	33.00	0.1765	9432	0.110	0.956	133
134	Orissa	Balasore	26.9	0.738	30.00	0.1471	6727	0.075	0.960	134
135	Orissa	Bhadrak	26.9	0.738	30.00	0.1471	6727	0.075	0.960	135
136	Orissa	Jaipur	26.9	0.738	30.00	0.1471	6727	0.075	0.960	136
137	Orissa	Gajapati	26.0	0.748	29.00	0.1373	7083	0.080	0.964	137
138	Orissa	Ganjam	26.0	0.748	29.00	0.1373	7083	0.080	0.964	138
139	Madhya Pradesh	Chhatarpur	27.5	0.731	33.00	0.1765	5316	0.057	0.964	139
140	Rajasthan	Tonk	32.1	0.681	35.00	0.1961	7885	0.090	0.967	140
141	Bihar	Jamui	24.5	0.764	34.00	0.1863	2255	0.017	0.967	141
142	Bihar	Nawadah	24.5	0.764	34.00	0.1863	2255	0.017	0.967	142
143	Gujarat	Sabarkantha	27.1	0.736	31.00	0.1569	7042	0.079	0.972	143
144	Uttar Pradesh	Fatehpur	24.7	0.762	30.00	0.1471	5859	0.064	0.973	144
145	Andhra Pradesh	Chittur	21.6	0.795	27.00	0.1176	5575	0.060	0.973	145
146	Uttar Pradesh	Lalitpur	25.1	0.757	30.00	0.1471	6300	0.069	0.974	146
147	Orissa	Jagatsinghpur	23.7	0.773	26.00	0.1078	8185	0.094	0.974	147
148	Orissa	Kendrapara	23.7	0.773	26.00	0.1078	8185	0.094	0.974	148
149	Orissa	Cuttack	23.7	0.773	26.00	0.1078	8185	0.094	0.974	149
150	Madhya Pradesh	Guna	30.1	0.703	34.00	0.1863	7575	0.086	0.975	150
151	Jharkhand	Devghar	25.2	0.756	36.00	0.2059	1929	0.013	0.975	151
152	Maharashtra	Buldhana	16.6	0.850	23.00	0.0784	4597	0.048	0.976	152
153	Uttar Pradesh	Jalaun	27.3	0.733	30.00	0.1471	8305	0.095	0.976	153
154	Uttar Pradesh	Banda	23.2	0.778	30.00	0.1471	4880	0.051	0.976	154
155	Uttar Pradesh	Chitrakoot	23.2	0.778	30.00	0.1471	4880	0.051	0.976	155
156	Madhya Pradesh	Rewa	27.2	0.734	36.00	0.2059	3810	0.037	0.978	156
157	Madhya Pradesh	Datia	26.4	0.743	29.60	0.1431	8033	0.092	0.978	157
158	Bihar	Araria	15.0	0.867	25.00	0.0980	2157	0.016	0.981	158
159	Madhya Pradesh	Ratlam	37.0	0.628	42.50	0.2696	7467	0.085	0.982	159
160	Karnataka	Bellary	28.1	0.725	33.00	0.1765	7198	0.081	0.982	160
161	Rajasthan	Sawai Madhopur	44.5	0.546	50.00	0.3431	8170	0.094	0.983	161
162	Uttar Pradesh	Gorakhpur	22.0	0.791	30.00	0.1471	4417	0.045	0.983	162
163	Uttar Pradesh	Kushinagar	22.0	0.791	30.00	0.1471	4417	0.045	0.983	163
164	Uttar Pradesh	Mohoba	24.9	0.760	30.00	0.1471	6957	0.078	0.985	164
165	Uttar Pradesh	Hamirpur	24.9	0.760	30.00	0.1471	6957	0.078	0.985	165

(Contd.)

Annexure - III *(Contd.)*

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
166	Uttar Pradesh	Barabanki	27.0	0.737	35.00	0.1961	5021	0.053	0.986	166
167	Tamil Nadu	Tiruvannamalai	24.5	0.764	34.00	0.1863	3706	0.036	0.986	167
168	Andhra Pradesh	Vizianagaram	19.4	0.819	27.00	0.1176	4838	0.051	0.988	168
169	Uttar Pradesh	Kheri	28.1	0.725	30.00	0.1471	9923	0.116	0.988	169
170	Andhra Pradesh	Nalgonda	27.4	0.732	36.00	0.2059	4782	0.050	0.988	170
171	Andhra Pradesh	Nellore	30.3	0.701	37.00	0.2157	6683	0.074	0.991	171
172	Rajasthan	Bhilwara	26.1	0.746	35.00	0.1961	4680	0.049	0.991	172
173	Rajasthan	Rajasmand	26.1	0.746	35.00	0.1961	4680	0.049	0.991	173
174	Assam	Morigaon	29.2	0.713	39.00	0.2353	4317	0.044	0.992	174
175	Tamil Nadu	Nagapattinam	24.4	0.765	33.00	0.1765	4945	0.052	0.993	175
176	Tamil Nadu	Thiruvarur	24.4	0.765	33.00	0.1765	4945	0.052	0.993	176
177	Tamil Nadu	Thanjavur	24.4	0.765	33.00	0.1765	4945	0.052	0.993	177
178	Maharashtra	Osmanabad	18.1	0.834	25.00	0.0980	5738	0.062	0.994	178
179	Uttar Pradesh	Jhansi	28.8	0.717	35.00	0.1961	7172	0.081	0.994	179
180	Uttar Pradesh	Mirzapur	25.9	0.749	35.00	0.1961	4858	0.051	0.996	180
181	Madhya Pradesh	Sagar	29.6	0.708	37.00	0.2157	6508	0.072	0.996	181
182	Bihar	Darbhanga	14.6	0.872	27.00	0.1176	1627	0.009	0.998	182
183	Madhya Pradesh	Damoh	32.5	0.677	42.00	0.2647	5336	0.057	0.999	183
184	Bihar	Purnea	16.9	0.847	28.00	0.1275	2844	0.025	0.999	184
185	West Bengal	Paragnas 24 South	35.6	0.643	47.00	0.3137	4262	0.043	1.000	185
186	Uttar Pradesh	Kanpur Rural	25.2	0.756	30.00	0.1471	8470	0.097	1.001	186
187	Uttar Pradesh	Jaunpur	21.8	0.793	30.00	0.1471	5692	0.062	1.002	187
188	Karnataka	Raichur	25.0	0.758	33.00	0.1765	6360	0.070	1.005	188
189	Bihar	Muzaffarpur	15.7	0.860	28.00	0.1275	2369	0.019	1.006	189
190	Bihar	Madhubani	12.8	0.891	25.50	0.1029	1860	0.012	1.006	190
191	Bihar	Supaul	12.8	0.891	25.50	0.1029	1860	0.012	1.006	191
192	Tamil Nadu	Dindigul Anna/Dindigul	19.9	0.814	30.00	0.1471	4639	0.048	1.009	192
193	Maharashtra	Parbhani	16.3	0.853	25.00	0.0980	5611	0.061	1.012	193
194	Uttar Pradesh	Azamgarh	25.6	0.752	35.00	0.1961	5940	0.065	1.013	194
195	Madhya Pradesh	Raisen	31.0	0.593	35.00	0.1961	10834	0.128	1.017	195
196	Maharashtra	Jalna	15.0	0.867	25.00	0.0980	4981	0.052	1.018	196
197	Tamil Nadu	Tirunelveli	18.3	0.831	29.00	0.1373	4940	0.052	1.021	197
198	Andhra Pradesh	Anantapur	17.7	0.838	27.00	0.1176	6000	0.066	1.021	198
199	West Bengal	Midnapur West	24.6	0.763	38.00	0.2255	3483	0.033	1.021	199
200	Bihar	Katihar	14.4	0.874	28.00	0.1275	2554	0.021	1.022	200
201	Rajasthan	Baran	33.9	0.662	40.00	0.2451	9885	0.116	1.022	201
202	Rajasthan	Kota	33.9	0.662	40.00	0.2451	9885	0.116	1.022	202
203	Bihar	Lakhisarai	18.3	0.831	33.00	0.1765	2096	0.015	1.023	203
204	Bihar	Monghyr	18.3	0.831	33.00	0.1765	2096	0.015	1.023	204
205	Bihar	Sheikhpur	18.3	0.831	33.00	0.1765	2096	0.015	1.023	205

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
206	Maharashtra	Beed	14.5	0.873	25.00	0.0980	5095	0.054	1.025	206
207	Uttar Pradesh	Mau	22.1	0.790	32.00	0.1667	6188	0.068	1.025	207
208	Andhra Pradesh	Medak	22.1	0.790	36.00	0.2059	3385	0.032	1.028	208
209	Tamil Nadu	Karur	19.3	0.820	30.00	0.1471	5627	0.061	1.028	209
210	Tamil Nadu	Tiruchirapalli	19.3	0.820	30.00	0.1471	5627	0.061	1.028	210
211	Rajasthan	Bundi	39.1	0.605	45.00	0.2941	11178	0.132	1.032	211
212	Rajasthan	Ajmer	20.8	0.804	35.00	0.1961	3443	0.033	1.033	212
213	Uttar Pradesh	Sultanpur	22.4	0.787	35.00	0.1961	4847	0.051	1.034	213
214	Madhya Pradesh	Hoshangabad	33.7	0.664	38.00	0.2255	12192	0.146	1.035	214
215	Madhya Pradesh	Sehore	30.5	0.699	35.00	0.1961	11787	0.140	1.035	215
216	West Bengal	Nadia	31.4	0.689	39.00	0.2353	9529	0.111	1.035	216
217	Tamil Nadu	Pudukottai	16.9	0.847	30.00	0.1471	4185	0.042	1.036	217
218	Uttar Pradesh	Kaushambi	21.5	0.797	35.00	0.1961	4303	0.044	1.036	218
219	Uttar Pradesh	Pratapgarh	21.5	0.797	35.00	0.1961	4303	0.044	1.036	219
220	Uttar Pradesh	Ambedkar Nagar	23.2	0.778	35.00	0.1961	5782	0.063	1.037	220
221	Uttar Pradesh	Faizabad	23.2	0.778	35.00	0.1961	5782	0.063	1.037	221
222	Andhra Pradesh	East Godavari	22.1	0.790	32.00	0.1667	7295	0.082	1.039	222
223	Bihar	Jahanabad	18.4	0.830	34.00	0.1863	2707	0.023	1.040	223
224	Tamil Nadu	Ramnathpuram	18.2	0.832	31.00	0.1569	4868	0.051	1.040	224
225	Tamil Nadu	Sivagangai	18.2	0.832	31.00	0.1569	4868	0.051	1.040	225
226	Rajasthan	Jodhpur	18.1	0.834	30.00	0.1471	5628	0.061	1.041	226
227	Rajasthan	Jhunjhunu	17.3	0.842	30.00	0.1471	4971	0.052	1.042	227
228	Bihar	Siwan	11.7	0.903	25.00	0.0980	4387	0.045	1.046	228
229	Orissa	Puri	19.0	0.824	30.00	0.1471	6967	0.078	1.049	229
230	Orissa	Khurda	19.0	0.824	30.00	0.1471	6967	0.078	1.049	230
231	Orissa	Nayagarh	19.0	0.824	30.00	0.1471	6967	0.078	1.049	231
232	Uttar Pradesh	Basti	21.2	0.800	35.00	0.1961	5145	0.055	1.050	232
233	Uttar Pradesh	Sant Kabir Nagar	21.2	0.800	35.00	0.1961	5145	0.055	1.050	233
234	Bihar	Khagaria	14.5	0.873	31.00	0.1569	2545	0.021	1.051	234
235	Bihar	Madhepura	17.0	0.845	34.00	0.1863	2449	0.020	1.052	235
236	Karnataka	Tumkur	25.0	0.758	38.00	0.2255	6394	0.071	1.055	236
237	Bihar	Saharsa	15.8	0.859	34.00	0.1863	1707	0.010	1.055	237
238	Tamil Nadu	Kamarajnagar/ Virudunagar	18.7	0.827	33.00	0.1765	4954	0.052	1.056	238
239	West Bengal	Burdwan	33.6	0.665	43.00	0.2745	9950	0.117	1.056	239
240	West Bengal	Midnapur East	24.6	0.763	38.00	0.2255	6246	0.069	1.057	240
241	Madhya Pradesh	Dindori	29.5	0.709	38.00	0.2255	10424	0.123	1.058	241
242	Madhya Pradesh	Narsimpur	29.5	0.709	38.00	0.2255	10424	0.123	1.058	242
243	Bihar	Sitamarhi	12.1	0.899	30.00	0.1471	1866	0.012	1.058	243
244	Madhya Pradesh	Tikamgarh	26.9	0.738	40.00	0.2451	6809	0.076	1.059	244
245	Andhra Pradesh	Srikakulam	15.1	0.866	30.00	0.1471	4624	0.048	1.061	245

(Contd.)

Annexure - III *(Contd.)*

Sl.	State	District	Total SC/St Pop. in %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker (Rs./Agr. Worker) 1990-93	Index	Comp. Index (Col. 5+8+11)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
246	Uttar Pradesh	Chandauli	18.1	0.834	32.00	0.1667	5716	0.062	1.062	246
247	Uttar Pradesh	Sant Ravidas	18.1	0.834	32.00	0.1667	5716	0.062	1.062	247
248	Rajasthan	Nagar	19.9	0.814	35.00	0.1961	5238	0.056	1.066	248
249	Maharashtra	Nagour	13.1	0.888	27.00	0.1176	5692	0.062	1.067	249
250	Bihar	Sangli Kishanganj	10.1	0.921	28.00	0.1275	2509	0.021	1.069	250
251	Tamil Nadu	Theni	15.0	0.867	30.00	0.1471	5366	0.057	1.072	251
252	Maharashtra	Satara	10.2	0.919	23.00	0.0784	6725	0.075	1.073	252
253	Uttar Pradesh	Ghazipur	20.6	0.806	35.00	0.1961	6443	0.071	1.074	253
254	Tamil Nadu	Salem	20.2	0.811	35.00	0.1961	6294	0.069	1.076	254
255	Tamil Nadu	Namakkal	20.2	0.811	35.00	0.1961	6294	0.069	1.076	255
256	Uttar Pradesh	Maharajganj	19.6	0.817	35.00	0.1961	5854	0.064	1.077	256
257	Madhya Pradesh	Vidisha	24.7	0.762	36.00	0.2059	9465	0.110	1.078	257
258	Assam	Darrang	22.3	0.788	33.00	0.1765	9852	0.115	1.080	258
259	Rajasthan	Chittorgarh	34.9	0.651	50.00	0.3431	7609	0.086	1.080	259
260	Bihar	Champaran West	15.7	0.860	33.00	0.1765	4433	0.045	1.081	260
261	Karnataka	Bagalkote	18.8	0.826	33.00	0.1765	7069	0.079	1.082	261
262	Karnataka	Bijapur	18.8	0.826	33.00	0.1765	7069	0.079	1.082	262
263	Bihar	Aurangabad	23.3	0.777	39.50	0.2402	5933	0.065	1.082	263
264	Karnataka	Chamarajanagar	22.1	0.790	38.00	0.2255	6080	0.067	1.082	264
265	Karnataka	Mysore	22.1	0.790	38.00	0.2255	6080	0.067	1.082	265
266	Assam	Nalbari	26.5	0.742	43.00	0.2745	6215	0.068	1.085	266
267	Uttar Pradesh	Sidharth Nagar	16.7	0.849	35.00	0.1961	4278	0.043	1.088	267
268	Maharashtra	Jalgaon	19.1	0.823	33.00	0.1765	7872	0.090	1.089	268
269	Tamil Nadu	Kanchipuram	27.2	0.734	44.00	0.2843	6446	0.071	1.090	269
270	Tamil Nadu	Chengalpattu/ Tiruvallur	27.2	0.734	44.00	0.2843	6446	0.071	1.090	270
271	Bihar	Banka	13.9	0.879	35.00	0.1961	2087	0.015	1.090	271
272	Bihar	Bhagalpur	13.9	0.879	35.00	0.1961	2087	0.015	1.090	272
273	Bihar	Champaran East	13.1	0.888	33.00	0.1765	3125	0.029	1.093	273
274	Uttar Pradesh	Bahraich	16.8	0.848	35.00	0.1961	4805	0.050	1.094	274
275	Uttar Pradesh	Balrampur	16.8	0.848	35.00	0.1961	4805	0.050	1.094	275
276	Uttar Pradesh	Shrawasti	16.8	0.848	35.00	0.1961	4805	0.050	1.094	276
277	Bihar	Rohtas	20.4	0.808	37.50	0.2206	5973	0.065	1.094	277
278	Assam	Sonitpur	16.4	0.852	36.00	0.2059	3834	0.038	1.096	278
279	Andhra Pradesh	Kurnool	19.3	0.820	35.00	0.1961	7131	0.080	1.097	279
280	Madhya Pradesh	Ujjain	26.7	0.740	37.00	0.2157	11916	0.142	1.098	280
281	Madhya Pradesh	Shivpuri	30.7	0.696	48.00	0.3235	6995	0.078	1.098	281
282	Rajasthan	Dholpur	24.8	0.761	42.00	0.2647	6623	0.074	1.099	282
283	West Bengal	Maldah	24.6	0.763	38.00	0.2255	9498	0.111	1.099	283
284	Bihar	Kaimur (Bhabua)	20.4	0.808	38.00	0.2255	5973	0.065	1.099	284
285	Uttar Pradesh	Gonda	16.0	0.856	35.00	0.1961	4573	0.047	1.100	285

(Contd.)

Annexure - III *(Contd.)*

Sl.	State	District	Total SC/St Pop. in %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker (Rs./Agr. Worker) 1990-93	Index	Comp. Index (Col. 5+8+11)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
286	Madhya Pradesh	Shajapur	24.7	0.762	35.00	0.1961	11963	0.143	1.100	286
287	Andhra Pradesh	Cuddapah	17.0	0.845	35.00	0.1961	5615	0.061	1.102	287
288	Madhya Pradesh	Mandsaur	20.7	0.805	37.00	0.2157	7284	0.082	1.103	288
289	Madhya Pradesh	Neemuch	20.7	0.805	37.00	0.2157	7284	0.082	1.103	289
290	Tamil Nadu	North Arcot/Vellore	22.3	0.788	34.00	0.1863	11335	0.134	1.109	290
291	West Bengal	Pargnas 24 North	23.8	0.771	42.00	0.2647	6698	0.075	1.111	291
292	Karnataka	Dharwad	14.7	0.871	33.00	0.1765	5865	0.064	1.111	292
293	Karnataka	Gadag	14.7	0.871	33.00	0.1765	5865	0.064	1.111	293
294	Karnataka	Haveri	14.7	0.871	33.00	0.1765	5865	0.064	1.111	294
295	West Bengal	Hoogly	28.2	0.724	43.00	0.2745	9713	0.114	1.112	295
296	Andhra Pradesh	Nizamabad	21.0	0.802	41.00	0.2549	5502	0.059	1.116	296
297	Andhra Pradesh	Karimnagar	21.3	0.799	40.00	0.2451	6547	0.073	1.116	297
298	Uttar Pradesh	Ballia	14.7	0.871	35.00	0.1961	4854	0.051	1.117	298
299	Rajasthan	Bikaner	18.9	0.825	37.00	0.2157	7127	0.080	1.121	299
300	Bihar	Begusarai	14.5	0.873	38.00	0.2255	2681	0.023	1.121	300
301	Karnataka	Hassan	18.5	0.829	35.00	0.1961	8403	0.097	1.122	301
302	Rajasthan	Barmer	21.6	0.795	45.00	0.2941	3571	0.034	1.124	302
303	Bihar	Gopal Ganj	13.3	0.886	33.00	0.1765	5864	0.064	1.126	303
304	Tamil Nadu	Chidambaranar/ Tuticorin	17.4	0.841	33.00	0.1765	9539	0.111	1.129	304
305	Andhra Pradesh	Prakasam	23.6	0.774	43.00	0.2745	7228	0.081	1.130	305
306	Madhya Pradesh	Gwalior	23.3	0.777	38.00	0.2255	10840	0.128	1.130	306
307	Uttar Pradesh	Deoria	15.6	0.861	35.00	0.1961	6694	0.075	1.131	307
308	West Bengal	Darjeeling	29.9	0.705	50.00	0.3431	7569	0.086	1.134	308
309	Madhya Pradesh	Rajgarh	21.3	0.799	42.00	0.2647	6767	0.076	1.139	309
310	Assam	Golaghat	15.9	0.857	37.00	0.2157	6158	0.068	1.141	310
311	Karnataka	Bangalore Rural	15.8	0.859	38.00	0.2255	5413	0.058	1.142	311
312	Bihar	Buxar	14.7	0.871	38.00	0.2255	4528	0.047	1.143	312
313	Bihar	Bhojpur	14.7	0.871	38.00	0.2255	4528	0.047	1.143	313
314	Assam	Jorhat	19.7	0.816	40.00	0.2451	7310	0.083	1.144	314
315	Tamil Nadu	Pmthevar / Perambalur	16.1	0.855	40.00	0.2451	4277	0.045	1.145	315
316	Assam	Dhubri	7.2	0.952	31.00	0.1569	3766	0.037	1.146	316
317	Gujarat	Banaskantha	17.5	0.840	34.00	0.1863	10365	0.122	1.148	317
318	Gujarat	Patan	17.5	0.840	34.00	0.1863	10365	0.122	1.148	318
319	Rajasthan	Jalore	26.2	0.745	50.00	0.3431	5607	0.061	1.149	319
320	Karnataka	Chikkamagalur	21.9	0.792	35.00	0.1961	13622	0.164	1.152	320
321	Karnataka	Koppal	21.9	0.792	35.00	0.1961	13622	0.164	1.152	321
322	Uttar Pradesh	Auraiya	25.0	0.758	46.00	0.3039	8149	0.093	1.156	322
323	Uttar Pradesh	Etawah	25.0	0.758	46.00	0.3039	8149	0.093	1.156	323
324	Madhya Pradesh	Morena	25.5	0.753	45.00	0.2941	9346	0.109	1.156	324
325	Madhya Pradesh	Sheopur	25.5	0.753	45.00	0.2941	9346	0.109	1.156	325

(Contd.)

Annexure - III *(Contd.)*

Sl.	State	District	Total SC/St Pop. in %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker (Rs./Agr. Worker) 1990-93	Index	Comp. Index (Col. 5+8+11)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
326	Assam	Silcer	16.1	0.855	36.00	0.2059	8342	0.096	1.157	326
327	Andhra Pradesh	West Godavari	20.3	0.810	41.00	0.2549	8149	0.093	1.158	327
328	Karnataka	Belgaum	13.7	0.881	33.00	0.1765	8950	0.104	1.162	328
329	Bihar	Nalanda	19.4	0.819	47.00	0.3137	3212	0.030	1.163	329
330	Rajasthan	Alwar	25.9	0.749	47.00	0.3137	8699	0.100	1.163	330
331	Rajasthan	Bharatpur	23.9	0.770	42.00	0.2647	11034	0.131	1.166	331
332	Rajasthan	Karauli	23.9	0.770	42.00	0.2647	11034	0.131	1.166	332
333	Assam	Kamrup	18.2	0.832	43.00	0.2745	5655	0.061	1.168	333
334	Karnataka	Mandya	14.5	0.873	38.00	0.2255	6685	0.074	1.173	334
335	Rajasthan	Churu	20.6	0.806	47.00	0.3137	5129	0.054	1.174	335
336	Maharashtra	Sindhudurg	5.6	0.970	30.00	0.1471	5623	0.061	1.177	336
337	Uttar Pradesh	Aligarh	23.0	0.780	46.00	0.3039	8341	0.096	1.180	337
338	Uttar Pradesh	Hathras	23.0	0.780	46.00	0.3039	8341	0.096	1.180	338
339	West Bengal	Murshidabad	14.7	0.871	41.00	0.2549	5162	0.055	1.180	339
340	Rajasthan	Sikar	16.7	0.849	45.00	0.2941	4270	0.043	1.186	340
341	Rajasthan	Pali	23.5	0.775	51.00	0.3529	6041	0.066	1.194	341
342	Bihar	Saran	11.8	0.902	42.00	0.2647	3116	0.028	1.195	342
343	Assam	Dibrugarh	12.0	0.900	33.00	0.1765	10813	0.128	1.204	343
344	Assam	Nagaon	13.3	0.886	40.00	0.2451	6743	0.075	1.206	344
345	Uttar Pradesh	Firozabad	19.3	0.820	46.00	0.3039	8363	0.096	1.220	345
346	Uttar Pradesh	Badaun	17.3	0.842	46.00	0.3039	6817	0.076	1.222	346
347	Assam	Tinsukia	8.0	0.943	40.00	0.2451	3754	0.037	1.225	347
348	Maharashtra	Kolhapur	13.2	0.887	40.00	0.2451	8202	0.094	1.226	348
349	Uttar Pradesh	Mainpuri	19.3	0.820	46.00	0.3039	8886	0.103	1.227	349
350	Andhra Pradesh	Krishna	19.1	0.823	47.00	0.3137	8657	0.100	1.236	350
351	Uttar Pradesh	Bullandshahr	21.0	0.802	46.00	0.3039	11022	0.130	1.236	351
352	Tamil Nadu	Periyar/ Erode	18.0	0.835	47.00	0.3137	7943	0.091	1.239	352
353	Uttar Pradesh	Bareilly	12.7	0.892	40.00	0.2451	8832	0.102	1.240	353
354	Maharashtra	Raigad	15.6	0.861	50.00	0.3431	3681	0.036	1.240	354
355	Uttar Pradesh	Mayhura	20.2	0.811	46.00	0.3039	10683	0.126	1.241	355
356	Assam	Barpeta	14.5	0.873	45.00	0.2941	6857	0.077	1.243	356
357	Uttar Pradesh	Etah	17.3	0.842	46.00	0.3039	8549	0.098	1.245	357
358	Tamil Nadu	Dharmapuri	16.3	0.853	48.00	0.3235	6388	0.071	1.247	358
359	Uttar Pradesh	Shahjahanpur	18.0	0.835	46.00	0.3039	10273	0.121	1.259	359
360	Uttar Pradesh	Farrukhabad	17.6	0.839	46.00	0.3039	10057	0.118	1.261	360
361	Uttar Pradesh	Kannauj	17.6	0.839	46.00	0.3039	10057	0.118	1.261	361
362	Punjab	Hoshiarpur	33.3	0.668	54.00	0.3824	17689	0.216	1.267	362
363	Punjab	Nawanshahr	33.3	0.668	54.00	0.3824	17689	0.216	1.267	363
364	Karnataka	Shimoga	21.6	0.795	53.00	0.3725	8693	0.100	1.268	364
365	Karnataka	Udupi	21.6	0.795	53.00	0.3725	8693	0.100	1.268	365

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Annexure - III *(Contd.)*

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
366	Uttar Pradesh	Shaharanpur	22.5	0.786	46.00	0.3039	15101	0.183	1.273	366
367	Gujarat	Jinagarh	9.4	0.928	38.00	0.2255	10200	0.120	1.273	367
368	Maharashtra	Akola	18.9	0.825	55.00	0.3922	5489	0.059	1.276	368
369	Maharashtra	Washim	18.9	0.825	55.00	0.3922	5489	0.059	1.276	369
370	Assam	Karimganj	14.3	0.875	50.00	0.3431	5490	0.059	1.277	370
371	Karnataka	Kolar	32.6	0.676	72.00	0.5588	4426	0.045	1.280	371
372	Gujarat	Mehsana	9.4	0.928	37.00	0.2157	11465	0.136	1.280	372
373	Madhya Pradesh	Bhind	21.6	0.795	55.00	0.3922	8132	0.093	1.281	373
374	Rajasthan	Jaisalmer	19.4	0.819	60.00	0.4412	3081	0.028	1.288	374
375	Kerala	Palakkad	17.4	0.841	52.00	0.3627	7984	0.091	1.295	375
376	Gujarat	Kutch	7.1	0.953	46.00	0.3039	4006	0.040	1.297	376
377	Uttar Pradesh	Bijnor	20.8	0.804	46.00	0.3039	16615	0.203	1.311	377
378	Punjab	Jalandhar	39.1	0.605	53.00	0.3725	27035	0.337	1.315	378
379	Uttar Pradesh	Gautam Budha Nagar	17.9	0.836	46.00	0.3039	14477	0.175	1.315	379
380	Uttar Pradesh	Ghaziabad	17.9	0.836	46.00	0.3039	14477	0.175	1.315	380
381	Assam	Hailakandi	12.2	0.898	50.00	0.3431	6776	0.076	1.316	381
382	Uttar Pradesh	Jyoti Phule Nagar	13.0	0.889	46.00	0.3039	10713	0.126	1.319	382
383	Uttar Pradesh	Rampur	13.0	0.889	46.00	0.3039	10713	0.126	1.319	383
384	Rajasthan	Ganganagar	29.9	0.705	50.00	0.3431	22322	0.276	1.324	384
385	Rajasthan	Hanumangarh	29.9	0.705	50.00	0.3431	22322	0.276	1.324	385
386	Uttar Pradesh	Pilibhit	16.1	0.855	46.00	0.3039	13724	0.165	1.324	386
387	Gujarat	Jamnagar	8.4	0.939	44.00	0.2843	8085	0.102	1.325	387
388	Gujarat	Porbandhar	8.4	0.939	44.00	0.2843	8805	0.102	1.325	388
389	Uttar Pradesh	Moradabad	16.1	0.855	50.00	0.3431	11078	0.131	1.330	389
390	Gujarat	Bhavnagar	6.1	0.964	43.00	0.2745	9202	0.107	1.346	390
391	Maharashtra	Solapur	16.9	0.847	62.00	0.4608	4949	0.052	1.359	391
392	Gujarat	Surendranagar	12.1	0.899	45.00	0.2941	14248	0.172	1.365	39
393	Karnataka	Uttara Kannada	8.3	0.940	53.00	0.3725	6392	0.071	1.383	2393
394	Andhra Pradesh	Guntur	18.4	0.830	61.00	0.4510	8994	0.104	1.385	394
395	Punjab	Ropar	24.6	0.763	55.00	0.3922	18838	0.231	1.386	395
396	Punjab	Gurdaspur	24.7	0.762	55.00	0.3922	19050	0.234	1.388	396
397	Uttar Pradesh	Bhagpat	16.6	0.850	50.00	0.3431	16293	0.198	1.391	397
398	Maharashtra	Ratnagiri	2.8	1.000	50.00	0.3431	4707	0.049	1.392	398
399	Assam	Sibsagar	7.4	0.950	40.00	0.2451	16719	0.204	1.399	399
400	Kerala	Idukki	19.3	0.820	50.00	0.3431	19455	0.239	1.403	400
401	Gujarat	Amreli	9.3	0.929	50.00	0.3431	11151	0.132	1.404	401
402	Karnataka	Dakshina Kannada	10.4	0.917	53.00	0.3725	10066	0.118	1.408	402
403	Uttar Pradesh	Muzaffarnagar	14.0	0.878	50.00	0.3431	16037	1.195	1.416	403
404	Gujarat	Anand	7.1	0.953	20.00	0.0490	33823	0.425	1.427	404
405	Gujarat	Kheda	7.1	0.953	20.00	0.0490	33823	0.425	1.427	405

(Contd.)

Annexure - III *(Concld.)*

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
406	Haryana	Ambala	23.0	0.780	60.00	0.4412	19275	0.237	1.458	406
407	Haryana	Panchhula	23.0	0.780	60.00	0.4412	19275	0.237	1.458	407
408	Haryana	Yamunanagar	25.0	0.758	57.50	0.4167	23356	0.290	1.465	408
409	Haryana	Panipat	17.9	0.836	60.00	0.4412	18556	0.228	1.504	409
410	Kerala	Kasaragod	10.3	0.918	53.00	0.3725	18766	0.230	1.521	410
411	Haryana	Mahendragarh	15.5	0.862	64.00	0.4804	15095	0.183	1.525	411
412	Haryana	Sonepat	17.8	0.837	60.00	0.4412	21526	0.266	1.544	412
413	Punjab	Moga	24.7	0.762	56.00	0.4020	30986	0.388	1.552	413
414	Punjab	Kapurthala	29.5	0.709	63.00	0.4706	31246	0.391	1.571	414
415	Haryana	Sirsa	26.7	0.740	60.00	0.4412	31951	0.400	1.582	415
416	Kerala	Kollam	12.9	0.890	70.00	0.5392	12883	0.154	1.584	416
417	Haryana	Bhiwani	19.0	0.824	75.00	0.5882	15866	0.193	1.605	417
418	Haryana	Kaithal	21.4	0.798	66.00	0.5000	24803	0.308	1.606	418
419	Haryana	Gurgaon	13.6	0.882	77.00	0.6078	10875	0.129	1.619	419
420	Punjab	Fatehgarh Sahib	23.6	0.774	62.00	0.4608	32753	0.411	1.645	420
421	Haryana	Karnal	20.0	0.813	65.00	0.4902	27612	0.344	1.647	421
422	Punjab	Bhayinda	29.3	0.712	69.00	0.5294	32576	0.408	1.650	422
423	Punjab	Sangrur	26.8	0.739	65.00	0.4902	35284	0.443	1.672	423
424	Haryana	Rewari	19.3	0.820	81.00	0.6471	17008	0.208	1.675	424
425	Karnataka	Kodagu	20.4	0.808	53.00	0.3725	39861	0.502	1.684	425
426	Kerala	Kottayam	8.4	0.939	75.00	0.5882	13353	0.160	1.688	426
427	Punjab	Mansa	29.3	0.712	73.00	0.5686	32576	0.408	1.689	427
428	Punjab	Faridkot	34.1	0.659	77.00	0.6078	34470	0.433	1.700	428
429	Haryana	Kurukshetra	19.3	0.820	67.00	0.5098	31342	0.393	1.723	429
430	Haryana	Jhajjar	18.4	0.830	92.00	0.7549	12078	0.144	1.729	430
431	Haryana	rohtak	18.4	0.830	92.00	0.7549	12078	0.144	1.729	431
432	Kerala	Alappuzha	9.6	0.926	87.00	0.7059	11253	0.133	1.765	432
433	Punjab	Patiala	23.6	0.774	75.00	0.5882	32753	0.411	1.773	433
434	Haryana	Hissar	23.2	0.778	86.00	0.6961	24963	0.311	1.785	434
435	Haryana	Fatehabad	19.6	0.817	90.00	0.7353	20203	0.249	1.801	435
436	Haryana	Jind	19.6	0.817	90.00	0.7353	20203	0.249	1.801	436
437	Punjab	Firozpur	21.8	0.793	72.00	0.5588	37381	0.470	1.823	437
438	Punjab	Mukatsar	21.8	0.793	72.00	0.5588	37381	0.470	1.823	438
439	Kerala	Kannur	4.9	0.977	74.00	0.5784	23135	0.287	1.842	439
440	Tamil Nadu	Kanniyakumari	5.1	0.975	92.00	0.7549	9690	0.113	1.843	440
441	Kerala	Eranakulam	8.8	0.935	91.00	0.7451	15129	0.183	1.863	441
442	Kerala	Pathanamthitta	13.9	0.879	112.00	0.9510	10717	0.126	1.957	442
443	Kerala	Wayanad	21.2	0.800	110.00	0.9314	19289	0.237	1.968	443
444	Kerala	Trissur	12.3	0.897	113.00	0.9608	12368	0.148	2.005	444
445	Kerala	Malappuram	8.6	0.937	117.00	1.0000	11485	0.136	2.073	445
446	Tamil Nadu	The Nilgiris	33.7	0.664	60.00	0.4412	78424	1.000	2.105	446
447	Kerala	Kozhikode	7.2	0.952	103.00	0.8627	27564	0.344	2.159	447

Annexure IV
Ranking of 447 Districts on Index of Backwardness*
(5 Parameters - SC & ST, Agri. Wages, Output per Agri. Worker, Agri. Output per Hectare and Poverty Ratio) - Districtwise

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	Jharkhand	Gumla	76.1	0.202	22.00	0.0686	3162	0.029	3907	0.08128	62.44	0.107	0.488	1
2	Jharkhand	Simdega	76.1	0.202	22.00	0.0686	3162	0.029	3907	0.08129	62.44	0.107	0.488	2
3	Orissa	Malkangir	69.3	0.276	24.00	0.0882	6390	0.071	8459	0.19931	69.02	0.000	0.635	3
4	Orissa	Nabarangpur	69.3	0.276	24.00	0.0882	6390	0.071	8459	0.19931	69.02	0.000	0.635	4
5	Orissa	Rayagada	69.3	0.276	24.00	0.0882	6390	0.071	8459	0.19931	69.02	0.000	0.635	5
6	Orissa	Koraput	69.3	0.276	24.00	0.0882	6390	0.071	8459	0.19931	69.02	0.000	0.635	6
7	Madhya Pradesh	Barwani	56.0	0.421	23.00	0.0784	4445	0.046	4737	0.10281	68.20	0.013	0.661	7
8	Madhya Pradesh	West Nimar	56.0	0.421	23.00	0.0784	4445	0.046	4737	0.10281	68.20	0.013	0.661	8
9	Jharkhand	Lohardagga	60.2	0.375	22.00	0.0686	2694	0.023	4648	0.10050	62.44	0.107	0.675	9
10	Jharkhand	Saraikela	59.7	0.381	28.50	0.1324	1362	0.006	3738	0.07690	62.44	0.107	0.703	10
11	Jharkhand	Singhbhum West	59.7	0.381	28.50	0.1324	1362	0.006	3738	0.07690	62.44	0.107	0.703	11
12	Orissa	Phulbani	56.0	0.421	25.00	0.0980	7196	0.081	7548	0.17568	69.02	0.000	0.776	12
13	Orissa	Boudh	56.0	0.421	25.00	0.0980	7196	0.081	7548	0.17569	69.02	0.000	0.776	13
14	Rajasthan	Banswara	78.5	0.176	20.00	0.0490	4279	0.043	6063	0.13717	45.92	0.376	0.782	14
15	Gujarat	Dangs	94.7	0.000	20.00	0.0490	3143	0.029	3408	0.06834	25.89	0.702	0.848	15
16	Madhya Pradesh	Mandla	66.0	0.312	23.00	0.0784	2871	0.025	3609	0.07355	46.36	0.369	0.858	16
17	Orissa	Nuapada	46.9	0.520	27.00	0.1176	7355	0.083	6623	0.15171	69.02	0.000	0.873	17
18	Orissa	Kalhandi	46.9	0.520	27.00	0.1176	7355	0.083	6623	0.15172	69.02	0.000	0.873	18
19	Madhya Pradesh	Betul	48.3	0.505	35.00	0.1961	5274	0.056	5159	0.11376	68.20	0.013	0.884	19
20	Madhya Pradesh	Harda	48.3	0.505	35.00	0.1961	5274	0.056	5159	0.11376	68.20	0.013	0.884	20
21	Chattisgarh	Bastar	73.3	0.233	28.00	0.1275	4034	0.040	4094	0.08613	43.97	0.408	0.894	21
22	Chattisgarh	Dantewada	73.3	0.233	28.00	0.1275	4034	0.040	4094	0.08613	43.97	0.408	0.894	22
23	Chattisgarh	Kanker	73.3	0.233	28.00	0.1275	4034	0.040	4094	0.08613	43.97	0.408	0.894	23
24	Madhya Pradesh	East Nimar	38.2	0.615	30.00	0.1471	5305	0.057	5034	0.11050	68.20	0.013	0.942	24
25	Jharkhand	Dumka	48.6	0.502	40.00	0.2451	1700	0.010	4453	0.09544	62.44	0.107	0.959	25

(Contd.)

Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
26	Jharkhand	Jamtara	48.6	0.502	40.00	0.2451	1700	0.010	4453	0.09544	62.44	0.107	0.959	26
27	Maharashtra	Gadchiroli	50.9	0.477	25.00	0.0980	2425	0.019	3664	0.08017	48.56	0.333	1.007	27
28	Jharkhand	Chatra	43.2	0.560	39.00	0.2363	1539	0.008	4604	0.09936	62.44	0.107	1.010	28
29	Jharkhand	Garhwa	43.2	0.560	39.00	0.2353	1539	0.008	4604	0.09936	62.44	0.107	1.010	29
30	Jharkhand	Palamau	43.2	0.560	39.00	0.2353	1539	0.008	4604	0.09936	62.44	0.107	1.010	30
31	Jharkhand	Latehar	43.2	0.560	39.00	0.2353	1539	0.008	4604	0.09936	62.44	0.107	1.010	31
32	Jharkhand	Godda	33.6	0.665	30.00	0.1471	1382	0.006	4134	0.08716	62.44	0.107	1.012	32
33	Orissa	Mayurbhanj	64.9	0.324	25.00	0.0980	5207	0.055	6792	0.15610	45.64	0.380	1.014	33
34	Jharkhand	Sahebganj	44.4	0.547	39.50	0.2402	1758	0.011	4974	0.10896	62.44	0.107	1.014	34
35	Jharkhand	Pakur	44.4	0.547	40.00	0.2451	1758	0.011	4974	0.10896	62.44	0.107	1.019	35
36	Madhya Pradesh	Jhabua	88.3	0.070	34.00	0.1863	3287	0.031	3669	0.07511	27.39	0.677	1.039	36
37	Rajasthan	Dungarpur	70.4	0.264	42.00	0.2647	2969	0.027	4960	0.10860	45.92	0.376	1.040	37
38	Orissa	Sundergarh	59.5	0.383	20.00	0.0490	7481	0.085	6511	0.14881	45.64	0.380	1.046	38
39	Jharkhand	Bokaro	23.9	0.770	28.00	0.1275	914	0.000	2999	0.05773	62.44	0.107	1.063	39
40	Madhya Pradesh	Seoni	47.8	0.510	20.00	0.0490	4454	0.046	4389	0.09379	46.36	0.369	1.067	40
41	West Bengal	Lalpaiguri	58.0	0.399	38.00	0.2255	6702	0.075	9448	0.22496	58.73	0.167	1.092	41
42	Jharkhand	Singhbhum East	33.7	0.664	40.00	0.2451	2006	0.014	4290	0.09121	62.44	0.107	1.121	42
43	Chattisgarh	Jaspur	59.9	0.379	35.00	0.1961	4267	0.043	4517	0.09709	43.97	0.408	1.123	43
44	Chattisgarh	Kobra	59.9	0.379	35.00	0.1961	4267	0.043	4517	0.09709	43.97	0.408	1.123	44
45	Chattisgarh	Raigarh	59.9	0.379	35.00	0.1961	4267	0.043	4517	0.09709	43.97	0.408	1.123	45
46	Uttar Pradesh	Banda	23.2	0.778	30.00	0.1471	4880	0.051	5384	0.11958	66.74	0.037	1.133	46
47	Uttar Pradesh	Chitrakoot	23.2	0.778	30.00	0.1471	4880	0.051	5384	0.11958	66.74	0.037	1.133	47
48	Orissa	Keonjhar	56.0	0.421	27.00	0.1176	6226	0.069	6442	0.14701	45.64	0.380	1.135	48
49	Chattisgarh	Koria	59.2	0.386	37.00	0.2157	3992	0.040	4202	0.08895	43.97	0.408	1.138	49
50	Chattisgarh	Sarguja	59.2	0.386	37.00	0.2157	3992	0.040	4202	0.08895	43.97	0.408	1.138	50

(Contd.)

Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
51	Uttar Pradesh	Mohoba	24.9	0.760	30.00	0.1471	6957	0.078	5282	0.11694	66.74	0.037	1.139	51
52	Uttar Pradesh	Hamirpur	24.9	0.760	30.00	0.1471	6957	0.078	5282	0.11694	66.74	0.037	1.139	52
53	Uttar Pradesh	Lalitpur	25.1	0.757	30.00	0.1471	6300	0.069	5730	0.12855	66.74	0.037	1.140	53
54	Jharkhand	Hazaribagh	27.7	0.729	35.00	0.1961	1583	0.009	5312	0.11770	62.44	0.107	1.159	54
55	Jharkhand	Koderma	27.7	0.729	35.00	0.1961	1583	0.009	5312	0.11770	62.44	0.107	1.159	55
56	Jharkhand	Giridh	25.5	0.753	35.00	0.1961	1217	0.004	4580	0.09874	62.44	0.107	1.159	56
57	Uttar Pradesh	Jalaun	27.3	0.733	30.00	0.1471	8305	0.095	6689	0.15342	66.74	0.037	1.166	57
58	Uttar Pradesh	Jhansi	28.8	0.717	35.00	0.1961	7172	0.081	6172	0.14002	66.74	0.037	1.171	58
59	Madhya Pradesh	Chindwara	46.7	0.522	19.00	0.0392	7674	0.087	7038	0.16246	46.36	0.369	1.180	59
60	Jharkhand	Devghar	25.2	0.756	36.00	0.2059	1929	0.013	5135	0.11313	62.44	0.107	1.195	60
61	Madhya Pradesh	Umaria	54.0	0.443	30.00	0.1471	2682	0.023	3020	0.05829	36.71	0.526	1.197	61
62	Madhya Pradesh	Shahdol	54.0	0.443	30.00	0.1471	2682	0.023	3020	0.05830	36.71	0.526	1.197	62
63	Maharashtra	Chandrapur	33.6	0.665	25.00	0.0980	3614	0.035	3866	0.08023	48.56	0.333	1.211	63
64	Maharashtra	Dhule	46.2	0.528	33.00	0.1765	4714	0.049	4958	0.10855	47.18	0.355	1.217	64
65	Maharashtra	Nandurbar	46.2	0.528	33.00	0.1765	4714	0.049	4958	0.10855	47.18	0.355	1.217	65
66	Assam	Kokrajhar	44.9	0.542	35.00	0.1961	3206	0.030	6155	0.13958	49.90	0.311	1.218	66
67	Uttar Pradesh	Sonbhadra	42.5	0.568	35.00	0.1961	2686	0.023	4709	0.10208	48.60	0.332	1.221	67
68	Maharashtra	Bhandara	31.6	0.687	20.00	0.0490	2965	0.026	5785	0.12998	48.56	0.333	1.225	68
69	Rajasthan	Udaipur	45.1	0.540	30.00	0.1471	2828	0.025	6171	0.13998	45.92	0.376	1.227	69
70	Maharashtra	Hingoli	29.9	0.705	25.00	0.0980	3866	0.038	3860	0.08006	50.02	0.309	1.230	70
71	Maharashtra	Nanded	29.9	0.705	25.00	0.0980	3866	0.038	3860	0.08006	50.02	0.309	1.230	71
72	Madhya Pradesh	Hoshangabad	33.7	0.664	38.00	0.2255	12192	0.146	7901	0.18484	68.20	0.013	1.233	72
73	Bihar	Vaishali	19.9	0.814	25.00	0.0980	1878	0.012	7226	0.16733	58.67	0.168	1.260	73
74	Maharashtra	Gondya	31.6	0.687	25.00	0.0980	2965	0.026	5785	0.12998	48.56	0.333	1.274	74
75	Bihar	Gaya	29.7	0.707	34.00	0.1863	1963	0.014	5838	0.13135	54.03	0.244	1.283	75

(Contd.)

Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
76	Bihar	Samastipur	18.0	0.835	24.00	0.0882	2414	0.019	8128	0.19073	58.67	0.168	1.301	76
77	Bihar	Sheohar	18.0	0.835	24.00	0.0882	2414	0.019	8128	0.19073	58.67	0.168	1.301	77
78	Assam	North Cachar Hills	68.1	0.289	35.00	0.1961	6948	0.078	11996	0.29103	41.29	0.451	1.306	78
79	Bihar	Madhubani	12.8	0.891	25.50	0.1029	1860	0.012	5853	0.13174	58.67	0.168	1.306	79
80	Bihar	Supaul	12.8	0.891	25.50	0.1029	1860	0.012	5853	0.13174	58.67	0.168	1.306	80
81	Chattisgarh	Bilaspur	41.1	0.583	29.00	0.1373	4108	0.041	6105	0.13829	43.97	0.408	1.308	81
82	Chattisgarh	Jangir-Champa	41.1	0.583	29.00	0.1373	4108	0.041	6105	0.13829	43.97	0.408	1.308	82
83	Chattisgarh	Kawardha	41.1	0.583	29.00	0.1373	4108	0.041	6105	0.13829	43.97	0.408	1.308	83
84	Bihar	Araria	15.0	0.867	25.00	0.0980	2157	0.016	7123	0.16468	58.67	0.168	1.314	84
85	Bihar	Darbhanga	14.6	0.872	27.00	0.1176	1627	0.009	6689	0.15343	58.67	0.168	1.320	85
86	Gujarat	Dohad	50.9	0.477	15.00	0.0000	3146	0.029	5315	0.11780	25.89	0.702	1.325	86
87	Gujarat	Panchmahals	50.9	0.477	15.00	0.0000	3146	0.029	5315	0.11780	25.89	0.702	1.325	87
88	Madhya Pradesh	Balaghat	30.2	0.702	25.00	0.0980	3294	0.031	5638	0.12617	46.36	0.369	1.325	88
89	Assam	Karbi Anglong	55.3	0.429	35.00	0.1961	5167	0.055	8325	0.19584	41.29	0.451	1.327	89
90	Maharashtra	Yawatmal	32.4	0.678	34.00	0.1863	4876	0.051	4266	0.09060	49.08	0.324	1.330	90
91	Madhya Pradesh	Sidhi	41.8	0.576	30.00	0.1471	2906	0.026	3462	0.06975	36.71	0.526	1.344	91
92	Bihar	Purnea	16.9	0.847	28.00	0.1275	2844	0.025	7687	0.17929	58.67	0.168	1.347	92
93	Bihar	Muzaffarpur	15.7	0.860	28.00	0.1275	2359	0.019	7464	0.17352	58.67	0.168	1.348	93
94	Maharashtra	Amarawati	31.9	0.683	34.00	0.1863	5281	0.056	4796	0.10434	49.08	0.324	1.355	94
95	Maharashtra	Latur	21.3	0.799	25.00	0.0980	4645	0.048	4821	0.10498	50.02	0.309	1.359	95
96	Bihar	Jamui	24.5	0.764	34.00	0.1863	2255	0.017	6575	0.15046	54.03	0.244	1.362	96
97	Bihar	Nawadah	24.5	0.764	34.00	0.1863	2255	0.017	6575	0.15046	54.03	0.244	1.362	97
98	Bihar	Saharsa	15.8	0.859	34.00	0.1863	1707	0.010	6495	0.14839	58.67	0.168	1.372	98
99	Bihar	Sitamarhi	12.1	0.899	30.00	0.1471	1866	0.012	6436	0.14687	58.67	0.168	1.373	99
100	Bihar	Katihar	14.4	0.874	28.00	0.1275	2554	0.021	7846	0.18341	58.67	0.168	1.374	100

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
101	Maharashtra	Aurangabad	27.1	0.736	25.00	0.0980	5933	0.065	7220	0.16719	50.02	0.309	1.375	101
102	Maharashtra	Wardha	29.7	0.707	34.00	0.1863	5490	0.059	4695	0.10171	49.08	0.324	1.379	102
103	Madhya Pradesh	Dhar	60.4	0.373	30.10	0.1480	5718	0.062	5369	0.11919	27.39	0.677	1.380	103
104	Chattisgarh	Rajnandgaon	35.5	0.644	35.00	0.1961	3747	0.037	4540	0.09769	43.97	0.408	1.382	104
105	Madhya Pradesh	Damoh	32.5	0.677	42.00	0.2647	5336	0.057	3754	0.07733	50.13	0.307	1.383	105
106	Madhya Pradesh	Sagar	29.6	0.708	37.00	0.2157	6508	0.072	3954	0.08250	50.13	0.307	1.386	106
107	Assam	Bongaigaon	28.2	0.724	31.00	0.1569	3109	0.028	7226	0.16733	49.90	0.311	1.387	107
108	Orissa	Angul	28.6	0.719	29.00	0.1373	5111	0.054	4790	0.10418	45.64	0.380	1.395	108
109	Orissa	Dhenkanal	28.6	0.719	29.00	0.1373	5111	0.054	4790	0.10419	45.64	0.380	1.395	109
110	Maharashtra	Osmanabad	18.1	0.834	25.00	0.0980	5738	0.062	4346	0.09267	50.02	0.309	1.396	110
111	Bihar	Madhepura	17.0	0.845	34.00	0.1863	2449	0.020	7630	0.17781	58.67	0.168	1.398	111
112	Uttar Pradesh	Unnao	30.6	0.697	30.00	0.1471	4414	0.045	8588	0.20266	50.20	0.306	1.399	112
113	Bihar	Kishanganj	10.1	0.921	28.00	0.1275	2509	0.021	7074	0.16339	58.67	0.168	1.400	113
114	Maharashtra	Buldhana	16.6	0.850	23.00	0.0784	4597	0.048	4658	0.10077	49.08	0.324	1.401	114
115	West Bengal	Purulia	38.6	0.610	32.00	0.1667	3215	0.030	5839	0.13138	40.26	0.468	1.406	115
116	Madhya Pradesh	Katni	30.7	0.696	36.00	0.2059	4175	0.042	4474	0.09598	46.36	0.369	1.409	116
117	Maharashtra	Jalna	15.0	0.867	25.00	0.0980	4981	0.052	3971	0.08295	50.02	0.309	1.410	117
118	Maharashtra	Beed	14.5	0.873	25.00	0.0980	5095	0.054	3742	0.07701	50.02	0.309	1.411	118
119	Bihar	Aurangabad	23.3	0.777	39.50	0.2402	3942	0.039	5139	0.11324	54.03	0.244	1.413	119
120	Orissa	Sonepur	35.9	0.640	25.00	0.0980	8284	0.095	8516	0.20079	45.64	0.380	1.414	120
121	Orissa	Bolangir	35.9	0.640	25.00	0.0980	8284	0.095	8516	0.20079	45.64	0.380	1.414	121
122	Orissa	Sambalpur	44.9	0.542	30.00	0.1471	9360	0.109	9950	0.23797	45.64	0.380	1.416	122
123	Orissa	Bargarh	44.9	0.542	30.00	0.1471	9360	0.109	9950	0.23797	45.64	0.380	1.416	123
124	Orissa	Deoghar	44.9	0.542	30.00	0.1471	9360	0.109	9950	0.23797	45.64	0.380	1.416	124
125	Orissa	Jharsuguda	44.9	0.542	30.00	0.1471	9360	0.109	9950	0.23797	45.64	0.380	1.416	125

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
126	Bihar	Lakhisarai	18.3	0.831	33.00	0.1765	2096	0.015	6545	0.14968	54.03	0.244	1.417	126
127	Bihar	Monghyr	18.3	0.831	33.00	0.1765	2096	0.015	6545	0.14969	54.03	0.244	1.417	127
128	Bihar	Sheikhpur	18.3	0.831	33.00	0.1765	2096	0.015	6545	0.14969	54.03	0.244	1.417	128
129	Uttar Pradesh	Raebareli	30.0	0.704	30.00	0.1471	4334	0.044	9303	0.22120	50.20	0.306	1.423	129
130	Maharashtra	Parbhani	16.3	0.853	25.00	0.0980	5611	0.061	4749	0.10311	50.02	0.309	1.424	130
131	Madhya Pradesh	Satna	31.6	0.687	25.00	0.0980	3637	0.035	3843	0.07963	36.71	0.526	1.425	131
132	Assam	Dhemaji	50.3	0.483	40.00	0.2451	4003	0.040	6575	0.15045	37.38	0.515	1.433	132
133	Uttar Pradesh	sitapur	32.2	0.680	30.00	0.1471	5582	0.060	10092	0.24165	50.20	0.306	1.435	133
134	West Bengal	Coochbihar	52.4	0.460	41.00	0.2549	9443	0.110	17902	0.44415	58.73	0.167	1.437	134
135	Chattisgarh	Durg	25.2	0.756	25.00	0.0980	4633	0.048	5904	0.13307	43.97	0.408	1.443	135
136	Chattisgarh	Dhamatri	32.7	0.675	27.00	0.1176	5616	0.061	8022	0.18798	43.97	0.408	1.448	136
137	Chattisgarh	Mahasamund	32.7	0.675	27.00	0.1176	5616	0.061	8022	0.18798	43.97	0.408	1.448	137
138	Bihar	Jahanabad	18.4	0.830	34.00	0.1863	2707	0.023	7164	0.16572	54.03	0.244	1.449	138
139	Bihar	Champaran East	13.1	0.888	33.00	0.1765	3125	0.029	8193	0.19242	58.67	0.168	1.454	139
140	Madhya Pradesh	Rasen	31.0	0.693	35.00	0.1961	10834	0.128	5818	0.13083	50.13	0.307	1.455	140
141	Uttar Pradesh	Hardoi	31.5	0.688	30.00	0.1471	5787	0.063	10674	0.25675	50.20	0.306	1.461	141
142	Bihar	Siwan	11.7	0.903	25.00	0.0980	4387	0.045	10488	0.25193	58.67	0.168	1.466	142
143	Madhya Pradesh	Panna	35.3	0.646	33.00	0.1765	4231	0.043	3781	0.07801	36.71	0.526	1.469	143
144	Assam	Morigaon	29.2	0.713	39.00	0.2353	4317	0.044	7193	0.16650	49.90	0.311	1.469	144
145	Madhya Pradesh	Vidisha	24.7	0.762	36.00	0.2059	9465	0.110	4480	0.09614	50.13	0.307	1.481	145
146	Bihar	Banka	13.9	0.879	35.00	0.1961	2087	0.015	6554	0.14990	54.03	0.244	1.484	146
147	Bihar	Bhagalpur	13.9	0.879	35.00	0.1961	2087	0.015	6554	0.14990	54.03	0.244	1.484	147
148	Assam	Goalpara	22.7	0.783	27.00	0.1176	5107	0.054	9421	0.22425	49.90	0.311	1.490	148
149	Bihar	Khagaria	14.5	0.873	31.00	0.1569	2545	0.021	8459	0.19930	54.03	0.244	1.494	149
150	Uttar Pradesh	Fatehpur	24.7	0.762	30.00	0.1471	5859	0.064	9771	0.23332	50.20	0.306	1.512	150

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
151	West Bengal	Darjeeling	29.9	0.705	50.00	0.3431	7569	0.086	9253	0.21989	58.73	0.167	1.521	151
152	Uttar Pradesh	Mirzapur	25.9	0.749	35.00	0.1961	4858	0.051	8311	0.19546	48.60	0.332	1.523	152
153	Gujarat	Bharuch	49.8	0.489	20.00	0.0490	8720	0.101	7921	0.18536	25.89	0.702	1.525	153
154	Gujarat	Narmada	49.8	0.489	20.00	0.0490	8720	0.101	7921	0.18536	25.89	0.702	1.525	154
155	Madhya Pradesh	Sehore	30.5	0.699	35.00	0.1961	11787	0.140	7860	0.18377	50.13	0.307	1.526	155
156	Bihar	Champaran West	15.7	0.860	33.00	0.1765	4433	0.045	11983	0.29069	58.67	0.168	1.541	156
157	Orissa	Bhadrak	26.9	0.738	30.00	0.1471	6727	0.075	8417	0.19822	45.36	0.385	1.543	157
158	Orissa	Jaipur	26.9	0.738	30.00	0.1741	6727	0.075	8417	0.19822	45.36	0.385	1.543	158
159	Orissa	Balasore	26.9	0.738	30.00	0.1471	6727	0.075	8417	0.19823	45.36	0.385	1.543	159
160	West Bengal	East/South Dinajpur	38.8	0.608	37.00	0.2157	6437	0.071	12216	0.29672	47.14	0.356	1.548	160
161	West Bengal	West/North	38.8	0.608	37.00	0.2157	6437	0.071	12216	0.29673	47.14	0.356	1.548	161
162	Uttar Pradesh	Dinajpur	22.0	0.791	30.00	0.1471	4417	0.045	9947	0.23789	48.60	0.332	1.553	162
163	Uttar Pradesh	Gorakhpur	22.0	0.791	30.00	0.1471	4417	0.045	9947	0.23789	48.60	0.332	1.553	163
164	Bihar	Kushinagar	11.8	0.902	42.00	0.2647	3116	0.028	8194	0.19244	58.67	0.168	1.556	164
165	Bihar	Saran	20.4	0.808	37.50	0.2206	5973	0.065	9963	0.23830	54.03	0.244	1.557	165
166	Assam	Rohtas Sonitpur	16.4	0.852	36.00	0.2059	3834	0.038	7391	0.17161	49.90	0.311	1.578	166
167	Assam	North Lakhimpur	31.6	0.687	28.50	0.1324	5309	0.057	8044	0.18854	37.38	0.515	1.579	167
168	Bihar	Kaimur (Bhabua)	20.4	0.808	38.00	0.2256	5973	0.065	9963	0.23830	54.03	0.244	1.581	168
169	Uttar Pradesh	Barabanki	27.0	0.737	35.00	0.1961	5021	0.053	12079	0.29318	50.20	0.306	1.585	169
170	Bihar	Bhojpur	14.7	0.871	38.00	0.2255	4528	0.047	8444	0.19892	54.03	0.244	1.585	170
171	Bihar	Buxar	14.7	0.871	38.00	0.2255	4528	0.047	8444	0.19892	54.03	0.244	1.585	171
172	Assam	Nalbari	26.5	0.742	43.00	0.2745	6215	0.068	8082	0.18954	49.90	0.311	1.586	172
173	Bihar	Begusarai	14.5	0.873	38.00	0.2255	2681	0.023	9334	0.22201	54.03	0.244	1.587	173
174	Madhya Pradesh	Chhatarpur	27.5	0.731	33.00	0.1765	5316	0.057	4815	0.10482	36.71	0.526	1.595	174
175	Madhya Pradesh	Rewa	27.2	0.734	36.00	0.2059	3810	0.037	4344	0.09262	36.71	0.526	1.596	175

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
176	Assam	Dhubri	7.2	0.952	31.00	0.1569	3766	0.037	6331	0.14414	49.90	0.311	1.601	176
177	Uttar Pradesh	Kanpur Rural	25.2	0.756	30.00	0.1471	8470	0.097	12198	0.29626	50.20	0.306	1.603	177
178	Madhya Pradesh	Dindori	29.5	0.709	38.00	0.2255	10424	0.123	7984	0.18700	46.36	0.369	1.613	178
179	Madhya Pradesh	Narsimpur	29.5	0.709	38.00	0.2255	10424	0.123	7984	0.18700	46.36	0.369	1.613	179
180	Uttar Pradesh	Kaushambi	21.5	0.797	35.00	0.1961	4303	0.044	10456	0.25110	48.60	0.332	1.620	180
181	Uttar Pradesh	Pratapgarh	21.5	0.797	35.00	0.1961	4303	0.044	10456	0.25110	48.60	0.332	1.620	181
182	Uttar Pradesh	Sidharth Nagar	16.7	0.849	35.00	0.1961	4278	0.043	8609	0.20319	48.60	0.332	1.624	182
183	Uttar Pradesh	Bahraich	16.8	0.848	35.00	0.1961	4805	0.050	8408	0.19798	48.60	0.332	1.624	183
184	Uttar Pradesh	Balrampur	16.8	0.848	35.00	0.1961	4805	0.050	8408	0.19798	48.60	0.332	1.624	184
185	Uttar Pradesh	Shrawasti	16.8	0.848	35.00	0.1961	4805	0.050	8408	0.19799	48.60	0.332	1.624	185
186	Uttar Pradesh	Sultanpur	22.4	0.787	35.00	0.1961	4847	0.051	10809	0.26025	48.60	0.332	1.626	186
187	Bihar	Nalanda	19.4	0.819	47.00	0.3137	3212	0.030	9287	0.22077	54.03	0.244	1.627	187
188	West Bengal	Birbhum	37.6	0.621	35.00	0.1961	8297	0.095	14619	0.35903	47.14	0.356	1.628	188
189	West Bengal	Bankura	41.7	0.577	36.00	0.2059	7005	0.079	12334	0.29978	40.26	0.468	1.629	189
190	Karnataka	Raichur	25.0	0.758	33.00	0.1765	6360	0.070	5232	0.11565	37.68	0.510	1.631	190
191	Rajasthan	Jhalawar	29.1	0.714	30.00	0.1471	6370	0.070	6359	0.14487	34.74	0.558	1.634	191
192	Orissa	Cuttack	23.7	0.773	26.00	0.1078	8185	0.094	11374	0.27488	45.36	0.385	1.634	192
193	Orissa	Jagatsinghpur	23.7	0.773	26.00	0.1078	8185	0.094	11374	0.27489	45.36	0.385	1.634	193
194	Orissa	Kendrapara	23.7	0.773	26.00	0.1078	8185	0.094	11374	0.27489	45.36	0.385	1.634	194
195	Uttar Pradesh	Jaunpur	21.8	0.793	30.00	0.1471	5692	0.062	12369	0.30070	48.60	0.332	1.635	195
196	Uttar Pradesh	Kheri	28.1	0.725	30.00	0.1471	9923	0.116	14051	0.34430	50.20	0.306	1.638	196
197	Uttar Pradesh	Basti	21.2	0.800	35.00	0.1961	5145	0.055	10996	0.26510	48.60	0.332	1.648	197
198	Uttar Pradesh	Sant Kabir Nagar	21.2	0.800	35.00	0.1961	5145	0.055	10996	0.26510	48.60	0.332	1.648	198
199	Bihar	Gopal Ganj	13.3	0.886	33.00	0.1765	5864	0.064	14541	0.35700	58.67	0.168	1.651	199
200	Madhya Pradesh	Rajgarh	21.3	0.799	42.00	0.2647	6767	0.076	4838	0.10541	43.97	0.408	1.652	200

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
201	Orissa	Gajapati	26.0	0.748	29.00	0.1373	7083	0.080	12457	0.30297	45.36	0.385	1.652	201
202	Orissa	Ganjam	26.0	0.748	29.00	0.1373	7083	0.080	12457	0.30297	45.36	0.385	1.652	202
203	Uttar Pradesh	Azamgarh	25.6	0.752	35.00	0.1961	5940	0.065	12715	0.30966	48.60	0.332	1.655	203
204	Karnataka	Gulberga	27.7	0.729	33.00	0.1765	4599	0.048	3096	0.06024	29.46	0.644	1.657	204
205	Uttar Pradesh	Gonda	16.0	0.856	35.00	0.1961	4573	0.047	9456	0.22515	48.60	0.332	1.657	205
206	Maharashtra	Jalgaon	19.1	0.823	33.00	0.1765	7872	0.090	9060	0.21490	47.18	0.355	1.659	206
207	Gujarat	Valsad	57.4	0.406	27.50	0.1225	8495	0.098	13789	0.33752	25.89	0.702	1.665	207
208	Orissa	Puri	19.0	0.824	30.00	0.1471	6967	0.078	9779	0.23353	45.36	0.385	1.667	208
209	Orissa	Khurd	19.0	0.824	30.00	0.1471	6967	0.078	9779	0.23354	45.36	0.385	1.667	209
210	Orissa	Nayagarh	19.0	0.824	30.00	0.1471	6967	0.078	9779	0.23354	45.36	0.385	1.667	210
211	Uttar Pradesh	Mau	22.1	0.790	32.00	0.1667	6188	0.068	13214	0.32260	48.60	0.332	1.679	211
212	Assam	Darrang	22.3	0.788	33.00	0.1765	9852	0.115	12265	0.29798	49.90	0.311	1.689	212
213	Assam	Kamrup	18.2	0.832	43.00	0.2745	5655	0.061	9046	0.21454	49.90	0.311	1.694	213
214	Uttar Pradesh	Bhallia	14.7	0.871	35.00	0.1961	4854	0.051	10473	0.25153	48.60	0.332	1.701	214
215	Maharashtra	Akola	18.9	0.825	55.00	0.3922	5489	0.059	4819	0.10492	49.08	0.324	1.705	215
216	Maharashtra	Washim	18.9	0.825	55.00	0.3922	5489	0.059	4819	0.10492	49.08	0.324	1.705	216
217	Karnataka	Bidar	29.0	0.715	33.00	0.1765	5221	0.056	5200	0.11480	29.46	0.644	1.705	217
218	Uttar Pradesh	Chandauli	18.1	0.834	32.00	0.1667	5716	0.062	12830	0.31264	48.60	0.332	1.707	218
219	Uttar Pradesh	Sant Ravidas Nagar	18.1	0.834	32.00	0.1667	5716	0.062	12830	0.31264	48.60	0.332	1.707	219
220	Uttar Pradesh	Ambedkar Nagar	23.2	0.778	35.00	0.1961	5782	0.063	13829	0.33855	48.60	0.332	1.708	220
221	Uttar Pradesh	Faizabad	23.2	0.778	35.00	0.1961	5782	0.063	13829	0.33855	48.60	0.332	1.708	221
222	Rajasthan	Bikaner	18.9	0.825	37.00	0.2157	7127	0.080	1931	0.03006	34.74	0.558	1.708	222
223	Uttar Pradesh	Ghazipur	20.6	0.806	35.00	0.1961	6443	0.071	12676	0.30864	48.60	0.332	1.715	223
224	Maharashtra	Ahmednagar	19.6	0.817	19.00	0.0392	4774	0.050	4424	0.09470	25.13	0.714	1.715	224
225	Tamil Nadu	Ramnath Puram	18.2	0.832	31.00	0.1569	4868	0.051	7316	0.16966	36.74	0.525	1.735	225

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
226	Tamil Nadu	Sivagangai	18.2	0.832	31.00	0.1569	4868	0.051	7316	0.16967	36.74	0.525	1.735	226
227	Assam	Nagaon	13.3	0.886	40.00	0.2451	6743	0.075	9376	0.22309	49.90	0.311	1.740	227
228	Andra Pradesh	Adilabad	35.5	0.644	26.00	0.1078	3098	0.028	3295	0.06542	13.84	0.898	1.743	228
229	Rajasthan	Sirohi	42.6	0.567	40.00	0.2451	7798	0.089	5968	0.13472	25.48	0.708	1.744	229
230	Assam	Barpeta	14.5	0.873	45.00	0.2941	6857	0.077	8638	0.20394	49.90	0.311	1.758	230
231	Uttar Pradesh	Maharajganj	19.6	0.817	35.00	0.1961	5854	0.064	14498	0.35588	48.60	0.332	1.765	231
232	Madhya Pradesh	Tikamgarh	26.9	0.738	40.00	0.2451	6809	0.076	7839	0.18323	36.71	0.526	1.768	232
233	Rajasthan	Jodhpur	18.1	0.834	30.00	0.1471	5628	0.061	1891	0.02901	25.48	0.708	1.779	233
234	Rajasthan	Baran	33.9	0.662	40.00	0.2451	9885	0.116	8554	0.20177	36.74	0.558	1.782	234
235	Rajasthan	Kota	33.9	0.662	40.00	0.2451	9885	0.116	8554	0.20177	34.74	0.558	1.782	235
236	Tamil Nadu	Dindigul Anna / Dindigul	19.9	0.814	30.00	0.1471	4639	0.048	10394	0.24948	36.74	0.525	1.784	236
237	Karnataka	Chitra Durga	34.4	0.656	33.00	0.1765	8904	0.103	8808	0.20835	29.46	0.644	1.788	237
238	Karnataka	Davanagere	34.4	0.656	33.00	0.1765	8904	0.103	8808	0.20835	29.46	0.644	1.788	238
239	Karnataka	Bellary	28.1	0.725	33.00	0.1765	7198	0.081	7072	0.16335	29.46	0.644	1.789	239
240	West Bengal	Murshidabad	14.7	0.871	41.00	0.2549	5162	0.055	10628	0.25554	47.14	0.356	1.792	240
241	Rajasthan	Bundi	39.1	0.605	45.00	0.2941	11176	0.132	8690	0.20529	34.74	0.558	1.794	241
242	West Bengal	Midnapur West	24.6	0.763	38.00	0.2255	3483	0.033	12610	0.306393	40.26	0.468	1.796	242
243	Madhya Pradesh	Dewas	33.2	0.669	33.00	0.1765	9432	0.110	7437	0.17282	27.39	0.677	1.806	243
244	Madhya Pradesh	Ratlam	37.0	0.628	42.50	0.2696	7467	0.085	6640	0.15216	27.39	0.677	1.811	244
245	Rajasthan	Nagour	19.9	0.814	35.00	0.1961	5238	0.056	2287	0.03928	25.48	0.708	1.813	245
246	Karnataka	Bagalkote	18.8	0.826	33.00	0.1765	7069	0.079	4276	0.09085	29.46	0.644	1.816	246
247	Karnataka	Bijapur	18.8	0.826	33.00	0.1765	7069	0.079	4276	0.09085	29.46	0.644	1.816	247
248	Tamil Nadu	South Arcot / Cuddalore	28.3	0.723	30.00	0.1471	6767	0.076	18560	0.46121	43.58	0.414	1.820	248
249	Tamil Nadu	Villupuram	28.3	0.723	30.00	0.1471	6767	0.076	18560	0.46121	43.58	0.414	1.820	249
250	Tamil Nadu	Kamaraj Nagar/ Virudunagar	18.7	0.827	33.00	0.1765	4954	0.052	10397	0.24966	36.74	0.525	1.830	250

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
251	West Bengal	Pargnas 24 South	35.6	0.843	47.00	0.3137	4262	0.043	9066	0.21504	31.04	0.618	1.833	251
252	West Bengal	Midnapur East	24.6	0.763	38.00	0.2255	6246	0.069	12744	0.31041	40.26	0.468	1.835	252
253	Rajasthan	Barmer	21.6	0.795	45.00	0.2941	3571	0.034	963	0.00495	25.48	0.708	1.837	253
254	Gujarat	Sabar-Kanyha	27.1	0.736	31.00	0.1569	7042	0.079	7095	0.16395	25.89	0.702	1.837	254
255	Uttar Pradesh	Deoria	15.6	0.861	35.00	0.1961	6694	0.075	15850	0.39093	48.60	0.332	1.854	255
256	Karnataka	Dharwad	14.7	0.871	33.00	0.1765	5865	0.064	5273	0.11670	29.46	0.644	1.871	256
257	Karnataka	Gadag	14.7	0.871	33.00	0.1765	5865	0.064	5273	0.11670	29.46	0.644	1.871	257
258	Karnataka	Haveri	14.7	0.871	33.00	0.1765	5865	0.064	5273	0.11670	29.46	0.644	1.871	258
259	Rajasthan	Chittor-Garh	34.9	0.651	50.00	0.3431	7609	0.086	9616	0.23449	34.74	0.558	1.872	259
260	West Bengal	Nadia	31.4	0.689	39.00	0.2353	9539	0.111	19492	0.48537	47.14	0.356	1.877	260
261	Karnataka	Tumkur	25.0	0.758	38.00	0.2255	6394	0.071	7757	0.18111	29.46	0.644	1.879	261
262	Assam	Jorhat	19.7	0.816	40.00	0.2451	7310	0.083	9394	0.22355	37.38	0.515	1.882	262
263	Andra Pradesh	Mahbub Nagar	25.0	0.758	25.00	0.0980	3475	0.033	4638	0.10025	13.84	0.898	1.887	263
264	Gujarat	Navasari	39.8	0.597	16.00	0.0098	12559	0.150	17300	0.42855	25.89	0.702	1.888	264
265	Rajasthan	Tonk	32.1	0.681	35.00	0.1961	7885	0.090	4255	0.09031	17.79	0.833	1.891	265
266	Assam	Golaghat	15.9	0.857	37.00	0.2157	6158	0.068	10036	0.24020	37.38	0.515	1.896	266
267	Madhya Pradesh	Guna	30.1	0.703	34.00	0.1863	7575	0.086	3911	0.08138	17.42	0.839	1.896	267
268	Rajasthan	Churu	20.6	0.806	47.00	0.3137	5129	0.054	1340	0.01472	25.48	0.708	1.897	268
269	Maharashtra	Sangli	13.1	0.888	27.00	0.1176	5692	0.062	5309	0.11764	25.13	0.714	1.899	269
270	Rajasthan	Jalore	26.2	0.745	50.00	0.3431	5607	0.061	2603	0.04748	25.48	0.708	1.905	270
271	Rajasthan	Dausa	44.5	0.546	50.00	0.3431	5658	0.061	5519	0.12309	17.79	0.833	1.907	271
272	Tamil Nadu	North Aroct/	22.3	0.788	34.00	0.1863	11335	0.134	15796	0.38955	43.58	0.414	1.912	272
273	Karnataka	Vellore	15.8	0.859	38.00	0.2255	5413	0.058	5916	0.13339	29.46	0.644	1.919	273
274	Tamil Nadu	Bangalore Rural Pmthevar/ Perambalur	16.1	0.855	40.00	0.2451	4377	0.045	10481	0.25174	36.74	0.525	1.922	274
275	Rajasthan	Ajmer	20.8	0.804	35.00	0.1961	3443	0.033	2941	0.05623	17.79	0.833	1.922	275

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
276	Tamil Nadu	Kanchipuram	27.2	0.734	44.00	0.2843	6446	0.071	17004	0.42087	43.58	0.414	1.925	276
277	Tamil Nadu	Chengalpattu / Tiruvallur	27.2	0.734	44.00	0.2843	6446	0.071	17004	0.42086	43.58	0.414	1.925	277
278	Assam	Tinsukia	8.0	0.943	40.00	0.2451	3754	0.037	7997	0.18733	37.38	0.515	1.927	278
279	Rajasthan	Jhunjhunu	17.3	0.842	30.00	0.1471	4971	0.052	2841	0.05363	17.79	0.833	1.929	279
280	Madhya Pradesh	Mandsaur	20.7	0.805	37.00	0.2157	7284	0.082	6949	0.16016	27.39	0.677	1.940	280
281	Madhya Pradesh	Neemuch	20.7	0.805	37.00	0.2157	7484	0.082	6949	0.16016	27.39	0.677	1.940	281
282	Karnataka	Chamarajanagar	22.1	0.790	38.00	0.2255	6080	0.067	9309	0.22136	29.46	0.644	1.947	282
283	Karnataka	Mysore	22.1	0.790	38.00	0.2255	6080	0.067	9309	0.22136	29.46	0.644	1.947	283
284	Madhya Pradesh	Datia	26.4	0.743	26.60	0.1431	8033	0.092	5817	0.13082	17.42	0.839	1.948	284
285	Andra Pradesh	Anantapur	17.7	0.838	27.00	0.1176	6000	0.066	6371	0.14516	20.43	0.790	1.957	285
286	Maharashtra	Satara	10.2	0.919	23.00	0.0784	6725	0.075	7354	0.17065	25.13	0.714	1.958	286
287	Rajasthan	Pali	23.5	0.775	51.00	0.3529	6041	0.066	3022	0.05833	25.48	0.708	1.960	287
288	Rajasthan	Bhilwara	26.1	0.746	35.00	0.1961	4680	0.049	6116	0.13856	17.79	0.833	1.963	288
289	Rajasthan	Rajasmand	26.1	0.746	35.00	0.1961	4680	0.049	6116	0.13856	17.79	0.833	1.963	289
290	Andra Pradesh	Pangareddy	21.5	0.797	27.00	0.1176	3124	0.029	5595	0.12505	13.84	0.898	1.965	290
291	Assam	Dibrugarh	12.0	0.900	33.00	0.1765	10813	0.128	10349	0.24832	37.38	0.515	1.967	291
292	Madhya Pradesh	Ujjain	26.7	0.740	37.00	0.2157	11916	1.142	8268	0.19436	27.39	0.677	1.969	292
293	Tamil Nadu	Chidambaranar/ Tuticorin	17.4	0.841	33.00	0.1765	8539	0.111	13002	0.31710	36.74	0.525	1.971	293
294	Rajasthan	Swai Madhopur	44.5	0.546	50.00	0.3431	8170	0.094	7115	0.16447	17.79	0.833	1.981	294
295	Maharashtra	Thane	23.3	0.777	26.00	0.1078	3541	0.034	7980	0.18689	14.84	0.881	1.987	295

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
296	Madhya Pradesh	Shajapur	24.7	0.762	35.00	0.1961	11963	0.143	8892	0.21054	27.39	0.677	1.988	296
297	Tamil Nadu	Theni	15.0	0.867	30.00	0.1471	5356	0.057	16062	0.39644	36.74	0.525	1.993	297
298	Gujarat	Banas-Kantha	17.5	0.840	34.00	0.1863	10365	0.122	6545	0.14969	26.24	0.696	1.994	298
299	Gujarat	Patan	17.5	0.840	34.00	0.1863	10365	0.122	6545	0.14969	26.24	0.696	1.994	299
300	Rajasthan	Jaisalmer	19.4	0.819	60.00	0.4412	3081	0.028	772	0.00001	25.48	0.708	1.997	300
301	Andra Pradesh	Khammam	41.5	0.579	35.50	0.2010	6678	0.074	10234	0.24534	13.84	0.898	1.997	301
302	West Bengal	Maldah	24.6	0.763	38.00	0.2255	9498	0.111	22005	0.55053	47.14	0.356	2.005	302
303	Tamil Nadu	Tirunelveli	18.3	0.831	29.00	0.1373	4940	0.052	18660	0.46381	36.74	0.525	2.009	303
304	Assam	Silcer	16.1	0.855	36.00	0.2059	8342	0.096	14135	0.34648	37.38	0.515	2.018	304
305	Karnataka	Belgaum	13.7	0.881	33.00	0.1765	8950	0.104	9257	0.22001	26.46	0.644	2.025	305
306	Assam	Karimganj	14.3	0.875	50.00	0.3431	5490	0.059	10157	0.24334	37.38	0.515	2.035	306
307	Rajasthan	Sikar	16.7	0.849	45.00	0.2941	4270	0.043	2436	0.04314	17.79	0.833	2.063	307
308	Madhya Pradesh	Shivpuri	30.7	0.696	48.00	0.3235	6995	0.078	5836	0.13129	17.42	0.839	2.069	308
309	Andra Pradesh	Kurnool	19.3	0.820	35.00	0.1961	7131	0.080	7867	0.18395	20.43	0.790	2.071	309
310	Andra Pradesh	Vizianagaram	19.4	0.819	27.00	0.1176	4838	0.051	10187	0.24412	17.26	0.842	2.074	310
311	Andra Pradesh	Nalgonda	27.4	0.732	36.00	0.2059	4782	0.050	8139	0.19102	13.84	0.898	2.077	311
312	Andra Pradesh	Warangal	30.9	0.694	35.00	0.1961	4618	0.048	10115	0.24224	13.84	0.898	2.078	312
313	Andra Pradesh	Medak	22.1	0.790	36.00	0.2059	3385	0.032	6697	0.15362	13.84	0.898	2.079	313
314	Karnataka	Kolar	32.6	0.676	72.00	0.5588	4426	0.045	7469	0.17363	26.46	0.644	2.097	314
315	Tamil Nadu	Tiruvannamalai	24.5	0.764	34.00	0.1863	3706	0.036	27746	0.69938	43.58	0.414	2.099	315
316	Uttar Pradesh	Auraiya	25.0	0.758	46.00	0.3039	8149	0.093	12477	0.30349	29.59	0.641	2.101	316
317	Uttar Pradesh	Etawah	25.0	0.758	46.00	0.3039	8149	0.093	12477	0.30349	29.59	0.641	2.101	317
318	Rajasthan	Dholpur	24.8	0.761	42.00	0.2647	6623	0.074	7321	0.16979	17.79	0.833	2.102	318
319	Tamil Nadu	Pudukottai	16.9	0.847	30.00	0.1471	4185	0.042	11214	0.27075	19.82	0.800	2.107	319
320	Gujarat	Kutch	7.1	0.953	46.00	0.3039	4006	0.040	5211	0.11509	26.24	0.696	2.108	320

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
321	Uttar Pradesh	Algarh	23.0	0.780	46.00	0.3039	8341	0.096	12225	0.29697	29.59	0.641	2.118	321
322	Uttar Pradesh	Hathras	23.0	0.780	46.00	0.3039	8341	0.096	12225	0.29697	29.59	0.641	2.118	322
323	Uttar Pradesh	Badaun	17.3	0.842	46.00	0.3039	6817	0.076	10833	0.26088	29.59	0.641	2.125	323
324	Karnataka	Mandya	14.5	0.873	38.00	0.2255	6685	0.074	12804	0.31196	29.46	0.644	2.128	324
325	Uttar Pradesh	Firozabad	19.3	0.820	46.00	0.3039	8363	0.096	11848	0.27682	29.59	0.641	2.139	325
326	Tamil Nadu	Tiruchirapalli	19.3	0.820	30.00	0.1471	5625	0.061	12753	0.31064	19.82	0.800	2.139	326
327	Tamil Nadu	Karur	19.3	0.820	30.00	0.1471	5627	0.061	12753	0.31065	19.82	0.800	2.139	327
328	Madhya Pradesh	Gwalior	23.3	0.777	38.00	0.2255	10840	0.128	7596	0.17692	17.42	0.839	2.147	328
329	Maharashtra	Solapur	16.9	0.847	62.00	0.4608	4949	0.052	3609	0.07356	2513	0.714	0.147	329
330	Andra Pradesh	Srikakulam	15.1	0.866	30.00	0.1471	4624	0.048	10707	0.25760	1726	0.842	2.161	330
331	Andra Pradesh	Chittur	21.6	0.795	27.00	0.1176	5575	0.060	11730	0.28411	1284	0.914	2.171	331
332	Uttar Pradesh	Matura	20.2	0.811	46.00	0.3039	10683	0.126	11957	0.29000	2959	0.641	2.172	332
333	Assam	Halakandi	12.2	0.898	50.00	0.3431	6776	0.076	14261	0.34973	3738	0.515	2.181	333
334	Gujarat	Surendra Nagar	12.1	0.899	45.00	0.2941	14248	0.172	5594	0.12504	2624	0.696	2.186	334
335	Andra Pradesh	Nellore	30.3	0.701	37.00	0.2157	6683	0.074	14466	0.35507	17.26	0.842	2.188	335
336	West Bengal	Burdwan	33.6	0.665	43.00	0.2745	9950	0.117	20952	0.52324	31.04	0.618	2.197	336
337	Rajasthan	Alwar	25.9	0.749	47.00	0.3137	8699	0.100	8604	0.20306	17.79	0.833	2.199	337
338	Tamil Nadu	Thanjavur	24.4	0.765	33.00	0.1765	4945	0.052	16430	0.40598	19.82	0.800	2.200	338
339	Tamil Nadu	Nagapattinam	24.4	0.765	33.00	0.1765	4945	0.052	16430	0.40598	19.82	0.800	2.200	339
340	Tamil Nadu	Thiruvarur	24.4	0.765	33.00	0.1765	4945	0.052	16430	0.40598	19.82	0.800	2.200	340
341	Madhya Pradesh	Morena	25.5	0.753	45.00	0.2941	9346	0.109	8953	0.21211	17.42	0.839	2.207	341
342	Madhya Pradesh	Sheopur	25.5	0.753	45.00	0.2941	9346	0.109	8953	0.21211	17.42	0.839	2.207	342
343	Rajasthan	Bharatpur	23.9	0.770	42.00	0.2647	11034	0.131	898	0.21281	17.79	0.833	2.212	343
344	Rajasthan	Karauli	23.9	0.770	42.00	0.2647	11034	0.131	898	0.21281	17.79	0.833	2.212	344
345	Tamil Nadu	Namakkal	20.2	0.811	35.00	0.1961	6294	0.069	1583	0.39043	22.66	0.754	2.221	345

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Annexure IV *(Contd.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
346	Tamil Nadu	Salem	20.2	0.811	35.00	0.1961	6294	0.069	1583	0.39044	22.66	0.754	2.221	346
347	Uttar Pradesh	Manpuri	19.3	0.820	46.00	0.3039	8886	0.103	14664	0.36018	29.59	0.641	2.229	347
348	Uttar Pradesh	Etah	17.3	0.842	46.00	0.3039	8549	0.098	1447	0.34419	29.59	0.641	2.230	348
349	Andra Pradesh	Vuddapah	17.0	0.845	35.00	0.1961	5615	0.061	9123	0.21653	12.84	0.914	2.233	349
350	Rajasthan	Ganganagar	29.9	0.705	50.00	0.3431	22322	0.276	8676	0.20495	25.48	0.708	2.238	350
351	Rajasthan	Hanumangarh	29.9	0.705	50.00	0.3431	22322	0.276	8676	0.20495	25.48	0.708	2.238	351
352	Uttar Pradesh	Shahjahanpur	18.0	0.835	46.00	0.3039	10273	0.121	14262	0.34978	29.59	0.641	2.251	352
353	West Bengal	Paraganas 24 North	23.8	0.771	42.00	0.2647	6698	0.075	20992	0.52426	31.04	0.618	2.253	353
354	Andra Pradesh	Prakasam	23.6	0.774	43.00	0.2745	7228	0.081	11736	0.28429	17.26	0.842	2.256	354
355	Karnataka	Hassan	18.5	0.829	35.00	0.1961	8403	0.097	9909	0.23691	13.70	0.900	2.259	355
356	Madhya Pradesh	Bhind	21.6	0.795	55.00	0.3922	8132	0.093	6182	0.14027	17.42	0.839	2.260	356
357	Gujarat	Mehsana	9.4	0.928	37.00	0.2157	11465	0.136	9769	0.23327	22.63	0.755	2.268	357
358	Uttar Pradesh	Bullandshahr	21.0	0.802	46.00	0.3039	11022	0.130	16433	0.40606	29.59	0.641	2.284	358
359	Maharashtra	Kolhapur	13.2	0.887	40.00	0.2451	8202	0.094	14931	0.36713	25.13	0.714	2.307	359
360	Andra Pradesh	Nizamabad	21.0	0.802	41.00	0.2549	5502	0.059	12563	0.30572	13.84	0.898	2.319	360
361	Uttar Pradesh	Bareilly	12.7	0.892	40.00	0.2451	8832	0.102	14838	0.36471	24.98	0.716	2.321	361
362	Tamil Nadu	Dharmapuri	16.3	0.853	48.00	0.3235	6388	0.071	13188	0.32191	22.66	0.854	2.323	362
363	Andra Pradesh	East Godavari	22.1	0.790	32.00	0.1667	7295	0.082	18191	0.45164	17.26	0.842	2.333	363
364	Maharashtra	Raigad	15.6	0.861	50.00	0.3431	3681	0.036	8948	0.21199	14.84	0.881	2.333	364
365	Assam	Sibsagar	7.4	0.950	40.00	0.2451	16719	0.204	17052	0.42211	37.38	0.515	2.336	365
366	Karnataka	Chikkamagslur	21.9	0.792	35.00	0.1961	13622	0.164	11951	0.28984	13.70	0.900	2.342	366
367	Karnataka	Koppal	21.9	0.792	35.00	0.1961	13622	0.164	11951	0.28984	13.70	0.900	2.342	367
368	Gujarat	Jamnagar	8.4	0.939	44.00	0.2843	8805	0.102	4193	0.08870	11.80	0.931	2.345	368
369	Gujarat	Porbandhar	8.4	0.939	44.00	0.2843	8805	0.102	4193	0.08870	11.80	0.931	2.345	369
370	Kerala	Palakkad	17.4	0.841	52.00	0.3627	7984	0.091	16385	0.40481	29.05	0.650	2.350	370

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
371	Maharashtra	Sindhudurg	5.6	0.970	30.00	0.1471	5623	0.061	12040	0.29215	14.84	0.881	2.351	371
372	Uttar Pradesh	Farrukhbad	17.6	0.839	46.00	0.3039	10057	0.118	19021	0.47316	29.59	0.641	2.375	372
373	Uttar Pradesh	Kannauj	17.6	0.839	46.00	0.3039	10057	0.118	19021	0.47316	29.59	0.641	2.375	373
374	Andra Pradesh	Karimnagar	21.3	0.799	40.00	0.2451	6547	0.073	15140	0.37253	13.84	0.898	2.387	374
375	Uttar Pradesh	Jyoti Phule Nagar	13.0	0.889	46.00	0.3039	10713	0.126	17831	0.44230	29.59	0.641	2.403	375
376	Uttar Pradesh	Rampur	13.0	0.889	46.00	0.3039	10713	0.126	17831	0.44230	29.59	0.641	2.403	376
377	Uttar Pradesh	Moradabad	16.1	0.855	50.00	0.3431	11078	0.131	17701	0.43893	29.59	0.641	2.410	377
378	Gujarat	Junagarh	9.4	0.928	38.00	0.2255	10200	0.120	8889	0.21046	11.80	0.931	2.415	378
379	Gujarat	Bhavnagar	6.1	0.964	43.00	0.2745	9202	0.107	6265	0.14242	11.80	0.931	2.419	379
380	Uttar Pradesh	Pilibhit	16.1	0.855	46.00	0.3039	13724	0.165	18441	0.45811	29.59	0.641	2.424	380
381	West Bengal	Hoogly	28.2	0.724	43.00	0.2745	9713	0.114	27900	0.70337	31.04	0.618	2.433	381
382	Tamil Nadu	Periyar/ Erode	18.0	0.835	47.00	0.3137	7943	0.091	18244	0.45303	22.66	0.754	2.446	382
383	Haryana	Ambala	23.0	0.780	60.00	0.4412	19275	0.237	15920	0.39275	31.91	0.604	2.455	383
384	Haryana	Panchkula	23.0	0.780	60.00	0.4412	19275	0.237	15920	0.39275	31.91	0.604	2.455	384
385	Andra Pradesh	West Godavari	20.3	0.810	41.00	0.2549	8149	0.093	18897	0.46995	17.26	0.842	2.470	385
386	Haryana	Gurgaon	13.6	0.882	77.00	0.6078	10875	0.129	10409	0.24988	31.91	0.604	2.472	386
387	Gujarat	Amreli	9.3	0.929	50.00	0.3431	11151	0.132	6060	0.13712	11.80	0.931	2.472	387
388	Maharashtra	Ratnagiri	2.8	1.000	50.00	0.3431	4707	0.049	8504	0.20047	14.84	0.881	2.474	388
389	Uttar Pradesh	Bijnor	20.8	0.804	46.00	0.3039	16615	0.203	21778	0.54465	29.59	0.641	2.497	389
390	Uttar Pradesh	Shaharanpur	22.5	0.786	46.00	0.3039	15101	0.183	23465	0.58840	29.59	0.641	2.502	390
391	Andra Pradesh	Krishna	19.1	0.823	47.00	0.3137	8657	0.100	17155	0.42477	17.26	0.842	2.503	391
392	Karnataka	Shimoga	21.6	0.795	53.00	0.3725	8693	0.100	14014	0.34334	13.70	0.900	2.512	392
393	Karnataka	Udupi	21.6	0.795	53.00	0.3725	8693	0.100	14014	0.34334	13.70	0.900	2.512	393
394	Haryana	Mahendragarh	15.5	0.862	64.00	0.4804	15095	0.183	9940	0.23771	22.34	0.759	2.522	394
395	Uttar Pradesh	Gautam Budha Nagar	17.9	0.836	46.00	0.3039	14477	0.175	22782	0.57069	29.59	0.641	2.527	395

(Contd.)

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Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
396	Uttar Pradesh	Ghaziabad	17.9	0.836	46.00	0.3039	14477	0.175	22782	0.57069	29.59	0.641	2.527	396
397	Gujarat	Anand	7.1	0.953	20.00	0.0490	33823	0.425	14279	0.35288	22.63	0.755	2.532	397
398	Gujarat	Kheda	7.1	0.953	20.00	0.0490	33823	0.425	14279	0.35022	22.63	0.755	2.532	398
399	Kerala	Idukki	19.3	0.820	50.00	0.3431	19455	0.239	16718	0.41346	23.43	0.742	2.558	399
400	Haryana	Sonepat	17.8	0.837	60.00	0.4412	21526	0.266	16884	0.41776	31.91	0.604	2.565	400
401	Kerala	Kasaragod	10.3	0.918	53.00	0.3725	18766	0.230	16443	0.40633	29.05	0.650	2.578	401
402	Haryana	Panipat	17.9	0.836	60.00	0.4412	18556	0.228	18995	0.47249	31.91	0.604	2.581	402
403	Haryana	Bhiwani	19.0	0.824	75.00	0.5882	15866	0.193	9169	0.21773	22.34	0.759	2.582	403
404	Haryana	Yamunanagar	25.0	0.758	57.50	0.4167	23356	0.290	20959	0.52342	31.91	0.604	2.592	404
405	Haryana	Jhajjar	18.4	0.830	92.00	0.7549	12078	0.144	11030	0.26598	31.91	0.604	2.599	405
406	Haryana	Rohtak	18.4	0.830	92.00	0.7549	12078	0.144	11030	0.26598	31.91	0.604	2.599	406
407	Punjab	Hoshiarpur	33.3	0.668	54.00	0.3824	17689	0.216	15400	0.37928	7.55	1.000	2.646	407
408	Punjab	Nawanshahr	33.3	0.668	54.00	0.3824	17689	0.216	15400	0.37928	7.55	1.000	2.646	408
409	Karnataka	Uttara Kannada	8.3	0.940	53.00	0.3725	6392	0.071	12681	0.30878	9.24	0.973	2.665	409
410	Haryana	Rewari	19.3	0.820	81.00	0.6471	17008	0.208	10982	0.26473	22.34	0.759	2.699	410
411	Haryana	Kaithal	21.4	0.798	66.00	0.5000	24803	0.308	19733	0.49163	31.91	0.604	2.701	411
412	Punjab	Ropar	24.6	0.763	55.00	0.3922	18838	0.231	19447	0.48422	17.48	0.838	2.709	412
413	Andra Pradesh	Guntur	18.4	0.830	61.00	0.4510	8994	0.104	20018	0.49902	17.26	0.842	2.727	413
414	Uttar Pradesh	Bhagpat	16.6	0.850	50.00	0.3431	16293	0.198	27789	0.70050	29.59	0.641	2.733	414
415	Uttar Pradesh	Muzaffar Nagar	14.0	0.878	50.00	0.3431	19037	0.195	28727	0.72482	29.59	0.641	2.783	415
416	Haryana	Sirsa	26.7	0.740	60.00	0.4412	31951	0.400	18039	0.44771	22.34	0.759	2.789	416
417	Kerala	Kottayam	8.4	0.939	75.00	0.5882	13353	0.160	15449	0.38054	23.43	0.742	2.810	417
418	Haryana	Karnal	20.0	0.813	65.00	0.4902	27612	0.344	22945	0.57491	31.91	0.604	2.826	418
419	Punjab	Gurdaspur	24.7	0.762	55.00	0.3922	19050	0.234	17697	0.43884	7.55	1.000	2.827	419
420	Punjab	Jalandhar	39.1	0.605	53.00	0.3725	27035	0.337	23893	0.59949	7.55	1.000	2.914	420

(Contd.)

Annexure IV *(Concld.)*

Sl.	State	District	Total SC %age (1991 Census)	Index	Agri. Wages (Rs/Day) 1996-97	Index	Output/ Agri. Worker 1990-93	Index	Output/ NAS (Rs/Ha) 1990-93	Index	Poverty Ratio in %age 1993-94	Index	Composite Index (Col. 5+7+9+11+ 13)	Actual Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
421	Kerala	Kollam	12.9	0.890	70.00	0.5392	12883	0.154	23624	0.59251	23.43	0.742	2.918	421
422	Haryana	Kurukshetra	19.3	0.820	67.00	0.5098	31342	0.393	24375	0.61199	31.91	0.604	2.939	422
423	Haryana	Hissar	23.2	0.778	86.00	0.6961	24983	0.311	17205	0.42608	22.34	0.759	2.970	423
424	Kerala	Kannur	4.9	0.977	74.00	0.5784	23135	0.287	20050	0.49986	29.05	0.650	2.992	424
425	Haryana	Fatehabad	19.6	0.817	90.00	0.7353	20203	0.249	17642	0.43740	22.34	0.759	2.998	425
426	Haryana	Jind	19.6	0.817	90.00	0.7353	20203	0.249	17642	0.43740	22.34	0.759	2.998	426
427	Kerala	Alappuzha	9.6	0.926	87.00	0.7059	11253	0.133	20664	0.51576	23.43	0.742	3.023	427
428	Punjab	Bhatinda	29.3	0.712	69.00	0.5294	32576	0.408	22494	0.56321	17.48	0.838	3.051	428
429	Kerala	Eranakulam	8.8	0.935	91.00	0.7451	15129	0.183	18191	0.45165	23.43	0.742	3.057	429
430	Punjab	Mansa	29.3	0.712	73.00	0.5686	32576	0.408	22494	0.56321	17.48	0.838	3.090	430
431	Kerala	Wayanad	21.2	0.800	110.00	0.9314	19289	0.237	19238	0.47880	29.05	0.650	3.097	431
432	Karnataka	Kodagu	20.4	0.808	53.00	0.3725	39661	0.502	20819	0.51978	13.70	0.900	3.103	432
433	Punjab	Fatehgarh Sahib	23.6	0.774	62.00	0.4608	32753	0.411	25188	0.63305	17.48	0.838	3.117	433
434	Punjab	Kapurthala	29.5	0709	63.00	0.4706	31246	0.391	22504	0.56348	7.55	1.000	3.135	434
435	Kerala	Pathanamthitta	13.9	0.879	112.00	0.9510	10717	0.126	18270	0.45368	23.43	0.742	3.152	435
436	Kerala	Malappuram	8.6	0.937	117.00	1.0000	11485	0.136	17328	0.42927	29.05	0.650	3.153	436
437	Punjab	Faridkot	34.1	0.659	77.00	0.6078	34470	0.433	24787	0.62267	17.48	0.838	3.161	437
438	Punjab	Sangrur	26.8	0.739	65.00	0.4902	35284	0.443	27722	0.69875	17.48	0.838	3.210	438
439	Karnataka	Dakshina Kannada	10.4	0.917	53.00	0.3725	10066	0.118	33150	0.83951	9.24	0.973	3.220	439
440	Punjab	Moga	24.7	0.762	56.00	0.4020	30966	0.388	27000	0.68005	7.55	1.000	3.232	440
441	Punjab	Patiala	23.6	0.774	75.00	0.5882	32753	0.411	25188	0.63305	17.48	0.838	3.244	441
442	Kerala	Trissur	12.3	0.897	113.00	0.9608	12368	0.148	20645	0.51526	23.43	0.742	3.262	442
443	Punjab	Firozpur	21.8	0.793	72.00	0.5588	37381	0.470	24637	0.61878	17.48	0.838	3.280	443
444	Punjab	Mukatsar	21.8	0.793	72.00	0.5588	37381	0.470	24637	0.61878	17.48	0.838	3.280	444
445	Tamil Nadu	Kanniyakumari	5.1	0.975	92.00	0.7549	9690	0.113	27446	0.69160	22.66	0.754	3.289	445
446	Kerala	Kozhikode	7.2	0.952	103.00	0.8627	27564	0.344	20350	0.50761	29.05	0.650	3.317	446
447	Tamil Nadu	The Nilgiris	33.7	0.664	60.00	0.4412	78424	1.000	39340	1.00001	22.66	0.754	3.859	447

NATIONAL FOOD FOR WORK PROGRAMME (NFFWP) GUIDELINES
Government of India, Ministry of Rural Development (Department of Rural Development), Krishi Bhawan, New Delhi - 110001.

PREAMBLE

Unfortunately, despite 57 years of independence, the pace of development among the different States of the country and within the state among the different districts, has not been uniform. There are not only regional differences, but the divide appears to be ever widening. There are still districts, which lack in basic infrastructure, facilities and employment opportunities. It is from these districts reports of starvation deaths from time to time and massive migration of labour are reported. It is, therefore, quite imperative that such districts are identified and a sincere attempt is made to bring them at par with other districts.

The Planning commission has identified 150 most backward districts of the country on the basis of prevalence of poverty indicated by SC/ST population, agricultural productivity per worker and agricultural wage rate. Most of them happen to be tribal districts. There is a need for substantial additional investment in these districts to convert their surplus labour into required capital formation solving livelihood issues.

The new Food for Work Programme is such an attempt. Substantial resources in the form of cash and foodgrains are being provided under the programme to generate additional supplementary wage employment and to create productive assets in these 150 identified districts and later, gradually in the remaining districts of the country.

CHAPTER I
BROAD OUTLINE AND OBJECTIVES

1.1 OBJECTIVE

To provide additional resources apart from the resources available under the Sampoorna Grameen Rozgar Yojana (SGRY) to 150 most backward districts of the country so that generation of supplementary wage employment and providing of food-security through creation of need based economic, social and community assets in these districts is further intensified.

1.2 TARGET GROUP

The NFFWP will be open to all rural poor who are in need of wage employment and desire to do manual and unskilled work. The programme will be self-targeting in nature.

1.3 DISTRICTS WHERE THE PROGRAMME WILL BE IMPLEMENTED

The programme will be initially implemented in 150 most backward districts of the country as identified by the Planning Commission in consultation with the Ministry of Rural Development. The list of 150 districts is given in **ANNEXURE - I.**

1.4 FUNDING PATTERN

The programme will be implemented as a 100% Centrally Sponsored Scheme. Foodgrains will also be provided to the States free of cost. The transportation cost, handling charges, and taxes on foodgrains will, however, be the responsibility of the States.

1.5 PROGRAMME STRATEGY

i) Collector will be the Nodal Officer at the district level and overall responsibility of planning, implementation, coordination, monitoring and supervision will be that of the Collector of the District. The necessary assistance will be provided to the Collector from the DRDA/District Panchyat (DP) to whom funds and foodgrains will be released.

ii) The focus of the programme will be on works relating to water conservation, drought proofing (including afforestation/tree plantation) and land development. Flood-control/protection (including drainage in waterlogged areas), rural connectivity in terms of all-weather roads and any other similar activity for economic sustainability, keeping in view the area specific problems, can be included provided the principal focus of the programme on water conservation and drought proofing is maintained.

iii) A five-year Perspective Plan for the district and shelf of works, Block-wise and Gram Panchayat-wise, will be prepared under the programme.

iv) Works which can be undertaken within the resources available under any other ongoing Central Scheme or any State Government Scheme falling within the Perspective Plan will be taken up under the respective schemes.

BACKWARD DISTRICTS INITIATIVE - RASHTRIYA SAM VIKAS YOJANA - THE SCHEME AND GUIDELINES FOR PREPARATION OF DISTRICT PLANS

Planning Commission (MLP Division)

1. The Scheme

1.1 The Backward Districts Initiative under the Rashtriya Sam Vikas Yojana has been initiated with the main objective of putting in place programmes and policies with the joint efforts of the Centre and the States which would remove barriers to growth, accelerate the development process and improve the quality of life of the people. The scheme aims at focused development programmes for backward areas which would help reduce imbalances and speed up development.

1.2 This component will cover 100 district. The identification of backward districts within a State has been made on the basis of an index of backwardness comprising three parameters with equal weights to each: (i) value of output per agricultural worker; (ii) agriculture wage rate; and (iii) percentage of SC/ST population of the districts. The number of districts per State has been worked out on the basis of incidence of poverty (list of districts at Annex-I). In addition, thirty two-districts which are affected by Left Wing Extremism will also be covered (Annex-II). Fifty Backward Districts and 16 districts affected by Left Wing Extremism are being covered in Annual Plan 2003-04.

1.3 The main objectives of the scheme are to address the problems of low agricultural productivity, unemployment, and to fill critical gaps in physical and social infrastructure. The District Administration / Panchayati Raj Institutions accordingly would be required to prepare a Three-Year Master Plan with nested Annual Action Plans . The Plan is to be based on a SWOT(Strengths, Weaknesses, Opportunities and Threats) Analysis, review of ongoing schemes and identification of a few lead sectors wherein state intervention would help the district overcome major bottlenecks in development. The additionality is to be used to meet local needs through schemes in these lead sectors which would make a dent on the poverty of the district in a time bound manner.

2. Release of Funds

2.1 A sum of Rs. 15.00 crore per year will be provided to each of the districts for a period of three years i.e. a total of Rs. 45.00 crore per district . Funds will be released to the State Governments on 100% grant basis in suitable instalments linked with the satisfactory progress of the District Plan.

2.2 The State Government will release the funds received under the programme to a separate head created for the purpose under the District Rural Development Agency within 15 days of the receipt of the said funds. Failure to do so will lead to forfeiture of subsequent instalments and the funds released earlier being treated as a loan.

3. Delivery Mechanism

3.1 There is a **High Level Committee** at the Government of India (GOI) level chaired by Deputy Chairman, Planning Commission with Finance Minister, Minister of State for Planning, Chief Minister, Government of Bihar, Chief Minister, Government of Orissa and Secretary, Planning Commission as Members. This Committee will approve policies regarding initiatives of the Rashtriya Sam Vikas Yojana (RSVY), set the reform agenda for the State Governments and periodically conduct a review of the progress of the RSVY Programme.

3.2 There is an **Empowered Committee** at the GOI level chaired by Secretary, Planning Commission which will approve the District Plans, monitor and review the programme, have evaluations and mid-term appraisals conducted and attend to all other matters relating to the operation of the RSVY.

3.3 Each State Government has to set up a **State Level Steering Committee** under the Chairmanship of the State's Chief Secretary with about five other members. The Secretaries of the Departments of Finance and Planning, Chief Executive of the District (Deputy Commissioner or Chief Executive Officer of the Zila Parishad), State Level representative of NABARD and an NGO could be members. In the case of districts affected by Left Wing Extremism, this Committee should also include the State's Home Secretary. The Committee would get detailed district plans prepared and recommend them to Planning Commission for concurrence of schemes. It would be also responsible for coordinating and ensuring synergy between departments and agencies as well as monitoring of the schemes.

3.4 For each district the district plan should be prepared by a **District Committee** chaired by the District Magistrate/ CEO Zilla Parishad/Chairperson of the District Planning Committee with the District Superintendent of Police (in case of Extremist-affected districts), District Forest officer, local NGOs, other stakeholders, etc. as members.

4. Guidelines for Preparation of District Plans

4.1 For availing of assistance under the Scheme, a three-year Master Plan is to be prepared for each district with nested Annual Action Plans.

4.2 The main principles which have to be taken into consideration are:

4.2.1 The flow of funds from all sources namely State Plan, Centrally sponsored schemes, Central Schemes, externally aided projects etc. are to be indicated along with the specific schemes for the additionality under the Rashtriya Sam Vikas Yojana. Care should be taken to allocate funds under the RSVY as an additionality only for expanded coverage of schemes for which funding from other sources including State Plan, Centrally Sponsored Schemes, Central Schemes are available, on being satisfied about the level of utilization of available resources.

4.2.2 The benefits from RSVY funds should be maximized through intersectoral linkages. RSVY funds should also be used to leverage a larger plan size through correlation with the banking sector and beneficiary contribution.

4.2.3 The cost effectiveness of all schemes should be carefully considered so that returns from the funds invested under the scheme are maximized. In other words, inter-se priorities among individual schemes under a programme should be decided on merits only. There should be complete transparency in the choice of schemes and their locations. The prioritised list of schemes and the reasons for taking up the schemes and the criteria for choice of locations must be made available on the web-site. Similarly all tenders should be on the web-site.

4.2.4 Peoples' participation and involvement of PRIs, NGOs and Self Help Groups should be ensured at every stage including plan formulation, implementation and monitoring.

4.2.5 PRIs, NGOs and Self Help Groups may also be involved in awareness and capacity building, training, etc. and about two per cent of the funds could be utilised for such schemes.

4.2.6 Employment related schemes and vocational training need special attention specially in the districts affected by Left Wing Extremism. However, schemes for self-employment may be based on credit rather than subsidy. Therefore, each project should be made a bankable enterprise and subject to appraisal and banking discipline. The enterprises should be promoted through private / group initiatives and not through the government / government sponsored Cooperative sector. Funds should not be provided to prop up ailing government/ government sponsored cooperative enterprises. The aim is to encourage self

employment programmes for income generating activities through small assistance to Self-Help Groups towards revolving fund and provision of the required infrastructure and training inputs. However, subsidy linked schemes may be allowed only if absolutely essential as a supplemental measure for expanded coverage of a Central / State Plan scheme and subsidy should be kept at the same level as that provided in the case of similar Central Government Schemes. For schemes involving creation of community assets efforts should be made to ensure a beneficiary contribution wherever feasible.

4.2.7 Allocation under RSVY may be made only after exhausting in full the assistance available under various Centrally Sponsored/Central Plan/State Plan schemes including those under KVIC, PMRY, SGSY, SJSRY etc.

4.2.8 Funds under RSVY should be used for projects and programmes and not for construction or renovation of administrative buildings, establishment costs/staff costs, and other such schemes. No new posts are to be created for this programme.

4.2.9 All schemes are to be completed within the prescribed three-year time frame. No cost over-run will be permitted. If a project cannot be completed in three years, it can be included only if the State Government gives a commitment to fund it beyond the three year period.

4.2.10 It should be ensured that the schemes are sustainable and assets should be planned with care so that they are useful and maintained even after the scheme is over. Special attention is to be given to sustainability of each project. In the case of community assets, wherever possible future maintenance should be built into the programme , e.g. if a community hall is constructed, individuals who use the hall should be charged so that a corpus fund for maintenance can be set up.

4.2.11 Efforts should be made to concentrate on the poorer pockets and the disadvantaged communities within the district.

4.2.12 The Plan should be based on a vision for the district and not be a mere collection of schemes for which funding from existing sources is insufficient.

5. Steps for the Preparation of District Plans

5.1 The first step would be to conduct a stock taking of the existing situation in the district namely: a resource inventory, existing flow of funds for various schemes, strengths of the district, identification of critical gaps and drawing up of schemes to fill these gaps. In this exercise the PRIs and NGOs should be involved. The potential linked credit plan of the district prepared by NABARD may be used while preparing the district plan to ensure higher flow of credit to the district. The Institution identified for undertaking benchmark surveys/monitoring should be directed to undertake the benchmark survey for critical indicators.

5.2 The Plan should be drawn up as per the Chapter scheme given below and got approved by the State level Steering Committee in consultation with the Principal Adviser/Adviser from Planning Commission who has been assigned the district.

5.3 The Plan is to be sent to Planning Commission where it will be examined by the subject Divisions concerned and either sent back for modification or put up to the Empowered Committee for approval. After the approval of the Empowered - 6 - Committee and receipt of summary record, the State may sign the Memorandum of Agreement (MOA) and send it to the Planning Commission for signatures (copy of format of MOA at Annex-III not included here). A copy of the signed MOA will be sent to the State Government and the first instalment of funds will be released for the district.

ANNEX-I
Rashtriya Sam Vikas Yojana: Backward Districts Initiative
List of Districts

Sr. No. (1)	Name of the State (2)	Name of the District (3)	Sr. No. (4)	Name of the State (5)	Name of the District (6)
1.	Andhra Pradesh	1. Adilabad 2. Warangal 3. Chittor 4. Mahbubnagar 5. Vizianagaram	13.	Uttar Pradesh	1. Sonbhadra 2. Raebareli 3. Unnao 4. Sitapur 5. Hardoi 6. Banda 7. Chitrakoot 8. Fatehpur 9.Barabanki 10. Mirzapur 11. Gorakhpur 12. Kushinagar 13. Lalitpur 14. Jaunpur 15. Hamirpur 16. Jalaun 17. Mahoba 18. Kaushambi 19. Azamgarh 20. Pratapgarh
2.	Chhatisgarh	1. Bastar 2. Dantewada 3. Kankar 4. Bilaspur			
3.	Gujarat	1. Dangs 2. Dohad 3. Panchmahals			
4.	Haryana	1.Sirsa			
5.	Jharkhand	1. Lohardagga 2. Gumla 3. Simdega 4. Saraikela 5. Singhbhum West 6. Goddha	14.	West Bengal	1. Purulia 2. 24 South Parganas 3. Jalpaiguri 4. Midnapur West 5. South Dinajpur 6. Bankura 7. North Dinajpur 8. Birbhum
6.	Karnataka	1. Gulbarga 2. Bidar 3. Chitradurga 4. Davangere			
7.	Kerala	1. Palakkad 2. Wynad	15.	Assam	1. Kokrajhar 2. North Lakhimpur 3. Karbi Anglong 4. Dhemaji 5. North Cachar Hills
8.	Madhya Pradesh	1. Mandla 2. Barwani 3. West Nimar 4. Seoni 5. Shahdol 6. Umaria 7. Balaghat 8. Satna 9. Siddhi	16.	Arunachal Pradesh	1. Upper Subansiri
			17.	Himachal Pradesh	1. Chamba 2. Sirmaur
9.	Maharashtra	1. Gadchiroli 2. Bhandara 3. Gondia 4. Chandrapur 5. Hingoli 6. Nanded 7. Dhule 8. Nandurbar 9. Ahmednagar	18.	Jammu & Kashmir	1. Doda 2. Kupwara 3. Poonch
			19.	Manipur	1. Tamenlong
			20.	Meghalaya	1. West Garo Hills
			21.	Mizoram	1. Lawngtlai
10.	Punjab	1. Hoshiarpur	22.	Nagaland	1. Mon
11.	Rajasthan	1. Banswara 2. Dungarpur 3. Jhalawar	23.	Sikkim	1. Sikkim
			24.	Tripura	1. Dhalai
12.	Tamil Nadu	1. Tiruvannamalai 2. Dindigul 3. Cuddalore 4. Naggapattinam 5. Sivgangai	25.	Uttaranchal	1. Champavat 2. Tehri Garhwal 3. Chamoli
				Total	100

ANNEX-II
Rashtriya Sam Vikas Yojana : Backward Districts Initiative -
List of 32 Extremist Affected Districts

Sr. No. (1)	State (2)	District (3)	Sr. No. (4)	State (5)	District (6)
1.	Andhra Pradesh	1. Karimnagar 2. Khammam 3. Medak 4. Nalgonda 5. Nizamabad	4.	Madhya Pradesh	1. Dindori
2.	Bihar	1. Aurangabad 2. Gaya 3. Jehanabad 4. Rohtas 5. Nalanda 6. Patna 7. Bhojpur 8. Kaimur	5.	Chhatisgarh	1. Kawardha 2. Rajnandgaon 3. Sarguja 4. Jashpur
3.	Jharkhand	1. Hazaribagh 2. Palamu 3. Chatra 4. Garhwa 5. Ranchi 6. Latehar 7. Giridih 8. Koderma 9. Bokaro 10. Dhanbad	6.	Orissa	1. Ganjam 2. Gajapati 3. Mayurbhanj
			7.	Uttar Pradesh	1. Chandauli

REPORT OF THE INTER-MINISTRY TASK GROUP ON REDRESSING GROWING REGIONAL IMBALANCES

Contents

CHAPTER I
1. INTRODUCTION

1.1.1. The sub-continental dimensions of India, with inherent differences in geographical parameters and historical developments, have led to disparities in the levels of development of different areas, owing to differences in resource endowment, levels of infrastructure and socio-economic parameters.

1.1.2. From the very beginning, the national planning strategy incorporated the locational concept in investment policies. Public sector investment was promoted in less developed regions and incentives offered for the private sector to consider relocating to such areas. The scope for such policies has diminished considerably in the liberalized environment. Despite such policies, disparities in development have persisted and increased.

1.1.3. Development of backward regions has been a major concern of planners in India and several programmes have been initiated over the years to address the special problems faced by various geographical regions. Prior to the Tenth Plan, the issue of development of backward areas was approached as primarily one of development of States and allocation of normal Plan assistance through adoption of a formula for distribution of resources weighted in favour of less developed States with Special Central Assistance for area programmes focused on regions with specific problems hilly, tribal, border or drought prone areas. Central sector and Centrally Sponsored Schemes run by major departments and Ministries of the Central Government dealing with sectors in the State and concurrent lists of the Constitution also focused on improving developmental levels in backward regions, States, districts or blocks and built these concerns into programme content and formulae applied for fund allocation.

1.1.4. The Mid Term Appraisal of the Ninth Plan drew attention to wide disparities among States and among districts within a State. Pockets of high poverty, low growth and human development and poor governance were identified as key areas slowing down the growth and development of the country. Such pockets also reflected the failure of existing policies and administrative procedures.

1.1.5. The Tenth Plan marked a shift in approach with reference to earlier Plans. Hitherto, the stand of the Planning Commission had been that planning and development of an area and

Source: Planning Commission, Yojana Bhavan, Sansad Marg, Government of India, New Delhi 110 001, January 2005.

allocation of funds for this purpose were primarily the responsibility of the State Government concerned, with the Planning Commission supplementing such efforts through distribution of Central Plan Assistance, promotion of Special Area Programmes and various poverty alleviation and employment generation schemes. In the Tenth Plan, it was decided that these areas should be targeted not in terms of additionality of funds alone but also with regard to the use to which funds were put. The new approach signaled the need for complete change in the ethos of governance and scheme implementation with efficiency and flexibility as key words. In this context, the Rashtriya Sam Vikas Yojana was introduced with special plans for Bihar and the undivided Kalahandi-Bolangir-Koraput (KBK) districts of Orissa and a Backward Districts Initiative currently covering 147 districts.

1.2 NATIONAL COMMON MINIMUM PROGRAMME AND REGIONAL DEVELOPMENT

1.2.1 The National Common Minimum Programme has laid special emphasis on redressing growing regional imbalances among as well as within States, through fiscal, administrative, investment and other measures. The main objective is to correct distortions in Plan allocations and Central Government assistance through a Backward States Grant Fund that will be used to create productive assets in the poorest and most backward areas of the country.

1.2.2 To operationalise the action programme for redressing growing regional imbalances as per the National Common Minimum Programme, an Inter- Ministry Task Group was set up on the subject (office order with composition and terms of reference at Annex I)

CHAPTER II
2. MEASURING REGIONAL IMBALANCES

Uneven regional development can affect a nation's image, security and stability. Noticeable divergence in economic conditions among different parts of the same country leads to migration of capital and people, further exacerbating existing inequalities. This can result in unplanned growth, affect the quality of life and generate severe political tensions. It produces overcrowding, squalor and slums in urban areas with adverse economic, social and political consequences.

Strategies adopted to tackle regional imbalance must, however, be formulated carefully with an eye on their incentive effects. When special dispensations are offered to backward areas in the form of direct subsidies, tax concessions and the like, care must be taken to ensure that they achieve desired outcomes and do not send out wrong signals that discourage self reliance and performance.

Over almost a half-century of planned development in India, these issues have occupied centre stage in the national debate. Several committees appointed by the Planning Commission have examined and re-examined them. Commissions appointed by State governments have also attempted to identify the more backward areas within States to enable them to make targeted interventions. A brief roundup of the approaches adopted by the most important of these committees is given at Annexure II.

The concept of regional imbalance, originally developed in an environment in which development was considered synonymous with economic growth alone, focused primarily on income deprivation assessed with reference to lack of sustainable employment and low potential for agricultural and industrial growth. Gradually,

this has been extended to cover poor educational parameters and, in recent reports, there is greater focus on demographic and health status too. Various committees that have analysed the issue have covered the ground quite comprehensively as far as identification and selection of appropriate parameters to measure regional disparities are concerned. They are unanimously of the view that the district should be treated as the appropriate unit for determining backwardness and taking remedial action. Some of the committees, which have looked into the matter, had specific sectoral objectives like selection of backward areas for locating industries for example.

On the whole, these committees did not extend their analysis to the manner in which Centrally sponsored schemes of key ministries and departments were also targeting programs to backward regions and did not attempt to assess the impact of existing formulae employed by the Finance Commission as well as the Planning Commission to channel non Plan and Plan resources to low income and less developed States. All committees have bemoaned the lack of adequate up to date information that could be used both to identify backwardness as well as monitor the effectiveness of remedial schemes. Most reports are also silent about the time frame and manner in which programs meant for redressing regional disparities should be dovetailed into normal schemes when disparities are reduced through targeted interventions. Neither has there been adequate focus on the incentive effects of special programs on the better off States and districts as well as on the developmental strategies of backward areas themselves.

The approach adopted by different committees till date has been to provide resources or promote investment in identified backward areas through the State machinery in a top-down manner. But structural and institutional deficiencies in these districts which have kept them outside the mainstream of development have reduced their absorptive capacity resulting in funds gravitating towards more developed regions and affecting the realization of desired outcomes. The preferred strategy of the present Task Group is different from these earlier approaches. Our focus is on creating a Backward Districts Fund, integrated with a district level budget/Plan developed from below through a system of village plans based on the perceived needs and real capacities of these areas. This should ensure that resources provided are fully utilized within the specified time frame to produce the expected results.

SELECTION OF APPROPRIATE PARAMETERS

Unequal resource endowments-physical, human, infrastructural and budgetary- lie at the root of regional disparities, but they could as well be caused by historical and cultural factors. Selection of relevant parameters is essential for identifying and assessing the degree of regional imbalance within a nation or State. A major constraint for analysts and governments is the availability of reliable reasonably up to date information that can be used to measure imbalances and monitor and evaluate the success of remedial schemes. The second stage of the process of identifying backward areas is the manner in which different parameters should be yoked together (as an index or by any other method) to generate a composite measure of low levels of development.

The concept of regional disparities can be understood in terms of unequal resource endowments, uneven human development, inadequate infrastructure and poor budgetary resources.

Unequal Resource Endowments

Natural resources are distributed unevenly across the country giving some areas a natural advantage over others in terms of the scope for higher incomes, employment possibilities and more sustainable livelihoods. Relevant indicators used to measure resource availability relate mainly to agricultural and mineral resources. Availability cannot, however, be the sole criterion; level of exploitation and ease and costs of exploitation are equally important. The principal natural resources which contribute to economic growth are the following:

* Water resources, either through ample rainfall or accessible supply from both surface and ground water sources, enable the cultivation of high income yielding food and cash crops, provide potable water for habitations and towns and facilitate industrialization. On this basis, desert and chronically drought affected areas were identified by the Planning Commission study group that drafted the Fourth Five Year Plan (1966-71) and special schemes for such regions formulated. Net irrigable area with reference to net area sown or the population supported is a criterion that has been selected by many study groups to identify regional backwardness. Chronically flood affected areas and coastal areas affected by salinity too were considered as problem areas by the Sivaraman committee appointed by the Planning Commission in its report on backward areas of 1981. Availability of water for drinking and household use has again been assessed using criteria like the average distance of safe drinking water sources (through tap, well etc.) from homes.

* The extent of exploitation of water resources has to be taken into consideration when, for historical or other reasons, investment has not been adequate for utilizing irrigation potential. This has been assessed using criteria like gross/net irrigated area with reference to gross/net sown area and area sown more than once or cropping intensity. From the human development (health and sanitation) point of view, easy availability of potable water is also a critical indicator of regional disparity.

* Mineral deposits can provide States with revenue from royalties and increase income and employment through mining and related industrial activity. However, they should not only be exploitable, revenues derived should accrue to State budgets with regular price adjustments. This factor has not generally figured as a criterion for assessing regional disparities, given existing constitutional and statutory provisions relating to revision of rates of major minerals for royalty purposes.

* Forests or tree cover also constitute a valuable natural resource, but this must be exploitable in terms of employment or cash incomes as is the case with plantations or horticultural crops. For environmental reasons, in the context of the inadequate forest cover of the country, regions with ample forest resources have been constrained in exploiting them to raise revenues for development or generating higher incomes. Hence, this has not been used as a criterion for assessing regional imbalance.

* The value of na tural resources stems from their exploitability and the scope for increasing income and employment through use of resources. Sustainable exploitation is

the core issue and resources will have to be husbanded. Water sources (both surface and ground water) must be conserved and mineral deposits judiciously mined for resources to contribute income and employment over a long period. The number of black and grey talukas is a good indicator of overexploitation of ground water pointing to alarming depletion of valuable resources. These issues must be kept in mind while assessing the backwardness of regions within the country.

Uneven Human Development

The concept of human development was brought to the fore by the UNDP during the nineties to offset the tendency of assessing development through the single parameter of per capita income. The human development index (HDI) and related gender development and gender empowerment indices, computed annually since 1990, ranked countries on the basis of three variables-income levels (measured by per capita GDP), educational status (measured by a combination of adult literacy and enrolment at the primary, secondary and tertiary levels) and health status (measured by life expectancy at birth). The idea was adapted to Indian conditions in the National Human Development Report brought out by the Planning Commission, while State governments used the same approach to measure intra State regional disparities.

Human resources depend upon demographic trends and economic, basic health and educational status. A plethora of parameters is available to assess different elements of human development; whether they can be prioritized and combined in the form of an index to rank States and districts is another issue. It is necessary to distinguish between process and outcome variables; the presence of the former does not necessarily ensure that desired outcomes are actually realized.

1) Economic status of the population has been the basic parameter used to measure imbalances at the global and national levels. Per capita income figures on all lists of variables used to rank regions in terms of development. This is supplemented with additional parameters focused specifically on low-income levels-like population below the poverty line, per capita consumption etc. On the economic front, various proxies are used to capture poorer economic status. A high population ratio with reference to cultivable land or high incidence of unemployment or underemployment could be used to reflect income deprivation. Greater dependence on agriculture is also a pointer to lower growth potential. Hence, higher dependency of population on secondary and tertiary activity or the proportion of persons dependent on industry, the percentage of establishments using electricity or per capita annual consumption of electricity, etc., are used to focus on backward areas.

Within sectors themselves, dependency ratios can be generated say of the percentage of workers engaged in agriculture (or specifically agricultural labourers) and the level of industrial employment (differentiating if possible between household industries, registered and unregistered units), while productivity (and resultant incomes) can be assessed using the per capita gross value of agricultural or ind ustrial output. Since urbanization is likely to increase productivity and income, the ratio of urban to rural population is also a useful indicator.

2) Health status is measured by a fair number of process and outcome variables drawn from demographic and governmental sources.

Outcome Variables

A clutch of parameters is used to assess growth rate of the population (the crude birth and death rates and the total fertility rate, rate of growth of the population, percentage of births of order three and above etc.), with falling rates leading to stabilized population levels being treated as indicative of improved quality of life. Life expectancy is a clear indicator of improved health condition. The status of vulnerable groups is assessed through analysis of differences between the genders in life expectancy and the sex ratio as well as by indicators like infant, child and maternal mortality and the percentage of girls marrying below the age of 18. Morbidity data is difficult to obtain today although it could be the most comprehensive guide to the health status of a region.

Process Variables

Data relating to institutions (in terms of availability of hospitals and health centres) and medical staff (availability of doctors and nurses), the adoption of family planning methods, immunization, institutional or safe deliveries etc. indicate the existence or nonexistence of adequate facilities but this is no guide to the quality or effectiveness of service delivery.

3) Educational status is focused mainly on the primary and secondary levels. Here too process and outcome variables need to be differentiated.

i) Outcome Variables

Literacy is the basic indicator of education with focus on the gender gap and lower achievement levels of rural population or persons belonging to disadvantaged regions and groups.

ii) Process Variables

Gross and net enrolment ratios at the primary, elementary and secondary school levels with special reference to disadvantaged groups and regions are the most useful indicators. Success rates in school leaving examinations can also be used where data is available. As in the case of health, it is again necessary to look at institutions with reference to population as well as accessibility (distance from habitations).

Inadequate Infrastructure

Regions which are resource-rich can remain underdeveloped and backward due to infrastructural inadequacies. This can affect human development significantly by reducing access to economic centres and markets, schools and educational institutions and medical facilities. Indicators used to assess infrastructural adequacy relate to road length with reference to both area and population, tele-density, availability of rail connectivity, post offices, mo tor vehicles and bank branches as well as credit-deposit ratio, spread of cooperative credit institutions and the like. The kind of housing available (kachha or pucca) and access to the three basic amenities of water supply, electricity and sanitation are also good indicators of the quality of life of the population.

Poor Budgetary Resources

The size and adequacy of revenue resources can severely constrain the capacity of a

government to provide basic amenities to citizens. The theory of fiscal federalism focuses on the different kinds of measures usually used to tackle the twin problems of vertical imbalance between federal and subnational governments (due to the gap between the resource raising capacity and spending needs of subnational governments to fulfill their Constitutional role) as well as of horizontal imbalance among different subnational governments (due to differing capacities to provide a minimum level of services to citizens). Even where resources are available, inadequate exploitation or inability to exploit them for varying reasons to improve budgetary receipts may lead to deficits in State budgets which have to be met through transfers of different kinds, keeping in mind incentive effects on resource raising efforts and the quantity and quality of subnational expenditure.

DEVELOPING A COMPOSITE APPROACH TO IDENTIFYING BACKWARDNESS

2.3.1 Indicators selected to reflect regional imbalance have to be brought together to arrive at the list of areas or regions requiring targeted attention. A common method used for the purpose is building up a composite index combining selected variables. There are serious technical flaws in this approach, since variables tend to overlap and affect each other. This can happen within sectors (there is a wide choice of demographic and outcome parameters in the case of health with varying nuances) as well as across sectors. In the latter case, for example, income levels have an obvious effect on outlays on health and education and the demand for and access to these facilities in any region. An educated population is likely to be better nourished, healthier and more conscious of public health and sanitation concerns, even with no improvement in income levels as studies have demonstrated time and again.

A major problem with indexation is the ticklish question of assigning appropriate weights to selected parameters. The UNDP has developed the Human Development Index which assigns the same weightage to variables reflecting income, health and educational status, although there is difference in the emphasis given to the two variables used to measure educational status. The committee appointed by the Ministry of Rural Areas and Employment (headed by Dr. EAS Sarma) to identify the 100 most backward and poorest districts in the country (which gave its report in November 1997) deliberated extensively on this issue and assigned different weights to various parameters.

A second difficulty in applying the chosen variables for selecting backward areas is identification of the cutoff point for intervention. This may even have to be done arbitrarily by indicating that the focus will be on say the hundred most backward units and ranking them on the basis of the composite index.

Another approach adopted by the EAS Sarma committee in its 1997 report was to vary the weightage given to the poverty ratio in the composite index of backwardness and select districts which repeatedly figured among the districts at the lowest rung. The implications and usefulness of all these approaches will have to be considered to identify backwardness and target the proposed interventions.

PROPOSED METHODOLOGY FOR SELECTING BACKWARD AREAS

After considering possible approaches to the issue of identifying backwardness, the task force has adopted the following procedure for selecting criteria and aggregating different components. The level at which the selection process is to be done and interventions made has also been suggested. A major factor influencing our decisions has been the continuing and ready availability of data for assessing backwardness and the existence of an administrative setup that can implement programs and be monitored effectively.

2.4.1.1 Selection of Backwardness Criteria

We have considered the four types of regional disparities cited above to arrive at the most appropriate selection criteria for general backwardness.

1) Poor resource endowment acts as an inbuilt constraint to development. Given the current constitutional position with regard to powers enjoyed by States to levy royalties for mineral exploitation and the preponderant control exercised by the Central government in respect of determining royalty rates and managing exploitation particularly for major minerals, States and areas rich in mineral wealth have not been free to take decisions to raise substantial resources for development by drawing on these reserves. A separate analysis and set of suggestions have been generated by us regarding streamlining and improving the current procedure for royalty revision. Nevertheless, we do not consider that availability of mineral wealth substantially reflects the growth potential of an area. This applies to forest and tree cover also. Environmental concerns severely limit the scope for raising revenues by rapid exploitation of forest wealth when existing levels of tree cover are considered vastly inadequate for the country. As for water resources, we are confronted with diverse scenario ranging from unexploited irrigation potential based on surface and ground water to over exploited dark and grey areas where conservation is the predominant concern. Backward regions in general have remained backward largely on account of inadequate exploitation of resource potential not due to the absence of resources themselves. Against this background, we have not adopted resource availability as a determinant parameter to identify backwardness.

2) Human development should be a primary concern of the State and deprivation in income as well as basic health and educational facilities must be a prime concern while identifying backwardness.

On the income front, data relating to per capita income is available only at the State level. This is subject to serious infirmities as GSDP is computed on income originating not accrual basis, with inadequate procedures to adjust data for flows across borders. Some States like Karnataka are generating district level domestic product figures by applying the income originating principle to the primary sector and using a wide range of proxies to capture incomes originating in the secondary and tertiary sectors. This requires greater refinement; district level data is also not available across the country. Poverty estimates or estimates of per capita consumption cannot be generated from NSS data at the district level unless State samples are used to supplement NSSO data. For many States, these are available only at the regional level since NSSO regions, which do data collection and analysis sometimes extend across State borders. For these reasons, it is suggested that appropriate proxies should be used to capture poor economic

status. Given the existing position regarding data availability, **preponderance of agricultural labourers in the population, the level of** agricultural wages and output per **agricultural worker** would reflect the dependence of a region on low income based primary sector activity. These variables could be supplemented with data relating to **per capita credit and deposits** to capture the level of monetization and saving. We recommend that these five parameters should be used as criteria for capturing economic status for assessing the backwardness of a district.

As far as basic health conditions are considered, process and outcome variables may both have to be taken into account to assess levels of deprivation across regions. Availability of regular reliable data is a key driver in the choice of variables but other considerations must also be kept in mind. Life expectancy at birth, which is a variable in UNDP's HDI, may not be very useful as it tends to fluctuate within a narrow range. Similarly, although fall in the sex ratio is a serious concern that must be tackled immediately, this calls for publicity campaigns focused on attitudinal change not resource availability. We consider that the most useful indicator to capture poor health and nutritional status is the child mortality rate but data on this parameter is not available at the district level. Data regarding **infant mortality** furnished by the SRS is not generated at the district level, but we have made estimates to supplement available information relating to 292 districts from the health survey. We have similarly generated data to complete available statistics at the district level for the **crude death rate,** which is a useful variable to capture health status.

In the case of process parameters, departmental data is available on several variables linked to availability and use of medical institutions and personnel as well as to the use of fertility control methods. After considering them in depth, we believe that focus should be shifted from population control to service delivery mechanisms with emphasis being placed on the vulnerable category of women and children. In our view, **full immunization and institutional delivery** are the most appropriate parameters to reflect these concerns and we recommend adoption of these criteria to identify regions with poor health status.

Educational status can be measured using process and outcome variables. Literacy is the basic indicator; to focus on the gender gap, we suggest that the **female literacy rate** may be taken as the appropriate indicator. As for process parameters, the appropriate indicators should be the net enrolment ratio at the elementary school level for vulnerable groups like girls and Scheduled Castes and Tribes. Unfortunately, however, departmental data is not readily available although it should be possible to collect it from States to enable us to apply this parameter. We have been constrained to use the less satisfactory variable of the **gross enrolment ratio and supplement it with the availability of secondary schooling facilities with reference to targeted population.**

3) Availability of physical infrastructure acts as a major developmental constraint. We have considered variables relating to road, power, drinking water, banking services and teledensity looking at availability of data at the district level. Data regarding road length to area at the district level should be collected from States by the department for use as a relevant indicator of regional imbalance. In its absence, we have used the **percentage of households without electricity and of rural households with drinking water sources at a distance greater than 500 metres as well as the percentage of households not availing of bank services** as

indicators of poor infrastructure. At present, however, data regarding teledensity is not available at the district level.

4) A robust budget and capacity to raise revenue using tax and non tax handles are essential when investment has to be done in public goods. States and areas, which are resource rich and even enjoy reasonable levels of human development, may be hamstrung by the absence of effective administrative machinery and adequate experienced personnel. This is the case for example over much of the northeast, which continues to depend on Central transfers to meet the costs of daily governance partially because of the lack of systems, trained staff, procedures and administrative traditions. Such concerns drive the devolution formulae applied by the Finance Commission for non Plan equalization grants as well as the Gadgil formula approved by the National Development Council for general purpose Central assistance for State Plans, under which 30 per cent of total Central assistance is earmarked for special category States. The parameters chosen by us to identify backwardness applied uniformly across the country have brought to light districts within special category States that require focused attention. We do not, therefore, recommend the adoption of any additional parameter linked to budgetary capacity.

An overall proxy for regional backwardness that we would like to adopt to capture likely low levels of human development is the **percentage of Scheduled Caste and Scheduled Tribe population**

2.4.1.2 Selection of the Unit for Identifying Backwardness

Over a half century of developmental experience, we have gradually moved from tackling regional imbalances at the State level to micro interventions targeted at districts within States. Today, there are even demands that disparities must be looked at from the sub-district or block level. Selection of the appropriate unit for measuring and removing regional inequalities will depend on the level at which reliable information is available on a regular basis and administrative arrangements can be effectively put in place to successfully implement equalization policies and programs.

We have looked at this issue from a pragmatic perspective. Studies made at the State level and evaluations of major Central ministries dealing with key social sectors have brought to light vast divergences within districts and pockets of severe deprivation. An ambitious attempt has been made, for example, in the recent comprehensive report of the committee on regional backwardness set up by the Government of Karnataka to rank blocks within the State and pick up the most deprived for focused attention. Nevertheless, given the present stage of data availability, it is not feasible to move directly to the block level for tackling regional imbalance. Eventually, the planning process should begin at the village level, with district level plans aggregated on the basis of block and village plans. This can be achieved only when the statistical system at lower levels achieves the required degree of sophistication and when administrative reform and capacity building proceed apace. We believe strongly that it is essential to improve the statistical system to generate block wise information and proceed as quickly as possible to program implementation focused at this unit. We have made later on several suggestions on this issue. Even at the district level, we have already noted the serious gaps in basic outcome monitoring data. Despite this, we have generated as far as feasible maps of the developmental status of the country by zeroing in on districts.

We have ranked districts on the basis of the above 17 chosen parameters relating to income deprivation, health and educational status and

infrastructural inadequacy, summed up their ranks on the different parameters and arranged them on the basis of their combined ranking to focus on relative deprivation levels. We believe that districts ranked lowest on the combined ranking list must be considered the most backward in the country.

CHAPTER III
3. METHODS OF REDUCING REGIONAL IMBALANCES

Criteria to identify backwardness play a major role in determining the size of funds transferred to States on different counts. At the sectoral level as well as in general transfers, indicators of backwardness are being used for directing public investment towards deprived regions. This is done under Centrally sponsored schemes, in nonPlan transfers recommended by the Finance Commission as well as assistance extended by the Planning Commission. Present mechanisms are considered below:

CENTRALLY SPONSORED SCHEMES

3.2.1 Regional imbalances have been taken into consideration while drafting major programs in core areas like poverty alleviation and social development. 5 Centrally sponsored schemes in the Rural Development Ministry itself account for one third of the total CSS outlay of around Rs 36,000 crore in 2004-05 and adopt various indicators of backwardness so that funds can flow into the most needy areas. These are briefly indicated below:

* SGSY (Department of Rural Development) - Rs 1,000 crore. Funds are allocated in relation to the incidence of poverty in States but absorption capacity and special requirements are considered in the course of the year.
* Sampoorna Grameen Rozgar Yojana (Department of Rural Development) - Rs 5,100 crore. Funds are allocated to States on the basis of the proportion of rural poor. At the district level, allocation is on the index of backwardness using the proportion of rural SC/ST population and inverse of per capita production of agricultural workers (with equal weightage).
* Indira Awaas Yojana (Department of Rural Development) - Rs 2,500 crore. Funds are allocated to States giving equal weightage to poverty ratio and housing shortage based on figures of the last census. Proportions of rural SC/ST population and housing shortage within district to totals are the criteria adopted for inter-district allocation within a State.
* Accelerated Rural Water Supply Program (Department of Drinking Water Supply, Ministry of Rural Development) - Rs 2,900 crore. Funds are allocated on the basis of rural population (weightage 40 per cent), States under DPAP, DDP, hill area development and special category hill States in terms of rural areas (35 per cent weightage), not covered / partially covered villages (at 2:1 ratio)- 10 per cent / 5 per cent weightage, quality affected villages (40:40:15:5)-10 per cent weightage and overall water resource availability (unirrigated over irrigated area)
* Drought Prone Areas and Desert Development Programmes of the Department of Land Resources of the Ministry of Rural Areas and Employment (Rs 300 and 215, crore respectively) apply to blocks selected as drought prone on the basis of the Hanumantha Rao committee report in 1994.

The entire gamut of Central sector and Centrally sponsored schemes is being reviewed in great detail in connection with the specified objective of the National Common Minimum Program of rationalizing them and transferring as many as possible to States. An ongoing process of rationalization is already under way through a subcommittee of the National Development Council and the issue will also be commented upon during the mid term appraisal of the Tenth Plan. Centrally sponsored schemes have specific sectoral objectives and targets and the Backward States Grant Fund can be used to supplement them through a comprehensive macro approach cutting across sectors and meeting intersectoral requirements. While we are not commenting upon the criteria adopted in many Centrally Sponsored Schemes, we hope that the suitability of these parameters and the data on which they are based will be examined indepth in the midterm appraisal exercise.

NON-PLAN TRANSFERS

3.3.1 The problem of horizontal imbalance among States in fulfilling their responsibilities has been recognized by the Indian Constitution and provision made to equalize budgetary capacity through the agency of the Finance Commission which is appointed as an objective, expert body every five years to recommend tax shares and transfers from the Centre to the States so that there is horizontal equity among the citizens of different States. Finance Commissions have adopted different criteria relating to backwardness to compute entitlements of States and equalize their budgetary capacities. Criteria for determining backwardness used by the Eleventh Finance Commission for distributing tax shares are population, per capita income, area and index of infrastructure. It has also recommended grants in aid to selected States, which are left with budge tary gaps after tax devolutions. Since distribution of resources on the non Plan side for equalizing capacities of States is being done by a statutory body set up under the Constitution, we do not propose to comment on the criteria used for this process.

3.4 ALLOCATION OF NORMAL CENTRAL ASSISTANCE FOR STATE PLANS

3.4.1 The Planning Commission applies the Gadgil formula to assist States to fund their Annual Plans. The details of the formula are given in Annexure-III. The criteria that specifically provide for backwardness in the formula are population and per capita income although these are also allied to variables that measure the performance of States in different areas including tax effort. The National Development Council has approved the formula and determined the criteria. Modification would require achievement of a consensus among Chief Ministers of different States.

3.5 RSVY

3.5.1 Under the Rashtriya Sam Vikas Yojana which is a new initiative launched in the Tenth Plan, 147 districts are covered - 115 backward districts and 32 districts affected by left wing extremism. Identification of backward districts within a State was done on the basis of an index of backwardness using three parameters with equal weights: the value of output per agricultural worker, the agricultural wage rate and the percentage of SC and ST population in the district. From the list of backward districts so identified, State capitals, districts with urban agglomeration of one million plus and districts, which had major cities of States, were excluded. The number of districts to be covered in a State was decided on the basis of the incidence of poverty in the case of non-special category States and on the basis of

population in the case of special category States with the rider that each State would get at least one district. Districts affected by left wing extremism have been identified by the Ministry of Home Affairs on the basis of different criteria such as intensity of left wing extremist violence, the presence of armed dalams, the spread of active front organizations of these groups, the extent of proactive measures initiated by the police and administration, etc. Rs. 15 crores of annual allocation are proposed for each selected district for a programme to be completed in three years time to redress regional imbalance District level plans are to be prepared and approved by an empowered committee chaired by Secretary, Planning Commission and these are to be implemented and closely monitored. We will be considering this programme and its future in the context of the proposed Backward Districts Initiative.

3.6 NATIONAL COMMISSION ON POPULATION

3.6.1 The National Commission on Population has worked out a composite index to rank 569 districts of the country using the following variables, which it found relevant to explain the fertility rate of population:

Decadal population growth rate
Percentage of births of order 3 and above (instead of total fertility rate)
Percentage of current users of family planning methods
Percentage of girls marrying below 18 years of age
Sex ratio
Percentage of women receiving skilled attention during deliveries
Percentage of children getting fully immunized
Female literacy
Percentage of villages not covered with pucca roads (estimated)
Percentage coverage of safe drinking water and sanitation (estimated)
Percentage of births registered (estimated)
Percentage of deaths registered (estimated)

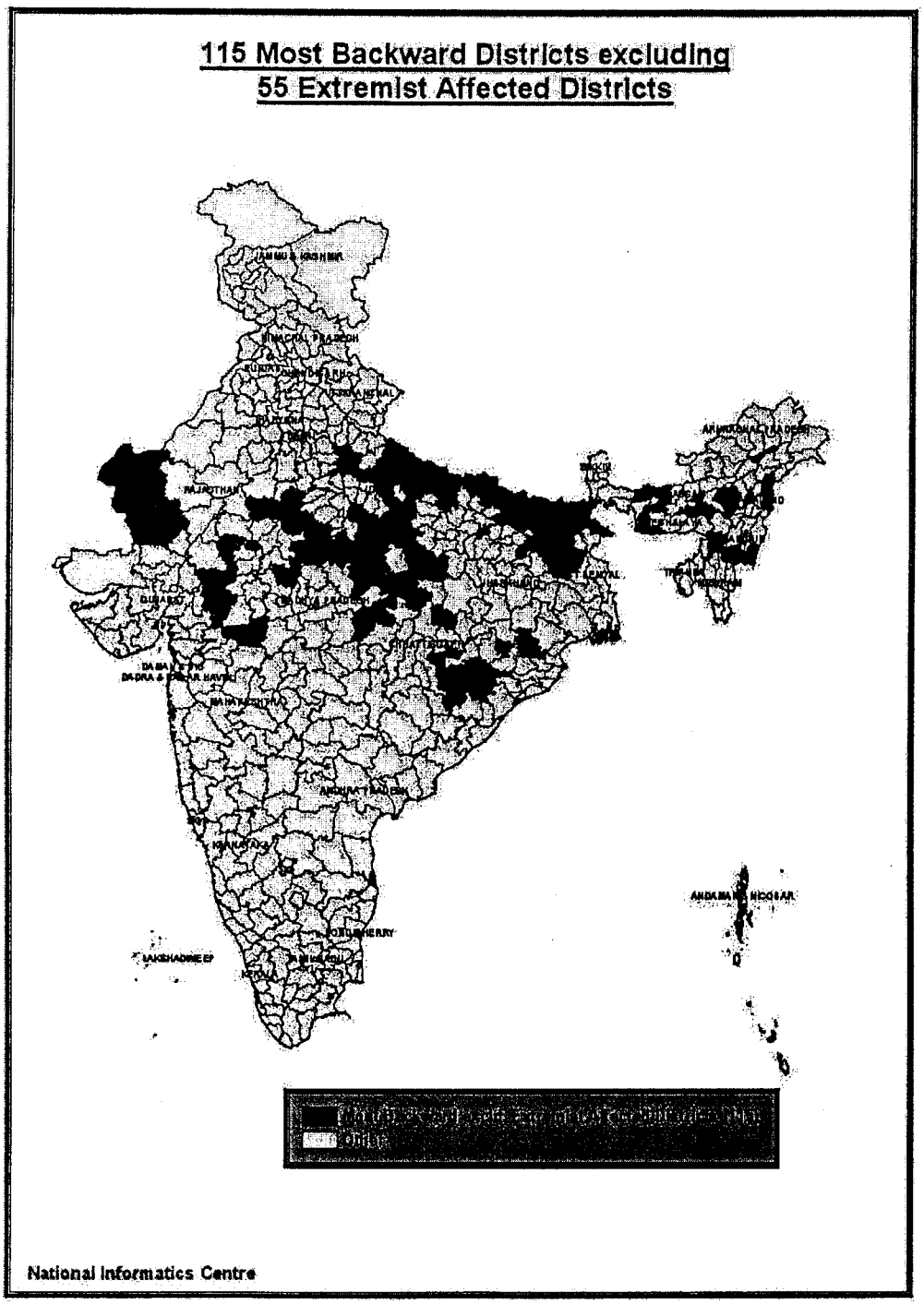
3.6.2 One hundred and thirty three districts were identified on the basis of these variables. A conference was held with the District Magistrates / Collectors of these districts and they were asked to submit District Action Plans. Additional Central Assistance was given to 67 districts on this basis in 2000-2001 and 2001-02 and the programme has since been discontinued. Fresh initiatives are separately being considered in the health sector now.

CHAPTER IV
4. THE BACKWARD DISTRICTS GRANT FUND

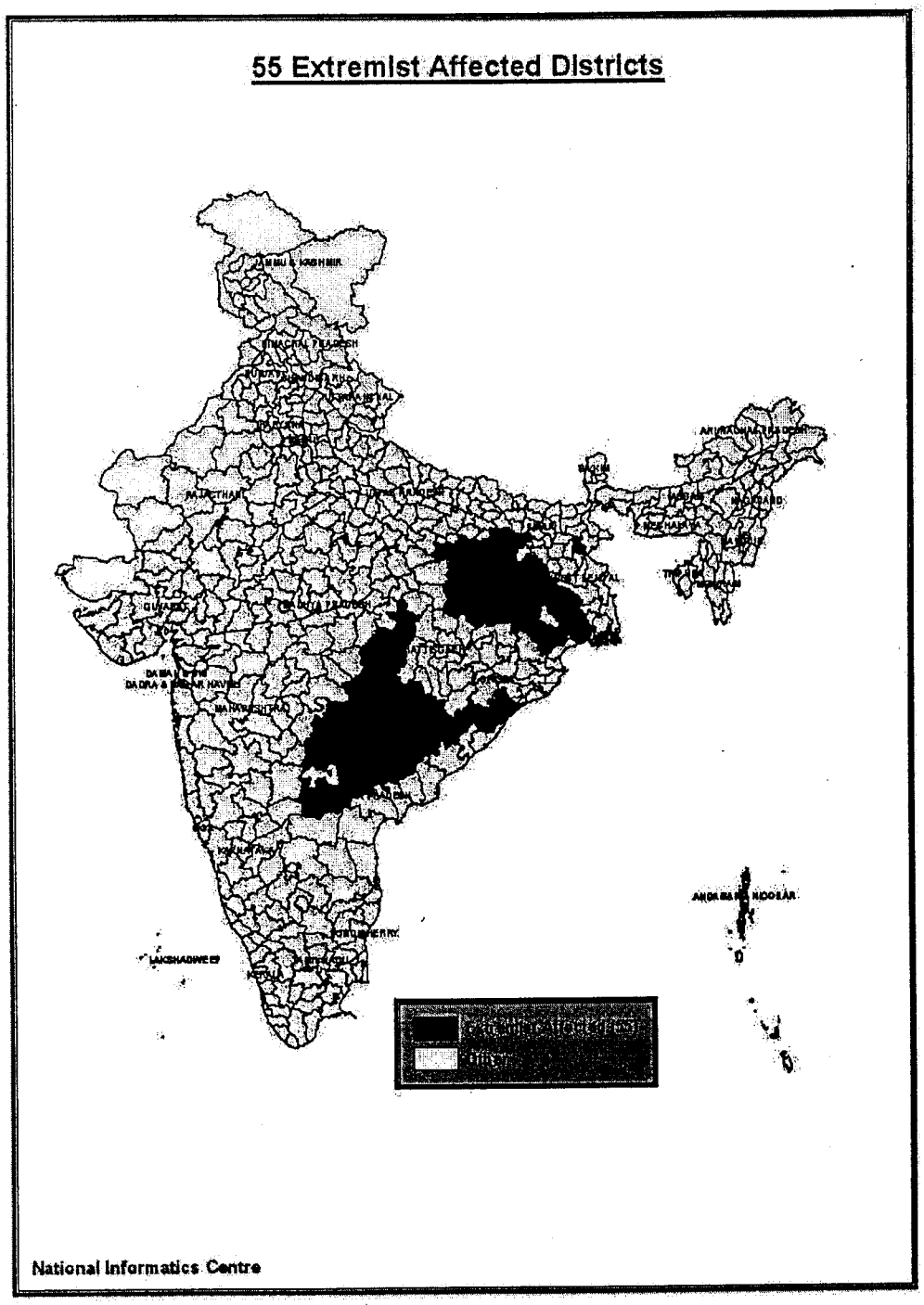
4.1.1 Over and above existing mechanisms, we believe that there is a strong case for setting up a Backward Districts Grant Fund, which is a key component of the National Common Minimum Program and which has been announced by the Finance Minister in the current year's budget speech. For optimal results and effective targeting, this should be operated as a Backward Districts (rather than a Backward States) Fund to ensure that there is focus on less developed parts within States, even those that are otherwise considered developed. To enable the Fund to realize its outcomes at the ground level, it should be operated throughout the remaining period of the Tenth Plan as well as in the Eleventh Plan period. Two years after operation, that is at the beginning of the Eleventh Plan, the working of the Fund should be reviewed and corrections necessary put into place.

4.1.2 Specific recommendations regarding the coverage and time frame for the program, modalities of implementation, monitoring and closure are given below.

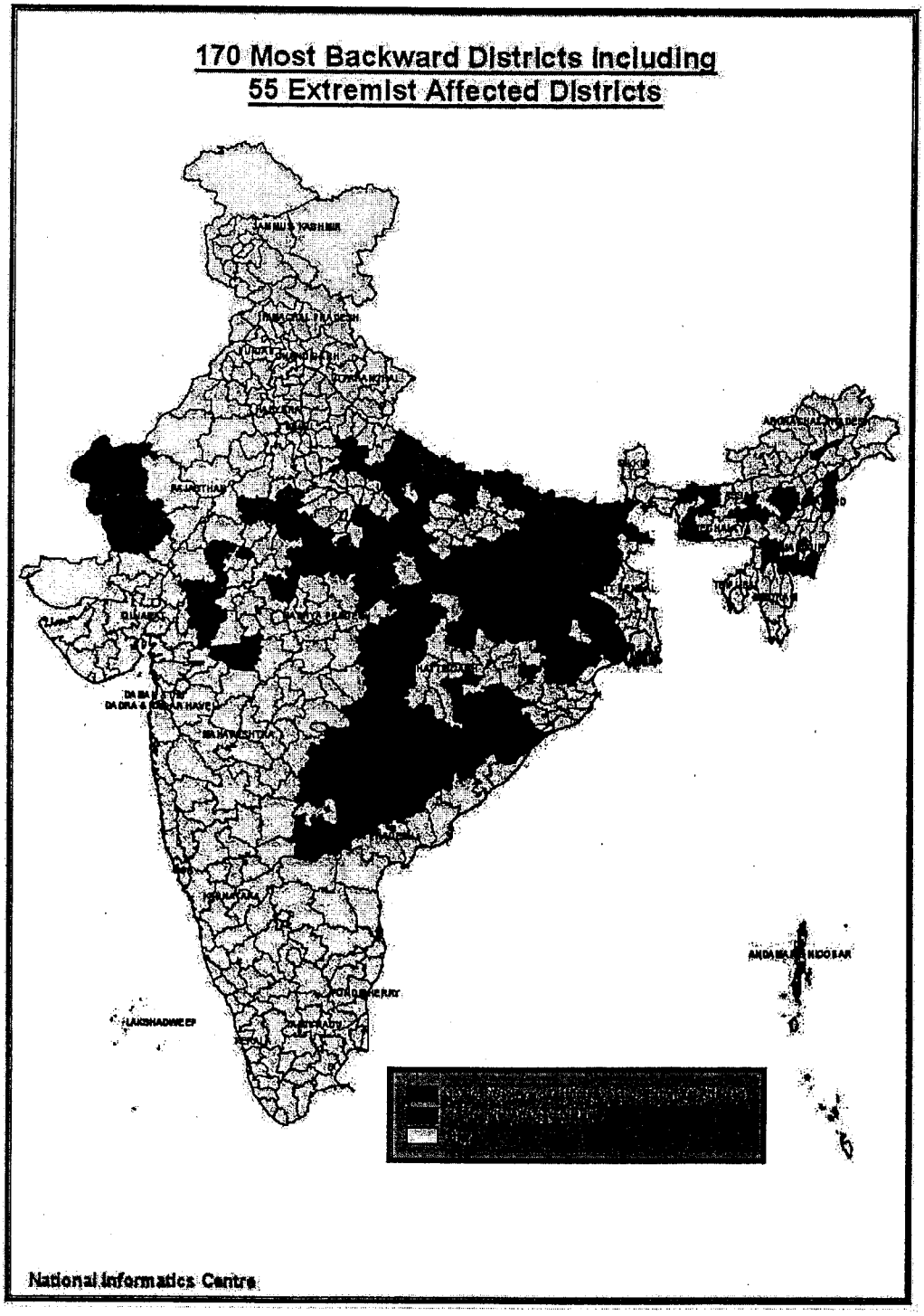
Map 1


115 Most Backward Districts excluding
55 Extremist Affected Districts
National Informatics Centre

Map 2

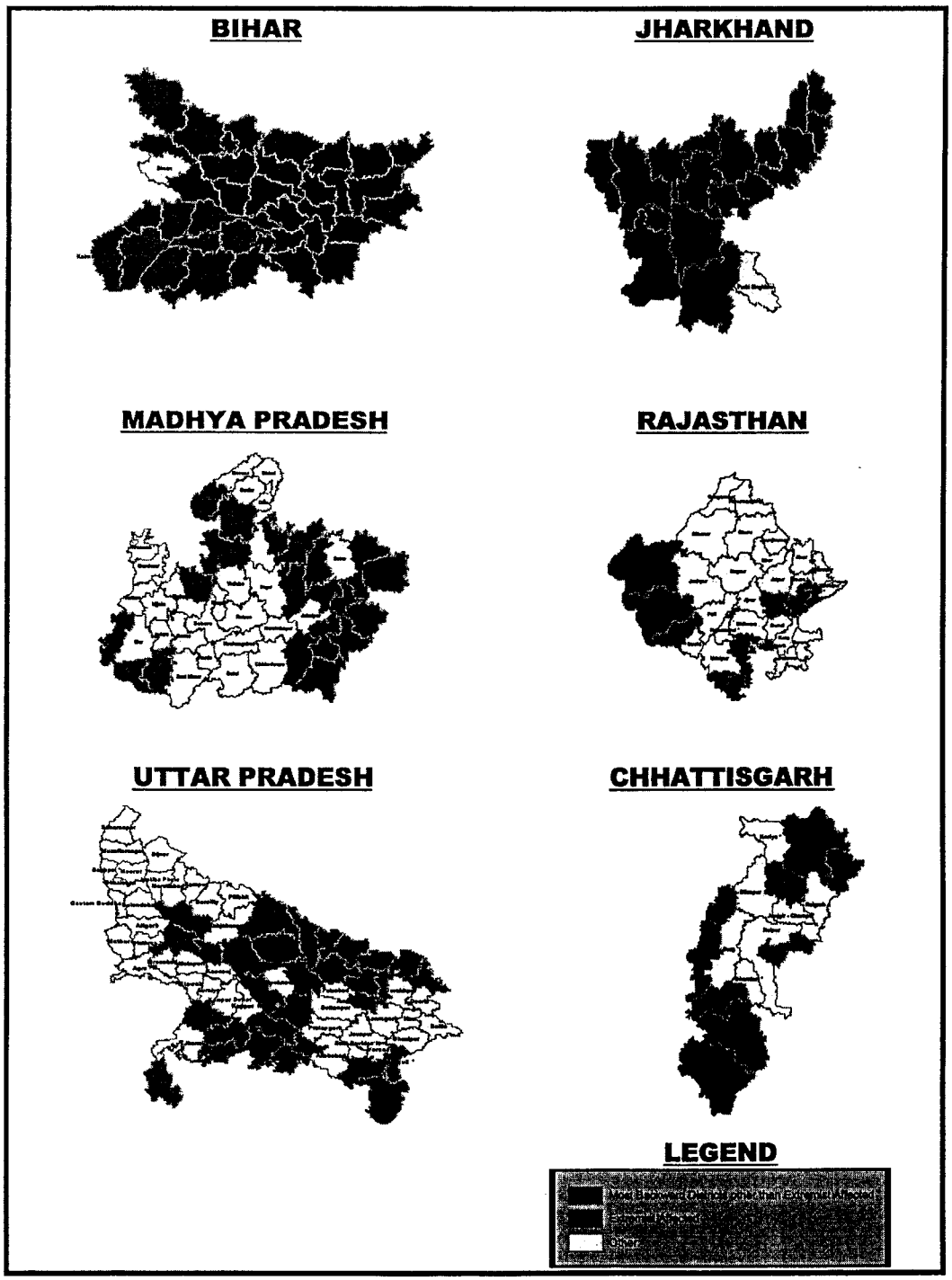

55 Extremist Affected Districts
National Informatics Centre

Map 3


170 Most Backward Districts including
55 Extremist Affected Districts
National Informatics Centre

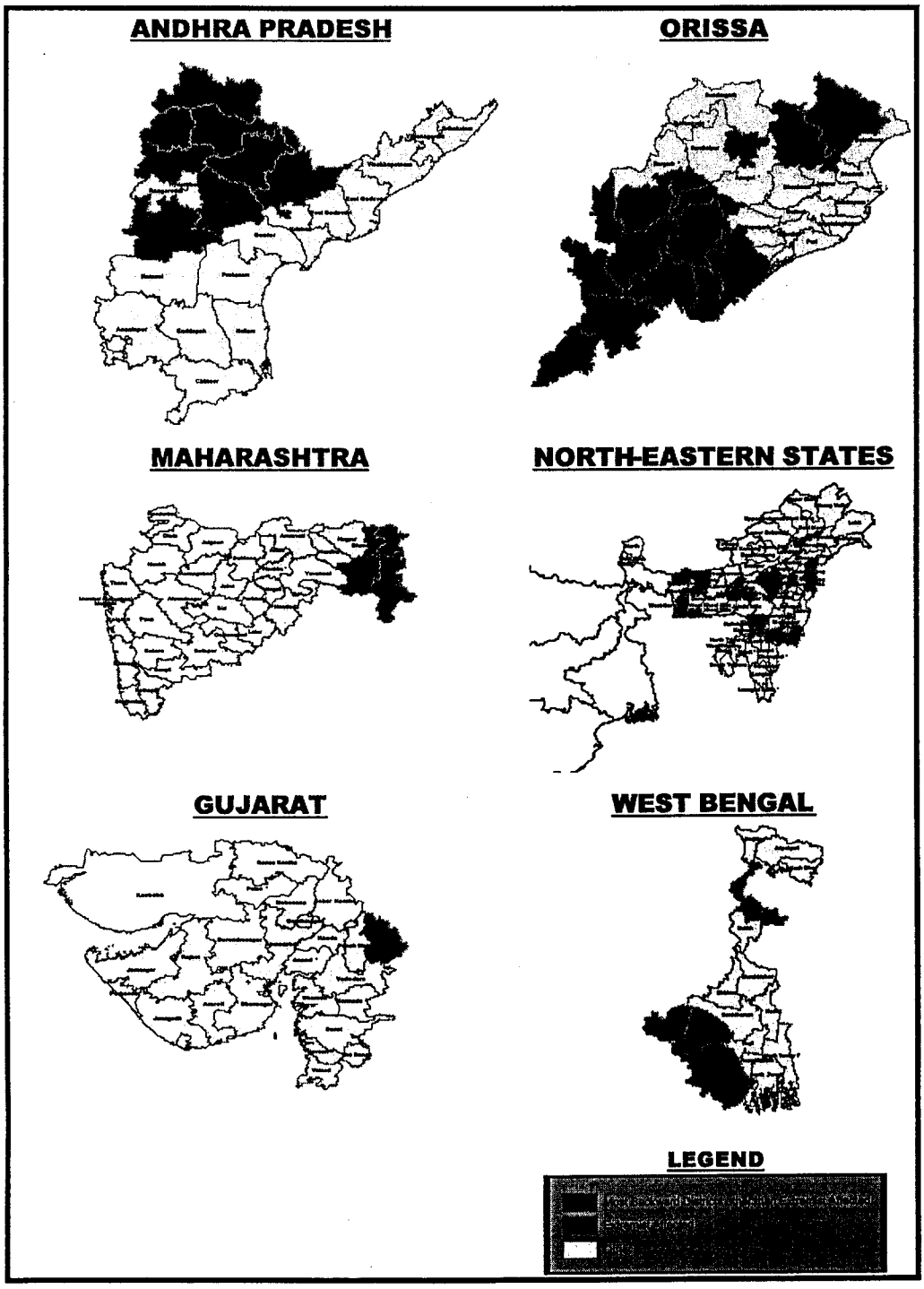
Map 4

Most Backward Districts Identified including Extremist Affected Districts



Map 5

Most Backward Districts Identified including Extremist Affected Districts



List of 170 Districts Identified Under Backwardness Including 55 Extremist Affected Dricts (State-wise)

No.	State Name	District Name
1	ANDHRA PRADESH	Adilabad
2	ANDHRA PRADESH	Karimnagar
3	ANDHRA PRADESH	Khammam
4	ANDHRA PRADESH	Mahbubnagar
5	ANDHRA PRADESH	Medak
6	ANDHRA PRADESH	Nalgonda
7	ANDHRA PRADESH	Nizamabad
8	ANDHRA PRADESH	Warangal
9	ASSAM	Barpeta
10	ASSAM	Cachar
11	ASSAM	Dhemaji
12	ASSAM	Goalpara
13	ASSAM	Hailakandi
14	ASSAM	Karbi Anglong
15	ASSAM	Kokrajhar
16	ASSAM	Marigaon
17	BIHAR	Araria
18	BIHAR	Aurangabad
19	BIHAR	Banka*
20	BIHAR	Begusarai
21	BIHAR	Bhagalpur
22	BIHAR	Bhojpur*
23	BIHAR	Buxar*
24	BIHAR	Darbhanga
25	BIHAR	Gaya
26	BIHAR	Gopalganj
27	BIHAR	Jamui*
28	BIHAR	Jehanabad
29	BIHAR	Kaimur (Bhabua
30	BIHAR	Katihar
31	BIHAR	Khagaria
32	BIHAR	Kishanganj
33	BIHAR	Lakhisarai*
34	BIHAR	Madhepura
35	BIHAR	Madhubani
36	BIHAR	Munger
37	BIHAR	Muzaffarpur

List of 170 Districts Identified Under Backwardness Including 55 Extremist Affected Dricts (State-wise)

No.	State Name	District Name
38	BIHAR	Nalanda
39	BIHAR	Nawada
40	BIHAR	Pashchim Champ
41	BIHAR	Patna
42	BIHAR	Purba Champara
43	BIHAR	Purnia
44	BIHAR	Rohtas
45	BIHAR	Saharsa
46	BIHAR	Samastipur
47	BIHAR	Saran
48	BIHAR	Sheikhpura*
49	BIHAR	Sheohar*
50	BIHAR	Sitamarhi
51	BIHAR	Supaul*
52	BIHAR	Vaishali
53	CHHATTISGARH	Baster
54	CHHATTISGARH	Dantewada*
55	CHHATTISGARH	Jashpur*
56	CHHATTISGARH	Kanker*
57	CHHATTISGARH	Kawardha*
58	CHHATTISGARH	Korba*
59	CHHATTISGARH	Mahasamund*
60	CHHATTISGARH	Rajnandgaon
61	CHHATTISGARH	Surguja
62	GUJARAT	Dohad*
63	JHARKHAND	Bokaro*
64	JHARKHAND	Chatra*
65	JHARKHAND	Deoghar
66	JHARKHAND	Dhanbad
67	JHARKHAND	Dumka
68	JHARKHAND	Garhwa*
69	JHARKHAND	Giridih
70	JHARKHAND	Godda
71	JHARKHAND	Gumla
72	JHARKHAND	Hazaribag
73	JHARKHAND	Kodarma*
74	JHARKHAND	Lohardaga

List of 170 Districts Identified Under Backwardness Including 55 Extremist Affected Dricts (State-wise)

No.	State Name	District Name
75	JHARKHAND	Pakaur*
76	JHARKHAND	Palamu
77	JHARKHAND	Pashchimi Sing
78	JHARKHAND	Ranchi*
79	JHARKHAND	Sahibganj
80	MADHYA PRADESH	Balaghat
81	MADHYA PRADESH	Barwani*
82	MADHYA PRADESH	Chhatarpur
83	MADHYA PRADESH	Damoh
84	MADHYA PRADESH	Dindori*
85	MADHYA PRADESH	Guna
86	MADHYA PRADESH	Jhabua
87	MADHYA PRADESH	Katni*
88	MADHYA PRADESH	Mandla
89	MADHYA PRADESH	Panna
90	MADHYA PRADESH	Rajgarh
91	MADHYA PRADESH	Rewa
92	MADHYA PRADESH	Seoni
93	MADHYA PRADESH	Shahdol
94	MADHYA PRADESH	Sheopur*
95	MADHYA PRADESH	Shivpuri
96	MADHYA PRADESH	Sidhi
97	MADHYA PRADESH	Tikamgarh
98	MADHYA PRADESH	Umaria*
99	MADHYA PRADESH	West Nimar
100	MAHARASHTRA	Bhandara
101	MAHARASHTRA	Chandrapur
102	MAHARASHTRA	Gadchiroli
103	MAHARASHTRA	Gondiya*
104	MANIPUR	Chandel
105	MANIPUR	Churachandpur
106	MEGHALAYA	Ri Bhoi*
107	MEGHALAYA	South Garo Hil
108	MEGHALAYA	West Garo Hill
109	NAGALAND	Mon
110	NAGALAND	Tuensang
111	NAGALAND	Wokha

List of 170 Districts Identified Under Backwardness Including 55 Extremist Affected Dricts (State-wise)

No.	State Name	District Name
112	ORISSA	Balangir
113	ORISSA	Baudh*
114	ORISSA	Debagarh*
115	ORISSA	Gajapati*
116	ORISSA	Ganjam
117	ORISSA	Kalahandi
118	ORISSA	Kandhamal
119	ORISSA	Kendujhar
120	ORISSA	Koraput
121	ORISSA	Malkangiri*
122	ORISSA	Mayurbhanj
123	ORISSA	Nabarangapur
124	ORISSA	Nuapada*
125	ORISSA	Rayagada*
126	ORISSA	Sonapur*
127	RAJASTHAN	Banswara
128	RAJASTHAN	Barmer
129	RAJASTHAN	Chittaurgarh
130	RAJASTHAN	Dungarpur
131	RAJASTHAN	Jaisalmer
132	RAJASTHAN	Jalor
133	RAJASTHAN	Karauli*
134	RAJASTHAN	Sawai Madhopur
135	RAJASTHAN	Tonk
136	UTTAR PRADESH	Ambedkar Nagar
137	UTTAR PRADESH	Bahraich
138	UTTAR PRADESH	Balrampur*
139	UTTAR PRADESH	Banda
140	UTTAR PRADESH	Barabanki
141	UTTAR PRADESH	Basti
142	UTTAR PRADESH	Budaun
143	UTTAR PRADESH	Chandauli*
144	UTTAR PRADESH	Chitrakoot*
145	UTTAR PRADESH	Etah

List of 170 Districts Identified Under Backwardness Including 55 Extremist Affected Dricts (State-wise)

No.	State Name	District Name
146	UTTAR PRADESH	Farrukhabad
147	UTTAR PRADESH	Fatehpur
148	UTTAR PRADESH	Gonda
149	UTTAR PRADESH	Hamirpur
150	UTTAR PRADESH	Hardoi
151	UTTAR PRADESH	Jalaun
152	UTTAR PRADESH	Kaushambi*
153	UTTAR PRADESH	Kheri
154	UTTAR PRADESH	Kushinagar*
155	UTTAR PRADESH	Lalitpur
156	UTTAR PRADESH	Maharajganj
157	UTTAR PRADESH	Mahoba*
158	UTTAR PRADESH	Mirzapur
159	UTTAR PRADESH	Rae Bareli
160	UTTAR PRADESH	Sant Kabir Nag
161	UTTAR PRADESH	Shrawasti*
162	UTTAR PRADESH	Siddharthnagar
163	UTTAR PRADESH	Sitapur
164	UTTAR PRADESH	Sonbhadra
165	UTTAR PRADESH	Unnao
166	WEST BENGAL	Bankura
167	WEST BENGAL	Dakshin Dinajp
168	WEST BENGAL	Medinipur
169	WEST BENGAL	Puruliya
170	WEST BENGAL	Uttar Dinajpur

Note: Shaded Districts are Extremist Affected Districts (State-wise), Remaining are most Backword Districts

*

4.2 COVERAGE AND TIME FRAME OF THE BACKWARD DISTRICTS GRANT FUND

4.2.1 The Fund should cover the 115 most backward districts *(map 1)* identified on the basis of the methodology given by us in Chapter II excluding Naxalite affected districts. To this list should be added the 55 districts *(map 2)* considered to be Naxalite affected, in which disaffection with low developmental levels has driven people to violent forms of protest and opposition. The Backward Districts Grant Fund will replace the current RSVY and Backward Districts Initiative but action has already been initiated in selected districts under these two schemes to implement developmental plans over a three year time frame (of which one year would be completed in 2004-05 for all districts, with districts in which the project was piloted being further ahead in implementation). To avoid disruption in these programs, these plans will be completed as originally targeted, but districts now covered under RSVY, which do not qualify as most backward under the criteria chosen by us, will not be eligible for further assistance from the Backward Districts Grant Fund after the close of the Tenth Plan. Forty-six RSVY districts will not qualify for assistance from the Backward Districts Grant Fund after the Tenth Plan period is over. During the remaining two years of the Tenth Plan, however, in all 216 districts will be covered but the number will come down to 170 *(map 3)* in two years time. Districts affected by Naxalism will also require specific assistance related to connectivity, livelihood support programs, land record reforms and governa nce issues which cause public disaffection and induce citizens to turn towards violent redressal measures. *Map 4 & 5* depict State wise affected districts.

4.2.2 We have suggested the multi-sectoral parameters to be adopted for identifying backward districts. Choice of variables has been made in a pragmatic manner keeping in mind ready availability of data and ease of monitoring. In our view, half the funding under the program should be distributed equally to the identified districts and the remaining amount allocated on the basis of population. After two years of operation at the close of the Tenth Plan, the distribution formula should be modified. One third of the funding should be distributed equally among the backward districts, a further third on the basis of population and another one third on the basis of performance against predetermined targets. This is expected to act as an incentive for realizing the desired outcomes and reward States and districts that put in maximum effort. Releases made to backward districts will be treated as non-lapsable so that they can be utilized as and when absorptive capacity is created.

4.3 MODALITIES OF IMPLEMENTATION

4.3.1 For convergence and flexibility, the district budget and the village composite plan concepts should be used to maximize results using funds available from all schemes and untied funds from other sources. PRI institutions should be integrated with the system and key operational staff should be monitored by them. Non-Plan budgetary support should be provided to cover salary expenditure so that Plan funds are not diverted to this end. We have further elaborated the manner in which district and village level budgets and plans should be prepared in the later chapters. Other policy modifications required in planning and governance are indicated below:

Regional, inter-district infrastructure or amount needed for area development purposes should be built out of normal departmental funds. These needs should be identified and concerned

departments mandated to earmark a percentage of their Plan funds for this purpose using a suitable administrative system. This is desirable for ensuring accountability at the district and subdistrict levels.

Funds allocated for improving deprived areas will be utilized as planned only if trained, competent personnel are posted to work in such regions. It is essential that this aspect is considered in depth and incentive policies introduced so that the most dedicated staff are motivated to devote two to three years of their careers in backward regions, vacancies of key personnel avoided and support services made available. A package of incentives should be introduced to encourage the best personnel to work in backward areas with utmost devotion. The special facilities at present being given by the Central governme nt for persons serving in northeastern States should be extended to those working in the most backward districts. Apart from housing and educational facilities (as well as adequate security in Naxalite affected districts), a 25 per cent special allowance should also be given to government employees working in backward districts. Medical personnel could be attracted to these areas if they are assured admission to postgraduate courses after serving three years. Persons posted to backward districts must be retained for full three-year tenure and relieved immediately after this is over. They should also be permitted to retain official quarters in State headquarters during the posting period. Finally, a successful tenure in backward districts should be treated as a desirable qualification for future postings, promotions and career progression. Continuous upgradation of skills must form part of the program content. At least 10 per cent of the total fund should be earmarked for a separate capacity building plan and financing systems and information technology upgraded. The process of setting up networked information and delivery systems should be put in place from the initial stage itself side by side with other basic infrastructure and improved administration.

4.4 MONITORING OUTCOMES

4.4.1 A major impediment in putting in place an effective selection mechanism for backward districts and monitoring outcomes under schemes targeted to needy areas has been the lack of useful, regular and updated information. We believe that schemes and programs of all government levels cannot be operationalised without giving the utmost priority to improvement of the statistical system in key areas. The indicators on which data must be regularly collected, analysed and made available for planners and implementing departments are briefly indicated below along with the agency that could be strengthened for performing this task:

Data relating to the incidence of poverty is available on a regional basis through occasional (quinquennial) sample surveys conducted by the NSSO and through the head count run from time to time by the Rural Development Department. Both should be strengthened. The NSS should be required to obtain and analyse data on a State wise disaggregated basis by increasing sample size. It should actively involve State agencies, train and guide them so that State samples can be used along with Central tables and district wise results obtained. The census of the Rural Development department should be operated on a two-stage basis, us ing some external indicators of income to zero in on the most deprived households.

GSDP data is not available regularly for all States in a reasonably reliable manner. The CSO should be empowered and strengthened preferably by creating a Statistical Commission and endowing it with powers to direct, guide and

control State Statistical departments so that comparable GSDP data for the country is available with only a year's delay. The recommendations of the Rangarajan Committee in this regard should be implemented very early.

With regard to outcome variables relating to educational status, data regarding literacy will have to be collected with greater regularity and frequency than at present as we rely today only on decennial census data. This can be done either through the NSS or through special surveys undertaken from time to time.

Health and demographic outcomes are best identified with regularity by strengthening the Compulsory Registration System for Births and Deaths operating throughout the country, not by depending on Sample Registration System data, which is meant only to check the effectiveness of the main system. SRS sampling is not large enough to generate district level data and this is a major gap in our reporting system. The CRS should be strengthened, upgraded, transferred for operation to the most effective agency (which may be the medical rather than the revenue department) and computerized to obtain online results for even the smallest administrative unit. Panchayat Raj institutions should be actively involved in this process and they should be enabled to use the data for planning purposes.

Departmental data on education (dropouts, enrolments and availability of physical facilities and teachers) and health (availability of medical personnel and institutions and effectiveness of interventions relating to family welfare) is not being collected and analysed through networking among States; this must be strengthened.

Data relating to agricultural and industrial productivity as well as the spread of infrastructure must also be collated accurately.

4.4.2 We believe that the districts selected under the Backward States' Grant Fund could be used as pilot areas for establishing the statistical system indicated by us on priority basis so that outcomes can be monitored regularly. Information requirements and system to be built at the village level have been covered extensively in a later chapter.

4.4.3 Audit and evaluation must be done on a concurrent basis using modern IT tools. Field level feedback must be obtained through independent agencies (experts, CAs etc.) and NGOs. The model followed in District Poverty Initiatives Programme districts could be used. Local fund audit should be reviewed by the CAG and strengthened with adequate training. The unit cost of delivery should be specified and provision made for regional variations. Outcome indicators should be enumerated for each backward district mentioning the current benchmark and the targeted level.

CHAPTER V
5. REDRESSAL OF REGIONAL IMBALANCE TRHOUGH DISTRICT BUDGETING.

5.1.1 The strategy for tackling regional imbalance through the mechanism of the Backward Districts Grant Fund has to be made operational through a process of district budgeting so that plans formulated for development of backward areas reflect realistically the perceived needs and aspirations of the population. The Planning Commission has advocated the concept of district planning as an integral part of the planning process ever since the first guidelines for district planning were issued as early as 1969. These and subsequent attempts to bring in effective decentralization as recommended by a number of committees met with limited success. District NIC Centres were established to maintain and provide district level data to develop a strong information base. But the most dramatic development came in 1992 with

the 73rd and 74th Constitutional Amendment Acts, which conferred constitutional status on Panchayati Ra j Institutions by envisaging the establishment of a democratic decentralized development process through peoples' participation in decisionmaking, implementation and delivery. To achieve these objectives, the Constitution provides for devolution of powers and responsibilities to Panchayats at appropriate levels. Twenty-nine subjects listed in the Eleventh Schedule of the Constitution were also identified for devolution to the Panchayati Raj Institutions.

5.1.2 Article 243 ZD indicates that committees for district planning must be set up as follows, "There shall be constituted in every State at the District level a District Planning Committee to consolidate the Plans prepared by the Panchayats and the Municipalities in the district and to prepare a draft development Plan for the district as a whole". However, even a dozen years after the coming into force of the amendments, panchayati raj institutions (PRIs) have not been empowered and enabled to function in the manner envisaged for them. Where the 29 subjects listed for transfer to PRIs in the 41 Eleventh Schedule of the Constitution have been devolved, it has not been accompanied by full shifting of functions, functionaries and funds.

5.1.3 We believe that the Backward Districts Grant initiative and the recommendations made by us to achieve developmental targets in the most backward areas will not be effective unless they are implemented through PRIs. But because of the uneven manner in which these bodies have been empowered for this purpose today, it will be necessary to adjust the implementation procedure to the varying requirements and stages of PRI development of different States. We indicate below the level of development that will be necessary to enable the Backward Districts Grant initiative to be moved directly to PRIs and suggest also what could done in the transitional phase.

5.2 FUNCTIONAL DEVOLUTION

5.2.1 The functional responsibility of each spatial constitutional unit should be clearly defined within the ambit of the 73rd and 74th Amendment Acts. In four main areas public provision of services for citizens can be done best at the village level. These are the following:

The village is the unit most suited for providing amenities and infrastructure. Roads, drainage lighting and all other physical infrastructure that raise the quality of life should be managed at the village level. Sanitation and housing for the poor would also come within the ambit of villages.

Economic activities connected to agriculture, watershed development, on fa rm activity and rural industry should also become the major concern of the villages themselves.

Employment related programmes are again best handled at the village level. Information systems built up at this point can be used to generate a complete picture of the needs of villages and suggest effective solutions.

Finally, food and water security linked projects must also be placed under the jurisdiction of village panchayats. Public distribution and related issues and the availability and adequacy of potable water are clearly to be managed at the village level. To enable these tasks to be performed at this level, however the Gram Panchayat will have to be strengthened as an accountable, functioning, responsible and empowered unit.

It would be possible to improve performance and curb leakage to a large extent if programmes are planned and implemented at the local level. The ideal implementing unit is the village panchayat, as there is scope for these bodies to raise own revenues also. This can make them responsible and responsive and induce them to prepare realistic plans within existing fund constraints.

5.2.3 Activity mapping will have to be completed by State governments to identify clearly the roles and responsibilities of different PRI levels. This is a prerequisite for successful planning and effective implementation as well as ownership of programs and projects. Formal statutory notification of the functions to be performed by each level must be followed immediately by issue of the requisite executive and other operational orders.

5.2.4 Similarly, the roles of other levels of Panchayati Raj Institutions should be well defined. This should not be just supervisory in nature. In fact, different rural local bodies could co-exist for different functions as equals within the same environment. In the case of larger projects involving more than one Gram Panchayat or even a group of Panchayat Samities, a special purpose vehicle could be set up for that specific purpose, for example, in the case of a large water supply project covering several villages and perhaps a town. Once the project is over, the vehicle could be either dissolved or retained for operation and maintenance as needed for the project.

5.2.5 The importance of different levels above the village stage varies across States. The extent to which and the manner in which intermediate PRI level between the district and the village should be empowered will depend upon the specific processes and traditions of each State. This could by and large be kept flexible. States could be given the freedom to determine what should be done according to local requirements.

5.2.6 A number of parallel bodies have been created by various departments as well as donor agencies. This should be discouraged. In case it is essential to create such bodies, Panchayats should be consulted and involved. All parallel bodies and programmes should be brought under the overall monitoring and supervision of Panchayats at the appropriate level.

5.2.7 Programmes and activities to be taken up by NGOs should be within the ambit of constitutional provisions and involvement of NGOs in the implementation of various schemes for economic development / social justice should be under the strict supervision and control of PRIs. Generally NGOs may be involved for assistance in technical matters and creating awareness.

5.2.8 An indicative list of functions and funds to be transferred to different panchayat levels has been furnished at Annexure IV.

TRANSFER OF FUNCTIONARIES

Management of schemes in the areas indicated should be formally transferred to the appropriate panchayat level. Currently, a major stumbling block has been the fact that powers relating to functionaries have been transferred in many cases in a truncated manner. Therefore, local bodies often function only as accounting entities who pay salaries on behalf of the State Government.

5.3.2 Personnel required for delivery of services at the local level must function under PRIs to ensure attendance as well as service quality. The key functionaries who must be placed under the control of village panchayats are the

local water supply operator, the primary school teacher, anganwadi worker and ANM. At the tehsil level could be stationed engineering and extension staff who could provide expertise and technical support when it is sought by villages. The staff of social welfare hostels which are placed under block panchayats should also work under their supervision. At the district level, control should be exercised over PHC and CHC personnel as well as high school staff.

5.4 TRANSFER OF FUNDS

5.4.1 The foremost requirement for successful decentralized planning is the freedom to choose schemes / programmes as per local needs. District planning is possible if the district has its own budget or funds and is informed about the financial resources available before the commencement of the financial year. Overall, tied, scheme-based allocations should be replaced by untied / block grants equal to at least 50 per cent of the financial resources available at the district level but change-over to such a system will need to be gradual depending on absorptive capacity. A system of this kind requires major changes in schemes at the Central and State levels. As a beginning, Ministries such as Rural Development, Agriculture, Health, Education, Water Supply, etc. should replace some of their watertight schemes with block grants / untied funds which can be used for schemes that can be micro planned and micro managed at the district level and below. The exercise done by the Ministry of Agriculture to replace a bouquet of schemes with an umbrella scheme for macro management is a step in the right direction. Major ministries dealing with the 29 subjects earmarked for Panchayati Raj Institutions in the Constitution should give untied funds in their sectors with only broad guidelines or minimum percentages for each important component, as is being done under PMGY. In this devolution, relative backwardness and the need for rapid socio-economic development as well as empowerment of the poorest sections of society should be prime considerations. The Department of Panchayati Raj should move a proposal identifying clearly schemes that can be operated at different PRI levels and obtain necessary approvals and clearances.

5.4.2 Plan as well as non Plan funds relating to activities transferred to different PRI levels should be placed at their disposal. Separate accounts could be created for each level of Panchayat in which resources pertaining to their activities could be deposited. State Governments should transfer funds in an untied manner to the appropriate Panchayat level leaving the choice of actual schemes to local people; funds provided by State governments for their own schemes on the Plan and non Plan account for the same activities should also be transferred to PRIs. This will enable PRIs to take coordinated action utilizing all resources available, whatever be the source.

5.4.3 The Backward Districts Grant Fund should be implemented through the PRI system in all States in which the requirements listed by us regarding transfer of functions, functionaries and funds have been broadly met. In other States, however it may not be possible to immediately operationalise the Fund in this manner. The aim should be to move quickly and effectively towards this ideal. It is essential that plans prepared to utilize the Backward Districts Fund in States, which have not yet adequately empowered PRIs, should contain also a commitment and a programme prepared by the State Government indicating the time frame and the manner in which the transition to PRIs will be effected.

5.4.4 The district is the point at which needs enunciated at the village and intermediate le vels are put together and assessed in the light of available resources. This exercise is accomplished through the district planning mechanism. Implementation of the Backward Districts Grant Fund programme will require preparation of district plans for each of the targeted districts. In our view, the district plan must bring together plans of lower levels in States in which it is possible to commence implementation of the Backward Areas Grant programme through the PRI mechanism. The planning process at the intermediate and district levels will also change fundamentally with greater flexibility at the Gram Panchayat level. The role of these tiers could vary depending on activity mapping as also arrangements made among the three tiers through a system of contracts and MOUs. In addition, district and intermediate panchayats could have specific responsibilities assigned through activity mapping to administer programmes relating to the management of institutions like hostels, secondary schools and farmers' service centres. Feedback from gram panchayats regarding works outside their purview but are still essential, such as inter-village road formation and multi panchayat irrigation structures could be used as inputs for district and intermediate level plans. There will also be need to create a monitoring system at both the district and intermediate panchayat levels.

5.4.5 The District Planning Committee (DPC) should be the sole body entrusted with the task of consolidating and integrating the plan at the district level. With greater devolution and entrustment of untied funds and flexibility for Gram Panchayats to develop plans, the DPC could also provide representation to Gram Panchayat representatives. It could screen and select volunteers for Project Facilitation Teams (PFTs) within a district. The DPC could also be given the coordinating role in capacity building at the district level. This would go beyond capacity building for PRI members to encompass training for staff and members of PFTs if required.

5.4.6 The District Plan should not just be an exercise aimed at consolidation of the plans of municipalities and panchayats. It should also list infrastructure and services required at the district level (major district roads, State highways, colleges, district hospitals, irrigation schemes, etc.). Line departments could provide technical expertise and policy input and implement inter-district schemes. District Plans should then be integrated with the State's Annual Plan. There should be a separate District /Panchayat sector in the State's Annual Plan.

5.5 FUNDING THE BACKWARD DISTRICTS GRANT FUND

5.5.1 To adequately meet the needs of the 170 districts targeted under the new programme as well as complete implementation of the ongoing RSVY, it would be necessary to provide at least Rs. 6000 crore in the Plan budget as GBS in 2005-2006. As the programme picks up, this can be upscaled to Rs. 8000 crore. Requirements for the Eleventh Plan period will have to be assessed afresh after evaluating progress as suggested by us earlier.

Fund transfer directly to districts is an option that is technologically feasible today. However, a decision on this issue must be taken after considering fully all implications. Direct monitoring of district programmes from a distant Central perspective may not be adequately effective or responsive vis a vis local needs. The constitutional and statutory implications of such a mechanism within the federal structure of the country must also be considered. The

apprehension expressed of States blocking or diverting Central funds meant for district level development could be handled in a different manner. In the light of recent technological changes and growth in networking and IT solutions it would be possible to set up a dedicated computerized treasury account for panchayat funds which while retaining money under State control would not permit the State to stop releases against cheques issued by lower level panchayats. Many State Governments have already moved towards treasury computerization. If such a procedure can be developed, a via media can be found for the Central Government to fund local bodies through State Governments without the latter being able to retain such funds to meet overdraft or other liquidity shortages.

CHAPTER VI
PREPARATION OF COMPOSITE VILLAGE PLANS*
INTRODUCTION

6.1.1 The concept of village level planning in which every village would prepare with the participation of its citizens a development plan, has existed as a utopian ideal since pre-independence days. Gandhi's model of Gram Swaraj, in which every village would be a little republic planning for itself and only whatever could not be handled (or planned for) at the village level would be done at a higher level was an expression of this ideal. However, though planning has been with us since independence, there are very few instances of State level Plans truly built up using village plans as building blocks. There have been several excellent pilots for village level planning, but they have continued as lonely torchbearers. Even when widely appreciated, these have been considered unattainable on a large scale.

6.1.2 While formulating a plan, goals must be recognized and stated, development must be participative and the plan must be implementable within available resources and provide for adaptability and change if necessary. The recognized goals of development and human rights - eliminate poverty, provide dignity for all, equal opportunity for education and livelihood and access to basic services ought to find a place at every level of planning.

6.2 PARTICIPATIVE PLANNING

6.2.1 Design features in Panchayati Raj systems that enhance the quality of planning and make them truly participative are described below.

A. The Gram Sabha

The Gram Sabha is a unique mechanism provided in the Constitution for citizens to interact with the government. In most State Panchayati Raj legislations it is designed to be an instrument that holds the Gram Panchayat to account. However, for Gram Sabhas to function effectively, they have to be representative of all people living in a Gram Panchayat. In multi-village Gram Panchayats, voters of the main village often dominate the Grama Sabha and those living in outlying habitations tend to get marginalized. Several States have designed consultative mechanisms below the Gram Sabha, such as Ward Sabhas[1], which is a voters grouping at the level of a Gram Panchayat member's constituency. Others have provided for Mahila Sabhas, which allow women to conduct their own Sabhas, before attending the Gram Sabha.[2]

* Acknowledgements to Shri T.R. Raghunandan, Joint Secretary, Ministry of Panchayati Raj.
1. Best practice drawn from Kerala, Karnataka, West Bengal
2. Best practice drawn from Maharashtra.

B. Participative Citizen Surveys

Even with ward sabhas, citizens' participation is not universal. There is an opportunity cost for the poorest of the poor to participate in Gram and Ward Sabhas, as they have to often lose a days' wages. Thus a citizen survey, developed in a participative manner is a very desirable pre-requisite for preparing a participatory plan. Care has to be taken to ensure that the citizens' survey is not a top down, officially undertaken exercise. The best citizen surveys can be done under the direct supervision of elected Gram Panchayat members.[3] The citizens' survey is perhaps the most effective manner of informing a Grama Sabha about itself. A well-designed survey mechanism builds a climate of participation even before the actual planning process starts. Questionnaires can be easily designed for use at the local level.[4]

C. Democratising Panchayat Functioning

There are several design features in legislation and rules that open up and democratise processes of decision making within PRIs. These are essentially in the nature of inherent checks and balances that ensure that decision making is not captured by the elite.

Even after Gram Sabhas take decisions, there must be representatives who are accountable to them. There must be a single chain of accountability, where the Panch is accountable to the people and the chairperson accountable to Panchas. This is best structured by having the village Pradhan elected from Panchayat members. A 'leader in council' system, along with a standing committee where decisions are delegated to such committees is a strong suggested democratic design.[5]

Procedures for conduct of meetings have to be laid down meticulously. Making provision for a secret ballot requirement in the rules is necessary to ensure that those who do not feel up to articulating their concerns in an open meeting can still make their presence felt in decision-making.

There must be a strict quorum requirement.

Votes must always be recorded. There must be mandatory public display of resolutions along with the record of members voting for or against them to enable the Gram Sabha to know what members are doing for them.

It must be ensured that the Gram Panchayat is collectively responsible for its actions. Once a member knows that his position is also in jeopardy as he is vicariously responsible for wrong acts of his colleague-members in the body, there is a greater price to be paid for being a passive spectator to proceedings. Members will be induced to participate meaningfully and there will be peer pressure on one another to take right decisions.

Meetings must be made transparent. The process of decision-making should be opened up to observation. There must be full disclosure of facts in meetings, so that reasoned decisions can be taken. Prior circulation of the agenda for a

3. See Kerala & Karnataka

4. Kerala has a 9 point questionnaire with a simple yes/no answer. Karnataka has modified the GOI's BPL form for use at the Gram Panchayat level by Gram Panchayat members.

5. States that are generally known to lead in Panchayati raj, such as Kerala, Karnataka and West Bengal, have this system.

meeting and if necessary, allowing one meeting to intervene before a decision is made is a good design feature.

6.3 MAKING PLANS IMPLEMENTABLE

There are several design and management features that enhance the implementability of a plan.

A. Scale of a Gram Panchayat

There are wide variations in Gram Panchayat size from State to State. In some, they are designed to be rural municipalities through a conscious delimitation effort.6 In others, every traditional village is designed as a Gram Panchayat.7 Scaling Gram Panchayats as rural municipalities with sufficiently large populations enhances implementability. Some may point out that there is a tradeoff between larger size and intensity of peoples' participation, but providing for Ward Sabhas could offset this disadvantage.

B. Provision of Staff or Alternatives for Outsourcing

Village level planning puts very great pressure on external support, for planning as also for implementation. Successful village level planning effort has involved mobilization of volunteers and their training.8 Quite often, the 'participation' goes out of participatory planning when there is paucity of technical and capacity building support. Having the State as the monopoly supplier of capacity amounts to a weak design. Therefore, legislation or executive orders de-monopolising the provision of support to Gram Panchayats for planning and execution enhances implementability.9

C. Carrying the Concept of Outsourcing Further to Develop Local Consultant Groups to Advise Gram Panchayats

Training, operational manuals and online support from trainers may not be enough to equip Panchayats with the skills required to handle tasks associated with planning and project development, such as raising finances, examining estimates and undertaking tax mapping A skilled and responsive local consultant group could be made available to guide Gram Panchayats. Potential members of Project Facilitation Teams (PFTs) could be Government staff themselves on a sabbatical,[10] retired government officials,[11] NGO staff, ex- Panchayat members who have a reputation for mentoring and local representatives of Panchayat member federations.[12] The PFT concept, being a strategy to encourage PRI-civil society collaboration, should, however, be protected from over bureaucratization and

6. Kerala and West Bengal, (average Gram Panchayat population 28000-30000), Karnataka and Rajasthan (average Gram Panchayat population 6500),

7. AP, with a rural population of about 4 crores has 22000 Gram Panchayats. Karnataka with 3.5 crores, has only 5600 Gram Panchayats.

8. Kerala's peoples' planning action campaign of the late 90s, the most successful State wide model for Gram Panchayat level planning, involved more than 1,00,000 volunteers in a campaign mode. It is said to be the largest ever public voluntary mobilization after the total literacy campaign in Kerala.

9. TN, Kerala and Karnataka have legislative provisions allowing hiring of outside experts by the Panchayats. Kerala also has a system where govt engineers can also be hired by Panchayats and get a commission for their support.

10. This approach has been adopted in the District Poverty Initiatives Programme (DPIP) in Madhya Pradesh

11. As in Kerala

12 In Karnataka, women panchayat members have constituted themselves into a federation and are now in the process of identifying subject matter specialists from amongst themselves to undertake peer to peer training.

rigidity. Since this is largely a voluntary initiative, PFTs cannot be foisted on PRIs that do not want them.

D. Matching Resources to the Plan

A plan is meaningless without enough financial resources to implement it. However, it is not necessary that all resources should be provided from above. Three design features are essential to ensure that those who plan invariably match resources to desires.

a) The 11th Finance Commission has identified 24 items of revenue that ought to be assigned to Panchayats for collection and use. The most important of these are property taxes and user charges for drinking water and street lights. In several States, these sources are legislatively mandated, but they are neglected. Capacity is also not built in Gram Panchayats to use these legislative provisions effectively. There has to be substantial emphasis in local planning processes on estimation and collection of local revenues. This support has to be not merely in terms of broad objectives, but also by listing out specific steps in tax mapping, such as categorization of taxable property, setting tax rates for different categories, measurement of properties and even self declaration of taxes as in urban areas.[13] Collection of local revenue is not merely a gain in terms of resources; it is perhaps the most powerful motivator for a citizen to take interest in the happenings of the panchayat. Legislations that give revenue powers to panchayats must be put in place. Legislations taking away revenue powers must be done away with.[14]

If there are bailouts available for a Gram Panchayat in case they do not do something that is within their control, local planning cannot succeed. A good example is the electricity bill incurred on water supply and street lights. A soft line taken on the payment of such bills, acts as a strong disincentive to pay. If something fails because the panchayat intentionally did not exercise financial prudence, it must be allowed to fail. Only then will local accountability develop and people become responsible planners.

c) While legislative provisions introducing transparency and the duty to give information mitigate the problem of non-participatory planning to a large extent, legal provisions for fiscal responsibility are a good design feature. Elements of a fiscal responsibility regime would be the following.

Spillover works should be fully provided for
Estimates of own resources should not be optimistically raised in order to justify the taking up of new work
Commitment of funds towards works that spill over beyond the period of representation of PRI members should be restricted
Limits should be imposed on the freedom to borrow funds
The process of budget preparation should be transparent.

6.4 ADAPTABILITY TO CHANGE

Several factors may throw a plan out of gear. The most probable scenario is a natural calamity, which may mean transfer of fund allocations, leaving half done plans aside and concentrating on immediate relief. Currently, there is no formally designed mechanism that can integrate a calamity relief operation, even in a slow acting

13. Perhaps the best recent initiative in this respect has been in Karnataka.
14. Punjab and recently Rajasthan and Delhi, have taken the retrograde step of abolishing property taxes for rural areas.

calamity such as a drought, with the existing Panchayat plan. This leads to duplication of work and irregularities. Systems will have to be put in place for freque nt monitoring. This would include a social audit mechanism too. A set of options on corrective actions will also have to be put in place.

6.5 HOW THE GRAM PANCHAYAT WILL PLAN UNDER THE NEW SCHEME OF THINGS

The process of planning has to be adopted within the shortcomings seen at the Gram Panchayat level in the current system of planning. These are: -

Equal distribution of funds among members,

Projects prioritised for actual implementation tend to be mostly construction-oriented and provide contractual opportunities to Panchayat members, their friends and relatives,

Works are included in the action plan with only a token allocation or without fund allocation, under pressure from elected representatives and local contractors.

While there are good examples of people's participation at the stage of project implementation through the formation of special committees, this is more the exception than the rule,

Downward accountability for planning is poor, with low transparency and apathetic Gram Sabhas,

There is lack of long or medium term perspective. Works are chosen for the day and there is insufficient background work done in terms of assessing local resources, identifying developmental gaps, prioritising them and finding solutions.

Outgoing PRIs often make huge commitments towards new works, so that the new body is burdened by the need to provide funds for spillover works.

A. The Time Frame of A Plan and the Need for A Perspective Plan and Annual Plans

The planning exercise ought to comprise a five- year perspective plan for the period corresponding with the national plan period and annual plans that define and prioritise areas and schemes from the perspective plan. Perspective plans capture the overall picture of the Panchayat and allow people to understand what planning and governmental funding could hold out for them. Once a perspective plan is prepared, drawing out the annual action plan from it is a relatively easy exercise. The annual plan can also undergo appropriate modification within the overall perspective plan, in case there is need to make corrections.

B. Preparing the Information Base

A good plan rests on the strong foundation of a good information base. However, since a village plan has to be prepared for people by themselves through their Gram Panchayat, the information base has to be tailored to immediate planning needs. The broad structure of the information base is given below.

a) Citizens' Data Bases

Information on citizens is a basic tool for Gram Panchayat level planning, but relevant information is rarely available. Citizens' data bases are now prepared piecemeal by each department and are almost always a top down exercise in which Panchayat members are not involved. Data is usually in self-contained compartments and even if available in

electronic form, cannot be easily correlated. They are almost always inaccurate, because data collection is seen as a fresh event and not as part of a continuous process of refinement of existing data. Deadlines prescribed from the top do not allow enough time for quality work and there are no consistency checks. Because officers with no Gram Panchayat involvement collect data, there is a widespread impression that exaggeration of poverty could get more benefits for people. By the time data is compiled into secondary data, it is out of date and is merely descriptive of past trends.

Requirements of data at the Gram Panchayat level are quite different. The field reality is dynamic and constantly changing. What the Gram Panchayat requires are specifics with names and faces, rather than statistics and it is needed here and now. The process of data collection on citizens must be so dealt with that Gram Panchayats see in it their own empowerment. In that case, they will begin to feel the need to collect information about their own villages. This can be achieved if time is spent on developing a climate of participation. The following strategies comprise a good design for data collection by a Gram Panchayat for itself.

Everybody involved ought to know that the Grama Panchayat will own the data it collects. The justification for data collection and ownership at the Gram Panchayat level is that everybody ultimately is a member of some Grama Sabha and only if Gram Panchayats own data will they take on the responsibility of updation.

Gram Panchayats could seek help for designing the survey. This enhances participation. A basic framework should be developed and local initiatives and add-ons encouraged;[15]

Data collection must involve local elected representatives. Gram Panchayat members, or their literate assistants could carry out surveys. They must be trained effectively.

Data collection is a process, not an event. It must be understood that chasing 100 per cent accuracy at one go is futile; data needs to be continuously refined.[16]

Gram Panchayats could begin to act on their findings even before data is correlated. They must be encouraged to undertake interventions even as the survey throws up results. When Gram Panchayats generate data and use it to transform their lives they will update it on their own;

Though it may look ambitious, creating a citizens level data base, however elementary, at the Gram Panchayat level has been done in some States and can be replicated elsewhere. Some strategies can telescope the steps of this process as follows.

Desegregating Census Data

Census data is generally seen to be accurate as people do not exaggerate or give false data during a census, because they do not see any immediate benefit flowing from it. However, census does not recognize the Gram Panchayat as a unit for data collection. If a State can prepare a correlation chart linking villages and habitations as recognized by the census with Gram Panchayats, the wealth of census data

15. This has happened in Karnataka and Kerala
16. In Kerala's Nedumassery Gram Panchayat, which pioneered the 9 point poverty tracking system, the initial survey was repeated nine times by the panchayat before they were satisfied about its accuracy,

available in the public domain can very easily be segregated Gram Panchayat wise. Even if this does not give details of individual families, it is accurate and unbiased data that could provide a strong foundation for planning, before even a citizens' data base is prepared.

Using Voters Lists as the Basis for Tracking Families

Voters' lists, which are continuously and systematically prepared and periodically updated, can be used as the basis for tracking families for collection of data. The voters list could be broken up into Gram Panchayat constituency sized lists, which can be used by members to collect data

Recompiling Departmental Data Gram Panchayat Wise

Excellent data bases on disease incidence and maternal and child healt h are available at the PHC level. Unfortunately, this is not made available at the Gram Panchayat level. It could be easily recompiled Gram Panchayat wise and lodged in the Gram Panchayat for its use.

b) A Natural Resources Data Base

Systems for collecting natural resource data are already available, often supported by sophisticated and expensive GIS based systems. In several States, the question is more about making this data available to Gram Panchayats for planning purposes. The simplest and quickest means would be to transfer data from an existing GIS system into a series of static slides that can be given to the Gram Panchayat on a CD. Data can be updated every 6 months.

c) A Property Tax Data Base

This data base would essentially consist of the dimensions, quality of construction and the end use of properties that are within the Gram Panchayat's power to tax.[17] Almost all State laws give the power to tax houses to Gram Panchayats. Rules are also laid down regarding the manner and frequency of property tax estimation. An accurate house list is a good starting point for tax mapping.18

d) A Physical Infrastructure Data Base

This is a data base of all government infrastructure available in the Gram Panchayat. It can be either non-spatial or spatial. If spatial, data collection could be linked with the compilation and preparation of the natural resources data base.

C. Use of IT in the Maintenance of Data Bases

IT has tremendous potential in the maintenance of data bases. Basically, the issue here is not one of connectivity as a priority, but of positioning IT as a tool that enhances the quality of decision making at the Gram Panchayat level. Several simple processes, such as giving a standard identity number to a family, can help in linking one data base with another, adding greater value.

D. Ward and Gram Sabhas as Originators of the Planning Process

Ward and Gram Sabhas are the nuclei around which decentralized planning is built. However, it would be optimistic to assume that people are straightway equipped to undertake the potentially complicated exercise of

17. Software to undertake this is already available with the NIC.

18. Data bases can also be linked to add further value. For instance, in some Gram Panchayats in Karnataka, entirely as a part of local innovation, photographs of families standing in front of their house have been taken as part of the citizens survey. This could be used to link the property tax data base with the citizens data base

planning. There has to be a balance between unstructured and structured approaches. A broad sequence of steps for planning is suggested below.[19]

a) Stage 1: Preparation of a 'wish list':

Ward and Gram Sabhas could identify needs and generate suggestions for plans and programmes from people. Initial meetings could be largely unstructured, which would allow every section to articulate what it would ideally want if it had the resources.

b) Stage 2: Situation Analysis:

Once the 'wish list' is prepared, a project facilitation team could aid the Gram Panchayat to undertake an on ground situation analysis, which would identify and document the current state of things. There are several established models for undertaking situational analysis, like the transect walk approach, which, if properly sequenced, could be conducted in conjunction with the citizens survey. Undertaking tax mapping is generally not considered part of the situational analysis, but it must be invariably done. The most easily identifiable taxable resources ought to be mapped. This includes properties, such as houses, shops and industrial establishments.

c) Stage 3: Identification of Gaps:

After the situation analysis is done, it is compared with the wish list to throw up gaps that require intervention.

d) Stage 4: The Development Workshop:

Discussing strategies and solutions to bridge these gaps should go hand in hand with discussions on resource allocations; this could be followed by firming up implementation strategies. These aspects of planning should be undertaken through a development workshop, (which is a special and wellstructured meeting of the Gram Sabha), or sub-committees constituted by it. The workshop would develop a shelf of projects to be implemented over the period for which the perspective plan is developed. The outcome of the developmental workshop would be a plan with sub-projects listed in priority, all of which have the ir genesis in discussions within Ward and Gram Sabhas.

e) Stage 5: Processing of the Developmental Plan:

The draft plan generated in the developmental workshop can be presented before the Gram Panchayat, as the starting point for discussions on plan development. After finalisation, the Perspective Plan prepared by the Gram Panchayat could be placed before the Gram Sabha for final discussion and ratification.

E. Content of the Gram Panchayat Level Plan:

The fundamental principle to follow is that everybody must be able to understand the plan, more so the people of the village and Gram Panchayat members. Therefore the plan ought not to be written in a complicated fashion. Still, chapters in the Gram Panchayat level plan could follow a broad pattern.[20] Drawn from best practices, as also shortcomings seen on

19. These are adapted from the peoples' planning action campaign of Kerala

20. The only State that now has a system of detailed Gram Panchayat level plans is Kerala, where the plan follows a broad pattern of stating the human development condition, the resources available and action points for each department.

the field, even with good models, given below is a possible framework for chapterisation of the plan.

a) Chapter 1; "Who are we?"

This chapter will indicate data collected from citizens as also data compiled on them elsewhere and now transferred to the Gram Panchayat, such as census and health related data from the PHC. This could be analysed in a very simple way,[21] for the understanding of people.

b) Chapter 2: "What do we have?"

The natural resources and infrastructure data base could be described here. This chapter could also list out gaps identified by people in ward and Grama Sabhas.

c) Chapter 3: "How do we want to rule ourselves?"

This looks at improving aspects of governance in the Gram Panchayat. In essence it will state the commitment of the Gram Panchayat to be transparent, to disclose information suo moto, be democratic in internal functioning and to consult people for the plan and submit progress to them. The chapter could also give a citizens charter for services that the Gram Panchayat is expected to provide, such as time limits for giving certificates and licences and processing other requests.

d) Chapter 4: "Who are our poor and how will be look after them?"

The profile of the poorest of the poor in the Gram Panchayat and special needs of SCs, STs, women and children can be discussed and strategy and provisions made for them described in a separate anti-poverty sub-plan, if required.

The next six chapters can deal with various aspects of development, seen from the Gram Panchayat point of view. Unlike the Kerala approach, it is better to slot priorities and plans into departmental compartments. Chapters can be focused on providing a number of 'securities' for people. There can be add-ons too. The chapters could be as follows.

e) Chapter 5. Food Security

This chapter would look at the PDS, ICDS, the midday meal programme[22] and the concept of foodgrain banks. It would also look at unfunded, but equally priority areas, such as getting rid of food taboos that are a critical factor in the poor health status of women.

f) Chapter 6. Water Security

The crying need for water in rural areas is perhaps priority number one for most Panchayats. Yet, local approaches to water conservation are spread across several programmes that deal with drinking water and water conservation for agriculture separately. This chapter could adopt a unified approach to water and deal with cross-sectoral convergence of a *water security approach,* where the emphasis is on water conservation and efficient use, for agriculture or drinking water.

21. Some of the best analyses of data collected, have been done by children. A good example are family surveys undertaken by children themselves in several Panchayats in Karnataka, with a view to detecting and eliminating child labour as also ensuring 100 per cent attendance in school.

22. This could also be considered under education.

g) Chapter 7. Health Security

This chapter could look at both he alth care and public health. With respect to the latter, Gram Panchayats are almost universally entrusted with civic functions-maintaining cleanliness in the interests of public health, (maintenance and cleaning of streets, drainage, garbage collection and disposal and vector control through spraying). Two more items that are family oriented, but have an impact on public health, (provision of toilets, individual and group and smokeless chulhas) can be added.

h) Chapter 8. Education Security

This chapter could look at all aspects of education relating to the Gram Panchayat, including continuing education and adult literacy.

i) Chapter 9. Livelihood Security

This chapter could deal with the entire gamut of the primary sector and rural industries. Planning could encompass the SGRY and the SGSY

j) Chapter 10. Infrastructure Security

Infrastructure gaps in the Gram Panchayat and the manner of dealing with them could be dealt with in this chapter.

k) Chapter 11. "The money we have"

In this chapter, the extent of funds available for the plan could be stated out in detail. While the own revenues aspect of the chapter can be undertaken internally, preparation of an estimation of funds that would come to the Gram Panchayat would be a challenging task, because more often than not, higher governments do not keep their commitments on funding and frequently apply unforeseen plan cuts. The fiscal responsibility norms that are proposed for Gram Panchayats elsewhere in this paper will also need to have corresponding commitments that higher governments would keep the promises they make with respect to funding Panchayats.

l) Chapter 12. "How we will go about implementing the plan"

This chapter would lay out the process of "projectisation", (the drawing out of priorities and converting them into projects with time frames and monitoring schedules, and if required, preparation of estimates and tendering).

m) Chapter 13. "How we will measure our progress"

Here, the mechanism of monitoring, the frequency and process of social audit, how regular audits are to be done and reports disclosed could be elaborated. Matrices for tracking progress, which may extend to keeping track of every family in anti poverty initiatives, could be laid out in this chapter.

F. Preparation of the Annual Plan:

The Annual Plan can be derived from the perspective plan. Once the perspective plan is prepared, prioritisation of programmes and beneficiary lists for implementation during the year will be relatively easy. The Gram Panchayat will work out an implementation plan and provide time limits within which milestones in prioritisation, plan preparation and implementation are achieved. Once performance criteria are worked out, they can be monitored in subsequent meetings of ward and gram sabhas.

ANNEXURE-I

No. N-11017/7/2004-PC
Government of India
Planning Commission

Yojana Bhavan, Sansad Marg,
New Delhi, 4th August, 2004.

ORDER

Subject: Setting up of an Inter-Ministry Task Group on Redressing Growing Regional Imbalances

In pursuance of the decision taken by the Prime Minister for setting up Inter Ministry Task Groups to consider action needed for those areas of the National Common Minimum Programme where the agenda is cross-sectoral and requires action encompassing a number of Ministries / Departments, it has been decided to set up an Inter-Ministry Task Group on Redressing Growing Regional Imbalances.

2. The composition of the Task Group is as under:

(i)	Secretary, Planning Commission	- Chairman
(ii)	Secretary, Ministry of Finance (Department of Expenditure)	- Member
(iii)	Secretary , Department of Rural Development	- Member
(iv)	Secretary, Department of Agriculture and Cooperation	- Member
(v)	Secretary, Ministry of Steel	- Member
(vi)	Secretary, Department of Coal	- Member
(vii)	Secretary, Department of Mines	- Member
(viii)	Secretary, Department of Power	- Member
(ix)	Secretary, Ministry of Road Transport & Highways	- Member
(x)	Secretary, Department of Elementary Education & Literacy	- Member
(xi)	Secretary, Department of Health	- Member
(xii)	Secretary, Department of Family Welfare	- Member
(xiii)	Secretary, Ministry of Water Resources	- Member
(xiv)	Sectoral Officer-in-Charge, Prime Minister's Office	- Member
(xv)	Principal Adviser / Adviser (MLP), Planning Commission	- Member
(xvi)	Adviser (FR)	- Convenor

3. The Terms of Reference of the Task Group would be developed in the first meeting of the Task Group by the Group itself keeping in view the objectives and priorities laid down in the NCMP relating to the subject of the Task Group. In addition, the Group will give its specific recommendations / suggestions on the following issues:

Addressing growing regional imbalances both among and within States through fiscal, administrative, investment and other means and correcting distortions in Plan allocations and Central Government assistance and consider creation of a Backward States Grant Fund to create productive assets in these States.

All non-statutory resource transfers from the Central Government to be weighted in favour of poor and backward States but with performance parameters.

Special programmes to be taken up for social and physical development of the poorest and most backward States of the country on a priority basis.

The issue of mineral royalities to States to be reviewed.

4. The Task Group may constitute a support group of domain specialists in the Ministries (i.e., officers in the rank of Joint / Additional Secretaries) in its first meeting to assist it in spadework and in preparing and finalizing its Report.

5. Each Ministry / Department concerning the subject of the Task Group should make a written presentation to the Task Group on the possibilities that exist in their areas of concern.

6. The Task Group will have powers to co-opt / associate professionals / domain experts with the Group. The Task Group will also have powers to set up Sub Groups / Steering Committees of officials / non-officials to finalise its views on specific issues. The Task Group should, however, encourage active participation of State Governments in areas of concern of the Group.

7. Expenditure of members on TA / DA in connection with meetings of the Task Group will be borne by the Ministry / Department / State Government to which the members belong. In the case of private members, TA / DA will be borne by the Planning Commission as admissible to Class I officers of the Government of India.

8. The Task Group will submit its report to the Planning Commission within **ninety days** from the date of its constitution.

The Task Group will be serviced by the Planning Commission.

(Rajan Katoch)
Joint Secretary to the Govt. of India

To

All Members of the Task Group

Copy to :

1. Deputy Chairman, Planning Commission
2. Minister of State (Planning)
3. Members, Planning Commission
4. Cabinet Secretary
5. Secretary to the President of India
6. Principal Secretary to Prime Minister
7. Joint Secretary to Prime Minister (Sh. R. Gopalakrishnan) with reference to his U.O.No. 360/31/C/20/04-ES.II dated 29th July 2004.
8. Principal Adviser / Advisers, Planning Commission

ANNEXURE-II
APPROACHES OF COMMITTEES ON REGIONAL IMBALANCE

Committee on Dispersal of Industries: Perhaps the first attempt to determine backwardness of an area was made by the Committee on Dispersal of Industries, set up in pursuance of a decision taken at the meeting of the Small Scale Industries Board of April 1960, to examine the question of industrialization of rural and industrially under-developed areas through small and medium scale industries. According to this Committee, unemployment was the general criterion applied to identify backward areas in Europe and USA. Since unemployment is a common feature all over the country, the committee took into account several economic criteria based on available data and their correlation for determining the backwardness of an area.

It also narrowed down the unit or area to be analysed as the district, since data on different criteria examined by it was available only up to the district level and not below. The criteria recommended by the Committee for determining backwardness were as follows:

Poverty Indicated by:

* low per capita income; and
* low per capita consumption

b) High density of population in relation to the development of productive resources and employment opportunities indicated by the following factors:

* High ratio of population to cultivable land (50 per cent or more below the national average of per capita land holding considered as backward)
* Low percentage of population engaged in output (50 per cent or more below the national average considered as backward)
* Absence or under-exploitation of other natural resources - minerals, forests and animals
* Low percentage of population engaged in secondary and tertiary sectors (25 per cent below the national average considered as backward)
* Low ratio of urban to rural population (districts where the ratio was less than 50 per cent of the national average considered as backward)
* Low percentage of factory employment (50 per cent below the national average considered backward)

Poverty of communication indicated by small lengths of railways and metalled roads per square mile (districts where the railway and road mileage fell below 50 per cent of the national average considered as backward)

High incidence of unemployment and gross underemployment
Consumption of electric power

Patel Committee Report: A Joint Study Team to suggest suitable steps for the development of 4 eastern district of Uttar Pradesh - Ghazipur, Azamgarh, Deoria and Jaunpur was appointed by Planning Commission in January, 1964. This study is known as the Patel Committee Report. The Study Team suggested the following indicators of development:

a) Agricultural output per capita of rural population and yield per acre of principal crops
b) Irrigated area
c) Industrial development - percentage of population dependent on industry and industrial income per capita
d) Electrification
e) Road mileage
f) Facilities for education and health
* Percentage of school children going to primary schools
* Hospital bed facilities

Districts inhabited by a specified percentage of tribals, Scheduled Castes and other backward class populations were regarded as backward irrespective of information on the above indicators.

Planning Commission Study Group: In the context of the formulation of the earlier Draft Fourth Plan (1966-71), the Planning Commission had requested State governments to devote special attention to the subject of area development. In this connection, backward areas were classified under five categories

a) Desert areas
b) Chronically drought affected areas
c) Hill areas including border areas
d) Areas with high concentration of tribal population
e) Areas with high density of population with low levels of income, employment and living, etc.

As regards category (e) above, a Study Group was appointed to review a set of indicators of regional development, which was furnished at the instance of the Planning Commission by State governments. The Study Group recommended the following 15 indicators:

a) Total population and density of population
b) Number of workers engaged in agriculture including agricultural labourers as percentage of total workers
c) Cultivable area per agricultural worker
d) Net area sown per agricultural worker
e) Percentage of gross irrigated area to net sown area
f) Percentage of area sown more than once to net sown area
g) Per capita (rural population) gross value of agricultural output
h) Establishments (manufacturing and repair) using electricity
i) Number of workers per lakh of population employed in registered factories
j) Mileage of sur faced roads
k) Number of commercial vehicles registered in a district
l) Percentage of literate population
m) Percentage of school-going children
n) Number of seats per million population for technical training
o) Hospital beds per lakh of population

Pande Committee Report: The Pande Committee which was set up with the intention of ultimately suggesting a strategy by which existing regional imbalances could be minimized or even eliminated by encouraging the establishment of industries of all sizes in selected backward areas or regions through financial and fiscal incentives including investments from financial and banking institutions submitted its Report in 1968. Since the position regarding availability of data had not changed much since the submission of a report by the Committee on Dispersal of Industries, the Pande Committee opted for consideration of criteria for which data was available

up to the district level. Keeping in view general fund constraints, it was felt that it would be desirable to select certain backward districts only in industrially backward States, which may then qualify for special treatment by way of incentives for industrial development. The criteria adopted for this purpose were as follows:

a) Total per capita income
b) Per capita income from industry and mining
c) Number of workers in registered factories
d) Per capita annual consumption of electricity
e) Length of surfaced road in relation to the population and area of the State
f) Railway mileage in relation to the
* Population and
* Area of the State

As regards identification of backward districts in industrially backward States and Union Territories the following criteria were recommended:

Districts outside a radius of about 50 miles from large cities or large industrial projects
Poverty as indicated by low per capita income starting from the lowest to 25 per cent below the State average.

High population density in relation to utilization of productive resources and employment opportunities as indicated by:

* Low percentage of population engaged in secondary and tertiary activity (25 per cent below the State average to be considered as backward)

* Low percentage of factory employment (25 per cent below the State average to be considered as backward)

* Non and/or under utilization of economic and natural resources like minerals, forests etc.

Adequate availability of electric power or likelihood of its availability within 1-2 years

Availability of transport and communication facilities or likelihood of their availability within 1-2 years

Adequate availability of water or likelihood of availability within 1-2 years

Wanchoo Committee Report: The Wanchoo Committee was the second Working Group appointed by the National Development Council in 1968 to make a careful study of the issue of regional imbalance. The terms of reference of this Group were:

* To consider the nature of concessions to be given for encouraging the development of industries in backward regions and in particular to examine procedural, financial and fiscal incentives.

* To consider the role of State governments and financial institutions in the development of industries in backward regions

* To examine the type of disincentives that should be introduced to avoid concentration in metropolitan or highly industrialized areas.

The Committee went on to recommend a package of concessions - procedural, financial and fiscal - for encouraging the development of industries in backward regions. Reports of the two Working Groups were considered by the National Development Council, which in consultation with financial institutions evolved a set of criteria for identification of industrially backward districts, in which minimum infrastructure facilities were available. These were:

a) Per capita foodgrain /commercial crop production depending on whether the district was predominantly a producer of foodgrains/ or cash crops (for interdistrict comparisons, conversion rates between foodgrains and commercial crops were to be determined by the State Government where necessary).
b) Ratio of agricultural workers to population
c) Per capita industrial output (gross)
d) Number of factory employees per lakh of population or alternatively number of persons engaged in secondary and tertiary activities per lakh of population
e) Per capita consumption of electricity
f) Surfaced road or railway mileage in relation to population

Report on Backward Areas: The Planning Commission constituted a committee headed by Prof. Sukhamoy Chakravarty in October 1972, but it could not submit its final report. It observed, "the approach to the identification of backward areas has to be based on a set of what may be called partial indicators of development and underdevelopment. The report further expatiated at length on choice of data. "The selection of a set of indicators is a crucial decision. Only such indicators should be chosen which will best express relative variations in development among various area units. However, the type and number of indicators that may be used for this purpose is ultimately circumscribed by data availability. Further, the indicators chosen should cover a range of development aspects and should not seriously overlap each other. So far as the unit area is concerned, the district was the obvious choice since at this level not only sufficient data is available, but it is also an administrative organization for the formulation and implementation of plans". After examining comparable data available at the district level, the following variables were chosen for the analysis:

a) Density of population per sq. km. of area
b) Percentage of agricultural workers to total working force
c) Gross value of output of foodgrains per head of rural population
d) Gross value of output of all crops per head of rural population
e) Percentage of total establishments using electricity to total number of establishments (manufacturing and repair)
f) Percentage of household establishments using electricity to total household establishments
g) Percentage of non-household establishments using electricity to total household establishments
h) Number of workers in registered factories per lakh of population
i) Length of surfaced roads per 100 sq. kms. of area
j) Length of surfaced roads per lakh of population
k) Percentage of male literates to male population
l) Percentage of female literates to female population
m) Percentage of total literates to total population

National Committee on the Development of Backward Areas (NCDBA): The NCDBA appointed by the Planning Commission in November, 1978 under the Chairmanship of Shri B. Sivaraman, Member, Planning Commission submitted its deliberations in the form of 11 Reports on different aspects of backwardness in 1980-81. It observed that the concept of backwardness has to be operationalised in a manner that is least open to dispute and most likely to attract consensus. It recommended that the primary unit for identification of backward areas should be the development block. The Committee recommended that the following types of problem areas should be treated as backward for the purposes of planning.

a) Chronically drought prone areas
b) Desert areas
c) Tribal areas
d) Hill areas
e) Chronically flood affected areas
f) Coastal areas affected by salinity

The six categories listed above were treated as six types of fundamental backwardness. An area could suffer from the handicap of more than one type of fundamental backwardness.

Hyderabad - Karnataka Development Committee: The Government of Karnataka appointed a Committee know as the 'Hyderabad Karnataka Development Committee' in May, 1980 under the Chairmanship of Shri Dharam Singh. The Committee submitted its report in October 1981. For identification of the backwardness of an area, it selected 22 indicators for measuring inter-district variations in the level of development:

a) Density of population
b) Percentage of urban population to total population
c) Percentage of non-agricultural workers to total workers
d) Net area sown as per cent of total geographical area
e) Total cropped area as per cent of net sown area
f) Net sown area as per cent of cultivable land
g) Average yield per hectare in cereals
h) Average yield per hectare in pulses
i) Average yield per hectare in oilseeds
j) Area irrigated as per cent of net sown area
k) Number of industrial establishments as per cent of State total
l) Number of vehicles per lakh population
m) Number of bank offices per lakh population
n) Value of turnover per regulated market
o) Percentage of literates in total population
p) Number of schools per lakh population
q) Number of university educational institutions per lakh population
r) Number of health units per lakh population
s) Number of hospital beds per lakh population
t) Number of pumpsets energized as per cent of State total

u) Road length per 100 sq. kms. of area

v) Number of towns and villages electrified as per cent of total number of towns and villages

Fact Finding Committee on Regional Imbalance: This Committee was appointed in Maharashtra in August 1983 chaired by Dr. V.M. Dandekar. It submitted its report in April, 1984 and identified the following criteria:

a) Per capita net domestic product

b) Per capita consumer expenditure

c) Per capita net domestic product from agriculture

d) Per capita net domestic product from registered manufacturing

e) Proportion of urban population

f) Proportion of workers in non traditional occupations

g) Consumption of electricity

h) Per capita bank credit

i) Literacy

j) Proportion of weaker sections, i.e., Scheduled Tribes, Scheduled Castes and agricultural labourers

Committee for the Development of Backward Areas: The Committee for the Development of Backward Areas of Gujarat was appointed in December 1983 chaired by Dr. I.G. Patel. It submitted its report in August 1984. It used the following 25 indicators:

Economic Indicators

a) Agriculture

* Net cropped area per agricultural worker
* Percentage of area sown more than once to net area sown
* Percentage of gross irrigated area to gross cropped area
* Number of electric pump sets and diesel engines per 1000 hectares of gross cropped area
* Number of tractors per 1000 hectares of gross cropped area
* Percentage of villages having milk co-operative societies to total inhabited villages

b) Urbanization

* Percentage of urban population to total population

Industry

* Number of registered factory workers per lakh population
* Number of registered small scale industrial units per lakh population
* Percentage of workers in household industries to total workers
* Percentage of secondary and tertiary workers to total workers

Infrastructure Indicators

d) Power

* Percentage of population of electrified villages and towns to total population of talukas

e) Transport and Communication

* Length of surfaced pucca roads per lakh population
* Length of surfaced pucca roads per 100 sq. kms. of area
* Percentage of villages having all weather facility to total inhabited villages
* Number of post and telegraph offices per 100 sq. kms of area
* Number of bank offices of scheduled commercial banks per lakh population
* Number of cooperative banks and primary agr icultural cooperative credit societies per lakh population

Quality of Life Indicators

f) Education

* General literacy rate of taluka
* Female literacy rate of taluka
* Rural literacy rate of taluka
* Number of secondary and higher secondary schools per lakh population

g) Health

* Number of hospital beds per lakh population
* Percentage of villages having an allopathic or ayurvedic doctor to total inhabited villages
* Percentage of villages having drinking water facility to total inhabited villages

Committee to Identify 100 Most Backward and Poorest Districts in the Country: This committee was set up as part of the mandate to fulfill the Common Minimum Programme announced in 1996 which included preparation of a Special Action Plan for infrastructure development in rural areas in the 100 most backward and poorest districts of the country. The criteria used by the committee included the following:

Indicators of Social Infrastructure

* Number of primary schools
* Percentage of female literates
* Number of primary health sub-centres
* Number of community health workers
* Infant Mortality Rate
* Percentage of villages having potable water supply

Indicators of Economic Infrastructure

* Percentage of villages with pucca roads
* Number of railway stations
* Percentage of villages electrified
* Percentage of villages with post offices
* Bank branches per lakh population
* Cropping intensity
* Value of output per hectare
* Percentage of villages engaged in non-agricultural activities

Weights were given to each of these indicators. As the poorest districts had to be identified and district-wise data for poverty was not available, a sensitivity analysis was carried out by assigning different weights to the poverty ratio (region-wise). For each assumption arising from a set of weights, an aggregated index of poverty and backwardness was derived for each district. Districts were then ranked in ascending order of poverty and backwardness as indicated by the aggregate index. A number of districts continued to be most backward and deprived regardless of the weights used in the sensitivity analysis. After due deliberation, the Committee initially decided that any district which came within the top 100 ranks in terms of deprivation under any of the scenarios considered would qualify for inclusion among the most backward districts in the country. Regardless of the relative importance given to different indicators, these districts will continue among the poorest and most backward in the country.

National Commission on Population

The National Commission on Population has worked out a composite index and ranked 569 districts of the country using the following variables:

1. Percentage of decadal population growth rate
2. Percentage of births of order 3 and above (in place of the total fertility rate)
3. Percentage of current users of family planning methods
4. Percentage of girls marrying below 18 years of age
5. Sex ratio
6. Percentage of women receiving skilled attention during deliveries
7. Percentage of children getting complete immunization
8. Female literacy rate
9. Percentage of villages not connected with pucca road (estimated)
10. Percentage coverage of safe drinking water and sanitation(estimated)
11. Percentage of births registered (estimated)
12. Percentage of deaths registered (estimated)

ANNEXURE-III
PLANNING COMMISSION
(Financial Resources Division)

A Background Note on Gadgil Formula for distribution of Central Assistance for State Plans

Prior to the Fourth Five Year Plan, allocation of Central Assistance for State Plans was based on a schematic pattern and there was no definite formula for allocation. In view of the general demand for an objective and transparent formula for allocation of Central Assistance for State Plans, a formula known as the Gadgil formula was evolved in 1969, which was adopted for distribution of Plan assistance during the Fourth and Fifth Five Year Plans. This formula was modified in 1980 and the modified formula became the basis for allocation during the Sixth and Seventh Five Year Plans. The modified formula was again revised in 1990 and formed the basis for allocation of Central Assistance for 1991-92 only. Following representations, the formula was further revised in 1991. The Gadgil Formula (1991), has been in operation during the Eight Plan period.

Gadgil Formula (1991)

The formula is known as the Gadgil-Mukherjee Formula. The main features of the formula are the

following:
From total Central Assistance, set apart funds required for externally aided schemes.
From the balance, provide reasonable amounts for Special Area Programmes

Hill Areas
Tribal Areas
Border Areas
NEC Other Programmes

III. From the balance, give 30 per cent to the Special Category States.
IV. Distribute the balance among the non-special category States as per the following Criteria Weight:

Criteria	Weights (%)
1. Population (1971)	60
2. Per capita income	25
(a) Deviation method covering all States	20
(b) Distance method covering all States	5
3. Performance	
(a) Tax effort;	
(b) Fiscal management and	
(c) Progress in respect of national objectives	
4. Special Problems	7.5

Under the criterion of progress in respect of national objectives, the approved formula covers four objectives

(i) Population control and maternal and child health
(ii) Universalisation of primary education and adult education
(iii) On-time completion of externally aided projects and
(iv) Success in land reforms.

Weights have been assigned separately for each of these within the overall weight of 7.5 per cent as under:

Items	Weights
a. Tax policy	2.5%
b. Fiscal management	2.0%
c. National objectives	3.0%
i. Population control	1.0%
ii. Elimination of illiteracy	1.0%
iii. On-time completion of externally aided projects	0.5%
iv. Land reforms	0.5%

In respect of special problems, there are no specific criteria and it was left to the Planning Commission to use its discretion in allotment.

ANNEXURE- IV
Functions and Funds to be Transferred to PRI Levels

Village Level

- Programs where community interest is directly involved and community participation or community supervision and control are necessary. These are:

a) Employment oriented programs like food for work, PMGY etc.
b) Development and management of micro watersheds
c) Soil and water conservation programs
d) Creation of water communities to regulate water wastage and optimize water distribution and introduction of techniques like drip and sprinkler irrigation
e) Creation of village level power distribution infrastructure and provision of rural electricity services
f) Rural health, sanitation and drinking water supply infrastructure and habitat improvement programs
g) Education and health committees to oversee the work of teachers in primary schools, clear salary payments and supervise nutritional programs like ICDS

B. Block Level

a) Junior high schools and payment of teachers' salaries in these institutions
b) Agricultural extension
c) Scheduled Caste, Scheduled Tribe and Backward Class hostels and ashram schools

C. District Level

a) High schools
b) PHCs and CHCs
c) Inter village roads and rural infrastructure programs like the PMGSY

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8. Backward Districts Intiative - Rashtriya Sam Vikas Yojana - The Scheme and Guidelines for Preparation of District Plans, Planning Commission (MLP Division), Vol. XVIII, No. 4, Pp. 746-750.

Statistical Supplement

This statistical supplement provides information relating to Education in India, drawn from the following sources:

(A) Selected Educational Statistics 1990-91, Planning, Monitoring and Statistics Division, Department of Secondary & Higher Education, Ministry of Human Resource Development, Government of India, New Delhi, Vol. XVIII, Nos. 1&2, Pp. 316-427.

(B) Selected Educational Statistics 2003-2004, Planning, Monitoring and Statistics Division, Department of Secondary & Higher Education, Ministry of Human Resource Development, Government of India, New Delhi, Vol. XVIII, Nos. 1&2, Pp. 316-427.

(C) Analysis of Budgeted Expenditure on Education 1998-99 to 2000-01, Government of India, Ministry of Human Resource Development, (Department of Secondary & Higher Education), Planning & Monitoring Unit, New Delhi, Vol. XVIII, Nos. 1&2, Pp. 316-427.

(D) Analysis of Budgeted Expenditure on Education 2002-03 to 2004-05, Government of India, Ministry of Human Resource Development, (Department of Secondary & Higher Education), Planning & Monitoring Unit, New Delhi, Vol. XVIII, Nos. 1&2, Pp. 316-427.

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