

An immediate consequence of drought is crop loss which in turn affects gainful employment of the affected population resulting in loss of income and thus accessibility to food and other basic necessities of life. For mitigating the hardships of the people affected by drought, provision of reasonable employment, therefore, becomes an essential part of the strategy to meet the challenge of drought successfully.

1.2 Loss in crop production is assessed as the difference between the anticipated production in accordance with past trend and the actual production. Loss in production of various crops reported on account of drought of 1987 is shown in Table 29. It will be seen that maximum loss in production was recorded in the case of rice by about 5.07 million tonne, wheat by 5.9 million tonne and coarse cereals by 3.76 million tonne. Significant loss was also reported in production of groundnut (0.6 million tonne), cotton (1.8 million bale), jute and mesta (2.4 million bale). The actual foodgrain production was 138.97 million tonne in 1987-88 as against trend level production of 154 million thus resulting in an estimated loss of 15.03 million tonne.

**Table 29: Loss of Crop Production due to Drought, 1987-88**

(million tonne)

S.No.	Crop	Trend Production*	Actual Production	Loss in Crop Production	Value of Loss in Crop Production** (Rs. in crore)
1.	Rice	61.50	56.43	5.07	1462.5
2.	Wheat	50.9	45.00	5.90	934.2
3.	Coarse Cereals	29.6	25.84	3.76	621.0
4.	Pulses	12.0	11.70	0.30	160.0
5.	Total Foodgrains	154.0	138.97	15.03	3177.7
6.	Groundnut	6.2	5.60	0.60	198.9
7.	Cotton (million bale)	8.3	6.50	1.80	119.3
8.	Jute and Mesta (million bale)	9.1	6.70	2.40	103.7
	Total				3599.6

Note: \* Trend production was obtained by fitting an exponential function of the form  $y = a.b$  from the time series data for 1967-68 to 1986-87 and projecting it for 1987-88.

\*\* Value has been assessed at minimum support/procurement prices fixed by the GOI. Value at market prices would be higher.

1.3 Agricultural income consists of not only income from crop production but also from animal husbandry, forestry and allied activities. Drought affects production of crops as well as livestock since supply of fodder is also adversely affected by drought conditions. A loss in agricultural income computed for different drought years may be seen in Table 30. It would be seen that the loss in agricultural production during different drought years ranged from Rs. 1,066 crore to Rs. 8,970 crore at current prices. This level of loss is very significant during drought of 1987 as it accounts for about 9.6 per cent of the contribution of agriculture to the Gross Domestic Product (GDP).

1.4 Loss in employment is due to the following factors: (a) lack of coverage of area under cultivation, and (b) reduction in agricultural operations due to crop loss. Table 31 shows the reduction in manday in the agricultural sector during 1987-88 due to drought. Rice and *bajra* crop failure contributed to large scale loss of employment followed by cotton, jute and groundnut crops. The total loss in employment was estimated at 1,250 million manday.

1.5 There is already substantial under-employment in normal times in the agriculture sector which provides nearly 70 per cent of all employment in the country. The drought of 1987 disrupted agricultural operations on a massive scale in all the drought affected States and this led to the deprivation of income of the vulnerable sections of the society. The subsistence of small and marginal farmers was affected with the result that they had to be provided with employment for their livelihood. The employment opportunity for agricultural labourers in the farm sector was reduced forcing them to seek employment on relief works and in non-agricultural sectors. A fall in the agricultural output led to decline in non-agricultural employment potential also. A steep decline in the income of the poorer sections of the society coupled with anticipated rise in general price level

**Table 30: Loss in Gross Domestic Product due to Agriculture in Selected Drought Years, 1965-66 to 1987-88.**

(Rs. in crore)

S.No.	Year	GDP from Agriculture at 1970-71 Prices			Loss in GDP from Agriculture at Current Prices	Loss as Percentage of GDP from Agriculture
		Actual	Trend	Loss		
1.	1965-66	12698	14094	1396	1075	9.9
2.	1966-67	12567	14410	1843	1714	11.9
3.	1972-73	15601	16524	923	1066	5.6
4.	1974-75	16445	17293	848	1450	4.9
5.	1979-80	17578	19374	1796	3370	9.2
6.	1982-83	20032	20341	709	1648	3.4
7.	1986-87	21876	22715	839	3161	3.7
8.	1987-88	21000	23237	2237	8970	9.6

Table 31: Loss of Mandays due to Drought of 1987

S.No.	Crop	Average Manday Utilised (per hectare)	Anticipated Reduction in Area Sown (million hectare)	Anticipated Reduction in Productivity (per cent)	Assumed Reduction in Area Due to Fall in Productivity (million hectare)	Loss of Manday (million)		
						Area Reduction	Productivity Loss	Total
1.	Rice	140	2.91	(-) 3.2	1.22	417.2	170.8	588.0
2.	Jowar	50	1.09	(-) 9.2		54.0		54.0
3.	Bajra	50	2.35	(-) 33.5	2.91	117.5	145.5	263.0
4.	Maize	60	0.17	(-) 21.5	1.22	10.2	73.2	83.4
5.	Wheat	70	0.50			35.0		35.0
6.	Cotton	120	0.84	5.4	0.36	100.8	43.2	144.0
7.	Jute	60	0.21	(-) 4.1	0.03	12.6	1.8	14.4
8.	Groundnut	70	0.32	(-) 3.3	0.22	22.4	15.4	37.8
9.	Sugarcane	300		(-) 3.2	0.10		30.0	30.0
Total Manday Lost (million)								1,249.6
Value of Manday Lost (Rs. in crore)								1,874.4

compounded the distress of the vulnerable sections of the society. Therefore, substantial efforts were necessary in providing gainful employment to the affected people.

1.6 Keeping in view the magnitude and the severity of the problem, the GOI in pursuance of the directions of the CCD, identified employment generation programme as one of the major thrust area for immediate action for providing relief to the drought affected population. All memoranda received from the States and the Union Territories seeking Central assistance for drought relief were processed before September, 1987 and an outlay of Rs. 842.05 crore was approved for employment generation for various States. Provisions were made for generation of over 57 crore manday in various drought

**Table 32 : Statewise Ceilings of Expenditure Approved for Employment Generation Programme for Drought Relief, 1987-89.**

(Rs. in crore)

S.No.	State/Union Territory	1987-88		1988-89		Total	
		Ceiling of Expenditure Approved	For Employment Generation	Ceiling of Expenditure Approved	For Employment Generation	Ceiling of Expenditure Approved	For Employment Generation
1.	Andhra Pradesh	68.899	34.38	2.169		71.068	34.38
2.	Gujarat	251.125	141.00	117.740	68.25	368.865	209.25
3.	Haryana	37.275	15.00	0.690		37.965	15.00
4.	Himachal Pradesh	18.705	10.80	0.445		19.150	10.80
5.	Jammu and Kashmir	18.981	6.80	0.131		19.112	6.80
6.	Karnataka	46.638	19.30	0.948		47.586	19.30
7.	Kerala	31.852	7.50	1.002		32.854	7.50
8.	Madhya Pradesh	63.379	27.75	35.214	25.62	98.593	53.37
9.	Maharashtra	37.679	8.34	17.619	6.30	55.298	14.64
10.	Nagaland	3.876	2.00	0.026		3.902	2.00
11.	Orissa	59.585	32.00	3.150		62.735	32.00
12.	Punjab	29.386	8.00	0.141		29.527	8.00
13.	Rajasthan	364.028	203.00	216.258	117.58	580.286	320.58
14.	Tamil Nadu	28.197	7.43	3.232		31.429	7.43
15.	Uttar Pradesh	155.736	100.62	2.346		158.082	100.62
16.	Andaman and Nicobar Islands	0.280	0.10			0.280	0.10
17.	Chandigarh	0.080				0.080	
18.	Delhi	0.360				0.360	
19.	Pondicherry	0.594	0.28	0.004	..	0.598	0.28
Total		1216.645	624.30	401.115	217.75	1617.76	842.05

affected States/Union Territories. The State Governments were free to create additional mandays from their own resources. The details of ceilings of expenditure approved for employment generation programme for the States may be seen in Table 32. It would be seen that out of the total assistance of Rs. 1,617 crore an amount of Rs. 842 crore was approved for employment generation programme which constituted 52 per cent of total assistance approved for the States.

1.7 The objective of undertaking employment generation programme under drought relief was not only to ensure that the employment resulted in the creation of permanent and productive assets to the extent possible but also to enable the affected people to withstand drought better in future. To achieve this objective, advance action was required for preparing, a shelf of projects which could be taken at the time of droughts. The GOI issued guidelines to the State Governments from time to time to keep this objective in view while providing employment to the affected people. In September, 1987, the GOI indicated the following order of priority in selecting works: (i) tubewells, (ii) ponds, (iii) field channels, (iv) soil conservation and water harvesting works, and (v) laying of roads where road links did not exist.

1.8 Under the NREP and the RLEGP, 25 per cent of funds was earmarked for social forestry. In the wake of drought conditions, instructions were issued to divert the earmarked funds for social forestry to soil/water conservation and water harvesting projects in the States. Fifty per cent of the second instalment of NREP/RLEGP funds and foodgrains for the drought affected States was released without insisting upon pre-conditions. On this basis sanction of Rs. 112.63 crore in cash and 3.7 lakh tonne of foodgrains was issued in September, 1987. The GOI decided to sanction an additional quantity of 0.5 million tonne of foodgrains under NREP/RLEGP to meet requirements of the drought affected States.

1.9 In order to bring about uniformity and more equitable distribution of foodgrains to vulnerable groups employed in NREP/RLEGP work, norms were laid for issue of foodgrains to a maximum of 2.5 kg per manday as part of payment of wages against the normal limit of 3 to 5 kg per manday. The distribution of foodgrains was further restricted to 1.5 kg per manday with effect from 1st April, 1988. The States were advised to take up additional projects in severely drought affected area having predominantly the population of landless labour and scheduled castes and scheduled tribes under rural employment programmes and dovetailing the scarcity relief funds with them to harness resources for achievement of the objectives.

1.10 The works to be undertaken were to be in conformity with the objective of drought proofing and the strategy outlined in the Drought Prone Area Programme (DPAP). Items of work like rural bank buildings, godowns for storage of inputs, community work sites, marketing yards, dispensaries, *panchayat ghars*, community centres, *anganwadi* centres etc. were discouraged and the emphasis was laid on taking up those works which would help in creating productive infrastructure like minor irrigation works, construction of irrigation wells, intermediary and main drains, field channels, rural water supply works, construction/renovation of village tanks for providing water for human and cattle consumption, land development and reclamation of waste/degraded land with a special emphasis on ecological improvement and augmenting existing ground water resources. The details of Statewise allocation of funds under NREP and RLEGP may be seen at Table 33. The Statewise progress of employment generation under NREP and RLEGP may be seen at Annexure-XV and Annexure XVI respectively.

1.11 The GOI decided to allocate upto 50 per cent of the ceilings of expenditure approved for employment generation for States for distribution to persons employed on relief works as payment of wages in kind. In order to ensure that nutritional requirement of labourers on relief works may be met, the GOI announced a policy of allocation of foodgrains for payment of a part of wages in kind at the rate of (i) 3 kg per manday in the severely drought affected area, and (ii) 2 kg per manday in all other drought affected area. The State Governments were also advised to introduce identity cards for the workers to minimise any malpractice in the implementation of relief works.

1.12 On account of loss of income in the rural area the purchasing power of the population declined considerably. There was a steep fall in the demand for the handloom products and handicrafts sectors. The persons engaged in these sectors were losing jobs and they were forced to

Table 33 : Allocation of Funds under NREP and RLEGP, 1987-88

(Rs. in crore)

S. No.	State/Union Territory	NREP	RLEGP
1.	Andhra Pradesh	34.99	45.76
2.	Gujarat	12.41	15.77
3.	Haryana	3.43	4.45
4.	Himachal Pradesh	2.21	2.29
5.	Jammu and Kashmir	2.73	3.61
6.	Karnataka	17.04	22.13
7.	Kerala	13.91	18.00
8.	Madhya Pradesh	30.37	39.73
9.	Maharashtra	29.35	38.13
10.	Nagaland	0.49	0.60
11.	Orissa	10.03	21.11
12.	Punjab	4.03	4.74
13.	Rajasthan	14.40	18.74
14.	Tamil Nadu	29.10	37.68
15.	Uttar Pradesh	65.12	84.37
16.	Pondicherry	0.60	0.40
TOTAL		276.22	358.31

seek alternative employment alongwith unemployed rural labourers. Thus loss of the production under these sectors was apprehended. It was, therefore, felt essential to keep these artisans employed in pursuing their own crafts. For this purpose the State Handicrafts Corporations/Handloom Corporations were assisted. The GOI approved an amount of Rs. 17.17 crore mainly through margin money to enable these Corporations to provide raw material to the artisans and make marketing arrangement for the finished products.

#### States' Efforts

2.1 The State Governments were primarily responsible for implementing the various employment generation programmes. The employment opportunities were provided to the drought affected people keeping in view the following objectives: (a) to increase the purchasing power of the people to ensure that their basic needs were met, (b) to avoid large scale migration of the people by offering employment closer to their habitations, and (c) with advance planning to convert the drought as an occasion for accelerating development process by creating durable and permanent assets to the extent possible.

2.2 The State Governments had their own approaches to planning and execution of relief works. Certain general features were common to the States. The first stage in planning employment generation schemes for the rural population was the grouping of villages in each *taluk* into groups of 3 to 4 villages each. The object of this grouping was not merely to ensure administrative convenience in handling relief work but also to provide a unit wherein every person seeking employment could be provided work within a radius of 5 kilometres from his place of residence. The commitment of the State Governments to provide employment within a radius of 5 kilometres was one of the noteworthy features of employment generation programmes for drought relief in the country.

2.3 After the groupings had been made, a careful survey was undertaken at the village level to arrive at a figure of the number of persons who had to be provided work month-wise till the onset of the rains next year. This figure was actually based on several factors like (a) number of agricultural labourers in the group, (b) number of small farmers in the group, (c) number of marginal farmers in the group, (d) social and religious characteristics of the group, (e) general industrial activity of the group, and (f) number of workers actually reporting for work in scarcity relief operations in earlier years.

2.4 A reasonable and realistic estimate of the total labour force for whom work had to be provided as also the month by month build up of labour enabled the *taluka* level machinery to arrive at a fairly realistic picture of the number of mandays which were required to be generated to cater to the employment needs of each particular group of villages. Once this was known, an inter-departmental exercise was initiated to determine the number of State Plan, NREP and RLEGP works available for

a particular group to absorb the labour force. This exercise revealed the gap between the mandays which could be generated to absorb the labour force and which would report for employment during the drought year.

2.5 Apart from labourers who could undertake the excavation of earth, there was a class of workers who due to customary reason or non-familiarity with earth work needed alternative employment. An effort was made to provide employment to this category of workers also through works undertaken by the Khadi and Village Industries Commission and the State Handicrafts Corporations. These works catered to the requirement of persons who otherwise had to migrate to other area for seeking out a living during the drought.

2.6 Normally, one person per family possessing identity card issued by the State Government was provided employment. The State Government of Gujarat adopted a policy of providing employment having regard to the size of the family. As per demographic data, a graded number of persons were admitted to relief works. Initially, in a family of six persons, three persons were eligible. In the event of members of family being more than six, for every additional three members one person was admitted. In Rajasthan, one member per family was employed first. After all the families were covered, second member from bigger families of more than six persons was employed. If labour ceiling fell short of employing even one member from each target family, families were rotated and employed on alternate fortnights to ensure that at least one member from each family could get employment for at least twenty days in a month. The unit cost per manday was on the basis of notified minimum wage varying from Rs. 7 in Maharashtra to Rs. 27 in Punjab. The details of notified wage adopted for relief employment may be seen at Annexure-XVII. Wage was given partly in kind and partly in cash.

2.7 Tools were issued to the labourers who were engaged on relief works keeping in view their financial constraints in purchasing the tools. The labourer at the time of his weekly payment would be eligible for allowance at the rate of 3 per cent of the wage as sharpening allowance and at the close of programme the tools were to be recovered. It was experienced by the Government of Gujarat that on many occasions the tools were not returned by the labourers. The Government of Gujarat, therefore, decided to give an option to a labourer to retain the tools after the close of programme. During the period of scarcity, the cost of tools was recovered in five instalments from a security deposit for tools which was made by a labourer from his wages in five instalments. In case the labourer wanted to return the tools, he could do so and get back the deposit. In case he decided to retain the tools, the deposit would be adjusted towards the cost of tools. Sufficient number of tools were provided by the Government to the workers in Rajasthan. For those workers who brought their own tools, an amount of Rs. 250 per worker was paid.

2.8 The wage payment system for scarcity relief works was based on the measurement of the work done by a gang of workmen. At the beginning of a given week, the supervisor allocated the task for the week to the gangs. At the end of the week, the work done was measured by the supervisor. This was recorded in the measurement book. There was daily roll call by muster *karkoon*. The attendance was taken twice a day. For every six days of work, the labourers got one day rest allowance. Once the measurement book was completed, the supervisor made the gangwise calculation for the volume of work done and the amount payable to each gang. This was verified by a *karkoon* in the Deputy Engineer's office. After verification, it was certified for payment. The payment sheet was sent to the *taluka* office where it was again verified. After verification, the cash was drawn and cashiers went to the site for making the payment.

2.9 State Governments took a special care of woman workers and directed the field level officers that the pregnant woman workers should be given light work. A pregnant woman was permitted to absent herself for 3 weeks before delivery and 3 weeks after delivery on payment of half wages provided she had been attending the relief work in the area for a period of 2 months or had been engaged in specific work since its commencement. In addition, she was also eligible for dependence allowance at the rate of Rs. 5 per day and Rs. 25 for medical assistance. The procedure for issue of eligibility certificate for these concessions in this regard was also simplified.

2.10 For giving an incentive to family planning, the Government of Gujarat provided special benefits to workers adopting family planning measures. The male/female workers were given holiday for 3 to 7 days for undergoing family planning operations depending upon the type of operation.

Creches were established at the work sites to take care of children. For providing shed and water facilities at the work sites, the norms were revised and upto 50 per cent of the wage bill was made available for this purpose.

2.11 When a massive employment generation programme is organised a strict vigilance has to be kept over the execution of works, particularly in the sphere of recording of measurements of work done by a labourer, classification of soil, which decides the rate of wage and the number of persons reporting for work. State Governments during the last three drought years constituted two sets of vigilance squads. Administrative cells were set up at the State level. Four such cells, each headed by a Deputy Collector and consisting of a *mamlatdar* and supporting staff, were set up as in-charge of specific districts. The administrative vigilance cells looked into the administrative aspects of relief works, water tanker deployment, and running of cattle camps. Another set of technical squads was also set up. Two such technical squads, each headed by a Superintending Engineer and supported by 2 Executive Engineers and 4 Deputy Executive Engineers, were set up. The technical vigilance squads inspected the works from the technical point of view, namely, classification of soil, and measurement of work done. Similar vigilance cells were also set up by Collectors at the district level. The composition of the cell at the district level was left to the Collectors. He was, of course, empowered to requisition services of officers from all departments. In Gujarat, the vigilance cells, both at the State and at the district level, inspected 28,669 relief works from October, 1986 onwards. In course of their inspection 3,833 cases of major and minor irregularities were noticed. Serious malpractices were noticed in a few cases and the remedial action was immediately taken. From October, 1986 to June, 1988 action was taken against, Muster Clerks, Supervisors, Deputy Executive Engineers and others for their lapses.

2.12 In Rajasthan for effective monitoring, for the first time, flying squads were constituted, which had a salutary effect on the execution of relief works. All the complaints regarding execution of relief works were attended to immediately by the flying squads comprising Executive Engineers, Assistant Engineers and Junior. Engineers.

2.13 A shelf of projects was prepared on the basis of the local requirements keeping in view the best use of locally available resources of men, money and material. These projects were first submitted to the respective Block Development Officers by *sarpanchs* who prepared village-wise/agency-wise lists. A novel scheme was introduced in some of the districts like Barmer where "Face-to-face in Famine" (*Akal me Amne Samne*) meetings were held at *Panchayat Samiti* headquarters in which all the district level officers (DLOs) representing various executing agencies like Public Health Engineering Department (PHED), Irrigation, Soil Conservation, Public Works Department (PWD) and Education, Medical, etc. Departments attended. All the *sarpanchs* with list of works to be included in the shelf attended. The projects were listed agency-wise and were handed over to the Executive Engineers/DLOs of various executing agencies. They examined these projects and after technical surveys for feasibility of technically approved projects, presented before the District Relief Advisory Committee (DRAC) in which all the local public representatives like M.Ps, M.L.A.s, *Zila Pramukh*, *Pradhans* and nominated members of Scheduled Castes/Scheduled Tribes women alongwith the DLOs participated and discussed these projects in detail. With the advice of the District Famine Relief Advisory Committee, a final shelf of projects was prepared blockwise.

2.14 The programme approved with the advice of DRAC was forwarded to regional Heads of Departments/Relief Commissioner. The regional Heads of Departments after carefully scrutinising the works with reference to utility and technical viability and number of labourers to be provided in each area in proportion to its anticipated need, sent the proposals to Heads of Departments. Heads of Departments then sent their districtwise recommendations to Government in Relief Department. The Heads of Departments indicated the requirement of additional staff, if any, for carrying out necessary surveys, investigations and preparation of detailed estimates of works proposed in the district programme.

2.15 The following programmes were included in the shelf of projects: (1) Soil conservation works on a watershed basis, (2) Contour bunding, (3) *Khadins*, (4) Construction/repairs of minor irrigation tanks, (5) *Nala* bunding, (6) Pasture development works, (7) Terracing, (8) Construction of *diggis*, (9) Construction/deepening of drinking water wells, (10) Executing/preparing of rural water supply schemes in area of recurrent scarcity, (11) Completion of incomplete irrigation works of previous

years, (12) Construction of diversion channels, (13) Construction of tanks, canals and bunds, (14) Construction of protective works such as marginal bunds, spurs and diversion bunds, (15) Improvement/repairs of existing irrigation works, (16) Plantation works along roads and canals, and (17) Afforestation work.

2.16 It was represented that soil conservation works were not very much acceptable to labourers. With a view to encourage large number of soil conservation works, some of the Government's decisions were: (1) The wage rate payable on soil conservation works taken up as part of relief work was revised upward and brought at par with the wage rate on irrigation and road works; (2) In spite of revision of wage rate, the works of soil conservation could be taken up only if the cultivator in whose field the work was to be undertaken was willing. A formal consent was however not necessary in a drought year in terms of the relevant provision of the Land Improvement Act. Nonetheless, with a view to provide incentive, the Government decided that the cultivator in whose survey number soil conservation work was to be taken up would be eligible for 100 per cent subsidy instead of 75 per cent decided during the previous drought of 1986-87; (3) For the first time works of digging of new wells in private fields as relief work were allowed. These works of digging of new wells were taken up on a large scale in Rajasthan; and (4) Works for desilting of tank beds were also taken up as a part of relief work.

2.17 It was reported by the Rajasthan Government that significant achievements were made in terms of the following: (1) The major thrust was towards creation of durable assets with the assistance of material component from respective departments / organisations. For the first time, the construction of *pucca* water courses in private fields was taken up and digging of box-type trenches was experimented for increasing the fodder production; (2) Approximately 51,000 workers were provided employment on Indira Gandhi Canal Project. Special assistance was provided to the relief workers, such as providing assured minimum wages, supply of essential foodgrains, edible oil, sugar at subsidised rates, etc. *Sirki*/tent accommodation was made available to them; (3) As directed by Planning Commission earth work on identified major, medium and minor irrigation projects was also taken up on crash basis.

**Table 34: Relief Works and Weekly Deployment of Labourers in Employment Generation Programmes, 1987-88.**

S. No.	Date as on	Relief Works	
		Number	Labourers (million)
1.	2-11-1987	94173	2.460
2.	9-11-1987	70710	2.173
3.	16-11-1987	72099	2.602
4.	23-11-1987	74308	2.665
5.	30-11-1987	86525	4.432
6.	7-12-1987	93269	4.731
7.	14-12-1987	97763	4.558
8.	21-12-1987	97032	4.714
9.	28-12-1987	97032	4.714
10.	4-1-1988	98011	4.845
11.	11-1-1988	99557	5.059
12.	18-1-1988	99710	5.271
13.	25-1-1988	99591	5.295
14.	1-2-1988	90423	5.267
15.	8-2-1988	94096	5.247
16.	15-2-1988	95341	5.476
17.	15-3-1988	102693	5.234
18.	21-3-1988	102910	5.363
19.	28-3-1988	113540	5.948
20.	4-4-1988	113819	5.918
21.	11-4-1988	119868	5.889
22.	18-4-1988	119395	6.013
23.	25-4-1988	119407	6.011



### Execution of Relief Works

3.1 A statement showing weekly progress of relief works may be seen in Table 34. The Statewise and monthwise progress of relief works may be seen at Annexure-XVIII. The State Governments of Andhra Pradesh, Himachal Pradesh, Haryana, Jammu and Kashmir, Karnataka, Kerala, Nagaland, Punjab, Tamil Nadu, Uttar Pradesh and Union Territories of Andaman and Nicobar Islands, Chandigarh, Delhi and Pondicherry discontinued their relief works by 31st March, 1988. The State Governments of Gujarat, Madhya Pradesh, Maharashtra, Orissa and Rajasthan continued relief works upto June-July, 1988.

3.2 Some of the severely affected State Governments indicated the data regarding manday generated under drought relief programmes during the 1987 drought as shown in Table 35.

**Table 35 : Manday Generated in States, 1987**

S. No.	State	Manday Generated (million manday)
1.	Gujarat	348.1
2.	Madhya Pradesh	156.8
3.	Rajasthan	424.1
4.	Tamil Nadu	17.9
5.	Uttar Pradesh	63.0
	<b>Total</b>	<b>1009.9</b>

3.3 The details of projections of labour strength made by the State Governments while presenting the memoranda and the actual peak levels of labour attendance on relief works are shown in Table 36.

3.4 It can be observed from Table 36 that generally the projections fell short of the actual levels. The reasons for such gap were as follows: (i) Over-estimation of the number of people rendered unemployed in the agriculture and other sectors; (ii) The August/September rains in some States like Uttar Pradesh, Madhya Pradesh, Maharashtra helped in resuming agricultural operations by raising short-duration crops in effectively implementing agricultural contingency plans; (iii) The States of Haryana and Punjab and parts of Uttar Pradesh where large areas are under irrigation, with the onset of rabi cultivation, a large number of workers were absorbed in the normal agricultural works; and (iv) The peninsular States of Karnataka, Andhra Pradesh, Tamil Nadu received substantial rains during north-east monsoon period thereby helping the start of agricultural operations.

3.5 A team headed by Prof. Hanumantha Rao under the auspices of the Advisory Council for 20-Point Programme made field visits in October, 1987 in the States of Gujarat and Rajasthan. The team visited the districts of Sabarkantha, Surendernagar and Ahmedabad in Gujarat and Udaipur, Ajmer and Jaipur districts of Rajasthan. The following deficiencies were noticed by the visiting team:

- (i) The work actually provided fell short of demand for work from the affected people, particularly in Rajasthan. Instances came to the notice of the team about the improper selection of beneficiaries by *sarpanches*. The team viewed that the poorest families who

**Table 36: Employment Generation and Peak Labour Strength, 1987-88**

(in lakh)

S. No.	State	Projected Labour Strength	Actual Peak Level Labour Strength
1.	Andhra Pradesh	36.40	1.97
2.	Gujarat	19.22	22.42
3.	Karnataka	15.00	0.39
4.	Madhya Pradesh	13.00	6.00
5.	Maharashtra	5.00	4.11
6.	Orissa	9.80	5.40
7.	Punjab	1.12	0.74
8.	Rajasthan	31.00	20.40
9.	Tamil Nadu	5.20	3.50
10.	Uttar Pradesh	20.12	6.49
11.	Haryana	15.60	0.98
12.	Himachal Pradesh	4.90	..
13.	Kerala	14.36	1.09

**Table 37 : Peak Labour Strength and Population Affected in Selected Drought Years, 1965-66 to 1987-88**

S. No.	Drought Year	Population Affected (lakh)	Peak Level Labour Strength (lakh)	Labour Strength to Affected Population (percentage)
1.	1965-66	476.00	32.04	6.70
2.	1972-73	2000.00	92.00	4.60
3.	1979-80	2204.83	62.00	2.81
4.	1987-88	2854.19	60.42	2.11

should have been given employment on priority basis were ignored. The peoples' representatives were not fully involved in selection of beneficiaries;

- (ii) The payment of wage was less than the actual notified wage of the respective State Governments. Against the notified minimum wage of Rs. 11, people were actually paid Rs. 8 to 10 in Rajasthan;
- (iii) The delay in payment of wage to workers was noticed. In some instances, the workers were getting wage after 3 weeks in Gujarat and the delay in Rajasthan ranged from 1 to 4 months. Since the wage was not paid in time and wheat was not available, poor people were put to difficulties. The team suggested that food should be provided to workers on credit through PDS, so that they were not dependent on moneylenders and private traders; and
- (iv) The team noticed poor selection of work sites. The concentration appeared to be on roads and significant percentage of soil and water management works were taken up.

3.6 The team noticed innovative schemes such as:

- (i) The "Food for All Scheme" in Gujarat giving separate ration cards to the poorest and the poor to enable them to buy wheat and other essential commodities through PDS;
- (ii) The scrapping of permit system for release of stocks under PDS in Udaipur district of Rajasthan;
- (iii) The changing of mate after every 15 days for identification of new labourers and new muster rolls in Rajasthan;
- (iv) The identification and appointment of women mates where 50 per cent of the labour force consisted of women (Ajmer district of Rajasthan); and
- (v) Consumption loans by Collectors upto Rs. 500 to enable relief workers to purchase wheat in Ajmer district.

## **Issues**

4.1 An analysis of the peak level labour strength against the affected population during the major drought periods are shown in Table 37. It may be seen that the percentage of labour employed against affected population shows declining trend over years. However, this may also indicate that the size of population vulnerable to drought is getting reduced due to the overall economic development of the country and implementation of various rural development programmes.

4.2 According to a National Council of Applied Economic Research (NCAER) study (Annexure-XIX), the marginal land owners and landless labourers gained in the ownership of land between 1970-71 and 1981-82, while large owners experienced a reduction in their land holdings. As a result, the structure of land holdings changed with increase in the proportion of land in marginal holdings and decrease in the proportion of land in larger holdings. The reasons for this shift in the structure of land ownership are complex, but the outcome is reflected in the structure of income by sources for

**Table 38 : Peak Labour Strength and Population Affected in Rajasthan in Selected Drought Years, 1968-69 to 1987-88.**

Sl. No	Crop Year	Affected Population (lakh)	Peak Level Labour Strength (lakh)	Labour Increase over Affected Population (percentage)
1.	1968-69	131.62	17.57	13.50
2.	1972-73	135.71	12.84	9.87
3.	1979-80	240.00	8.04	4.39
4.	1982-83	171.00	6.28	3.67
5.	1985-86	219.00	10.30	4.75
6.	1986-87	252.70	14.76	5.84
7.	1987-88	262.69	20.42	7.70

different land owning categories of rural population; this is presented in Annexure-XX which is based on longitudinal data. The important features of the change in structure of income sources between 1970-71 and 1981-82 are: (a) An increase in the share of non-farm incomes for all household categories, except the landless agricultural wage earning households, and (b) A substantial increase in the share of income from agriculture and allied activities (self-employed) in the case of the landless and the agricultural wage earning marginal landowners due to acquisition of land and a decline in the share of income from agriculture consistently in all other categories of households. Similar results are also available from all-India data for 1970-71 and 1981-82 as presented in Annexure XXI. All India results show that the share of non-farm income for rural households increased from about 23 per cent in 1970-71 to 33 per cent in 1981-82.

4.3 An inference from the above data would be that as a result of increase of the share of non-farm income in the total income of rural households, the vulnerability of rural population to natural disasters like droughts has reduced. This is supported by the fact that while in the drought of 1965-66, a population of 4.76 crore was affected and in the drought of 1987-88 the figure rose sharply to 28.54 crore that is, a sixfold increase in absolute numbers, yet the peak level employment in 1987-88 was only 60 lakh which is less than twice the peak level employment in drought relief works in 1965-66 (Table 37).

4.4 An analysis also shows that even though the percentage of labourers to the affected population was on the decline in the long-term, this trend could be altered in the short-term, if the State was continuously affected by drought by 3 to 4 years. For example, Rajasthan was continuously under the grip of severe drought in 1980's barring the year 1983. The trend is however reversed in the years 1985-86 to 1987-88 due to persistence of droughts and their cumulative effect as is evident from Table 38.

4.5 A larger number of free kitchens were organised both by the domestic and foreign voluntary agencies to tackle Bihar drought situation in 1966-67 and 65 lakh people mostly able-bodied persons were fed in these free kitchens whereas only about 7 lakh persons were employed on relief works. Despite severe drought in Gujarat and Rajasthan in 1987, no free kitchens were organised for able-bodied persons. Moreover, the involvement of voluntary agencies in providing works to the people

had been only marginal. With advance planning and timely action it was possible to organise relief works and people earned their livelihood with dignity.

4.6 The Indian Council of Medical Research (ICMR) report on the drought survey has brought out the fact that the number of persons having energy intake below 500 kilocalories (kcl) (starvation level) was only 0.2 per cent in 1987 as compared to 36 per cent observed during earlier drought survey in Bihar and Andhra Pradesh in 1967. This again can be attributed to the prompt and effective distribution of foodgrains through various relief measures including employment generation programme.

4.7 While the loss in agricultural income consequent to loss in employment opportunities on account of the drought was significant, the massive employment programme taken up earmarking nearly 52 per cent of the relief assistance saved millions from hunger. The accessibility to foodgrains which this programme established was one of the record achievements in terms of its volume and was found to be adequate to meet needs of the situation. The States which experienced the third or fourth year of drought did certainly find difficulties in finding adequate number of productive works to be taken up in a decentralised way. Problems were also faced in matching the employment generation funds with additional allocation made for covering the "last mile" projects. Some States had substantially exceeded the allocation made by the GOI. Gaps in monitoring of the level of employment also came to the notice. But overall the employment generation effort to meet the requirement of the situation, despite its vast magnitude, was successful and is an eloquent testimony to the meticulous planning and implementation of the employment generation programme.

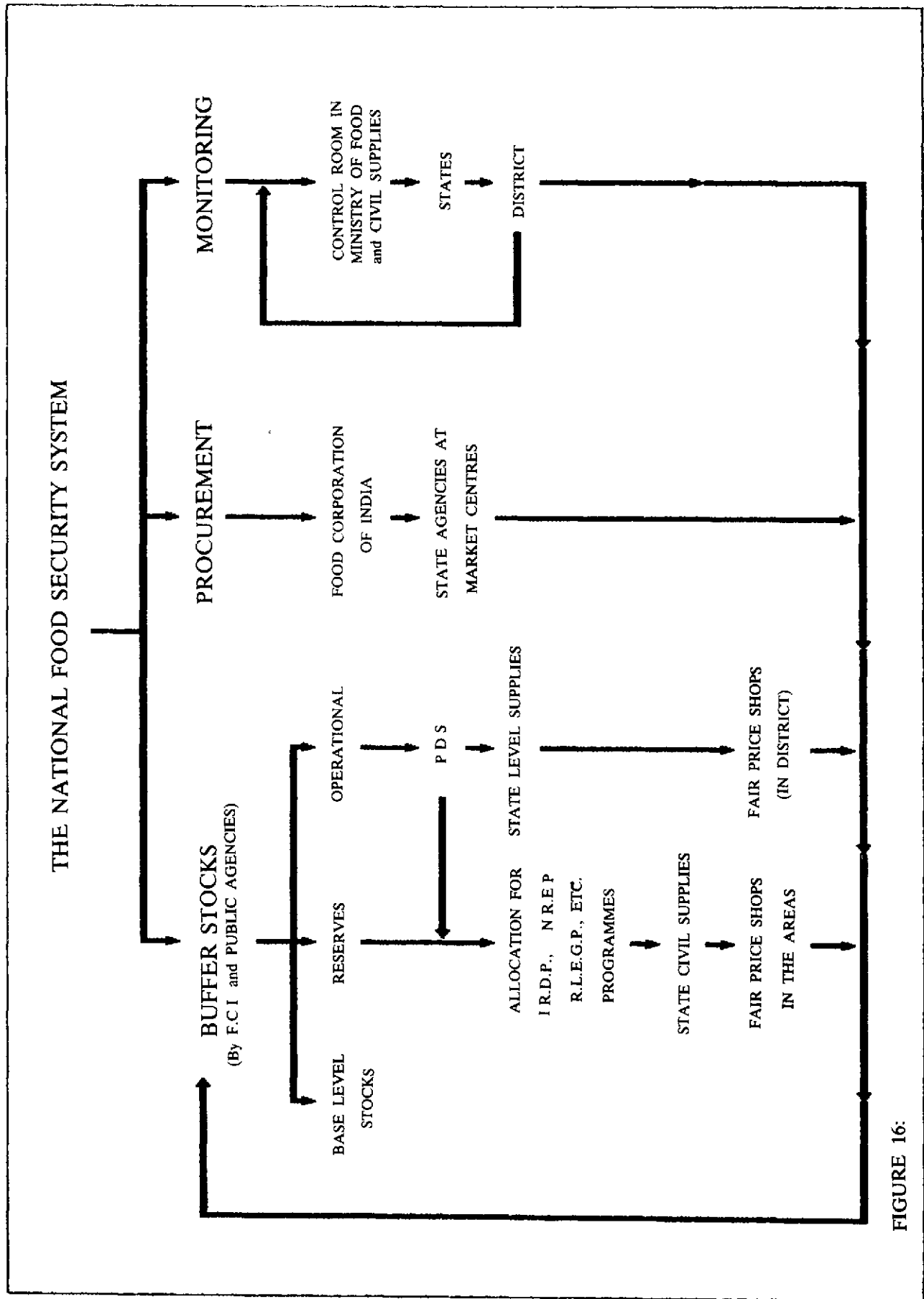


FIGURE 16:

A public distribution system (PDS) in the country had been in operation in one or the other form for about four decades, and over a period infrastructure has been built up in nearly all the States. The Ministry of Food and Civil Supplies (MOFCS) at the Centre and Food and Civil Supplies Departments at the state level faced the formidable task of monitoring prices, availability situation and organising distribution of foodgrains and other essential commodities. The supplies had to be ensured in rural, far-flung and remote area so that the people in those area were not exploited by the unscrupulous traders and anti-social elements in the event of any shortfall in the distribution.

1.2 The main elements of policy initiatives and drought relief measures taken by the MOFCS can be grouped in the following categories: (a) effective operation of buffer stock, (b) expansion and strengthening of PDS, (c) production and procurement, (d) stringent enforcement, (e) intensive monitoring of prices and availability situation at various levels, and (f) export regulation and imports of essential commodities to supplement domestic availability.

1.3 The need for maintaining buffer stock of foodgrains has long been recognised. This has been considered necessary to ensure national food security, more so in a country where agriculture is still susceptible to vagaries of monsoon. Availability of adequate buffer stock not only provides an insurance against scarcity in bad years, but also helps in evening out fluctuations in availability and consequently in prices.

1.4 Over a period India has been able to evolve a comprehensive and integrated national food security system (Figure 16) consisting of buffer food stock and operational stock to cater to the

**Table 39: Foodgrains Stocks with Public Agencies, 1983-88**

(million tonne)

S. No.	Year (as on 1st July)	Rice	Wheat	Coarse Grains	Total
1.	1983	3.78	13.01	0.17	16.96
2.	1984	4.62	17.81	0.05	22.48
3.	1985	7.76	20.74	0.17	28.67
4.	1986	9.26	18.89	0.13	28.28
5.	1987	8.35	14.86	0.06	23.27
6.	1988	4.16	7.55	0.19	11.90

requirement of PDS. The main objectives of the food security system are: (1) to minimise "temporal" fluctuations in aggregate consumption arising out of year to year fluctuations in agricultural production and prices, (2) to minimise "spatial" fluctuations in consumption and prices (i.e. between States or urban and rural area), and (3) to minimise variation in consumption among various socio-economic strata arising out of differential purchasing power.

1.5 In a vast country like India, for a sensitive commodity like foodgrain the private trade cannot undertake the task of spatial stability; while it is also not expected to consciously reduce inter-personal variation in consumption on account of inequitable distribution of income and differences in purchasing power. The buffer stock policy by the Government is, therefore, needed to serve as an insurance against crop failure on the one hand and to protect the interests of farmers and consumers particularly the vulnerable sections of the population, on the other.

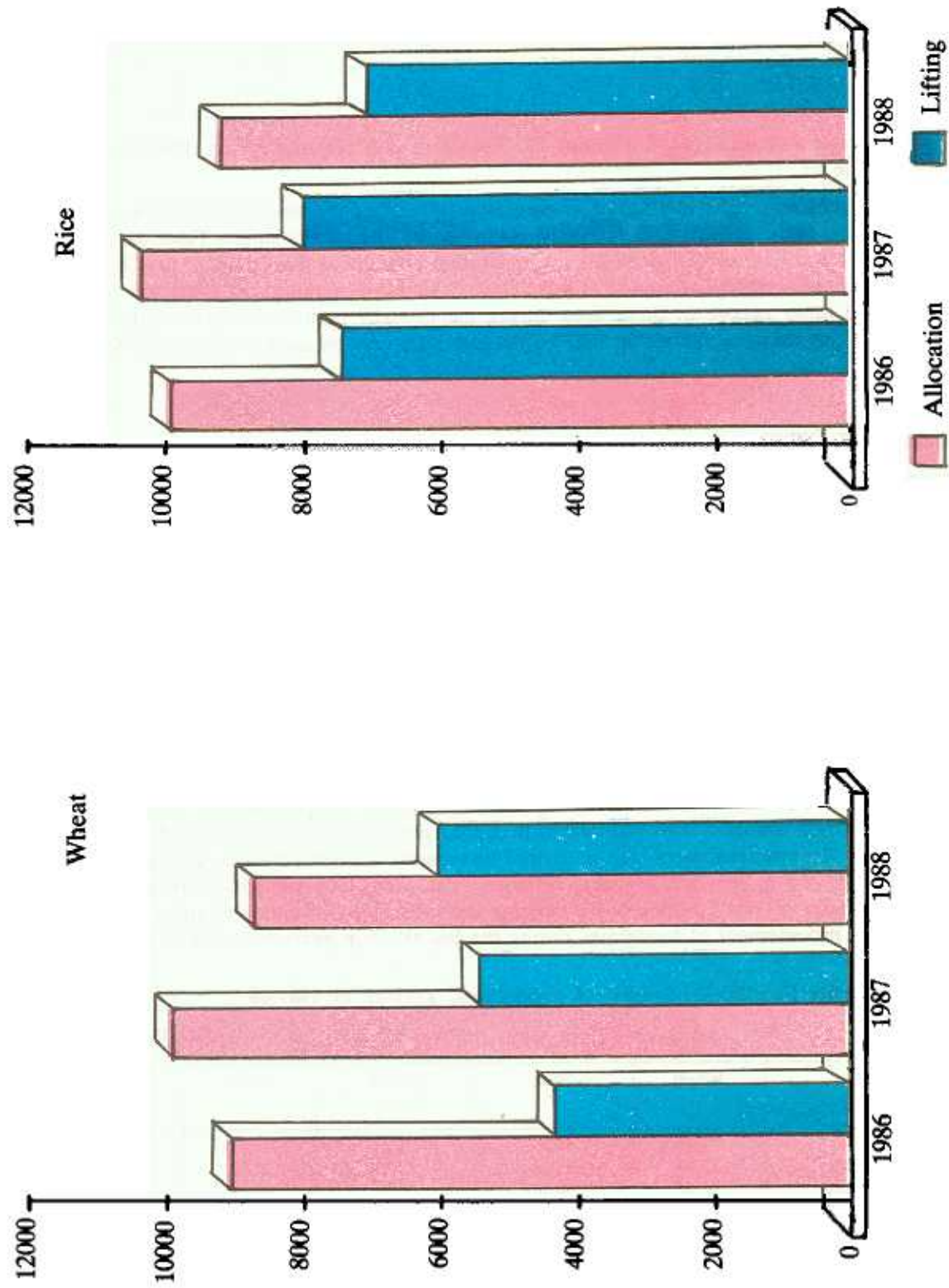
1.6 The buffer stocking policy as decided by the GOI earlier in March, 1984 continued to be in force. The statement given in Table 39 indicates the stock with public agencies.

1.7 It would be seen that the stock with the public agencies had touched the peak level of 28.67 million tonne on 1st July, 1985. On 1st July, 1986 also the stock level was 28.28 million tonne. During 1987 and 1988, there was heavy draw upon the stock. On 1st July, 1987, it was 23.27 million tonne, while on 1st July, 1988, it was 11.90 million tonne. The required level of stock on 1st July of a year under the present buffer stocking policy is 21.4 million tonne, comprising 8.0 million tonne of rice and 13.4 million tonne of wheat. While in 1985 (as on 1st July, 1985), the stock with the public agencies was in excess of the buffer stocking requirement by 7.3 million tonne and in 1986, (as on 1st July, 1986), the excess was of the order of 6.9 million tonne. The drought of 1986-87 changed the whole situation and in 1987 the excess came down to 1.9 million tonne only.

1.8 In 1987-88, there was considerable pressure on the PDS. Substantial quantities of grains were also required for relief purpose and employment oriented programme. The result was that the stock with the public agencies came down to a level of 11.9 million tonne on 1st July, 1988, showing a shortfall of about 9.5 million tonne with reference to the requirement under the buffer stocking policy. Thus, the severe drought of 1987-88 not only wiped out all the excess available stock but also pulled down the level to a critical position.

1.9 The PDS was continuously strengthened. The number of fair price shops increased from 2.36 lakh in January, 1980 to 3.38 lakh in March, 1987 and increased further to 3.45 lakh in December, 1987, and stood at 3.5 lakh in September, 1988. From July, 1987 onwards, States were advised to open fair price shops in hitherto uncovered area as a part of anti-drought campaign. Since August 1987, additional fair price shops numbering 7,740 were opened in the country.

1.10 It was suggested to the States that in area where static fair price shops could not be opened, mobile vans should be pressed into service. The Department of Civil Supplies (DCS) sanctioned Rs. 2.08 crore in 1987-88 for 83 mobile vans for Uttar Pradesh, Rajasthan, Madhya Pradesh, Karnataka, Andhra Pradesh, Orissa and Chandigarh. As on 31st March, 1988, 416 mobile vans were operating in various States. Reasonable requirement of States for wheat and rice was met by the Department of Food within the constraints. Their availability and distribution were carefully planned and closely monitored. The figures relating to allocation to and lifting of rice and wheat under PDS by various States/Union Territory Administrations during 1986 to 1988 are indicated in Annexure-XXII, Annexure-XXIII, and Figure 17. Special attention was paid in the matter of allocation of foodgrains under PDS to severely drought affected States of Rajasthan and Gujarat. The details



**Figure 17:** Total Allocation and Lifting of Wheat and Rice, 1986-88  
(Thousand Metric Tonnes)



**Table 40: Distribution of Wheat and Rice to States and Union Territories under the Scheme for Integrated Tribal Development Project Areas, 1985-88.**

(lakh tonne)

S. No.	Period	Wheat	Rice	Total
1.	December, 1985-March, 1986	2.05	2.31	4.36
2.	April, 1986-March, 1987	10.11	10.02	20.13
3.	April, 1987-March, 1988	11.31	11.66	22.97
4.	April, 1988-October, 1988	5.34	6.00	11.34

relating to allocation and lifting of foodgrains by Rajasthan and Gujarat during 1986 to 1988 are indicated in Figure 18.

1.11 Under the scheme for distribution of foodgrains at specially subsidised prices for the people in the Integrated Tribal Development Project Areas and in the tribal majority states, Table 40 shows the quantities of wheat and rice issued by the Food Corporation of India to States and Union Territories. Though the scheme was originally initiated as a poverty-alleviation programme in 1985, it was of great help to tribal and other people in these area during the drought period. Statewise distribution of foodgrains in major tribal area since July 1987 to August 1988 may be seen at Annexure-XXIV and also in Figure 19.

#### Public Distribution System

2.1 The major thrust of the policy was to increase the production of essential commodities and to maintain the supplies in such a manner that they were available throughout the year at a fair and reasonable price. Due to short-fall in production of foodgrains and some other essential commodities in the wake of drought, domestic supplies were supplemented by imports, and exports of essential commodities like pulses, oilseeds and edible oils were not allowed. Exports of some other commodities like onions and meat were regulated to ensure their availability at reasonable price in domestic market. Crop seasonwise production of foodgrains may be seen in Table 18. Table 41 indicates the commodity specific production of foodgrains in the country from 1981-82 to 1987-88.

2.2 The GOI followed a consistent food policy in the matter of price support and procurement operations, creation of a buffer stock and an appropriate distribution system. This policy stood the test of time and helped the Government to face many crises including the unprecedented drought of 1987 in the country. During the *kharif* marketing season which commenced from 1st October, 1987, all the public procuring agencies were directed to maximise procurement of rice through enforcement of levy. The State Governments were also requested to monitor the enforcement of levy with a view to check evasion by the millers and plugging leakages. The State Governments were also asked to maximise procurement of rice and paddy by banning the movement of paddy to outside the State. Table 42 indicates procurement of foodgrains during the last six crop years from 1982-83 to 1987-88.

**Table 41: Commodity Specific Production of Foodgrains, 1981-82 to 1987-88**

(million tonne)

S.No.	Year	Wheat	Rice	Coarse Grains	Pulses	Total
1.	1981-82	37.45	53.25	31.09	11.51	133.30
2.	1982-83	42.79	47.12	27.75	11.86	129.52
3.	1983-84	45.48	60.10	33.90	12.89	152.37
4.	1984-85	44.07	58.34	31.17	11.96	145.54
5.	1985-86	47.05	63.83	26.20	13.36	150.44
6.	1986-87*	45.57	60.42	26.34	11.74	144.07
7.	1987-88*	44.62	55.78	25.70	10.92	137.02

\*Provisional.

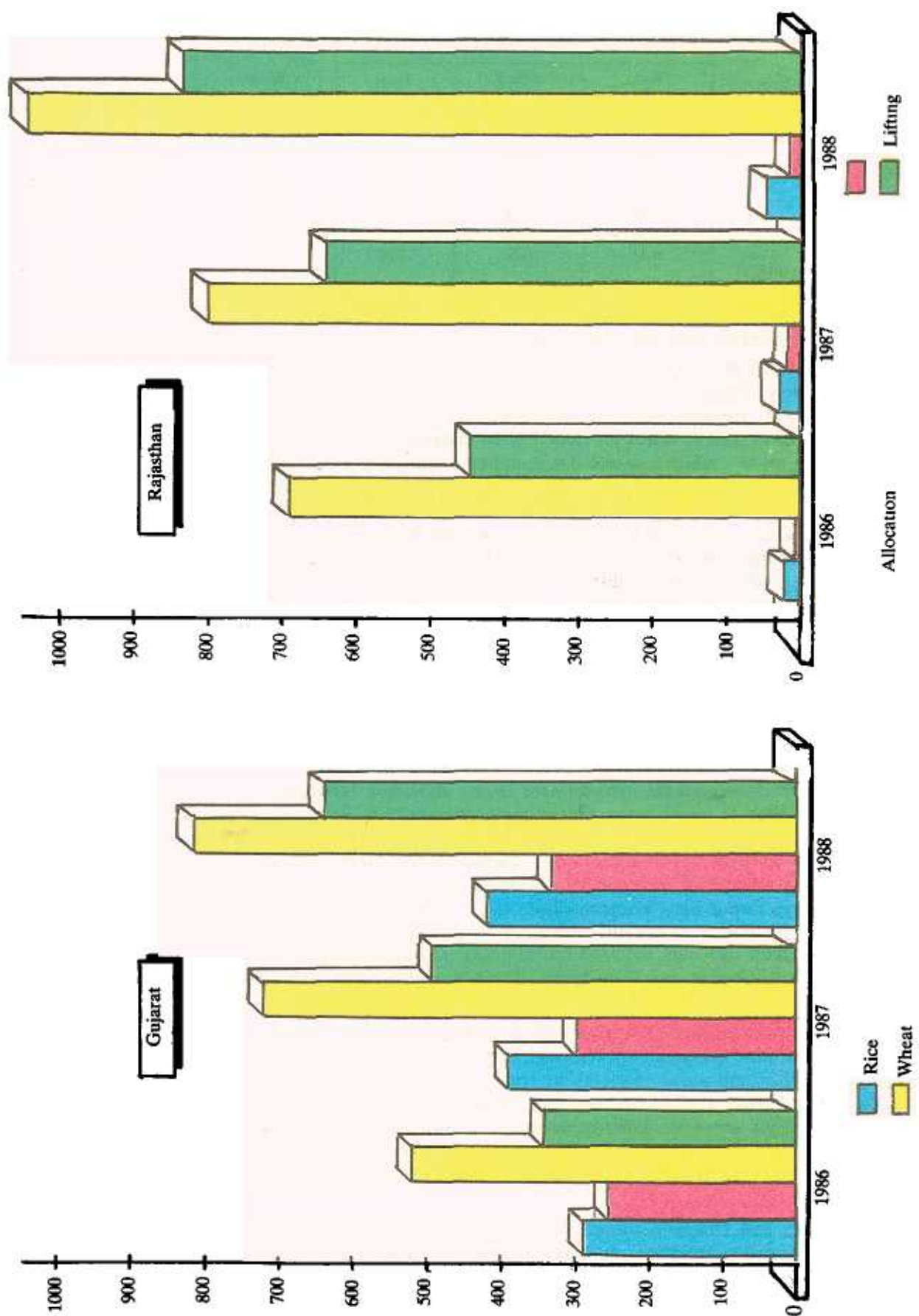


Figure 18: Allocation and lifting of Rice and Wheat in Gujarat and Rajasthan, 1986 to 1988  
(Thousand Metric Tonnes)

Table 42: Procurement of Foodgrains, 1982-83 to 1987-88

(million tonne)

S.No.	Crop Year	Kharif Cereals			Rabi Cereals	Total
		Rice	Kharif Coarse Grains	Total Kharif Cereals	Wheat	Kharif and Rabi Cereals
1.	1982-83	7.05	0.17	7.22	8.29	15.51
2.	1983-84	7.73	0.04	7.77	9.30	17.07
3.	1984-85	9.86	0.21	10.07	10.35	20.42
4.	1985-86	9.88	0.10	9.97	10.54	20.51
5.	1986-87*	9.21	0.02	9.23	7.88	17.11
6.	1987-88* (As on 2.9.1988)	6.87	0.21	7.08	6.52	13.60

\* Provisional.

2.3 It may be observed that the total procurement of foodgrains which was 15.51 million tonne in 1982-83, rose to 17.07 million tonne in 1983-84 and to 20.42 and 20.51 million tonne in 1984-85 and 1985-86 respectively. These two years, 1984-85 and 1985-86, were peak years for procurement of foodgrains, both for rice and wheat. In the case of rice, the procurement touched a level of 9.88 million tonne while in case of wheat it reached 10.54 million tonne. In 1986-87, the total procurement was 17.11 million tonne, which comprised 9.21 million tonne of rice and 7.88 million tonne of wheat. Again, in 1987-88, the total procurement of foodgrains as on 2nd September, 1988 was 13.60 million tonne comprising 6.87 million tonne of rice and 6.52 million of wheat. Thus, there was a very steep fall in procurement in 1987-88 when there was maximum pressure on PDS. For maximising procurement, the following steps were taken: (i) To arrange continuous monitoring during the season at district level, (ii) Senior officers of the FCI and the State Governments supervised the procurement in the important wheat producing States, and (iii) The number of procurement centres in the interior area was increased.

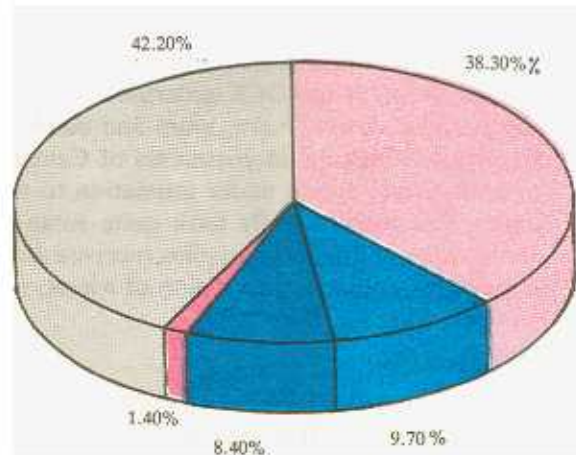
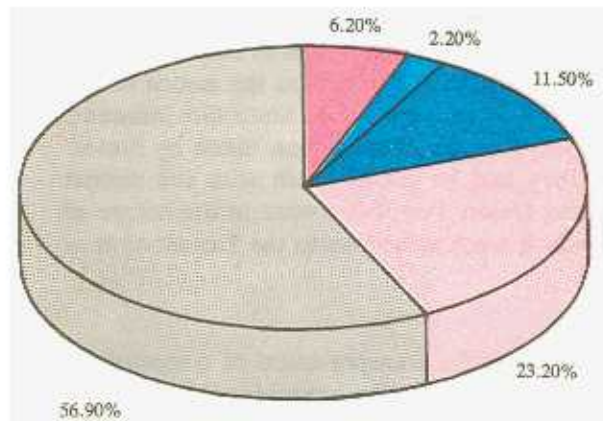
2.4 The State Governments were requested to bring wheat and wheat products under licensing and also to fix stock limits for dealers so as to discourage hoarding with a view to maximise procurement. Minister for Food and Civil Supplies wrote to all the State Governments and Union Territory Administrations emphasising the need for fixing stock limits urgently in the light of the availability and the prices of foodgrains prevailing in their States.

2.5 Most of the States sought enhancement in the allocation of wheat, rice and sugar from the Central pool in order to check price rise in these commodities and ensure their availability. The Department of Food, which is administratively concerned with the allotment of these commodities, had to consider such requests within the policy framework and constraints. The PDS was subjected to a severe strain on account of increasing requirements of the people in the affected areas. More and more people turned to purchase foodgrains from fair price shops due to higher prices in open market. Organisation of distribution of essential commodities from producing centres to far-flung consuming area in a vast country like ours required coordination of and interaction with various Ministries and Department at both Central and State levels. There were also some reports of inadequate supplies and leakages from the PDS.

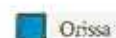
2.6 The States and Union Territories were urged from time to time to strictly enforce the provisions of Essential Commodities Act and similar legislations in order to curb the activities of hoarders and other anti-social elements in trade and industry. Intensive anti-hoarding drive was continued. From August, 1987 to October 1988, as many as 1,15,056 raids were conducted in different States, 4,090 persons arrested, 3,880 prosecutions launched and goods valued at Rs. 39.90 crore seized. Raids were conducted to curb illegal forward trading in banned commodities including oilseeds and edible oils. From August, 1987 to August, 1988, 309 raids were conducted at several places and 84 persons arrested.

2.7 The States and Union Territories were urged from time to time to effectively monitor the availability of essential commodities and take appropriate steps to enlarge and strengthen PDS. They were also requested to set up advisory/vigilance committees at State, district and sub-divisional/*taluka* levels in order to give proper direction for efficient functioning of PDS and also to ensure that prices

1987



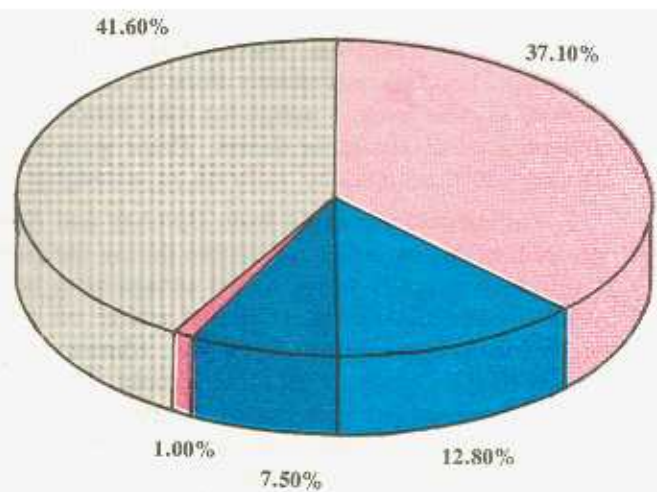
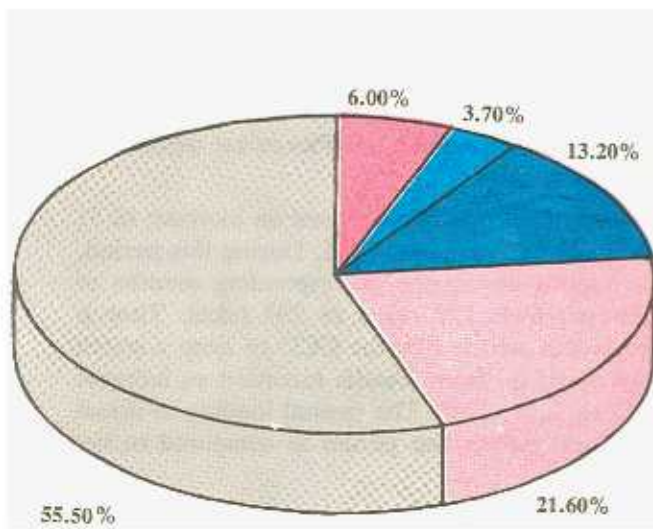
Wheat



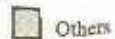
Rice

**Figure 19:** Percentage Distribution of Cheaper Grains from Central Pool in ITDP Area (July-December, 1987)

1988



Wheat



Rice

**Figure 19:** Percentage Distribution of Cheaper Grains from Central Pool in ITDP Area (Jan-August, 1988)

were contained and essential commodities were made available in the market at reasonable prices. The Minister of Food and Civil Supplies from time to time wrote to Chief Ministers of various States and Lt. Governors/Administrators of Union Territories drawing their attention to the need for taking various measures in order to keep rising prices of essential commodities in check and maintain their availability during the lean period.

2.8 The Control Room in the DCS was established in August, 1987 with the main objective to keep a watch on the prices and availability of essential commodities. Most of the States/Union Territories also established control rooms and advisory committees at State and district levels. The Control Room in the DCS undertook weekly analysis of centre-specific price trends in respect of rice, wheat, sugar, *jowar*, *bajra*, gram and edible oils. Abnormal trends were brought to the notice of the concerned Ministries/Departments of Central Government and to the concerned State Governments for appropriate action under intimation to the Control Room. Reports about action taken by States/Union Territories usually took quite some time because they had to get in touch with the district administration. Basically, replies received from the States and Union Territories were in the nature of requests for additional allocation of wheat, rice and sugar which were passed on to the Department of Food to consider them.

### **Transportation**

3.1 During the drought of 1987, State Governments' demands for transportation of commodities for drought relief through railways were met by the Railway Board. The normal railway set up provides for a close watch on the movement of passenger and freight traffic through the Control Rooms working round the clock at important Area Control, Divisional headquarters and Zonal headquarters. However, during crisis, officers are nominated for special items of work and Central Government Departments and State Governments are advised the names and addresses of such officers so that they can be approached as and when any assistance is required for relief operations. These steps were intensified in the wake of the drought of 1987.

3.2 Special watch was maintained for the movement of foodgrains, fodder, POL products including diesel oil, edible oil and water. During the period April 1987 to March 1988, 30.17 million tonne of foodgrains were loaded as compared to 29.01 million tonne during 1986-87, thus registering an increase of 4 per cent. The loading during April to June, 1988 was less compared to April to June, 1987 due to less offer of traffic by FCI. Railways were advised to accord top priority to the loading of fodder and clear the demands expeditiously. Freight concession was also given for the loading of fodder to the drought affected area, when sponsored by the State Governments. During the period October 1987 to June 1988, 34,034 wagons were despatched to Gujarat and 4,379 wagons were despatched to Rajasthan. The loading mostly originated from Western, Northern and North-Eastern Railways. Loading was mainly done in block rakes as far as possible but the traffic was not always offered at rake loading points for rake handling destinations. This created difficulties for the railways and resulted in avoidable delays. There were some piecemeal despatches also. Piecemeal despatches caused problems for the railways in arranging supplies of wagons.

3.3 Imported edible oil from Bombay and Kandla transported by rail registered an increase of 31 per cent of the broad gauge system during the period August, 1987 to June, 1988. During this period, 11,017 tank wagons were loaded as against 8,387 tank wagons during the corresponding months of 1986-87. The movement of tinned edible oil also increased from 127 rakes to 207 rakes. Thus it registered an increase of 63 per cent. Ministry of Railways was directed by the CCD to keep a watch on the loading of diesel oil from Kandla. The loading of diesel oil from Kandla recorded an increase of more than 68 per cent during the period August, 1987 to June, 1988. The overall loading to diesel oil on all zonal railways registered an increase of 18 per cent during this period as compared to the corresponding period of 1986-87.

### **Lessons Learnt**

4.1 The PDS needs to be expanded and further strengthened particularly in rural and far-flung area. The anti-hoarding drives stepped up by States acted as a great deterrent against hoarding. The monitoring arrangements at the Centre and in the States proved very useful in organising distribution operations. On account of huge buffer and operational stocks with the FCI, the Department of Food did not encounter any serious difficulty to tide over the situation arising out of drought. However, on

account of fall in production of foodgrains and significant increase in the open market prices, considerable difficulties were encountered in procuring foodgrains at the support/procurement prices.

4.2 The main elements of the strategy of buffer stocking of foodgrains and public distribution stood the test during the period of severe drought. They are proposed to be further strengthened and streamlined because in a vast country like India, a natural calamity like drought or flood takes place in one part or the other almost every year. It is in the fitness of things that PDS is so geared that it is flexible and strong enough to meet the requirements in normal period as also during the periods of natural calamities. Secondly, the procurement system should be further strengthened so that stocks depleted during the drought period are replenished at the earliest. Lastly, the monitoring system and control rooms at the Central, State and local levels created during the drought period should continue as they would, on the one hand, provide immediate and early warning signals and, on the other, help in monitoring and evaluating the current prices and availability situation.

4.3 There was a quantum jump in rail transport requirement due to sustained economic growth both in the agricultural and industrial sectors. In order to cope with the increased rail transport requirement, railways explored ways to optimise on the utilisation of rolling stocks particularly wagons. One of the universally accepted methods of optimisation of wagons is loading and movement in train loads as against the traditional system of loading and movement in wagon loads. Railways adopted this method and gradually switched over to the concept of train load movements. Trade and industry are gradually adapting themselves to the new pattern because this not only ensures quicker supply of wagons but also results in faster transit. As loose wagons, which were earlier available for clearance of piecemeal traffic, were being more and more mobilised for formation of block rakes, there were difficulties in supply of such wagons and delays in clearance of piecemeal traffic sometimes became inescapable. It would have, therefore, facilitated quicker transportation if the States had offered the traffic in rake loads even by clubbing the indents for one/two destinations for quicker clearance.

4.4 It is suggested that for quicker transport of relief material, the States should be advised: (i) to identify block rake points for loading and unloading of relief material with the help of the concerned zonal railway, and (ii) to arrange road bridging of material from way side stations to block rake loading points and again from unloading block rake points to consuming centres. Thus the movement between major nodal points/block rake points will be faster by rake loads. Such rake load movement also lends itself to effective monitoring—which is so very essential for any relief programme.