1		2	3
VI. Jhansi Division			
25. Banda		20	5.6
26. Hamirpur		15	4.2
27. Jalaun		20	5.6
28. Jhansi		20	5.6
29. Lalitpur		25	7.0
Total		100	28.0
VII. Lucknow Division			
30. Hardoi		50	14.0
31. Lakhimpur		60	16.8
32. Raebareli		70	19.6
33. Sitapur		45	12.6
34. Unnao		20	5.6
Total		245	68.6
VIII. Meerut Division			
35. Bulandshahar		150	42.0
36. Ghaziabad		85	23.8
37. Meerut		90	25.2
38. Muzaffarnagar		115	32.2
39. Saharanpur		95	26.6
Total		535	149.8
IX. Moradabad Division			
40. Bijnor		106	29.68
41. Moradabad		90	25.2
42. Rampur		50	14.0
Total		246	68.88
X. Varanasi Division			
43. Ballia		60	16.8
44. Ghazipur		95	26.60
45. Jaunpur		50	14.0
46. Mirzapur		25	7.0
47. Varansi		115	32.20
Total		345	96.60
Grand Total		2500	700.0

replace damaged underground cables at the sub-stations. The work had to be taken up on a few 33/11 kilo volt (KV) sub-stations in order to achieve proper voltage and reduce down time of feeders.

6.22 The State Government sanctioned Rs. 7 crore for replacement of 2,500 damaged transformers. Districtwise allotment of funds as well as transformers may be seen in Table 66. The divisionwise allotment of transformers may also be seen in Figure 34. The increase in power supply to rural area had to be done at the cost of power supply to industries. Serious scheduled cuts had to be imposed mainly on heavy industries. This resulted in a loss of revenue to State Electricity Board to the extent

of about Rs. 50 crore. The increased power supply in rural area also did not gave any additional revenue as the power supply was built on the basis of connected load irrespective of the hours of supply.

6.23 Uttar Pradesh Drought Relief Committee is a voluntary organisation working since 1966. It conducted a broad survey of drought prone pockets and prepared the plans. From Council for Advancement of People's Action and Rural Technology (CAPART) it received a sanction of 1,200 tubewells at a cost of Rs. 20,000 per tubewell and subsidy at the rate of Rs. 400 per tubewell. Besides, the State Government also sanctioned 2,000 tubewells to be bored through this Committee at the very nominal cost of Rs. 250. The rest of the cost was to be shared by the beneficiaries Under its normal programme, it completed boring of 1,123 tubewells. The operational area of this committee was Azamgarh, Ghazipur, Basti, Faizabad, Barabanki, Gonda, Sultanpur, Sitapur, Allahabad, Pratapgrah and Gorakhpur.

Cooperation

7.1 Due to severity of drought in many districts, *Kharif* crop sustained a loss of more than 50 per cent. This necessitated provision of immediate financial relief to the cultivators whose crops sustained losses. As a relief measure, conversion of short-term loans into medium-term loans, rephasing or re-scheduling of loans and disbursements of short-term as well as medium-term loans were taken up. Consequently, in all the districts, large number of farmers benefited. A sum of Rs. 113.18 crore were disbursed as short-term loans benefitting over 9 lakh cultivators and medium-term loans amounting to Rs. 13.19 crore were disbursed to the cultivators from 1st April, 1987 to 30th September, 1987, as shown in Annexure XXXIII.

7.2 A sum of Rs. 86.61 crore was converted from short-term into medium-term (conversion) loans for 5 years benefitting over 6 lakh member-farmers, as shown in Annexure XXXIV. Similarly, medium-term (conversion) loans amounting to Rs. 10.72 crore were rephased from 5 years to 7 years benefitting over 89,000 members of primary agriculture co-operative societies as shown in Table 67.

7.3 Remission in land revenue was allowed as loss of *kharif* crop in many districts was more than 50 per cent. In as many as 34 districts losses in revenue amounted to Rs. 5.71 crore as shown in Table 68. Orders were also issued that no punitive action would be taken for recovery of outstanding dues of land revenue and agricultural dues till 31st January 1988.

Table 67: Rephasement Facility Granted by Apex Bank to District Co-operative Banks in Uttar Pradesh, Kharif 1987.

(Rs. in lakh)

S. No.	Bank	Limit Sanctioned by		Drawal Made by		Rephasement granted by DCBs to PACs	Beneficiaries (Number)
		Apex Bank	NABARD	DCBs	Apex Bank		
1.	Bahraich	65.85	52.62	65.85	52.62	68.28	6754
2.	Bareilly	50.00	33.33	41.54	33.00	41.54	3502
3.	Basti	90.00	75.18	48.89	48.89	48.89	5090
4.	Faizabad	102.36	42.38	102.36	42.38	115.70	10625
5.	Gonda	38.74	—	38.74	—	39.20	3250
6.	Lakhimpur Kheri	195.36	195.36	195.36	195.36	362.44	27625
7.	Lucknow	9.03	5.68	7.67	5.68	7.67	985
8.	Pratapgarh	64.00	36.00	64.00	36.00	64.09	4764
9.	Shahjahanpur	73.24	73.24	73.22	73.22	73.22	7825
10.	Sitapur	123.00	90.50	112.83	90.00	112.83	3875
11.	Sultanpur	80.39	47.20	80.39	47.20	81.00	7999
12.	Unnao	60.54	40.20	57.08	40.20	57.08	6731
	Total	952.51	691.69	887.93	665.05	1071.94	89025

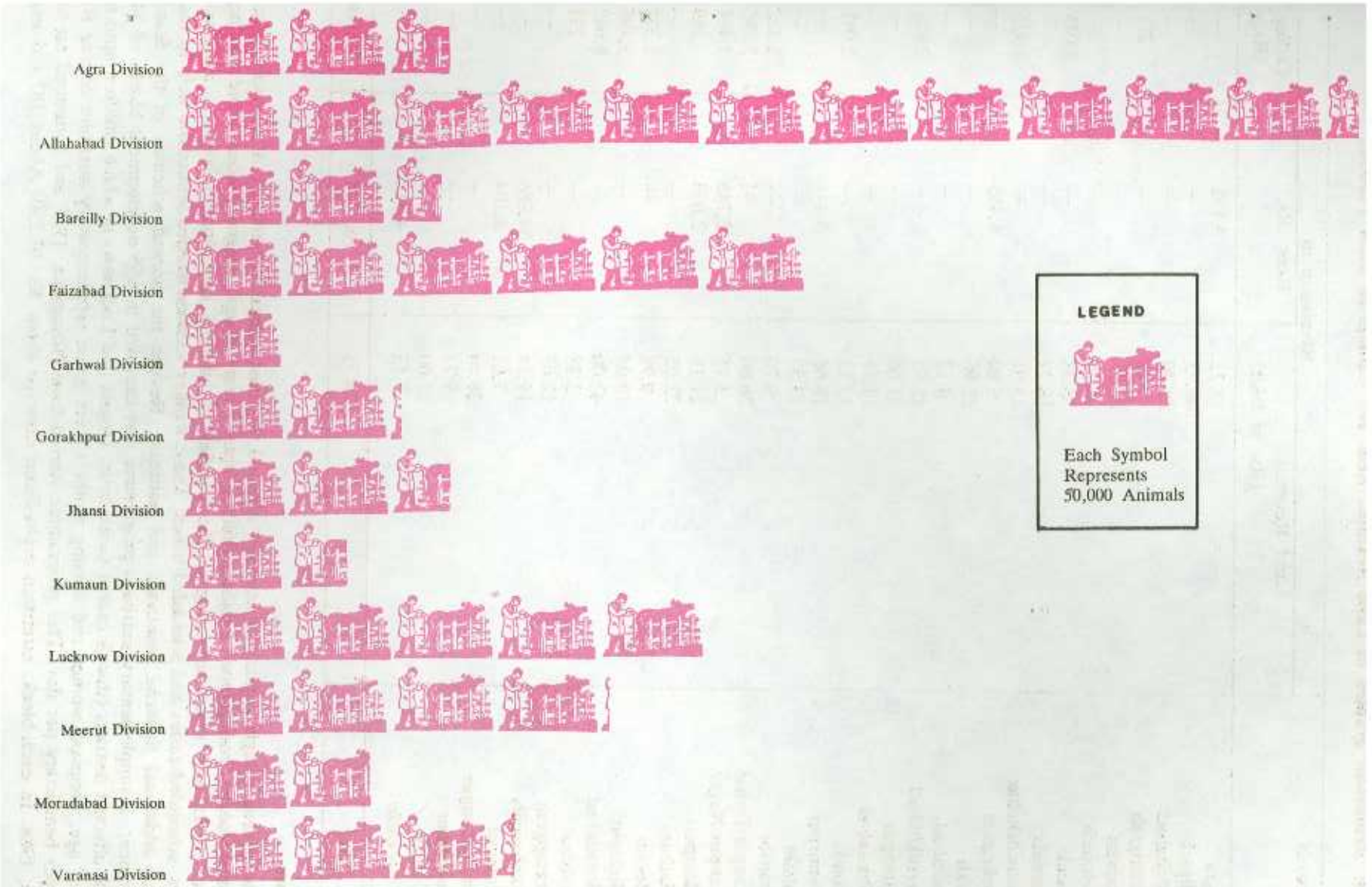

Figure 30: Division-wise Number of Animal Innoculaied in Uttar Pradesh, 1987-88.

Table 68: Remissions granted in Land Revenue, Rent and Ceilings in Uttar Pradesh, 1987

S. No.	District	Remission in		
		Land Revenue (Rs. in lakh)	Rent (Rs.)	Ceiling (Rs.)
1.	Agra	18.22	3,131	—
2.	Aligarh	40.75	—	—
3.	Allahabad	29.40	—	—
4.	Azamgrah	7.48	—	271
5.	Badaun	28.26	—	—
6.	Bahraich	2.56	—	—
7.	Banda	18.38	—	8,075
8.	Bareilly	18.27	—	—
9.	Bulandshahar	33.01	—	1,475
10.	Dehradun	0.80	4,455	—
11.	Etah	21.96	—	—
12.	Faizabad	4.12	—	—
13.	Farrukhabad	15.93	—	2,958
14.	Fatehpur	21.66	—	—
15.	Ghaziabad	17.76	—	—
16.	Gonda	13.12	—	1,091
17.	Hamirpur	18.68	8,441	—
18.	Jalaun	13.50	—	—
19.	Jhanshi	9.70	—	2,222
20.	Kanpur-Dehat	26.60	91	3,785
21.	Kanpur-Nagar	5.15	2,745	1,467
22.	Mainpuri	21.18	2,093	569
23.	Mathura	22.02	—	—
24.	Meerut	9.98	—	1,377
25.	Mirzapur	10.03	—	5,495
26.	Moradabad	43.00	—	9,042
27.	Nainital	2.38	—	131
28.	Pratapgrah	12.63	—	—
29.	Raebareilly	19.34	34,986	—
30.	Rampur	7.03	8,104	—
31.	Shahjahanpur	26.49	—	—
32.	Sultanpur	9.73	—	—
33.	Unnao	21.00	—	—
34.	Uttarkashi	0.53	4,512	—
	Total	570.75	68,558	37,958

Nutrition

8.1 The servere drought conditions adversely affected the most vulnerable sections of the society like destitutes, widows, handicapped persons, children upto 6 years of age, pregnant women and nursing mothers particularly those belonging to the families of landless agriculture labourers, marginal farmers, scheduled castes and scheduled tribes. These weaker sections needed immediate help in the form of additional financial assistance and nutrition. Besides the normal schemes of the State Government, a supplementary nutrition programme was executed in 655 development blocks of 54 drought affected districts (that is except Gorakhpur, Deoria and Lucknow) in which children upto 6 years of age, pregnant women and nursing mothers were given supplementary nutrition costing 80 paise per beneficiary per day. This programme started from November, 1987 and continued up to March, 1988. In each block, estimated expenditure came to about Rs. 47,250. About 187 *balvaris*

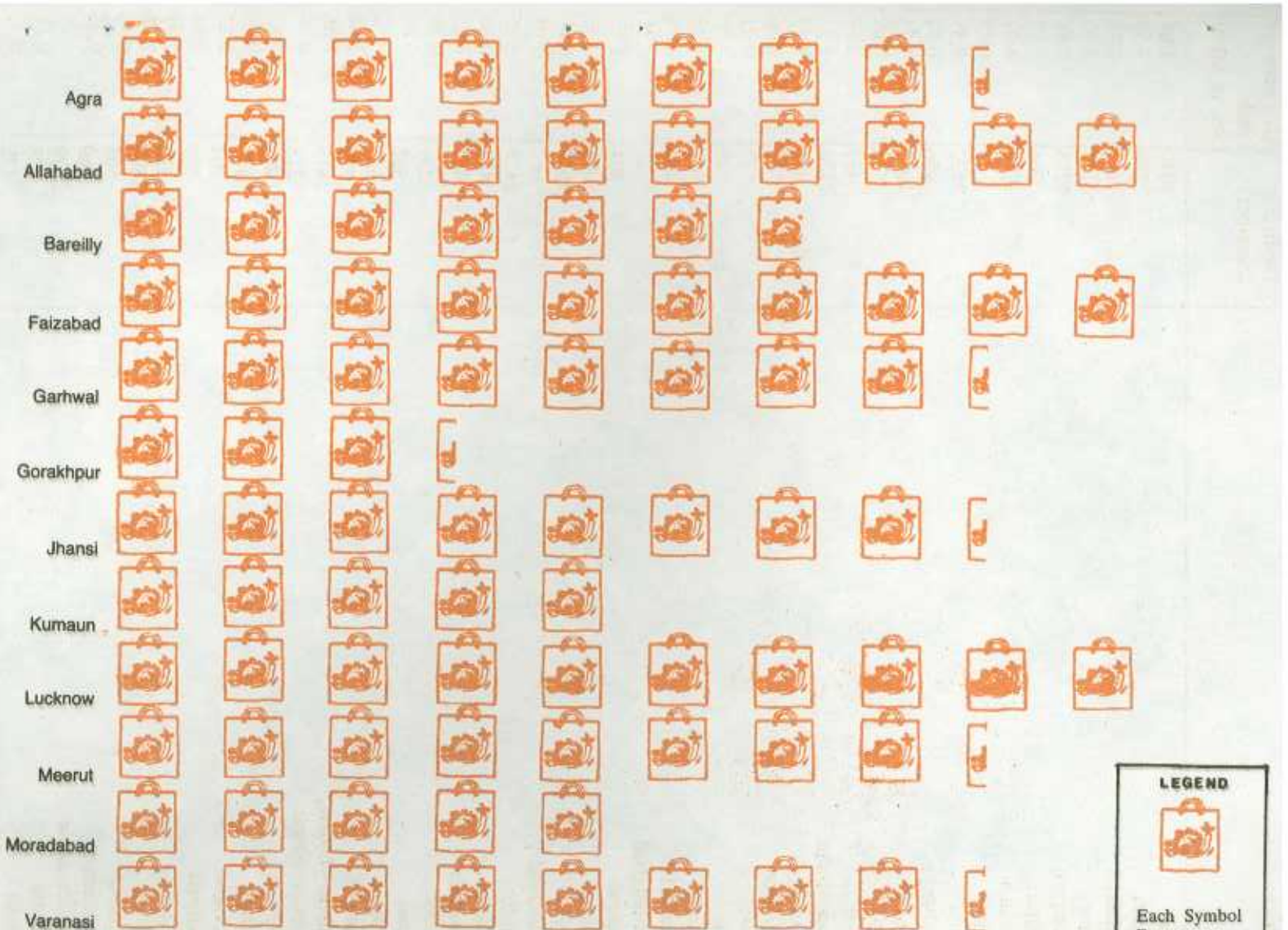

Figure 31: Division-wise Distribution of Minikits for Vegetable Production in Uttar Pradesh, pre-rabi, 1987.

Table 69: Free Distribution of Foodgrains and Cloths to Destitutes in Uttar Pradesh, 1987-88.

S. No.	District	Destitutes (Number)	Allotment of Funds (Rs. in lakh)
1.	Agra	1040	1.64
2.	Aligarh	2278	3.59
3.	Allahabad	1843	2.91
4.	Almora	2114	3.33
5.	Azamgarh	1208	1.91
6.	Badaun	966	1.53
7.	Bahraich	3150	4.97
8.	Ballia	68	0.11
9.	Banda	3522	5.55
10.	Barabanki	496	0.79
11.	Bareilly	1099	1.74
12.	Basti	438	0.69
13.	Bijnor	431	0.68
14.	Bulandshahar	2138	3.37
15.	Chamoli	980	1.55
16.	Dehradun	32	0.06
17.	Deoria	127	0.21
18.	Etah	48	0.08
19.	Etawah	907	1.43
20.	Faizabad	464	0.74
21.	Farrukhabad	77	0.13
22.	Fatehpur	964	1.53
23.	Garhwal	1086	1.72
24.	Gazipur	5619	8.85
25.	Ghaziabad	661	1.05
26.	Gonda	1425	2.25
27.	Gorakhpur	418	0.66
28.	Hamirpur	853	1.35
29.	Hardoi	239	0.38
30.	Jalaun	558	0.88
31.	Jaunpur	455	0.72
32.	Jhansi	934	1.48
33.	Kanpur—Dehat	1815	2.86
34.	Kanpur—Nagar	212	0.34
35.	Kheri	1983	3.13
36.	Lalitpur	440	0.70
37.	Lucknow	204	0.32
38.	Mainpuri	533	0.84
39.	Mathura	529	0.84
40.	Meerut	1894	2.99
41.	Mirzapur	563	0.89
42.	Moradabad	269	0.43
43.	Muzaffarnagar	2879	4.54
44.	Nainital	478	0.76
45.	Pilibhit	332	0.53
46.	Pithoragarh	193	0.31
47.	Pratapgarh	101	0.16
48.	Raibareilly	771	1.22
49.	Rampur	1998	3.15

(Continued)

50.	Saharanpur	126	0.20
51.	Shahjahanpur	1015	1.60
52.	Sitapur	356	0.57
53.	Sultanpur	2325	3.67
54.	Tehri-Garhwal	3382	5.33
55.	Unnao	955	1.51
56.	Uttarkashi	1182	1.87
57.	Varanasi	937	1.01
	Total	61,810	97.64

running under the State Social Welfare Board and Social Welfare Department also benefited by this supplementary nutrition programme.

8.2 Urban and semi-urban slum area of 24 districts benefited by nutrition programme and expenditure of Rs. 8.22 lakh was incurred benefitting 7,600 beneficiaries. Voluntary organisations were also associated in the nutrition programme. In 36 districts, 21,000 beneficiaries were covered by incurring an expenditure of Rs. 22.24 lakh on nutrition. In areas where child development schemes were not being executed, an expenditure of Rs. 3.40 crore was incurred by which 4.56 lakh beneficiaries were covered. The GOI approved a ceiling of Rs. 3.40 crores for supplementary nutrition programme under the drought relief assistance in 1987-88.

8.3 A sum of Rs. 97.64 lakh was allotted to 57 districts to provide relief to 61,810 destitutes. Under this scheme 10 kilogram of wheat per month and cloth worth Rs. 50 once a year per destitute was provided from November, 1987. The districtwise number of destitutes and allotment of funds may be seen in Table 69.

8.4 A sum of Rs. 10.57 crores was allotted to 57 districts as gratuitous relief. Similarly, a sum of Rs. 2 crores was allotted for drinking water hand pumps and a sum of Rs. 1.35 crores was allotted as distress *taccavi*. The districtwise details of gratuitous relief and funds allotted for distress *taccavi* in Uttar Pradesh in 1987-88 may be seen in Table 70.

Table 70: Gratuitous Relief and Funds Allocated for Drinking Water Hand Pumps and Distress *Taccavi* in Uttar Pradesh, 1987-88

(Rs. in lakh)

S. No.	Districts	Gratuitous Relief	Drinking Water Hand Pumps	Distress *Taccavi*
1.	Agra	12.15	5.00	6.00
2.	Aligarh	16.35	5.00	4.00
3.	Allahabad	10.65	4.00	—
4.	Almora	8.45	3.00	2.00
5.	Azamgarh	53.27	2.00	—
6.	Badaun	12.35	2.00	1.00
7.	Baharaich	11.35	4.00	3.00
8.	Ballia	37.31	5.00	—
9.	Banda	10.65	12.00	4.00
10.	Barabanki	21.07	4.00	—
11.	Bareilly	12.40	2.00	—
12.	Basti	29.75	2.00	—
13.	Bijnor	12.55	2.00	—
14.	Bulandshahar	7.85	5.00	18.00
15.	Chamoli	11.85	2.00	—
16.	Dehradun	6.27	4.00	6.00
17.	Deoria	79.06	2.00	—
18.	Etah	13.52	2.00	—
19.	Etawah	10.13	2.00	—
20.	Faizabad	17.52	2.00	—
21.	Farrukhabad	12.15	2.00	—
22.	Fatehpur	10.35	2.00	—
23.	Garhwal	12.40	2.00	2.00
24.	Gazipur	58,35	6.00	14.00
25.	Ghaziabad	3.50	5.00	—
26.	Gonda	35.01	4.00	—
27.	Gorakhpur	35.98	2.00	—
28.	Hamirpur	8.90	8.00	20.00
29.	Hardoi	11.69	2.00	—
30.	Jalaun	8.00	6.00	2.00
31.	Jaunpur	13.05	5.00	—
32.	Jhansi	9.05	8.00	—
33.	Kanpur-Dehat	5.44	2.00	—
34.	Kanpur-Nagar	2.23	2.00	—
35.	Kheri	65.20	2.00	—
36.	Lalitpur	8.05	6.00	3.00
37.	Lucknow	12.40	2.00	—
38.	Mainpuri	8.20	2.00	—
39.	Mathura	8.40	4.00	8.00
40.	Meerut	5.04	5.00	6.00
41.	Mirzapur	16.45	12.00	—
42.	Moradabad	16.85	2.00	1.00
43.	Muzaffarnagar	2.75	2.00	—
44.	Nainital	18.95	3.00	3.00
45.	Pilibhit	5.80	2.00	3.00
46.	Pithoragarh	18.15	3.00	4.00
47.	Pratapgarh	8.05	2.00	3.00

(Continued)

48.	Raebarelli	14.00	2.00	—
49.	Rampur	10.00	2.00	—
50.	Saharanpur	11.38	2.00	4.00
51.	Shahjahanpur	31.85	2.00	1.00
52.	Sitapur	51.40	2.00	3.00
53.	Sultanpur	19.12	2.00	6.00
54.	Tehri-Garhwal	23.80	2.00	4.00
55.	Unnao	14.02	5.00	—
56.	Uttarkashi	9.37	2.00	4.00
57.	Varanasi	43.74	5.00	—
	Total	1056.77	200.00	135.00

Note: As on 29th February, 1988

Public Health

9.1 To take care of public health, an action plan was formulated and following relief measures taken: (i) State/Districts level control romms were set up to monitor the epidemic and public health problems; (ii) A team of 12 Medical Officers including Bacteriologist and Epidemicologist was constituted at State level for prompt and emergent action; (iii) Disinfection work of drinking water was taken up and in this work village *pradhans* were associated. Each *pradhan* was provided with a packet of 500 gram bleaching powder. 18,563 departmental multi-purpose workers were also associated in this work; (iv) Medical relieff centres were equipped with sufficient stock of disinfectants, medicines and vaccines; (v) All Primary Health Centres (PHCs) and Epidemic Units were cautioned for prompt collection, submission and survilliance; (vi) Special camps were organised for providing treatment of anemia and blindness; (vii) and Contribution of voluntary organisations like Indian Medical Association was also obtained.

9.2 The GOI approved a ceiling of expenditure of Rs. 1.01 crore for public health measures. Out of this Rs. 10 lakh was spent on bleaching powder, Rs. one lakh on syringes and needles, another Rs. one lakh on vaccines and serums, Rs. 6.14 lakh on disinfectants and spray equipments, Rs. 0.50 lakh on health education, Rs. 7 lakhs on miscellaneous items including petrol, oil and lubricants (POL) and Rs. 75.36 lakh on medicines.

9.3 As many as 58 control rooms were opened, and 21,351 medical relief centres were set up. As many as 25,44,067 wells were disinfected and 19,98,064 anti-cholera vaccinations carried out.

9.4 As many as 19.03 lakh persons benefitted from Tetanus Toxoid(TT) Meta vaccination, 28.36 lakh from Diptheria, Polio and Tetanus (DPt) vaccination, 19.98 lakh from polio vaccination, 24.03 lakh from Baccillus Calmette-Guerin (BCG) vaccination, 18.58 lakh from Diptheria and Tetanus (DT) vaccination, 15.77 lakh from typhoid vaccination, 10.86 lakh from Diptheria Tetanus (DT) (10 years) vaccination, 7.90 lakh from Diptheria Tetanus (DT) (16 years) vaccination and 13.79 lakh from

khasra (measles) vaccination.

9.5 As many as 3,12,359 patients were treated. 22.16 lakh iron meta, 18.20 lakh iron tablet and 23.54 lakh vitamin A tablets were distributed.

Public Distribution System (PDS)

10.1 Due to failure of *kharif* monsoon and scanty rainfall during winter season of 1987-88, there was tendency for a rise in price of foodgrains. The State Governments' endeavour was to check as far as

Figure 32: Division-wise Production of Potato under Drought Relief Programme in Uttar Pradesh-Pre-Rabi 1987.

possible the price rise by opening more fair price shops (FPSs) in rural and urban areas and also to maintain adequate supply of essential commodities throughout the State.

10.2 Table 71. shows the retail prices of principal commodities for selected months in 1985-88. The table shows that price of wheat was Rs. 221 per quintal in September, 1987 while in the corresponding months of the previous year it was Rs. 210 per quintal. In January 1987 its was Rs. 228 which rose to Rs. 264 per quintal in January 1988. The Food and Civil Supplies Department opened new fair price shops (FPSs) in rural and urban areas. Thus working strength of FPSs in rural and urban areas was 33,077 and 10,807 respectively, thus totalling 43,884 FPSs as may be seen in Annexure XXXV.

Table 71: Monthly Average Retail Prices of Principal Commodities During 1985-88.

(Rs. per quintal)

S. No.	Commodity	Aug	Sept	Dec	Jan	Feb	March	April	May	June
			1985				1986			
1.	Wheat	191	198	198	201	220	222	186	182	184
2.	Rice	201	286	233	251	266	266	274	278	282
3.	*Arhar* Dal	543	540	579	592	599	586	565	567	586
4.	*Urd* Dal	642	660	650	670	668	661	631	661	654
5.	Mustard Oil	1221	1158	1263.	1237	1289	1277	1292	1501	1591
			1986				1987			
1.	Wheat	201	210	219	228	225	206	188	191	197
2.	Rice	301	316	285	201	292	290	301	302	303
3.	*Arhar* Dal	646	675	704	746	764	770	760	964	806
4.	*Urd* Dal	657	642	624	642	670	667	679	872	685
5.	Mustard Oil	1698	1785	1936	1983	2021	1833	1917	2198	2298
			1987				1988			
1.	Wheat	234	221	246	264	266	266	210	208	215
2.	Rice	345	326	322	338	330	337	343	346	352
3.	*Arhar* Dal	940	890	1017	1014	919	938	939	915	909
4.	*Urd* Dal	723	688	721	720	699	701	721	728	737
5.	Mustard Oil	2670	2635	2749	2437	2286	2129	2091	2047	2025

Micro Level Studies: Agra District

11.1 It was desired by the GOI that micro level studies of some villages affected by drought be conducted by the respective State and reports on the status of drought and relief measures taken should be submitted to them. The State Government, therefore, conducted such studies in Agra district of Uttar Pradesh. Two sample villages were selected for the study.

11.2 Agra district is situated in south-western part of the Uttar Pradesh. The district is pre-dominantly agriculture with 63 per cent of the population living in rural area. There are 7 *tehsils* and 18 development blocks.

11.3 Out of 7 sub-divisions of the district, one sub-division, namely, Bah has considerable ravinous area along rivers Yamuna and Chambal. Another two sub-divisions, namely, Kheragarh and Kiraoli have partly rocky

area and rest of the sub-divisions have a slightly different type of terrain. The ground water level is very low and in considerable area the water is brackish.

11.4 The district had very low rain fall in 1987. The temperature remained alarmingly high especially in the months of July and August which accentuated drought conditions in the district.

11.5 On account of failure of monsoon in 1987, *kharif* crop was severely damaged. Due to the low content of moisture in the soil and inadequate assured irrigation facilities, the *kharif* and *rabi* crops were adversely affected. There was drinking water problem both to human beings and cattle population.

11.6 The *tehsil* of Kiraoli and Kheragarh in the district of Agra were worst affected. Most of the area of *tehsils* Kiraoli and Kheragarh are adjoining the district of Bharatpur and Dholpur of Rajasthan.

11.7 For the purpose of the study villages Nagla Sarai in Fatehpur Sikri block of *tehsil* Kiraoli and village Bhawanpura in Jagner block of *tehsil* Kheragarh were selected. The problems faced in these two villages represent the situation that generally prevailed in the area affected due to drought.

Village Nagla Sarai

11.8 The average rainfall and comparative rainfall data of the months of June to September, 1986-87 are given in Table 72.

Table 72: Rainfall from June to September in 1986 and 1987 in Village Nagla Sarai in Agra District, Uttar Pradesh.

(mm)

S. NO.	Year	June		July		August		September	
		Normal Rainfall	Actual Rainfall	Normal Rainfall	Actual Rainfall	Normal Rainfall	Actual Rainfall	Normal Rainfall	Actual Rainfall
1.	1986	50.9	52.4	196.1	42.2	209.1	61.8	128.2	89.9
2.	1987	50.9	Nil	196.1	34.2	209.1	139.2	128.2	72.2

11.9 It is evident from Table 72, that in the months of July, August and September the rainfall was much below the average rainfall. Temperature also remained high during the months of summer. This resulted in serious problems like the failure of the crops, drinking water problem and unemployment.

11.10 The ground water is normally available at a depth of 18 to 20 metre in this village. Due to drought in 1986 and also in 1987, water table went down by 2 to 3 metre from the average water table in the village. This resulted in the low discharge of water from the wells and tubewells. Low rainfall coupled with high temperature caused rapid evaporation of the stored water in tanks and ponds.

11.11 The source of drinking water in the village is traditional. There are 8 wells. These wells were deepened, cleaned and recleaned out of the relief funds to improve the availability of water. One India Mark-2 hand pump was installed in the village in 1987-88. This helped to ease the problem to some extent. The drinking water problem was equally acute for cattle population as tanks and ponds dried up. There is no tubewell except a few borings. The tanks and ponds could not be refilled from the borings having low discharges. In consultation with the villagers, two cement water storages were constructed which were filled and refilled from private borings to provide drinking water for cattle population. This arrangement was just satisfactory.

11.12 The population of the village is 439 children, 461 adults and 411 old people. Total agriculture area is 291 hectare with holdings of 70 small and 80 marginal farmers. There is neither irrigation channel in the village nor private tubewells. The total area irrigated is 172 hectare from private borings / wells. The total availability of water is 22.6 cusecs for irrigation. Due to scarcity of irrigation facilities, *kharif* crop could not be saved. The sown area was 278 hectare against 291 hectare. There was 75 per cent loss in *kharif* crop. The production loss was estimated at 1,875 quintal and in terms of financial loss it was estimated at Rs.2.40 lakh. About 13 hectare of land could not be sown. The estimated loss due to unsown area was 117 quintal amounting to Rs.15,000.

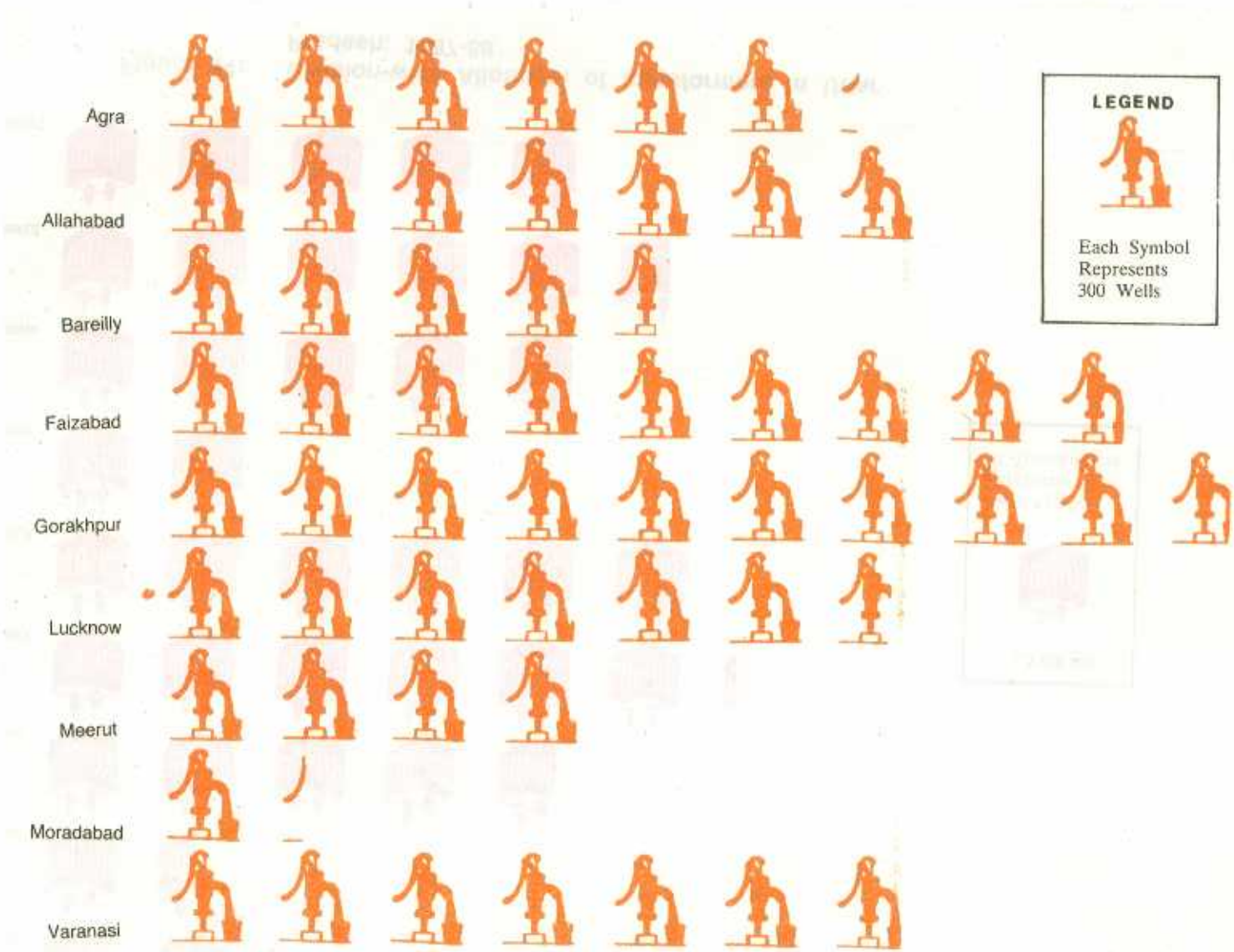

Figure 33: Division-wise Boring of Wells in Uttar Pradesh, 1987-88.

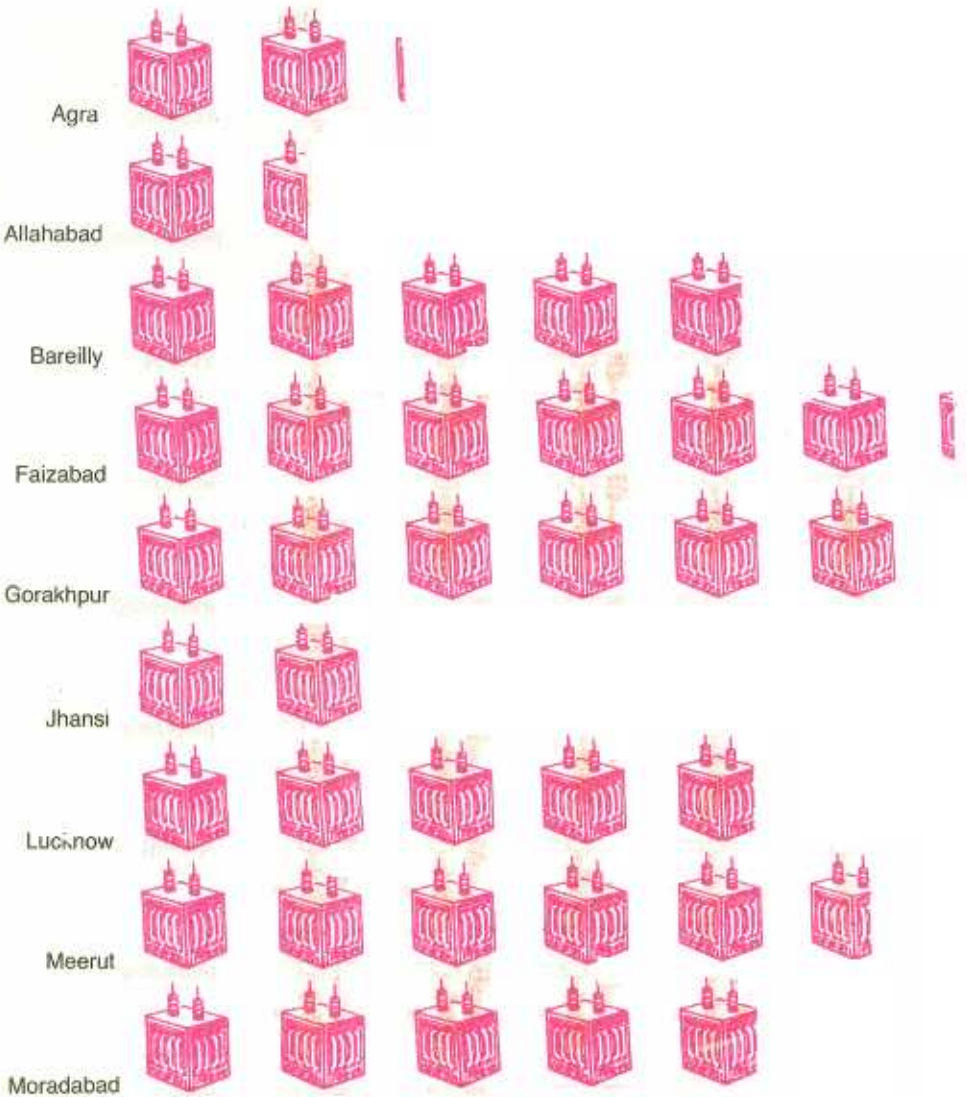

Figure 34: Division-wise Allotment of transformers in Uttar Pradesh, 1987-88.

11.13 The fodder problem was not serious, as fairly satisfactory storage of fodder was with farmers. There was no problem of evacuation of cattle population. The forest area was opened for grazing purpose. Cattle population was treated to prevent any epidemic. A primary sub-health centre situated at Dabar is 2 kilometre from the village. Wells were disinfected. There was no epidemic.

11.14 The necessity of rural employment was felt in the village. There are 51 agricultural labourers, 15 landless labourers, 70 small farmers and 80 marginal farmers. The construction of 1 kilometre *kutcha* road was taken up from Dabar Roopas to Nagla Sarai as a measure of drought relief programme. 5,220 manday was created in this area. 25 farmers were given IRDP loans for self-employment and 11 free borings were done to provide facilities of irrigation.

Village Bhawanpura

11.15 The average rainfall and comparative rainfall data for the months of June to September, 1986-87 are given in Table 73.

Table 73: Rainfall from June to September in 1986 and 1987 in Village Bhawanpura in Agra District, Uttar Pradesh.

(m.m.)

S No	Year	June		July		August		September	
		Normal Rainfall	Actual Rainfall	Normal Rainfall	Actual Rainfall	Normal Rainfall	Actual Rainfall	Normal Rainfall	Actual Rainfall
1	1986	50 9	10.6	196.1	99.4	209.1	123.3	128.2	33.6
2.	1987	50.9	3.6	196.1	27.8	209.1	126.0	128.2	22.7

11.16 It will be evident from Table 73 that in the months of June, July August and September, the rainfall was much below the average rainfall. Temperature also remained high during the months of summer. This resulted into serious problems like the failure of the crops, drinking water problem and unemployment.

11.17 The ground water is normally available at a depth of 30 to 33 metre in this village. Due to drought in 1986 and also in 1987, water table went down by 3 metre from the average water table in the village. This resulted in low discharge of water from the wells and tubewells. Low rainfall coupled with high temperature caused rapid evaporation of the stored water in tanks and ponds.

11.18 The source of drinking water in the village is traditional. There are 4 wells. These wells were deepened, cleaned and recleaned out of the relief funds to improve availability of water. 4 India Mark-2 hand pumps were installed in the village in 1986-87. This helped to ease the problem to some extent which was just satisfactory. The drinking water problem was equally acute for cattle population as tanks and ponds dried up. There is no tubewell except a few borings. The tanks and ponds could not be refilled from the borings having low discharges. In consultation with the villagers, now this village has been included in proposed Mowla water supply scheme of 1989-90.

11.19 The population of the village is 366 children, 128 adults and 14 old people. Total agriculture area is 307 hectare with holdings of 22 small, 97 marginal and 28 big farmers. There is neither irrigation channel in the village nor state or private tubewell. The total area irrigated is 40 hectare from private borings / wells. Due to scarcity of irrigation facilities, *kharif* crop could not be saved. The sown area was 75 hectare against 307 hectare. There was over 75 per cent loss in *kharif* crop. The production loss was estimated at Rs.2.30 lakh. About 232 hectare of land could not be sown. The estimated loss due to unsown area was 2,090 quintal amounting to Rs.2.71 lakh.

11 20 The fodder problem was not serious as stock of fodder was with the farmers which was fairly satisfactory. There was no problem of evacuation of cattle population. The forest area was opened for grazing purpose. Cattle population was treated to prevent any epidemic.

11.21 Primary health centre and veterinary hospital are situated in Jagner town which is 2.5 kilometere from the village. Wells were disinfected. There was no epidemic.

11.22 The necessity of rural employment was felt in the village. There are 42 agricultural labourers, 14 landless labourers, 22 small farmers and 97 marginal farmers. The construction of 12 *Indira Avas* and 2.5 kilometre *kutcha* link road from Bhawanpura to Jagner was taken up under NREP and RLEGP.