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Regional Dimensions of Disparities in Crop Productivity in Uttar Pradesh[1]

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SUMMARY

In the present study, the data on yield rates of rice and wheat crops are analysed at tehsil level in Uttar Pradesh for all 244 tehsils where crop cutting experiments on randomly selected fields were conducted on both rice and wheat crops. One of the objectives of the study is to find out whether the 8th Five Year Plan has made significant impact in increasing the yield rates of rice and wheat over the 7th Five Year Plan. The level of agricultural development with respect to rice and wheat productivity is estimated for all the tehsils of Uttar Pradesh. The technique of analysis of variance is used to test whether the efforts made in the 8th Five Year Plan had made any impact in increasing the yield levels of rice and wheat over the achievements of the 7th Five Year Plan. The variation between tehsils and between years within Plan periods are also tested.

It would be quite interesting and useful to examine and rank the level of agricultural development in various tehsils. For this purpose, the composite indices of agricultural development as exhibited by the yield rates of rice and wheat from the period 1985-86 to 1994-95 have been obtained by the procedures described by Narain *et al.* [1], [2]. Tehsils are ranked on the basis of composite indices of agricultural development. Wide disparities have been observed between different tehsils in the level of rice and wheat productivity. The yield levels of rice and wheat crops are positively associated. Western region and Plain portion of the hilly region of the State are found to be better developed as compared to other regions of the State with respect to productivity levels of rice and wheat crops. For bringing about uniform regional growth and development of agriculture in the State, future strategies of agricultural development in low developed tehsils/districts/regions have been suggested.

Key-words : Analysis of variance, Composite index, Regional disparities, Agricultural development.

Introduction

Uttar Pradesh is bounded by Tibet and Nepal in the north, Himachal Pradesh in north-west, Haryana in west, Rajasthan in south-west, Madhya

1 The study was undertaken in the Research Unit of ISAS during 2000.

Pradesh in south and Bihar in east. With reference to the climatic variations and soil conditions, the State can be divided into three distinct parts (i) northern mountains, (ii) southern hills plateau and (iii) gangetic plains. The State is predominately rural and agrarian. As per 1991 population census, the population of Uttar Pradesh was about 13.9 crores which was 16.5 per cent of the total All India population. About 82 per cent population of the State live in rural areas with 73 per cent of working force engaged in agriculture. The majority of farmers (about 90 per cent) are having small and marginal land holdings. The population density in the State is about 472 persons per square kilometer and the annual growth rate of the population is 2.5 per cent. The pressure of population on land is quite heavy and per capita cultivated land is only about 0.13 hectare. The literacy rate in the State is about 41 per cent which is much below the All India level of 52 per cent. The State is categorized among the backward states of the country with respect to literacy rate. The estimated annual birth and death rates are 37.0 and 12.6 respectively which are higher than the corresponding birth and death rates at All India level. The life expectancy of the people is about 52.3 years for male and 49.6 years for female as against 55.9 years at All India level.

Agriculture is the main occupation of almost 80 per cent of the State population. The State is the largest producer of foodgrains, sugarcane and oilseeds. Agricultural development programmes have been taken up in the country and also in the State for enhancing the agricultural production for bringing about uniform regional development. Although the Green Revolution has increased the agricultural production but it has not been able to reduce substantially the regional disparities in agricultural development. In the present study, the data on yield rates of rice and wheat crops are analysed at tehsil level in Uttar Pradesh. The study utilises data for ten years from 1985-86 to 1994-95 (7th and 8th Plan Periods) for all 244 tehsils where crop cutting experiments on randomly selected fields were conducted on both rice and wheat crops. One of the objectives of the study is to find out whether the 8th Five Year Plan has made significant impact in increasing the yield rates of rice and wheat over the 7th Five Year Plan. The annual yield is very much affected by the climatic variations and this may work in the direction of increasing or lowering the yield. In this study precaution taken against this difficulty is to compare quinquinnial yield average rather than annual yields. This has the effect of reducing the influence of climate on yield, as positive and negative changes in annual yield due to climatic variations would largely cancel out. The statistical technique of analysis of variance as suggested by Panse [3], [4] has been used to analyse the data.

It would be quite interesting and useful to examine and rank the level of agricultural development in various tehsils. For this purpose, the composite indices of agricultural development as exhibited by the yield rates of rice and wheat from the period 1985-86 to 1994-95 would be obtained by the procedures described by Narain *et al.* [1], [2].

2. *Method of Analysis*

The technique of analysis of variance has been used to estimate the Plan effort on yield against the background of over all climatic variations. If we test the mean square between Plan period against the mean square for years within Plan periods, we may obtain the influence of Plan effort on raising yield. By this we may also assess whether the increase in the yield is of sufficient magnitude to withstand the annual climatic variations. The analysis of variance used in the study is as follows :

(a) Variation between two sets of five years representing 7th Plan period (1985-86 to 1989-90) and 8th Plan period (1990-91 to 1994-95).

(b) Variation between individual years within each Five Year period.

(c) Variation between tehsils.

(d) Variation representing interaction between two five year periods and tehsils.

(e) Uncontrolled variation representing interaction between individual years within Plan periods and tehsils.

The comparison of the component (a) with (e) will show whether the average yield levels during the 7th and 8th Plan periods were significantly different from each other. The component (b) will be compared with (e) for testing the significance of variation between years within Plan periods. If it is significant, then this variation must be taken into account for judging whether the influence of Plan effort on yield level is adequate to raise it to a degree where the improvement will stand out as significant after allowing for the annual variations due to climatic conditions and other uncontrolled factors. The component (c) will be compared with (e) for testing the significance of difference in yield levels between various tehsils. The comparison of component (d) with component (e) will indicate whether there is a divergent response of tehsils to plan effort.

The ranking of tehsils on the basis of productivity of crops will be done by the procedure described by Narain *et al.* [1], [2]. The variables in respect of yield levels for various years have been standardized and the standardized values are used to build-up the composite index of agricultural development.

The best tehsil with respect to yield levels for different years have been identified and the composite indices have been obtained. The values of composite indices are non-negative and lie between 0 and 1. A value close to 0, indicates higher level of agricultural development whereas a value close to one indicates lower level of agricultural development.

3. Results and Discussions

3.1 Plan Effects on Productivity

The analysis of variance for rice and wheat crops is given below in Table 1. Test of significance based on interaction between tehsils with years (component e) and on between years within periods (component b) are both shown in the table.

Table 1 : Analysis of variance of annual yield rates of rice and wheat crops

	Source of Variation	d.f.	Mean Square		F	
			Rice	Wheat	Rice	Wheat
a	Between plans	1	4763	2869	743** (5.56)*	445** (5.70)*
b.	Between years within plan	8	856	503	133**	75**
c.	Between tehsils	243	221	215	34**	33**
d.	Interaction between plans & tehsils	243	21	22	3.3**	3.4**
e.	Interaction between years within plan periods and tehsils	1944	6.41	6.44		

** Significant at 1% level.

* Significant at 5% level.

Figures in brackets indicate the value of F when compared with component (b).

It is observed from the above table that the variation between two sets of five years representing 7th and 8th Plan periods when compared against the component (e), is highly significant for both rice and wheat crops. The mean square between years within plan periods component (b) is very high for both rice and wheat crops and when compared against (e), it is found to be highly significant. It means that there is a gross annual variation in the climatic conditions which affected the yield levels. In view of the large magnitude of the annual variation, it is desirable to test the component (a) against the component (b). When this assessment is done, it is found that the values of F for rice and wheat are 5.56 and 5.70 respectively. Both the values are significant at 5% level of significance. This indicates that there is a significant difference in the yield rates of rice and wheat crops between the 7th and 8th Plan periods. Efforts made during the 8th Plan have registered a significant increase in the yield rates over the 7th Plan. During the 8th Plan, the average yield rate of rice has gone up to 18.4 q/ha over the 7th Plan average

of 15.6 q/ha and the average yield of wheat has increased to 23.1 q/ha from the 7th Plan average of 20.9 q/ha. The mean square between tehsils (component (c)) and interaction between Plan periods and tehsils (component (d)) are found to be highly significant for both rice and wheat crops. This indicates that the yield levels of both rice and wheat vary quite significantly from tehsil to tehsil. The differences in the yield levels may arise from physical and other characteristics of the tehsil. The significance of component (d) indicates that there is a divergent response of individual tehsil to Plan efforts in raising the yield of both rice and wheat crops.

3.2 Indices of Agricultural Development

The composite indices indicating the agricultural development based on the productivity levels of the period of ten years from 1985-86 to 1994-95 have been worked out for different tehsils in respect of rice, wheat and rice-wheat combined. The tehsils have also been ranked as per these indices. The composite indices along with the ranks of the various tehsils are presented in the appendix.

It may be seen from the appendix that out of 244 tehsils of the State, the tehsil of Ramnagar of Nainital district was ranked first and the tehsil of Lalitpur of Lalitpur district was ranked last in the productivity of rice crop. Considering the productivity of wheat crop, the teshil of Bulandshahar of Bulandshahar district was ranked first and tehsil of Robertsganj of Sonbhadra district was ranked last. The values of composite indices varied from 0.13 to 0.96 for rice crop and from 0.16 to 0.99 for wheat crop. The variation in the composite indices of rice and wheat combined productivity is observed to be from 0.23 to 0.99.

The best ten tehsils for rice productivity are Ramnagar, Haldwani, Kaladungi (all from Nainital district), Gadarpur, Bajpur, Sitarganj, Kashipur, Khatima, Kichha (all from Udham Singh Nagar district) and Pilibhit (from Pilibhit district). The first nine tehsils belong to the districts of Nainital and U.S. Nagar both from hilly region. The last ten low developed tehsils are Atrauli (Aligarh), Lalitpur, Talbahat, Mahrauni (all from Lalitpur), Baberu (Banda), Karvi, Mau, (both from CSM Nagar), Pindra (Varanasi), Dudhi (Sonbhadra) and Nanpara (Bahraich). Out of these, six tehsils belong to Bundelkhand region, three come from eastern region and one from western region. In case of wheat productivity, the best ten tehsils are Burahana (Muzaffarnagar), Meerut, Sardhana, Mawana (all from Meerut), Bagpat (Bagpat), Bulandshahar, Sikanderabad, Anoopshahar (all from Bulandshahar), Modinagar and Hapur (both from Ghaziabad). All the ten best developed tehsils come from western region. Ten most poorly developed tehsils are Lalitpur (Lalitpur), Banda, Baberu (both from Banda), Karvi, Mau, Naraini (all from CSM Nagar), Lalganj, Marihan (both from Mirzapur), Robertsganj and Dudhi (both from Sonbhadra).

Out of these, six tehsils come from Bundelkhand region and four from eastern region. In case of rice productivity, hilly region (plain portion) is dominating whereas in wheat productivity, western region is dominating in the State.

3.3 Relative Share of Different Regions in Agricultural Development

A simple ranking of the tehsils on the basis of composite indices would be sufficient for classificatory purposes. A suitable classification of tehsils from an assumed distribution of the mean of the composite indices will provide a more meaningful characterization of different stages of agricultural development. We can classify tehsils in different groups by using mean and standard error of composite indices. Tehsils having composite indices equal to or less than (mean – SE), i.e. 0.50 and below are classified in category I as agriculturally better developed tehsils. The tehsils with composite indices lying between (mean ± SE) i.e. from 0.51 to 0.65 are classified in category II as medium level developed tehsils. The tehsils having composite indices more than (mean + SE) i.e. 0.66 and above are classified in category III as low developed tehsils. The number of tehsils classified under different stages of development in various regions of the State is presented in Table 2.

Table 2 : Distribution of tehsils as per productivity level

Crop	No. of Tehsils Analysed	No. of Tehsils in Different Stages of Productivity Level		
		High	Medium	Low
		EASTERN REGION		
Rice	93	10	46	37
Wheat	93	03	67	23
		HILLY REGION		
Rice	10	09	01	—
Wheat	10	09	—	01
		BUNDELKHAND REGION		
Rice	08	—	—	08
Wheat	08	—	—	08
		WESTERN REGION		
Rice	90	33	48	09
Wheat	90	76	13	01
		CENTRAL REGION		
Rice	43	03	27	13
Wheat	43	08	21	14
		TOTAL STATE		
Rice	244	55	122	67
Wheat	244	96	101	47

The State of Uttar Pradesh has been divided into five broad regions – Eastern region, Hilly region, Bundelkhand region, Western region and Central region. The Eastern region is situated in the eastern part of the State having about 86 thousand square km. of area (29.16%) and about 5.27 crores of population (37.09%). The Hilly region is situated in the north western hilly part of the State consisting of an area of 51 thousand square km. (17.36%) and about 59 lakh population (4.3%). Bundelkhand region is situated in the southern part of the State with an area of 29 thousand square km. (9.99%) and about 67 lakh population (4.8%). The Western region is situated in the western part of the State. The area and population of the region are 82 thousand square km. (27.92%) and 4.95 crores (35.6%) respectively. The Central region is situated in the central part of the State having an area of about 46 thousand square km. (15.57%) and population of 2.42 crores (17.4%).

It is evident from the table that out of 93 tehsils coming from 26 districts of the Eastern region, only ten tehsils in rice productivity and three tehsils in wheat productivity are highly developed. As many as 37 tehsils for rice and 23 tehsils for wheat are categorised as low developed tehsils. The rest of the tehsils i.e. 46 for rice and 67 for wheat are middle level developed but these tehsils are having tendency to improve the level of productivity. In 13 tehsils of the region, both rice and wheat productivity are quite low.

Data in respect of ten tehsils of 3 districts (Plain portion) of Hilly region have been analysed. Out of these ten tehsils, nine tehsils are highly developed for both rice and wheat productivities. For Bundelkhand region, productivity levels of rice and wheat are analysed for 8 tehsils coming from three districts Lalitpur, Banda and CSM Nagar. Productivity levels in all the eight tehsils are extremely poor and the tehsils are categorised as low developed tehsils regarding both rice and wheat productivity. Data on productivity levels of rice and wheat are analysed for 90 tehsils of 26 districts of the Western region. Thirty three tehsils are categorised in high productive group for rice crop whereas 76 tehsils are placed in high productive group for wheat crop. Nine tehsils are observed to be poorly developed for rice and only one tehsil is in the low developed category for wheat crop. About 60 per cent of the high developed tehsils in the State in case of rice crop and about 80 per cent of high developed tehsils for wheat crop come from this region. Productivity data for 43 tehsils of 10 districts of the Central region are analysed. For rice productivity, three tehsils of the region are categorised in the high developed group with 27 tehsils in the middle level of development. For wheat productivity as many as eight tehsils are highly developed with 21 tehsils in the middle level of development. Thirteen and fourteen tehsils are poorly developed for rice and wheat crops respectively. Five tehsils are poor in both rice and wheat productivity.

At the State level, data in respect of 244 tehsils coming from 68 districts are analysed for evaluation of productivity levels of rice and wheat crops. About 22 per cent tehsils in the case of rice productivity and 39 per cent tehsils for wheat productivity are found to be in the high developed category. Thirty nine tehsils are having high level of productivity for both rice and wheat crops. Major contributions towards the enhancement of productivity level come from the Western and Hilly regions. About 27 per cent tehsils for rice crop and 19 per cent for wheat crop are having low productivity level. The remaining tehsils are found to be in the middle level of agricultural development. It can be concluded that the Western region is agriculturally better developed as compared to the Eastern, Bundelkhand and Central regions of the State. However, the tehsils belonging to the districts of Nainital and U.S. Nagar of Hilly region are agriculturally quite fertile and give excellent performance for both rice and wheat crops.

3.4 Inter-Relationships among Rice and Wheat Productivity

It will be interesting to study the relationships among the productivity levels of rice and wheat crops. Pairwise correlation coefficients have been worked out and presented in Table 3.

Table 3 : Pairwise correlation coefficient

Pair	Correlation Coefficient
Between rice and wheat productivities	0.54**
Between rice and combined rice-wheat productivity	0.90**
Between wheat and combined rice-wheat productivity	0.86**

** Highly significant

The correlation coefficient between the productivity levels of rice and wheat as well as combined productivity of rice–wheat with the productivity of rice and wheat alone are highly significant. This indicates that the most of the areas which are highly productive for rice are also productive for wheat and vice-versa. As expected, the magnitude of the correlation coefficients of combined productivity with rice and wheat alone is quite high and statistically significant.

3.5 Strategies for Improvement of Crop Productivity in Low Developed Tehsils

It would be quite useful and interesting to examine the extent of improvement required in the low productive tehsils. It will provide avenues to bring about uniform regional development in the State. Such information may help the planners and adminstrators to re-adjust the resources to reduce

inequalities in the levels of crop productivity. The improvements needed in different regions of the State are presented below.

Eastern Region

Thirty seven tehsils for rice and twenty three tehsils for wheat are found to be low developed with respect to productivity level. Rice production and productivity are very badly affected by the frequent occurance of flood in the districts of Gorakhpur, Deoria, Basti, Siddharth Nagar, Gonda, Bahraich, Balrampur of the region. It is necessary that improvements in the flood protection measures might be made to reduce the damage of crops from the flood. There are very limited irrigation facilities in the region. For the enhancement of crop production, assured irrigation and fertilizer application are extremely essential. Infrastructural facilities relating to irrigational projects such as canal or tubewells etc. might be created in the region which may provide water for irrigation as and when required. This will also enhance the cropping intensity in the area. Most of the tehsils from the districts of Pratapgarh, Sultanpur, Mirzapur and Sonbhadra have performed very badly in wheat production. In the study conducted by Narain *et al.* [2], these districts were also reported to have very low agricultural development. In absence of assured irrigation facilities, the cultivation of pulses, oilseeds and other dryland crops might be taken in the area.

Central Region

Most of the tehsils from the districts of Fatehpur, Unnao, Sitapur and Rae Bareli of this region were low developed with respect to rice and wheat productivity. These districts require the provision of assured irrigation facilities, availability and use of fertilizers and enhancement of cropping intensity. The cultivation of dryland crops might also be advocated in the area.

Bundelkhand Region

Crop-cutting experiments are conducted on rice and wheat crops in only eight tehsils of three disricts namely Lalitpur, Banda and CSM Nagar of this region. All the eight tehsils of the region are having very poor productivity levels for these crops. In fact soil conditions, weather parameters and other infrastructural facilities of the region are not favourable for the growth of either rice or wheat crop. However, adoption of dryland cropping pattern and growing crops like pulses, oilseeds etc. might be advocated in the region.

Hilly Region

Rice and wheat are grown in the plain area of the region. Ten tehsils from the districts of U.S. Nagar, Nainital and Dehra Dun of the region are

covered by the crop-cutting experiments on rice and wheat crops. All the tehsils of the region are found to have very high productivity for both rice and wheat excepting Dehra Dun (P) where the productivity level for wheat crop needs some improvement.

Western Region

Out of ninety tehsils considered from the region, nine tehsils for rice and one tehsil for wheat productivity are found to have low agricultural development. This region is quite fertile for wheat crop and productivity of rice has an increasing trend. With the help of assured irrigation and fertilizer application, the performance of tehsils of the region is quite good and agriculturally the region is found to be the most developed part of the State.

4. Conclusions

The broad conclusions emerging from the study are as follows :

- Plan efforts in the 8th Plan had made a definite impact in increasing the yield rates of rice and wheat over the 7th Plan average. There was an increase of about 18% in rice productivity and about 10.5% in wheat productivity at the State level in the 8th Plan.
- In case of rice productivity, the first nine ranks are occupied by the tehsils of Nainital and U.S. Nagar of Hilly region. Among the ten lowest tehsils in rice productivity, six tehsils come from the districts of Lalitpur, Banda and C.S.M. Nagar (all from Bundelkhand region). For wheat productivity, ten best developed tehsils are from the districts of Muzaffarnagar, Meerut, Bagpat, Bulandshahar and Ghaziabad (all from Western region). Among the ten lowest developed tehsils for wheat productivity, six tehsils come from the districts of Lalitpur, Banda and C.S.M. Nagar (all from Bundelkhand region).
- The level of development in rice and wheat productivity is positively associated. The productivity levels of each of rice and wheat crops are separately having very high association with the combined productivity of rice-wheat.
- Wide disparities and variations in the rice and wheat productivity are observed among different tehsils and regions. Western and Hilly regions are found to be better developed in rice and wheat productivity in comparison to other regions of the State.
- In order to reduce the disparities in the yield rates, strategies for improvement of productivity levels have been suggested. The tehsils having low yield rates require improvements in the infrastructural facilities regarding irrigation and application of fertilizers etc.

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APPENDIX : COMPOSITE INDEX OF PRODUCTIVITY (CIP)

No.	District	No.	Tehsil	Rice		Wheat		Combined (R + W)	
				CIP	Rank	CIP	Rank	CIP	Rank
01	Haridwar	001	Haridwar	0.50	52	0.56	128	0.57	88
		002	Roorki	0.42	28	0.45	74	0.47	34
		003	Laksar	0.51	62	0.49	85	0.54	73
02	Saharanpur	004	Saharanpur	0.48	43	0.48	81	0.52	54
		005	Behta	0.51	59	0.61	165	0.60	112
		006	Deoband	0.51	61	0.37	36	0.49	41
		007	Nakur	0.38	22	0.39	42	0.41	19
03	Muzaffarnagar	008	Muzaffarnagar	0.38	21	0.38	37	0.41	16
		009	Kairana	0.36	20	0.30	17	0.36	8
		010	Burahana	0.39	23	0.22	8	0.34	6
		011	Jansath	0.45	32	0.29	15	0.41	20
04	Meerut	012	Meerut	0.51	56	0.19	5	0.42	23
		013	Sardhana	0.43	29	0.16	2	0.36	7
		014	Mawana	0.47	41	0.26	10	0.42	21
05	Bagpat	015	Bagpat	0.49	48	0.20	6	0.41	17
06	Bulandshahar	016	Bulandshahar	0.65	176	0.16	1	0.52	59
		017	Sikandarabad	0.69	198	0.21	7	0.56	84
		018	Khurja	0.68	191	0.26	13	0.57	87
		019	Anoopshahar	0.63	155	0.24	9	0.53	60
		020	Syana	0.59	118	0.26	11	0.50	49
07	Ghaziabad	021	Ghaziabad	0.59	119	0.34	24	0.53	63
		022	Modi Nagar	0.55	87	0.17	3	0.45	30
		023	Hapur	0.51	60	0.18	4	0.42	22
		024	Garh	0.51	63	0.31	20	0.46	33
08	G.B. Nagar	025	Dadri	0.60	129	0.34	22	0.53	68
09	Aligarh	026	Koal	0.70	206	0.45	75	0.64	151
		027	Atrauli	0.81	235	0.44	67	0.71	197
		028	Iglas	0.62	142	0.35	28	0.55	77
		029	Khair	0.65	173	0.30	16	0.55	78
10	Maha Maya Nagar	030	Hathras	0.63	153	0.35	27	0.56	81
		031	Sikandara Rao	0.57	105	0.38	38	0.53	65
		032	Sadabad	0.60	122	0.36	29	0.54	70
11	Mathura	033	Mathura	0.54	77	0.37	35	0.50	51
		034	Mat	0.50	53	0.28	14	0.44	27
		035	Chhata	0.54	79	0.41	54	0.52	56
12	Firozabad	036	Firozabad	0.57	99	0.40	43	0.53	67
		037	Shikohabad	0.70	203	0.42	56	0.63	135
		038	Jasrana	0.63	150	0.42	58	0.58	94

No.	District	No.	Tehsil	Rice		Wheat		Combined (R + W)	
				CIP	Rank	CIP	Rank	CIP	Rank
13	Mainpuri	039	Mainpuri	0.56	95	0.40	46	0.53	64
		040	Karhal	0.55	81	0.45	73	0.54	75
		041	Bhogawan	0.63	154	0.40	44	0.57	92
14	Etah	042	Etah	0.58	111	0.45	69	0.36	83
		043	Patiyali	0.60	123	0.49	88	0.59	109
		044	Aliganj	0.70	205	0.45	76	0.64	148
		045	Kasganj	0.61	138	0.45	71	0.58	95
		046	Jalesar	0.60	130	0.42	55	0.56	85
15	Bareilly	047	Bareilly	0.59	115	0.55	120	0.61	122
		048	Faridpur	0.57	109	0.57	136	0.62	128
		049	Baheri	0.35	17	0.49	89	0.46	32
		050	Nawab Ganj	0.49	50	0.66	203	0.62	132
		051	Meerganj	0.55	85	0.59	148	0.61	118
16	Baduan	052	Baduan	0.64	164	0.53	113	0.64	145
		053	Sahswan	0.73	215	0.51	100	0.68	173
		054	Gunnaur	0.69	199	0.51	97	0.66	161
		055	Bisoli	0.61	139	0.46	77	0.59	102
		056	Dataganj	0.65	172	0.53	114	0.64	147
17	Shahjahanpur	057	Shahjahanpur	0.53	69	0.50	93	0.56	79
		058	Jalalabad	0.65	169	0.50	90	0.62	133
		059	Tilhar	0.51	58	0.48	82	0.53	69
		060	Puwayan	0.33	14	0.41	53	0.40	15
18	Pilibhit	061	Pilibhit	0.27	10	0.50	96	0.43	25
		062	Pooranpur	0.33	13	0.40	45	0.39	13
		063	Bisalpur	0.35	18	0.61	161	0.53	61
19	Bijnor	064	Bijnor	0.41	27	0.46	78	0.47	35
		065	Chandpur	0.28	11	0.47	79	0.41	18
		066	Dhampur	0.32	12	0.48	80	0.43	26
		067	Nazibabad	0.45	33	0.50	92	0.51	53
		068	Nagina	0.43	30	0.49	87	0.49	47
20	Moradabad	069	Moradabad	0.53	70	0.56	130	0.59	105
		070	Thakurdwara	0.41	26	0.55	121	0.52	55
		071	Bilari	0.44	31	0.38	40	0.45	29
		072	Sambhal	0.49	47	0.41	52	0.49	40
		073	Chandausi	0.46	37	0.43	64	0.48	39
21	JB Phule Nagar	074	Amroha	0.39	24	0.41	49	0.43	24
		075	Dhanora	0.34	16	0.50	95	0.46	31
		076	Hasanpur	0.64	161	0.48	83	0.62	124

No.	District	No.	Tehsil	Rice		Wheat		Combined (R + W)	
				CIP	Rank	CIP	Rank	CIP	Rank
22	Rampur	077	Rampur	0.52	65	0.38	39	0.50	48
		078	Milak	0.47	40	0.42	60	0.48	38
		079	Bilaspur	0.34	15	0.37	34	0.38	10
		080	Swar	0.45	34	0.43	62	0.48	36
		081	Shahabad	0.57	100	0.37	33	0.52	58
23	Farrukhabad	082	Farrukhabad	0.64	160	0.41	48	0.58	98
		083	Kayamganj	0.65	168	0.43	61	0.60	110
24	Kannauj	084	Kannauj	0.60	124	0.34	23	0.53	66
		085	Chhibramau	0.55	83	0.31	19	0.49	42
25	Etawah	086	Etawah	0.48	45	0.41	50	0.48	37
		087	Saifai	0.67	187	0.51	102	0.65	153
		088	Bharthana	0.51	57	0.42	57	0.50	50
26	Auraiya	089	Auraiya	0.54	73	0.33	21	0.49	43
		090	Vidhoona	0.57	104	0.41	51	0.54	74
27	Kanpur Urban	091	Billahaur	0.50	51	0.30	18	0.45	28
		092	Ghatampur	0.59	121	0.44	66	0.57	86
28	Kanpur Rural	093	Akbarpur	0.55	86	0.36	31	0.51	52
		094	Rasulabad	0.49	49	0.40	47	0.49	44
		095	Derapur	0.54	71	0.34	25	0.49	45
		096	Bhoganipur	0.61	135	0.43	63	0.57	89
29	Fatehpur	097	Fatehpur	0.62	144	0.67	206	0.70	183
		098	Khaga	0.65	178	0.72	223	0.74	214
		099	Bindki	0.61	137	0.73	226	0.72	201
30	Allahabad	100	Chail	0.71	209	0.61	163	0.71	199
		101	Sirathu	0.71	210	0.60	157	0.71	195
		102	Manjhanpur	0.60	134	0.56	126	0.63	136
		103	Soraon	0.46	35	0.64	190	0.59	107
		104	Phoolpur	0.52	66	0.65	195	0.63	138
		105	Handia	0.60	131	0.66	202	0.68	171
		106	Karchana	0.68	192	0.61	164	0.70	185
		107	Bara	0.76	223	0.66	198	0.77	222
		108	Meja	0.67	183	0.66	201	0.71	200
31	Pratapgarh	109	Pratapgarh	0.59	120	0.77	228	0.73	208
		110	Lalganj	0.60	125	0.72	221	0.71	193
		111	Kunda	0.64	158	0.78	231	0.76	219
		112	Patti	0.69	194	0.73	224	0.76	220

No.	District	No.	Tehsil	Rice		Wheat		Combined (R + W)	
				CIP	Rank	CIP	Rank	CIP	Rank
32	Lalitpur	113	Lalitpur	0.96	244	0.82	237	0.97	243
		114	Talbahet	0.96	243	0.69	211	0.91	237
		115	Mahrauni	0.91	240	0.80	233	0.93	239
33	Banda	116	Banda	0.81	234	0.87	239	0.90	236
		117	Baberu	0.86	238	0.86	238	0.92	238
34	CSM Nagar	118	Karvi	0.92	241	0.82	236	0.94	240
		119	Mau	0.88	239	0.90	242	0.95	241
		120	Naraini	0.77	228	0.89	241	0.90	235
35	Varanasi	121	Varanasi	0.52	64	0.44	68	0.52	57
		122	Pindra	0.81	236	0.78	232	0.86	232
36	Chandauli	123	Chandauli	0.47	38	0.60	158	0.58	93
		124	Chakia	0.46	36	0.68	209	0.62	126
		125	Sakaldiha	0.54	78	0.64	188	0.63	140
37	Sant RD Nagar	126	Bhadohi	0.59	116	0.50	91	0.59	103
		127	Gyanpur	0.55	84	0.53	112	0.58	96
38	Mirzapur	128	Mirzapur	0.72	214	0.69	213	0.76	221
		129	Lalganj	0.79	230	0.81	235	0.86	233
		130	Chunar	0.54	80	0.72	222	0.68	174
		131	Marihan	0.64	159	0.89	240	0.82	229
39	Sonbhadra	132	Robertsganj	0.79	231	0.99	244	0.96	242
		133	Dudhi	0.95	242	0.99	243	0.99	244
40	Jaunpur	134	Jaunpur	0.59	117	0.49	84	0.58	99
		135	Machhalishahar	0.62	146	0.59	152	0.66	159
		136	Shahganj	0.62	141	0.55	122	0.63	141
		137	Marihaun	0.60	133	0.53	110	0.61	120
		138	Kerakat	0.57	98	0.58	140	0.62	125
		139	Badalpur	0.68	107	0.52	104	0.59	106
41	Ghazipur	140	Ghazipur	0.57	102	0.51	101	0.58	101
		141	Mohammedabad	0.64	167	0.53	108	0.64	144
		142	Saidpur	0.56	89	0.62	175	0.63	142
		143	Jakhaniya	0.57	101	0.57	134	0.61	119
42	Ballia	144	Ballia	0.65	175	0.60	160	0.68	169
		145	Rasra	0.66	181	0.63	178	0.69	181
		146	Bansdih	0.65	171	0.60	154	0.67	167
		147	Bairiya	0.73	216	0.61	167	0.73	205
43	Maharajganj	148	Maharajganj	0.48	42	0.59	149	0.57	91
		149	Nichlaul	0.50	55	0.58	142	0.58	97
		150	Farrenda	0.56	94	0.63	182	0.64	146
		151	Nautanwa	0.57	103	0.65	192	0.65	157

No.	District	No.	Tehsil	Rice		Wheat		Combined (R + W)	
				CIP	Rank	CIP	Rank	CIP	Rank
44	Gorakhpur	152	Gorakhpur	0.60	128	0.56	132	0.63	137
		153	Chauri Chaura	0.55	88	0.58	143	0.61	117
		154	Sahjanwa	0.66	182	0.55	125	0.66	162
		155	Bansgaon	0.71	211	0.58	138	0.70	187
		156	Khajni	0.64	157	0.62	176	0.68	170
		157	Gola	0.72	213	0.63	179	0.73	206
45	Deoria	158	Deoria	0.48	44	0.56	127	0.56	82
		159	Rudrapur	0.62	148	0.52	107	0.62	130
		160	Salempur	0.69	200	0.54	115	0.67	168
46	Kushi Nagar	161	Padrauna	0.55	82	0.60	156	0.62	127
		162	Tumkuhiraj	0.54	72	0.62	173	0.62	131
		163	Hata	0.36	19	0.55	119	0.49	46
47	Basti	164	Basti	0.67	188	0.61	169	0.70	182
		165	Haraiya	0.69	197	0.65	194	0.72	202
		166	Bhanpur	0.67	184	0.64	187	0.70	189
48	Sant Kabir Nagar	167	Khalilabad	0.66	180	0.64	189	0.70	184
49	Siddharth Nagar	168	Naugarh	0.70	204	0.71	218	0.76	218
		169	Dumariaganj	0.77	227	0.57	133	0.73	210
		170	Bansi	0.76	225	0.68	210	0.78	225
		171	Etwa	0.76	224	0.62	172	0.75	217
50	Azamgarh	172	Azamgarh	0.62	149	0.58	145	0.65	156
		173	Phoolpur	0.57	97	0.54	116	0.60	111
		174	Burhanpur	0.56	96	0.55	124	0.60	113
		175	Lalganj	0.62	143	0.55	118	0.63	139
		176	Sagri	0.66	179	0.58	144	0.67	165
51	Mau	177	Mau	0.64	163	0.62	171	0.68	172
		178	Mohmadabad	0.67	186	0.63	180	0.70	188
		179	Ghosi	0.60	132	0.61	162	0.65	155
52	Lucknow	180	Sarojini Nagar	0.67	189	0.62	177	0.70	186
		181	Mohanlal Ganj	0.65	170	0.68	207	0.71	196
		182	Malihabad	0.69	195	0.68	208	0.73	209
53	Unnao	183	Unnao	0.74	217	0.71	219	0.78	223
		184	Hasanganj	0.70	208	0.63	184	0.72	204
		185	Safipur	0.70	202	0.56	131	0.69	176
		186	Purwa	0.72	212	0.65	193	0.74	213

No.	District	No.	Tehsil	Rice		Wheat		Combined (R + W)	
				CIP	Rank	CIP	Rank	CIP	Rank
54	Rae Bareli	187	Rae Bareli	0.56	91	0.59	147	0.61	123
		188	Salon	0.65	177	0.73	225	0.74	215
		189	Tiloi	0.62	145	0.70	214	0.71	192
		190	Maharajganj	0.61	140	0.66	200	0.69	175
		191	Dalmau	0.58	110	0.66	204	0.67	164
		192	Lalganj	0.69	193	0.64	186	0.71	198
55	Sitapur	193	Sitapur	0.67	185	0.65	196	0.71	194
		194	Sidhauli	0.70	207	0.63	183	0.72	203
		195	Mishrikh	0.75	222	0.63	181	0.75	216
		196	Biswan	0.75	221	0.70	216	0.78	224
		197	Mahmudabad	0.69	201	0.66	199	0.73	207
		198	Leharpur	0.61	136	0.70	217	0.70	190
56	Hardoi	199	Hardoi	0.63	152	0.52	105	0.62	134
		200	Sandila	0.63	156	0.55	123	0.64	149
		201	Bilgram	0.63	151	0.45	70	0.59	108
		202	Shahabad	0.60	127	0.52	103	0.61	114
57	Kheri	203	Lakhimpur	0.52	67	0.56	129	0.58	100
		204	Mohammadi	0.53	68	0.50	94	0.56	80
		205	Nighasan	0.57	106	0.63	185	0.65	154
		206	Dhaurahara	0.74	220	0.77	229	0.81	228
		207	Gola	0.60	126	0.60	159	0.65	152
58	Faizabad	208	Faizabad	0.47	39	0.53	111	0.54	71
		209	Bikapur	0.64	166	0.60	155	0.67	166
59	Ambedkar Nagar	210	Tanda	0.50	54	0.51	98	0.54	76
		211	Jalalpur	0.54	75	0.53	109	0.57	90
		212	Akbarpur	0.48	46	0.52	106	0.54	72
60	Gonda	213	Gonda	0.68	190	0.59	150	0.69	177
		214	Tarabganj	0.74	219	0.61	166	0.73	211
		215	Karnailganj	0.80	232	0.65	197	0.79	226
		216	Mankapur	0.58	113	0.55	117	0.61	116
61	Balrampur	217	Balrampur	0.77	226	0.77	230	0.83	231
		218	Utraula	0.69	196	0.58	141	0.69	178
		219	Tulsipur	0.80	233	0.80	234	0.86	234
62	Bahraich	220	Bahraich	0.74	218	0.61	168	0.73	212
		221	Nanpara	0.83	237	0.69	212	0.82	230
		222	Kaisarganj	0.65	174	0.67	205	0.71	191
63	Shravasti	223	Bhinga	0.78	229	0.72	220	0.81	227

No.	District	No.	Tehsil	Rice		Wheat		Combined (R + W)	
				CIP	Rank	CIP	Rank	CIP	Rank
64	Sultanpur	224	Sultanpur	0.58	114	0.62	170	0.64	150
		225	Kadipur	0.62	147	0.59	151	0.66	158
		226	Amethi	0.64	162	0.64	191	0.69	179
		227	Musafirkhana	0.64	165	0.57	135	0.66	160
		228	Gauriganj	0.54	76	0.70	215	0.67	163
65	Barabanki	229	Ramsanehighat	0.56	90	0.58	146	0.61	121
		230	Fatehpur	0.54	74	0.59	153	0.61	115
		231	Ramnagar	0.58	112	0.51	99	0.59	104
		232	Haidergarh	0.40	25	0.58	139	0.53	62
		233	Nawabganj	0.58	108	0.57	137	0.62	129
		234	Rudauli	0.56	92	0.62	174	0.63	143
66	U.S. Nagar	235	Kichha	0.27	9	0.35	26	0.33	5
		236	Gadarpur	0.16	2	0.26	12	0.23	1
		237	Khatima	0.26	8	0.43	65	0.38	12
		238	Sitarganj	0.20	4	0.49	86	0.39	14
		239	Kashipur	0.21	5	0.39	41	0.33	4
		240	Bajpur	0.17	3	0.36	30	0.30	3
67	Nainital	241	Ramnagar	0.13	1	0.36	32	0.29	2
		242	Haldwani	0.24	6	0.45	72	0.38	11
		243	Kaladungi	0.24	7	0.42	59	0.36	9
68	Dehra Dun (P)	244	Dehra Dun (P)	0.56	93	0.73	73	0.69	180