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Geographic Perspective on Quality of Spatial Structure of General Purpose Administrative Areas in Indian Punjab

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Abstract

Quality of spatial structure of administrative areas in Indian Punjab has been analysed by picking selected indicators. In case of agricultural developed state of Punjab, the quality of spatial structure of administrative areas such as divisions, districts, sub-divisions and development blocks are judged in terms of their size (area and population), population density, centrality of headquarters and shape efficiency. Based on the assumption that in context of developing areas such as Punjab, administration would be more efficient and more effective if administrative units at any level of hierarchy are small in size, have centrally located headquarter and enjoy high shape efficiency. In such a spatial structure, improved administration would help in achieving higher and faster rate of socio-economic development. In this back drop, analysis of spatial structure administrative areas of Punjab, would be helpful in improving the quality of spatial structure of administrative areas, by way of reorganizing the space administration to achieve higher level of socio-economic development. Findings of the study reveals that Centrality and shape index of district headquarters has significantly contributed to determine the spatial quality whereas shape index was at the top in case of sub division with 84 percent level of significance. At block level, centrality of headquarters and shape index were highly significant (Level of significance 66 and 58 percent respectively) and population density was least with 18 percent level of significance.

Keywords: Administrative areas, spatial quality, spatial structure, socio-economic development.

Introduction

The quality of spatial structure of administrative areas such as districts, sub-divisions and development blocks can be judged in terms of their size (area, population and density), centrality of headquarters and shape efficiency. It is assumed that in the context of a developing area such as Punjab, administration would be more efficient and more effective if administrative units, at any level of hierarchy, are small in area or population, have centrally located headquarters and enjoy high shape efficiency. It is expected that improved administration would help in achieving higher and faster rate of socio-economic development. In this way, the kind of analysis done in this chapter will help in improving the quality of spatial structure of administrative areas, by way of reorganizing the space administration to achieve higher level of socio-economic development.

For this purpose, the following indicators of spatial quality of administrative units have been picked up. These include: (i) smallness of area, (ii) smallness of population (iii) high population density, (iv) central location of headquarters, and (v) high shapeefficiency. Well known ranking method has been pressed into service to arrive at the

overall quality of spatial structure of administrative areas. Ranks of different administrative areas at various hierarchical levels on the basis of different indicators have aggregated to arrive at their relative position inspatial quality (Fig. 2.1, 2.2, 2.3).

Research Objectives

On the basis of the selected indicators present study purports to:-

- Study the quality of spatial structure of administrative areas at different hierarchical levels.
- Examine the differentials in quality of spatial structure of administrative areas not only at the same level but also at different levels of their hierarchy.
- Highlight the role of selected indicators to determine the quality of spatial structure of administrative areas in Punjab.

Research Methodology

Data Sources: Both primary and secondary sources of data have been used to accomplish the present study. In addition data available from secondary sources, like Census of India General, Government of India, New Delhi; Statistical Abstract of Punjab published by the Economic Adviser to the Government of Punjab, Chandigarh and Annual Administrative Reports published by various departments were pressed into service to collect the required information. Questionnaire based field work was conducted to collect information on structural attributes of administrative areas of public authorities.

Statistical and Mapping Techniques: To measure the quality of spatial structure of administrative areas, a surrogate index using structural attributes including size, shape and location of headquarters was prepared. To calculate the shape index of administrative units Compaction Index devised by Hagget and Chorley (1969) was pressed into service. Centrality index of headquarters was arrived at by dividing the mean distance of an administrative unit by the distance between the headquarters of that unit and the farthest point on its perimeter was used. To calculate the area, population and density indices of administrative areas, location quotient method was used. Ranking Method used to identify and map the levels in quality of spatial structure of administrative areas at different hierarchical levels in Punjab.

District Level Analysis

Among 20 districts in the state, Amritsar is at the top in quality of its spatial structure. As against this, Firozpur district ranksat the bottom. Interstingly both the districts fall along the international border with Pakistan and have been reorganized in recent years. A new district of Tarn Taran has been carved out of the former and Fazlika district out of the latter. It seems that reorganization has resulted into improving the quality of spatial structure of Amritsar district. However, it is not true of Firozpur district. According to a similar kind of exercise undertaken in 1984, when the number of districts in Punjab was twelve and neither of these two districts was reorganized, Amritsar was placed at ninth position and Firozpur at the twelfth (Kant, 1988). It means that reorganization exercise has considerably improved spatial quality of Amritsar district, while it has failed to do so in the case of Firozpur district (Table 1.1). However, it was expected of reorganization exercise that it would take care, among other aspects, of spatial quality of structural attributes of administrative areas. It seems that no importance is attached to spatial quality of

administrative areas by top bureaucracy and political leadership of Punjab. Political populism seems to over take rational and scientific dimensions of the issue.

Level of Spatial Quality				Nam	e of the Di	strict			
High	Amritsar,	Barnala,	SBS 1	Nagar	(Nawans	hahr),	Ludhiana,	Moga,	Sangrur
	Total =6								
Medium	Tarn Taran	, Hoshiarp	our, Kapı	urthala	, Fatehgarl	ı Sahib,	Faridkot, .	Jalandhar,	Bathinda
	Total =7								
Low	Mansa, SA	AS Nagar	(Moha	li), G	urdaspur,	Ropar,	Muktsar,	Patiala,	Firozpur
	Total =7	-			_				-

Table 1.1: Punjab: Districts Categorised by Spatial Quality, 2011

Spatial quality of six districts namely Amritsar, SBS Nagar, Moga, Ludhiana, Barnala and Sangrur was high. Majority of them are located south of the river Satluj in Malwa region in the central part of the state. Notably, with the exception of Amritsar, none of the border districts falls in the category of high quality of spatial structure (Fig. 2.1). As against this, all the districts falling in low category of spatial quality have peripheral location. These were bordering with Pakistan, Himachal Pradesh or Haryana. Such districts include Gurdaspur, Firozpur, Muktsar, Mansa, Patiala, SAS Nagar, and Rupnagar districts. Three of them namely Muktsar, Mansa, and SAS Nagar are among the newly organized districts in the state. It seems that peripheral location has contributed significantly to making their shapes less efficient. It is the shape efficiency index which contributes significantly, next only to centrality of headquarters to the the overall quality of spatial structure of districts in Punjab. Its correlation value of r = 0.75 was significant at 87 percent level (Table 1.2).

Remaining seven districts namely Hoshiarpur, Jalandhar, Kapurthala, Tarn Taran, Faridkot, Bathinda and Fatehgarh Sahib have medium quality of spatial structures. Except Kapurthala, all other districts in this category are either newly formed or bifurcated to form new districts. It is interesting to note that while spatial quality of Bathinda and Faridkot has improved after their reorganization, Hoshiarpur district has recorded decline (Appendix-I).

Among different parameters of spatial quality centrality of headquarters was found as the most crucial at the district level (n=20). It was strongly associated (correction value being 0.79) with the overall quality of spatial structure giving significant level of 89 percent. Shape efficiency index was also equally important as its correlation coefficient value was r = 0.75, significant at 87 percent level (Table 1.2). On the other hand, all the three variants of size (area, population and density) have weak association with spatial quality of districts as administratrive areas. Within them, smallness of population has the weakest association with the overall spatial quality of administrative areas among all the parameters of spatial quality. Its correlation value of r=011 was significant at 33 percent level, which in statistical language is considered insignificant. In fact, all the three variants of size of the districts in Punjab are in significantly correlated with overall quality of their spatial structure.

	Table 1.2
Punjab: Correlation Matrix for	Various Attributes of Spatial Quality of Districts, 2011

Attributes	Co-efficient of correlation with over all spatial quality	Level of significance (in %)
Smallness of area	0.21	46
Smallness of population	0.11	33
Density of population	0.24	49
Centrality of headquarters	0.79	89
Shape efficiency	0.75	87

Sub-division Level Analysis

At the sub-division level, except density of population all other structural parameters showed significant relationship with the spatial quality. However, in the case of districts it was true only of centrality of headquarters and shape efficiency. Samana sub-division in Patiala district emerges on the top in spatial quality. This is owing to itssmall area, high shape efficiency and centrality index. Malout sub-division in Muktsar district is positioned on the other end of the scale. It fares poorly in all the parameters of spatial quality. Similarly, Mukerian sub-division in Hoshiarpur district has poor spatial quality (Table 1.3 and Appendix-II). It stands second last in centrality index and shape efficiency along with other attributes. It is interesting to note that spatial quality of sub-divisions has improved in south-west Punjab where new sub-divisions were created after reorganization of districts. During the last three decades more than 40 percent new sub-divisions have been added to Punjab. The number of sub-divisions reached upto 77 in 2011 from only 45 in 1986 (Fig. 2.2).



Fig. 2.1

Level of Spatial Quality	Name of Sub-division
High	Samana, DharKalan, Khamano, Raikot, Kharar, Nangal, Jaito, Nakodar, Kapurthala, Khadur Sahib, Nihal Singh Wala, Amloh, Balachaur, Rajpura, Ropar, Budhlada, Lehra, Mohali, Bathinda, Batala, Muktsar, Gurdaspur, SultanpurLodhi, Nabha, Barnala
Medium	DeraBassi, Zira, Samrala, Tarn Taran, Sunam, Bhulath, Ludhiana- East, Dhuri, Moonak, Payal, Fatehgarh Sahib, Phagwara, Dera Baba Nanak, Moga, Hoshiarpur, Faridkot, Jalandhar-II, Khanna, Patran, Malerkotla, BassiPathana, Baba Bakala, Talwandi Sabo, Phillaur, Tapa, Gidderbaha
Low	Bagha Purana, Patiala, Garhshanker, Dasuya, Jagraon, Anandpur Sahib, Jalalabad, RampuraPhul, Chamkaur Sahib, Firozpur,Fazlika, Amritsar-II, Shahkot, Amritsar-I, Ajnala, Sangrur, Pathankot, Ludhiana-West, Jalandhar-I, Nawanshahr, Mansa, Patti, Sardulgarh, Abohar, Mukerian, Malout

Table 1.3: Punjab: Sub-divisions Categorised by Spatial Quality, 2011

Correlation matrix (Table 1.4) shows that at the sub-division level (n=77), shape efficiency index (r=0.72) and centrality of headquarters (r=0.58) have emerged as most critical components of spatial quality. These were significant at the levels of 84 percent and 76 percent, respectively. Earlier, in case of districts it was centrality of headquarters which found the highest degree of association of with spatial quality of districts. Now, it is shape efficiency which finds the strongest association with overall quality of spatial structure of sub-divisions in the state. However, smallness of area and population find much better association with overall spatial quality of sub-divisions than in case of district. In other words, contribution of smallness of area and population sizes contributes significantly to the spatial quality of sub-divisions than that of districts in Punjab.

Attribute	Co-efficient of correlation with over all spatial quality	Level of significance (in %)
Smallness of area	0.44	66
Smallness of population	0.41	65
Density of population	0.13	36
Centrality of headquarters	0.58	76
Shape efficiency	0.72	84

Table 1.4; Punjab: Correlation Matrix for Various Attributes of Spatial Quality of Sub-divisions, 2011

Development Block Level Analysis

Analysis of spatial quality of administrative areas seems to be more meaningful in the case of development blocks as it is the lowest tier in general administration. It is designed for the upliftment of rural masses by removing illiteracy, untouchability and unhealthy environment. Currently, 63 percent of Punjab population lives in rural areas.

Sudhar block in Ludhiana district out-ranked all other blocks in spatial quality mainly due to high shape efficiency, centrality index and smallness of area. On the other side of the scale, Ludhiana-II, Bhunerheri and KhuianSarwar are

low on all parameters of spatial quality. In the case of these development blocks, administrative headquarters are either located at sub-divisional or district headquarters outside the respective block boundaries. Locationally, development blocks in north-eastern part of the state display high quality of their spatial structures (Fig. 2.3).

The majority of development blocks located in the north of river Satlujare included in the category of high to medium spatial quality. Smallness of area and population along with centrality of headquarters contribute to the high quality of their spatial structures. Similarly, development blocks located insouthern and south-west Punjab are noted for low spatial quality. Large area and population sizes coupled with low density are mainly responsible for this. Blocks having medium quality spatial structure are distributed over all parts of the state (Table 1.5 and Appendix-III). On the whole, 24 or 18 percent of development blocks have very high quality spatial structure. As against this, 13 or 10 percent blocks have very low quality spatial structures. The remaining blocks come in between the two.

Level of	Name of Development Block
Spatial	
Quality	
	Sudhar Marinda Adampur Vhamana Chamkaur Sahih Dhikhiwind Dhawanizarh
	DharKalan Bamyal Narotlaimal Singh Sujannur Shahkot Sardulgarh Mamdot Raikot
	Dorangla, Mukerian, Amloh, Maur, Tarsika, Ouadian, Samana, Harshachhina, Kapurthala,
	Lehra Gaga, Rurka Kalan, Nurmahal, Nakodar, Mahilpur, Mansa, Talwara, Bhogpur,
	Tanda, Machhiwara, Dina Nagar, Rajpura, Lambi, Bassi Pathana, Batala, Dasuya, Lohian
High	Khas, Dhariwal, Kot Ise Khan, Sherpur, Majri, Saroya, Jandiala Guru
-	Tete1_47
	10tal=47
	Gandiwind, Gurdaspur, Bathinda, Aur, Khadur Sahib, Guru Har Sahai, Chola Sahib,
	Mehal Kalan, Sangat, Sirhind, Budhlada, Pathankot, Fateh Garh Churian, Nihal Singh
	Wala, Jalalabad, Garhshanker, Nabha, Patiala, Muktsar, Ludhiana-I, Samrala, Pakhowal,
	Dhuri, DeraBassi, Kalanaur, Hajipur, Malerkotla-I, Talwandi Sabo, Sidhwan Bet, Nadala,
	Patti, Andana, Kharar, Dera Baba Nanak, Ropar, Majitha, Patran, Nathana, Kahnuwan,
Medium	Jagraon, SultanpurLouni, Bhunga, Banga, Balachaur, Valtona, Phul, Sangrur
	Naushera Panuan, Bhagta Bhai Ka, Phillaur, Shri Hargobindpur, Makhu, Ghanaur, Ghal
	Khurd, Rayya, Anandpur Sahib, Bhikhi, Malout, Tarn Taran, Dhilwan, Khanna, Moga-I,
	Zira, Phagwara, Nurpur Bedi, Khera, Nawanshahr, Barnala, Hoshiarpur-I, Bagha Purana,
	Rampura, Sunam, Faridkot, Sehna, Jalandhar-East, Jhunir, Verka, Dehlon, Doraha,
	Chogawan, Gidderbaha, Firozpur, Kotkapura, Ajnala, Hoshiarpur-II, Moga-II, Jalandhar-
Low	West, Malerkotla-II, Sanaur, Fazilka, Abohar, Khuian Sarwar, Bhunerheri, Ludhiana-II

Table 1.5: Puniab: Develo	pment Blocks	Categorised b	v Spatial (Duality, 2011
			J ~ F	e

Correlation matrix (Table 1.6) reveals that majority of the spatial attributes showed a consistently strong relationship with the overall spatial quality of development blocks (n=141), stronger than in the case of districts and subdivisions. Among the various attributes, centrality of headquarters and shape efficiency followed by smallness of area and population were found most critical in this case. This finding goes in conformity with the scenario at the sub-divisional level, with one difference. In case of sub-divisions, its shape efficiency which showed the strongest associations with overall quality of their spatial structure while it is centrality of headquarters in case of development blocks.



Fig. 2.2



Fig. 2.3

Attribute	Co-efficient of correlation with over all spatial quality	Level of significance (in %)
Smallness of area	0.44	66
Smallness of population	0.41	64
Density of population	0.22	47
Centrality of headquarters	0.69	83
Shape efficiency	0.63	79

 Table 1.6: Punjab: Correlation Matrix for Various Attributes of Spatial Quality of Development Blocks,

 2011

Conclusions

Among the parameters of spatial quality, shape efficiency and centrality of headquarters contributed most significantly to the overall quality of spatial structure of administrative units at district, sub-division and development block levels in Punjab. Smallness of area size followed in this order. On the other side of the scale, density of population and smallness of population contributed least to the overall quality of spatial structure of administrative units at all the three spatial scales of administrative hierarchy in Punjab.

- Centrality of headquarters contributed most significantly to quality of spatial structure in case of districts and development blocks, and shape efficiency in the case of sub-divisions. In contrast, density of population was among the least significant parameters in the case of sub-divisions and development blocks, and smallness of population in the case of districts.
- 2. All the administrative units especially districts having peripheral location fall in low category of quality of their spatial structure. These were bordering with Pakistan, Himachal Pradesh or Haryana.
- 3. Quite surprisingly newly formed Muktsar, Mansa and SAS Nagar displayed low quality of their spatial structures. It seems that political populism overtakes rational and scientific dimensions of the issue.
- 4. Spatial quality of the parent districts of Bathinda and Faridkot improved after their reorganization to form the new districts. Against this, quality of spatial structure of Hoshiarpur district degraded after its reorganization to form a new district of SBS Nagar (NawanShahr).
- 5. Small of area and population sizes of administrative units displayed a great impact on quality of their spatial structure as we go down in hierarchy from district to sub-division and then to development block. Against this, importance of shape efficiency comes down as we go down in the spatial hierarchy. In other words, importance of shape efficiency increases with upward movement in spatial hierarchy. It seems that the shape of districts is greatly influenced by its triangular shape, border location and natural features such as rivers and ridges in their elongated shapes.
- 6. In relative terms, district headquarters were the most centrally located followed by that of development blocks. Against this, state capital was the least centrally located.

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APPENDICES

Appendix-I

Punjab: Districts arranged by their Ranking in Spatial Quality, 2011

Name of District	Rank in Spatial Quality
Amritsar	1
Barnala	2
SBS Nagar (Nawan Shahr)	3
Ludhiana	4
Moga	5
Sangrur	6
Tarn Taran	7
Hoshiarpur	8
Kapurthala	9
Fatehgarh Sahib	10
Faridkot	11
Jalandhar	12
Bathinda	13
Mansa	14
SAS Nagar (Mohali)	15
Gurdaspur	16
Ropar	17
Muktsar	18
Patiala	19
Firozpur	20

Punjab: Sub-division	Sub-divisions arra Spatial Quality Composite Index	Rank	heir Ranking in Spa	atial Quality, 2011 Spatial Quality Composite Index	Rank
Samana	11.33	1	Hoshiarpur	39.44	40
Dhar Kalan	12.44	2	Faridkot	39.44	41
Khamano	16.33	3	Jalandhar-II	39.78	42
Raikot	20.89	4	Khanna	39.78	43
Kharar	21.11	5	Patran	40.00	44
Nangal	22.78	6	Malerkotla	40.22	45
Jaito	24.11	7	Bassi Pathana	40.44	46
Nakodar	24.22	8	Baba Bakala	41.33	47
Kapurthala	24.33	9	Talwandi Sabo	41.44	48
Khadur Sahib	24.44	10	Phillaur	43.22	49
Nihal Singh Wala	25.67	11	Тара	43.56	50
Amloh	26.22	12	Gidderbaha	44.33	51
Balachaur	26.78	13	Bagha Purana	44.33	52
Rajpura	26.89	14	Patiala	44.56	53
Ropar	26.89	15	Garhshanker	45.33	54
Budhlada	27.11	16	Dasuya	45.44	55
Lehra	28.33	17	Jagraon	45.56	56
Mohali	28.44	18	Anandpur Sahib	45.89	57
Bathinda	29.00	19	Jalalabad	46.00	58
Batala	29.56	20	Rampura Phul	47.44	59
Gurdaspur	30.22	21	Chamkaur Sahib	47.67	60
Muktsar	30.33	22	Firozpur	50.67	61
Sultanpur Lodhi	31.22	23	Fazilka	51.67	62
Nabha	31.44	24	Amritsar-II	51.78	63
Barnala	32.44	25	Shahkot	52.67	64
Dera Bassi	32.67	26	Amritsar-I	52.89	65
Zira	34.89	27	Ajanala	54.89	66
Samrala	35.00	28	Sangrur	55.33	67
Tarn Taran	35.89	29	Pathankot	55.56	68
Sunam	36.22	30	Ludhiana-West	56.00	69
Bholath	36.56	31	Jalandhar-I	56.33	70
Ludhiana-East	36.78	32	Nawanshahr	57.00	71
Dhuri	36.78	33	Mansa	57.00	72
Moonak	36.78	34	Patti	57.22	73
Payal	36.89	35	Sardulgarh	57.89	74
Fatehgarh Sahib	37.00	36	Abohar	58.56	75
Phagwara	38.44	37	Mukerian	62.89	76
Dera Baba Nanak	38.67	38	Malout	65.11	77
Moga	39.22	39			

Appendix-II niah: Suh-divisions arranged by their Ranking in Spatial Qualif

Punjab: Development Blocks arranged by their Ranking in Spatial Quality, 2011						
Name of Development Block	Spatial Quality Composite Index	Rank	Name of Development Block	Spatial Quality Composite Index	Rank	
Sudhar	6.44	1	Dasuya	58.00	40	
Morinda	14.11	2	Lohian Khas	58.11	41	
Adampur	21.78	3	Dhariwal	58.56	42	
Khamano	26.89	4	Kot Ise Khan	58.67	43	
Chamkaur Sahib	27.00	5	Sherpur	59.22	44	
Bhikhiwind	29.33	6	Majri	59.33	45	
Bhawanigarh	34.78	7	Saroya	59.56	46	
Dhar Kalan	36.00	8	Jandiala Guru	59.67	47	
Bamyal	37.00	9	Gandiwind	60.22	48	
Narot Jaimal Singh	37.11	10	Gurdaspur	60.44	49	
Sujanpur	37.33	11	Bathinda	60.56	50	
Shahkot	39.11	12	Aur	61.33	51	
Sardulgarh	40.78	13	Khadur Sahib	61.67	52	
Mamdot	41.33	14	Guru Har Sahai	62.00	53	
Raikot	41.44	15	Chola Sahib	62.89	54	
Dorangla	43.00	16	Mehal Kalan	64.00	55	
Mukerian	43.22	17	Sangat	64.22	56	
Amloh	45.44	18	Sirhind	64.33	57	
Maur	45.78	19	Budhlada	64.56	58	
Tarsika	46.78	20	Pathankot	64.78	59	
Quadian	48.00	21	Fatehgarh Churian	66.22	60	
Samana	48.33	22	Nihal Singh Wala	66.89	61	
Harsha china	49.78	23	Jalalabad	67.44	62	
Kapurthala	50.22	24	Garhshanker	67.56	63	
Lehra Gaga	51.44	25	Nabha	67.89	64	
Rurka Kalan	52.11	26	Patiala	68.33	65	
Nurmahal	52.33	27	Muktsar	69.33	66	
Nakodar	53.33	28	Ludhiana-I	69.89	67	
Mahilpur	53.33	29	Samrala	70.22	68	
Mansa	53.56	30	Pakhowal	71.22	69	
Talwara	55.44	31	Dhuri	71.33	70	
Bhogpur	55.78	32	Dera Bassi	71.56	71	
Tanda	56.00	33	Kalanaur	71.78	72	
Machhiwara	56.56	34	Hajipur	72.11	73	
Dina Nagar	56.89	35	Malerkotla-I	72.22	74	
Rajpura	57.00	36	Talwandi Sabo	72.56	75	
Lambi	57.22	37	Sidhwan Bet	72.89	76	
Bassi Pathana	57.56	38	Nadala	73.89	77	
Batala	58.00	39	Patti	74.00	78	
Andana at Moonak	74.22	79	Jhunir	95.33	123	
Kharar	74.33	80	Verka	97.22	124	

Appendix-III

Dera Baba Nanak	74.78	81	Dehlon	97.33	125
Ropar	75.33	82	Doraha	98.00	126
Majitha	75.56	83	Chogwan	99.67	127
Patran	76.67	84	Gidderbaha	100.00	128
Nathana	77.11	85	Firozpur	100.33	129
Kahnuwan	77.67	86	Kotkapura	100.56	130
Jagraon	77.67	87	Ajnala	105.78	131
Sultanpur Lodhi	78.00	88	Hoshiarpur-II	110.22	132
Bhunga	78.11	89	Moga-II	110.44	133
Banga	78.44	90	Jalandhar-West	110.67	134
Balachaur	78.67	91	Malerkotla-II	111.67	135
Valtoha	79.33	92	Sanaur	115.22	136
Phul	79.56	93	Fazilka	118.22	137
Sangrur	79.56	94	Abohar	118.44	138
Naushera Panuan	79.67	95	Khuian Sarwar	121.33	139
Bhagta Bhai Ka	79.67	96	Bhunerheri	123.67	140
Phillaur	80.89	97	Ludhiana-II	123.89	141
Shri Hargobindpur	81.22	98			
Makhu	82.44	99			
Ghanaur	82.78	100			
Ghal Khurd	83.00	101			
Rayya	83.11	102			
Anandpur Sahib	84.33	103			
Bhikhi	84.44	104			
Malout	84.67	105			
Tarn Taran	85.78	106			
Dhilwan	86.11	107			
Khanna	86.33	108			
Moga-I	86.78	109			
Zira	86.89	110			
Phagwara	86.89	111			
Nurpur Bedi	88.33	112			
Khera	90.56	113			
Nawanshahr	91.44	114			
Barnala	92.11	115			
Hoshiarpur-I	92.56	116			
Bagha Purana	92.78	117			
Dharamkot	92.89	118			
Sunam	92.89	119			
Faridkot	93.89	120			
Sehna	94.11	121			
Jalandhar-East	94.44	122			