

## REGIONAL DISPARITIES IN THE LEVEL OF DEVELOPMENT IN INDIA

M. N. Pal\*

1.1 This is an empirical study, intended to identify relatively less or more developed areas (districts) in India as compared to an average national level of development. Here we do not accept a single indicator of development like income only, in conformity with the decisions taken by the Planning Commission in August-September 1962, but depend on several indicators of development. We do compute a composite index to have an aggregate picture of regional disparities in the level of development, but differential pattern of sectoral development and its contributory factor can also be identified by this method. Our primary aim here is to discuss the methodology and to construct the composite index for Indian districts for regional comparison in a particular tier.

1.2 The present study is extended over all districts of India and, in doing so, suggestions of the Planning Commission have been kept in view in selecting the variables. The availability of data for such a small administrative unit like the district does, however, influence the selection.

2.1 Though we have used the first principal component of a group of related variables identifying specific characteristics, the method should not be confused with the full-fledged principal component analysis of Hotelling (1933). The principal component analysis, well known to statisticians, is an empirical technique of "breaking down" a correlation or covariance matrix into a set of orthogonal components or axes equal in number with that of original variates; in that it is not necessary to make any hypothesis about original variates. But, in an attempt to construct a general composite index of development we depend on such variables that are considered to be reflective of developments and as such significant relations are expected to exist, at least among variables in a group identifying a specific characteristic; naturally the variables

---

\*The author is associated with Indian Statistical Institute, New Delhi.

in a specific group, though different in content, are almost parallel; apart from the parallelism as is to be expected by the proper identification of variables for a specific group, we also try here to improve upon the linear correlation coefficients of the correlation matrix of a specific group by transforming the variables in such a way as to have similar statistical distributions—desirably normal ones. Again the composite index of development should, in principle, be only one, whereas the principal component analysis does not reduce the number of components as compared to the number of original variates; we have employed only the first principal component for a specific group simply because this happens to be the linear combination of variates having the maximum sum of the squares of the correlation coefficients with the variables (Girschick, 1936). As the elements of correlation matrix for a specific group are usually having high values, this aggregate squared correlation/variation of the specific index turns out to be very high and as such the residual unexplained variation is not high enough to be considered for regionalisation.

2.2 It could be argued that instead of computing several first principal components identifying several specific characteristics, why we should not compute several principal components, depending upon the number of specific characteristics, from a pooled correlation matrix involving all variables of all specific groups together. We do not do this for four reasons: (i) the specific indicators of economic development need not be independent while the principal components must, by very assumption, be orthogonal, (ii) the economic interpretation of each principal component which involve all variables of all specific groups together is very much subjective and difficult; all principal components evolved from a heterogeneous group of variables need not always be economically meaningful, while, on the other hand, the variables of a specific group are so chosen as to measure the same factor or group-character and as such there is no ambiguity or absurdity in the interpretation of this factor, (iii) specific indices, each of which involve a different set of initial variables, could meaningfully be combined for composite regionalisation by aggregating them with some suitable weights attached, while such combination is not permissible when indices are principal components, each of which involve same set of initial variables and finally, (iv) the computational load is much reduced in our approach.

3.1 The variables in the present study, seventeen in number, are selected from four specific groups as given below :

*Agriculture :*

$X_1 = \log_{10}(1+s_1)$ ;  $s_1$  = agricultural labour productivity in rupees per person,

$X_2 = \log_{10}(1+s_2)$ ;  $s_2$  = agricultural income per acre of cropped area in rupees,

$X_3 = \log_{10}(1+s_3)$ ;  $s_3$  = percentage of irrigated area to total gross area sown,

*Secondary activities :*

$Y_{11} = \log_{10}(1+s_{11})$ ;  $s_{11}$  = percentage share of income in mining, manufacturing and small enterprises,

$Y_{12} = \log_{10}(1+s_{12})$ ;  $s_{12}$  = concentration of labour engaged in secondary activities in number per square mile,

$Y_{13} = \log_{10}(1+s_{13})$ ;  $s_{13}$  = percentage share of labour force in secondary activities,

$Y_{14} = \log_{10}(1+s_{14})$ ;  $s_{14}$  = concentration of large factories (more than 50 labours using power or more than 100 labours without using power) in number per thousand square mile,

$Y_{15} = \log_{10}(1+s_{15})$ ;  $s_{15}$  = concentration of all factories in number per thousand square mile,

$Y_{16} = \log_{10}(1+s_{16})$ ;  $s_{16}$  = concentration of factory workers in number per square mile,

$Y_{17} = \log_{10}(1+s_{17})$ ;  $s_{17}$  = factory workers in per cent of total labours engaged in secondary activities,

*Tertiary activities :*

$Y_{18} =$  percentage share of income in commerce, transport, communication and other services,

$Y_{19} = \log_{10}(1+s_{19})$ ;  $s_{19}$  = concentration of labour engaged in tertiary activities in number per square mile,

$Y_{20} = \log_{10}(1+s_{20})$ ;  $s_{20}$  = percentage share of labour force in tertiary activities,

*Urbanisation :*

$Y_{21} = \log_{10}(1+s_{21})$ ;  $s_{21}$  = percentage of total population in urban areas,

$Y_{22} = \log_{10}(1+s_{22})$ ;  $s_{22}$  = average size of a town in thousand persons,

$Y_{23} = \log_{10}(1+s_{23})$ ;  $s_{23}$  = concentration of urban population per square mile of total area, and

$Y_{24} = \log_{10}(1+s_{24})$ ;  $s_{24}$  = concentration of city population (each city has a population of 50,000 persons or more) per square mile of total area.

The threshold of unity has been chosen in logarithmic transformation above only to avoid the negative values of transformed variables. The data relate to year 1960-61 in the present study, which are either compiled directly from appropriate sources or estimated for the particular year. The sources of data are : (i) Census, (ii) Labour Bureau, (iii) Annual Survey of Industries, (iv) National Council of Applied Economic Research, (v) Central Statistical Organization, (vi) Ministry of Agriculture and (vii) Planning Commission.

3.2 The index of agricultural development  $X$  is given in equation (1), which is the first principal component of variables  $X_1$ ,  $X_2$  and  $X_3$ .

$$X = 0.175854 X_1 + 0.177383 X_2 + 0.101087 X_3 \quad \dots \quad (1)$$

The average value of  $X$  for all districts of India is unity. The corresponding correlation matrix is given in table (1).

Table 1—Correlation matrix for agricultural group.

	$X_1$	$X_2$	$X_3$
$X_1$	1.0000		
$X_2$	0.7196	1.0000	
$X_3$	0.3326	0.4628	1.0000

The variables are seen to be mutually co-associated and the corresponding first principal component  $X$  explains about 68 per cent of total variation. Another variable : cultivated area per rural population, chosen initially has been rejected in the construction of the principal component, since it shows little correlation with  $X_1$  and negative correlations with  $X_2$  and  $X_3$ , meaning thereby that its relatively lower values are indicative of higher agricultural productivity ; as such it can not be included to measure agricultural development in economic sense. It should be noted that relatively higher values of each variable  $X_1$ ,  $X_2$  and  $X_3$  correspond to relatively higher level of agricultural development and activities, the coefficients of correlation of  $X$  with each of  $X_1$ ,  $X_2$  and  $X_3$  are positive and as high as 0.857, 0.908 and 0.686 respectively.

3.3 The index of development in secondary activities  $Y_s$  is given in equation (2), which is the first principal component of seven variables  $Y_{s1}$  to  $Y_{s7}$ .

$$Y_s = 0.198792 Y_{s1} + 0.195355 Y_{s2} + 0.271126 Y_{s3} + 0.114473 Y_{s4} \\ + 0.095628 Y_{s5} + 0.150196 Y_{s6} + 0.119002 Y_{s7} \quad \dots \quad (2)$$

Here also the district-average of  $Y_s$  is unity. The corresponding correlation matrix is given in table (2).

Table 2—Correlation matrix for the group of secondary activities.

	$Y_{s1}$	$Y_{s2}$	$Y_{s3}$	$Y_{s4}$	$Y_{s5}$	$Y_{s6}$	$Y_{s7}$
1	1.0000						
2	0.4990	1.0000					
3	0.6275	0.7974	1.0000				
4	0.5695	0.7234	0.5867	1.0000			
5	0.5747	0.7677	0.6027	0.8874	1.0000		
6	0.5744	0.7739	0.6424	0.9119	0.8412	1.0000	
7	0.5289	0.3892	0.3123	0.8014	0.7594	0.7292	1.0000

The elements of this matrix are quite high and as such the total variation explained by  $Y_s$  is considerably high, about 72 per cent. The coefficients of correlation of  $Y_s$  with each of seven variables in order are respectively 0.724, 0.842, 0.765, 0.936, 0.927, 0.934 and 0.768. Naturally each of initial variables is very much reflective of the development in secondary sector.

3.4 The index of development in tertiary activities  $Y_t$  is given in equation (3), which is the first principal component of three variables  $Y_{t1}$ ,  $Y_{t2}$  and  $Y_{t3}$ .

$$Y_t = 0.007128 Y_{t1} + 0.202767 Y_{t2} + 0.447201 Y_{t3} \quad \dots \quad (3)$$

The district average of  $Y_t$  is again unity. The corresponding correlation matrix is given in table (3).

Table 3—Correlation matrix for the group of tertiary activities

	$Y_{t1}$	$Y_{t2}$	$Y_{t3}$
1.	1.0000		
2.	0.4084	1.0000	
3.	0.5425	0.7838	1.0000

The total variation explained by  $Y_t$  is again 72 per cent, as high as that explained by  $Y_s$ . The coefficients of correlation of  $Y_t$  with each of three initial variables in order are respectively 0.735, 0.878 and 0.928.

3.5 The index of urbanisation  $Y_u$  is given in equation (4), which is the first principal component of four variables  $Y_{u1}$  to  $Y_{u4}$ .

$$Y_u = 0.290848 Y_{u1} + 0.256764 Y_{u2} + 0.160834 Y_{u3} + 0.97810 Y_{u4}. \quad (4)$$

Here also the district average of  $Y_u$  is unity. The corresponding correlation matrix is given in table (4).

TABLE IV—Correlation matrix for urban group

	$Y_{u1}$	$Y_{u2}$	$Y_{u3}$	$Y_{u4}$
1.	1.0000			
2.	0.9479	1.0000		
3.	0.8168	0.8242	1.0000	
4.	0.6647	0.7316	0.7744	1.0000

The total variation explained by  $Y_u$  is very high, about 85 per cent. The coefficients of correlation of  $Y_u$  with each of four initial variables in order are 0.937, 0.956, 0.929, 0.856. Thus all initial variables are highly reflective of urban character.

4.1 In a pursuit to construct a composite index of development the correlation matrix of preceding four specific indices has been constructed and examined. In addition, we also examined another specific index called the index of social backwardness, constructed out of two variables: (i) percentage illiteracy and (ii) percentage of population as scheduled caste and tribe (in logarithmically transformed form with unity as threshold), by usual principal component method. But this specific index is seen to be regionally unimportant from the point of view of its very limited spatial variation. It is, however, interesting to note that this specific index of social backwardness is almost independent to the index of agricultural development and bears negative correlations with other specific indices. That is, with the growth of secondary and tertiary activities and also of urbanisation, this social backwardness declines. The correlation matrix of four specific indices is given in table (5).

TABLE V—Correlation matrix of specific indices

	$X$	$Y_s$	$Y_t$	$Y_u$
$X$	1.0000			
$Y_s$	-0.1623	1.0000		
$Y_t$	-0.1633	0.8112	1.0000	
$Y_u$	-0.2209	0.8297	0.7867	1.0000

It should be noted that the index of agricultural development  $X$ , is negatively correlated with other indices, while the other indices are highly correlated to one another in positive sense. If we construct now the first principal component, the coefficients of  $X$  will be negative while the other coefficients are positive in the linearly combined form of the component. This means that component reflects the combined development of indices other than agricultural development; the negative or inverse value of variable  $X$  is feebly reflecting such

combine development only, for existence of empirical fact that districts with high non-agricultural development tend to become less important in agricultural development. Naturally we can not form a composite index of general development, reflecting both agricultural and non-agricultural aspects, by the first principal component alone. We have now two alternatives: either to construct the second principal component to reflect agricultural development or to construct the first principal component of  $Y_s$ ,  $Y_t$  and  $Y_u$  to reflect the index of non-agricultural development  $Y$  together with the simultaneous consideration of  $X$ , the index of agricultural development. We reject the first alternative for reasons stated in para 2.2 and proceed to construct  $Y$  in the following paragraph.

4.2 The index of non-agricultural development  $Y$  is given in equation (5) which is the first principal component of variables  $Y_s$ ,  $Y_t$  and  $Y_u$ , constructed out of the correlation matrix of table (5) after the omission of first column under  $X$ .

$$Y = 0.287185 Y_s + 0.427654 Y_t + 0.290819 Y_u \quad \dots (5)$$

As usual the average of  $Y$  over 325 districts or so is unity and the total variation that is explained by  $Y$  is as high as 87 per cent. The coefficients of correlation of  $Y$  with  $Y_s$ ,  $Y_t$  and  $Y_u$  are respectively 0.943, 0.926 and 0.934. Thus, the non-agricultural development has been very highly related not only to the growth of secondary and tertiary activities but also to the process of urbanisation.

4.3 The formula for combining the agricultural and non-agricultural indices to evolve a composite index of development  $Z$  is chosen as follows:

$$Z = w_1(\lambda_1 X) + w_2(\lambda_2 Y) \quad \dots (6)$$

Where :

$\lambda_1$  = constant ratio of agricultural labour productivity to general labour productivity for the nation in the year under consideration (1960-61),

$\lambda_2$  = constant ratio of non-agricultural labour productivity to general labour productivity for the nation,

$w_1$  = variable weight in proportion of labour force engaged in agricultural activities by district,

$w_2$  = variable weight in proportion of labour force engaged in non-agricultural activities by district.

In formula (6), the district average of  $X$  and  $Y$  which stand for central values of the nation are unity. If the central value for the nation is

different from unity, say,  $\hat{X}$  and  $\hat{Y}$ , then  $X$  and  $Y$  should be replaced by  $(X/\hat{X})$  and  $(Y/\hat{Y})$  in formula (6). The logic of such a choice of this formula is simple. Unless  $X$  and  $Y$  are multiplied by coefficients like  $\lambda_1$  and  $\lambda_2$ , they are not comparable for the purpose of their being combined for a composite index. As the values  $(\lambda_1 X)$  and  $(\lambda_2 Y)$  are complimentary parts by districts of general development, they can best be combined by population or labour force weights for each district. This weighting at district level is particularly necessary for city districts where the agricultural development is nil. In our present study, we have, however, done the weighting by labour force in the absence of breakdown of total population in agricultural and non-agricultural sectors. The formula (6) takes the form of equation (7) in this study :

$$\mathcal{Z} = 0.6708 w_1 X + 1.8563 w_2 Y \quad \dots \quad (7)$$

4.4 The computed values of the composite index of development  $\mathcal{Z}$  and of five other specific indices are presented in table (7), columns (3) to (8), for all districts, States and the nation. The data on composite index are then classified into six classes in order of their values. The classes are defined as extremely high (*EH*), very high (*VEH*), high (*H*), medium (*M*), low (*L*), and very low (*VL*). Noting the relevant correlations, corresponding classes are defined for all indices. The quantitative definition can be noted from the data of table (6). Finally, in columns (9) to (14) of table (7), districts are shown by the different class-symbols of values of composite and specific indices. With the limited scope of this paper, we do not analyse these data along with the data of initial variables. The composite index is useful not only for a regional comparison in a particular year but also for a temporal comparison using the same set of equations (1) to (6) with coefficients and parameters as determined for a particular base year and could be used for regional policy planning and resource allocated for reducing regional disparities.

4.5 We note that the relatively under-developed districts occur mostly in the major central part of India, in the Himalayan foot-hill zones extending considerably in the plains and in Rajasthan desert. We also note that the relatively developed districts occur in a belt in Punjab State and western U.P. to the north and east of Delhi city, in the southern extreme in Kerala and Tamil Nadu States, in the southern part of West Bengal around Calcutta city, in the areas around Ahmedabad city in Gujarat, in the areas around Bombay and Madras

cities, in the deltaic areas of Krishna-Godavari and of Tanjore, and also in some areas like Bangalore, Hyderabad, Indore, Kanpur, Lucknow, etc., where metropolitan development is quite considerable without much areal spread of its impact in the neighbourhood. The metropolitan districts are highly developed with extremely high development in the cities of Bombay, Madras, Calcutta, Delhi and Ahmedabad. Most underdeveloped States are Madhya Pradesh, Rajasthan, Himachal Pradesh and Jammu & Kashmir; next to them are Bihar, Orissa, Assam and Mysore. Most developed States are Kerala, West Bengal, Tamil Nadu and Punjab; Gujarat and Maharashtra are also quite developed; next to them are Andhra and U.P. States which are somewhere in the middle of developed and under-developed States. Kerala's development is much contributed by its very high agricultural and agro-industrial developments. So is the case of Punjab. But the non-agricultural development is more important factor in other developed States of West Bengal, Tamil Nadu, Maharashtra and Gujarat compared to the complimentary agricultural development; agricultural development is, however, also high in West Bengal. All under-developed States, in general, have low non-agricultural development except Mysore and Bihar where non-agricultural activities are not negligible in some districts. The under-developed States have also low agricultural development except in the humid and hilly States of Assam and Jammu & Kashmir and in the humid coastal districts of Orissa.

TABLE (6)\* Classification of Indices

Class Symbols	Class Intervals of Indices					
	Z	X	Y	$Y_s$	$Y_t$	$Y_u$
(1)	(2)	(3)	(4)	(5)	(6)	(7)
VL	below 0.60	below 0.85	below 0.70	below 0.63	below 0.76	below 0.66
L	0.60–0.88	0.85–0.95	0.70–0.90	0.63–0.87	0.76–0.92	0.66–0.89
M	0.88–1.16	0.95–1.05	0.90–1.10	0.87–1.10	0.92–1.07	0.89–1.12
H	1.16–1.44	1.05–1.15	1.10–1.30	1.10–1.34	1.07–1.22	1.12–1.35
VH	1.44–2.00	1.15–1.35	1.30–1.70	1.34–1.82	1.22–1.53	1.35–1.81
EH	above 2.00	—	above 1.70	above 1.82	above 1.53	above 1.81

\*Notes : Class intervals of X and Y are chosen after examining their statistical distributions, while the class intervals of Z are computed from its correlation with X and Y. The class intervals of  $Y_s$ ,  $Y_t$  and  $Y_u$  are similarly derived from the correlations with Y.

VL = very low, L = low, M = medium, H = high,  
VH = very high, and EH = extremely high.

Z = composite index of development.

X = Index of agricultural development.

Y = Index of non-agricultural development.

$Y_s$  = Index of development in secondary activities.

$Y_t$  = Index of development in tertiary activities.

$Y_u$  = Index of urbanism.

Table (7)\* Value of Indices and Classes of their Occurrence

Est. No.	State District	Value of Indices					Class-symbols of Indices						
		Z	X	Y	$Y_s$	$Y_r$	$Y_n$	Z	X	Y	$Y_s$	$Y_r$	$Y_n$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	ANDHRA PRADESH	1.0651	1.0140	1.0997	1.0527	1.0649	1.1759						
1.	Adilabad	0.8796	0.8493	0.9819	1.0242	0.9994	0.8952	L	VL	M	M	M	M
2.	Nizamabad	1.0870	1.0389	1.1185	1.3412	0.9540	1.1188	M	M	H	VH	M	M
3.	Modak	0.8264	0.9408	0.8684	0.8424	0.9288	0.7883	L	L	L	L	M	L
4.	Karimnagar	1.0910	0.9427	1.0387	1.1373	1.1241	0.7954	M	L	M	H	H	L
5.	Warangal	1.0214	0.9982	1.1402	1.2535	1.0565	1.1291	M	L	H	H	M	H
6.	Khamman	0.8679	0.9513	0.9240	0.8182	0.9213	1.0146	L	M	M	L	M	M
7.	Nalgonda	0.9131	0.9029	0.9326	0.8580	0.9991	0.9590	M	L	M	L	M	M
8.	Hyderabad	1.9334	0.9099	1.6037	1.3395	1.6932	1.6990	VH	L	VH	VH	EH	VR
9.	Mahbubnagar	0.8580	0.9001	0.8849	0.9043	0.9149	0.8044	L	L	M	L	L	L
10.	Kurnool	0.9526	0.9445	1.0263	0.9825	0.9788	1.1194	M	L	M	M	M	M
11.	Anantapur	0.8981	0.9586	0.9763	0.9114	0.9444	1.0683	M	M	M	M	M	M
12.	Cuddapah	1.0053	1.0109	0.9880	0.9120	1.0122	1.0083	M	M	M	M	M	M
13.	Chittoor	0.9357	1.0426	0.9566	0.9539	0.9873	0.8956	M	M	M	M	M	M
14.	Nellore	1.0278	1.0737	0.9784	0.9445	0.9542	1.0254	M	H	M	M	M	M
15.	Guntur	1.2191	1.1742	1.2106	1.4511	1.0404	1.2607	H	H	H	VH	M	H
16.	Krishna	1.2213	1.0932	1.2336	1.2174	1.1455	1.3550	H	H	H	H	VH	H
17.	West Godavari	1.1888	1.1562	1.1995	1.2889	1.1073	1.2234	VH	H	H	H	H	H
18.	East Godavari	1.3109	1.1543	1.2372	1.2875	1.1573	1.2811	H	VH	H	H	H	H
19.	Visakhapatnam	1.0731	1.0334	1.1689	1.0954	1.1385	1.2635	M	H	R	M	H	H
20.	Srikakulam	0.9511	1.0562	1.0017	1.0227	1.0638	0.8799	M	H	M	M	M	L
	ASSAM	0.9433	1.0792	0.9381	1.0065	0.9224	0.8696						
1.	Goalpara	0.9533	1.0734	0.9133	0.9171	0.9986	0.7662	M	H	M	M	M	L
2.	Kamrup	1.1565	1.0900	1.0737	1.0475	1.0887	1.0567	M	H	M	M	H	M
3.	Darrang	0.8716	1.0802	0.8995	1.1955	0.8501	0.6622	L	H	L	H	L	L
4.	Lakhimpur	1.0160	1.1878	1.0471	1.3377	0.8781	0.9685	M	VH	M	VH	L	M
5.	Sibsagar	0.8829	1.0459	0.9742	1.3363	0.8773	0.7408	M	M	M	H	L	L
6.	Nowrangpur	0.9256	1.1190	0.9129	0.9598	0.9099	0.8531	M	H	M	M	L	L
7.	United Mirkir & North Cachar Hills	0.7433	1.0428	0.5152	0.4113	0.7211	0.2904	L	M	VL	VL	VL	VL
8.	United Khasi & Jaintia Hills	1.0691	1.1464	1.0038	0.5861	1.2220	1.0758	M	H	M	VL	VH	M
9.	Garo Hills	0.6964	1.0276	0.4404	0.2172	0.5299	0.3208	L	M	VL	VL	VL	VL
10.	Cachar	1.0688	1.0247	1.0829	1.2266	1.1426	0.8323	M	M	M	H	H	L
11.	Mizo Hills	0.7280	1.0385	0.5117	0.3092	0.5752	0.6083	L	M	VL	VL	VL	VL
	Bihar	0.9148	0.9930	1.0366	1.0517	0.9860	1.0758						
1.	Champaran	0.7842	0.9790	0.8859	1.0530	0.8193	0.8015	L	M	L	M	L	L
2.	Muzaffarpur	0.8634	0.9182	1.0493	1.0429	1.0402	1.0487	L	L	M	M	M	M
3.	Saran	0.8803	0.9742	1.0421	1.1124	1.0119	0.9567	M	M	H	M	M	M
4.	Darbhanga	0.9097	0.9667	1.0807	1.1477	1.0556	1.0303	M	L	M	H	M	M

(Table 7 cont.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
5. Patna		1.2936	1.0755	1.3731	1.3226	1.3275	1.4632	H H	VH H	VH VH			
6. Shahabad		1.0665	1.0968	1.0931	1.1401	1.0883	1.0345	M H	M H	H M			
7. Saharsa		0.7706	0.9734	0.8085	0.8181	0.8492	0.7246	L M	L	L L			
8. Purnea		0.8862	0.9109	0.9292	0.9639	1.0048	0.9823	M M	M M	M M			
9. Bhagalpur		1.0784	1.0579	1.1542	1.1505	1.1018	1.2126	M H	H H	R H			
10. Monghyr		1.0205	0.9650	1.1151	1.0501	1.1552	1.1873	M M	H M	H H			
11. Gaya		0.9262	1.0666	1.0247	0.9616	1.0248	1.0670	M H	M M	M M			
12. Palamau		0.7692	0.9986	0.7801	0.8247	0.8112	0.6758	L M	L	L L			
13. Hazaribagh		0.8227	0.9870	0.9336	1.1528	0.8239	0.8603	L M	M H	L L			
14. Santal Parganas		0.7953	1.0061	0.8331	0.8294	0.8691	0.7678	L M	L L	L L			
15. Dhanbad		1.1521	1.0651	1.3000	1.6512	1.0605	1.2801	M H	VH	VH M B			
16. Ranchi		0.7319	0.8804	0.8772	0.8686	0.7814	1.0095	L L	L L	L M			
17. Singhbhum		1.0502	1.0098	1.1372	1.3549	0.8769	1.2835	M M	H	VE L H			
<b>GUJARAT</b>													
1. Banaskantha		1.0892	1.0714	0.8435	0.7198	0.9351	0.7850	M H	L	L M	L		
2. Kutch		1.0952	0.9483	0.9727	0.8849	1.0766	0.8876	M L	M M	R L			
3. Mehsana		1.1980	1.0033	1.1852	1.2651	1.1447	1.1430	H M	H H	H R			
4. Sabarkantha		0.8562	1.0149	0.8922	1.0082	0.8887	0.7654	L M	L	M L	L		
5. Pachhamhada		0.7374	0.9287	0.8887	0.8559	0.8026	1.0304	L L	I L	L M			
6. Kaira		1.1065	0.9890	1.2334	1.4108	1.0889	1.2468	M M	H	VH H R			
7. Ahmedabad		2.1634	1.0055	1.5812	1.9027	1.2671	1.6949	EH M	VH EH	VH VH			
8. Surendranagar		1.1133	0.9601	1.0390	1.0484	1.0335	1.0177	M M	M M	M M			
9. Rajkot		1.2725	0.9378	1.2989	1.2508	1.2015	1.3611	H L	R H	H V			
10. Jamnagar		1.2157	0.9144	1.1907	1.1904	1.1370	1.2467	H L	R H	H R			
11. Junagadh		1.1054	0.9739	1.1738	1.0986	1.1670	1.2352	M M	B	M H	H R		
12. Amreli		0.9164	0.9068	1.0107	1.0322	1.0217	0.9535	M L	M	M M	M M		
13. Bhavnagar		1.2407	0.9603	1.2099	1.1344	1.1834	1.3070	H M	H H	H R			
14. Baroda		1.1413	0.9716	1.2812	1.4099	1.1115	1.3786	M M	H	VH H V			
15. Dhrang		0.8701	0.9444	1.0538	1.1214	0.9290	1.1501	L L	M	H M H			
16. Surat		1.0789	0.9538	1.2310	1.4199	1.0428	1.2971	M M	H	VB M H			
17. Danga		0.5905	0.8615	0.3996	0.2839	0.7437	0.0000	VL VL	VL	VL VL			
<b>JAMMU &amp; KASHMIR</b>													
1. Baramula		0.8346	1.1329	0.7218	0.5864	0.7903	0.7406	L H	L	VL L			
2. Srinagar		1.5200	1.1306	1.3954	1.3595	1.2501	1.6163	VH B	VH	VH VB VR			
3. Anantnag		0.8414	1.1306	0.7008	0.5743	0.7633	0.7205	L H	L	VL L	L		
4. Poonch		0.7583	1.0615	0.5894	0.5062	0.6303	0.6001	L H	VL	VL VL	VL		
5. Udhampur		0.7996	1.0604	0.6501	0.6109	0.7020	0.5997	L H	VL	VL VL	VL		
6. Jammu		1.2808	1.0537	1.1959	1.0100	1.2671	1.2317	H H	H M	VH H			
7. Karbu		0.8347	1.0534	0.7269	0.5575	0.8892	0.6414	L H	L	VL L	L V		
8. Doda		0.7628	1.0932	0.5140	0.5408	0.5058	0.4895	L H	VL	VL VL	VL		
9. Ladakh													
10. Mazafarabad													
11. Gilgit-Wazirat													
12. Chiles													
13. Tribal Territory													
14. Gilgit													

(Table 7 cont.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
16.	Ujjain	1.0175	0.8391	1.2221	1.3311	1.0557	1.3374	M	VL	H	H	H	H
17.	Shajapur	0.7521	0.8630	0.8995	1.0393	0.8633	0.7970	L	L	L	M	L	L
18.	Schora	1.2012	0.9146	1.1986	1.1903	1.1204	1.3180	H	L	H	H	H	H
19.	Raisen	0.8121	0.8555	0.7967	0.5786	1.0592	0.6106	L	L	VL	M	VL	
20.	Jabalpur	1.1033	0.9181	1.2979	1.3259	1.1914	1.4016	H	L	H	H	VH	
21.	Satna	0.7962	0.8654	0.9004	1.0108	0.8509	0.8271	L	L	M	M	L	L
22.	Rewa	0.6768	0.8248	0.8052	0.7006	0.8243	0.8647	L	VL	L	L	L	L
23.	Sidhi	0.5763	0.8168	0.4805	0.5900	0.4985	0.3165	VL	VL	VL	VL	VL	VL
24.	Shahdol	0.6442	0.8270	0.7033	0.6914	0.6930	0.7165	L	VL	L	L	VL	L
25.	Mandla	0.6012	0.8234	0.6021	0.4200	0.6615	0.6830	L	VL	VL	VL	VL	L
26.	Narsimhapur	0.8736	0.8858	0.9186	0.8806	1.0337	0.8378	L	L	M	M	M	L
27.	Hoshangabad	0.8977	0.8857	0.9631	0.8862	1.0324	0.9184	M	L	M	M	M	M
28.	Dewas	0.7652	0.8636	0.8858	0.9812	0.8380	0.8446	L	'L	L	M	L	L
29.	Indore	1.8504	0.9280	1.5359	1.6721	1.1391	1.6935	VH	L	VH	VH	VH	VH
30.	Dhar	0.7062	0.8670	0.8431	0.9145	0.8132	0.8001	L	L	M	L	L	L
31.	Jhabua	0.5888	0.8024	0.6854	0.6980	0.6815	0.6655	VL	VL	L	VL	VL	L
32.	West <sup>1</sup> Nimar	0.6861	0.7546	0.9489	1.0739	0.9067	0.8689	L	VL	M	M	L	L
33.	East Nimar	0.8724	0.8830	1.0629	1.0885	0.9057	1.2480	L	L	M	M	L	H
34.	Betul	0.6862	0.8830	0.7045	0.5233	0.7882	0.7468	L	L	L	VL	L	L
35.	Chhindwara	0.6929	0.8598	0.7900	0.7391	0.7831	0.8352	L	L	L	L	L	L
36.	Sonai	0.6729	0.8783	0.7470	0.6988	0.7425	0.7866	L	L	L	VL	L	
37.	Balaghat	0.7704	1.0159	0.7285	0.8331	0.6622	0.7086	L	M	L	L	VL	L
38.	Bilaspur	0.7473	0.9665	0.8265	0.8464	0.7333	0.9275	L	M	L	VL	M	
39.	Surguja	0.6519	0.9213	0.5349	0.5308	0.5393	0.4712	L	VL	VL	VL	VL	VL
40.	Raigarh	0.7046	0.8868	0.7861	0.6887	0.7590	0.7292	L	L	L	VL	L	L
41.	Raigarh	0.8152	0.9735	0.9453	0.9759	0.8390	1.0330	L	M	M	M	L	M
42.	Durg	0.8000	0.9459	0.9116	0.9521	0.7714	1.0598	L	L	M	M	L	M
43.	Bastar	0.6338	0.9066	0.5068	0.5381	0.4701	0.5201	L	L	VL	VL	VL	VL
<b>MADRAS</b>													
1.	North Arcot	1.1914	1.1108	1.2031	1.2427	1.1457	1.2250	H	H	H	H	H	B
2.	Chingleput	1.3318	1.1286	1.2543	1.3622	1.2162	1.1793	H	H	H	VH	H	H
3.	Madras	4.4592	—	2.4022	2.5864	2.1196	2.5893	BH	BH	BH	EH	EH	EH
4.	South Arcot	0.9906	1.1208	1.0474	0.9961	1.0227	1.1140	M	H	M	M	M	M
5.	Salem	1.1436	1.0194	1.1675	1.2427	1.0882	1.1873	M	M	H	H	H	H
6.	Nilgiri	1.4089	1.1619	1.2634	1.1898	1.2620	1.3137	H	VH	H	B	VH	H
7.	Coimbatore	1.6858	1.1063	1.4156	1.6050	1.3023	1.3676	VL	H	VH	VH	VH	VH
8.	Madurai	1.4068	1.0824	1.3623	1.3794	1.3063	1.4013	H	H	VH	VH	VH	VH
9.	Tiruchirapalli	1.1285	1.0646	1.2015	1.2347	1.1314	1.2483	M	H	H	H	H	H
10.	Tanjavur	1.1965	1.1736	1.1985	1.1093	1.1912	1.2741	H	VR	H	H	B	B
11.	Ramanathapuram	1.1768	0.9969	1.2555	1.3001	1.2300	1.2247	H	M	H	H	VH	H
12.	Tiruvellore	1.5187	1.0723	1.3457	1.4223	1.2969	1.3157	VL	H	VH	VH	VH	H
13.	Kanyakumari	1.9121	1.2138	1.3813	1.2993	1.4353	1.3558	VH	YH	VH	H	VH	VH

(Table 7 cont.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
MAHARASHTRA	1.0953 0.9394	1.2370	1.2671	1.1287	1.3425								
1. Dhulia	0.824 0.9150	1.0225	1.0363	0.9427	1.1404	L	L	M	M	M	H		
2. Jalgaon	0.9104 0.9191	1.1308	1.1238	1.0440	1.2435	M	L	H	H	M	H		
3. Nasik	0.9961 0.9188	1.1640	1.2387	1.0270	1.2691	M	L	H	H	M	B		
4. Thane	1.2135 1.0196	1.2976	1.3688	1.2183	1.3302	H	M	H	VH	M	H		
5. Kolaba	0.8538 1.0172	0.9119	0.8828	0.9833	0.8176	L	M	M	M	M	L		
6. Poona	1.3237 0.9106	1.3608	1.3526	1.2936	1.4413	H	M	VH	VH	VH	VH		
7. Ahmadnagar	0.8724 0.9504	1.0337	1.2134	1.0482	1.0794	L	M	M	H	L	M		
8. Aurangabad	0.7743 0.8772	0.9666	0.9397	0.8979	1.0755	L	L	M	M	L	M		
9. Buldhana	0.7622 0.8710	0.9719	1.0679	0.8869	0.9685	L	L	M	M	L	M		
10. Akola	0.8340 0.8684	1.0803	1.0571	0.9922	1.2120	L	L	M	M	M	H		
11. Amravati	0.8716 0.8783	1.1016	1.1047	1.039	1.2208	L	L	H	H	M	H		
12. Wardha	0.8779 0.8551	1.0899	1.1541	1.0445	1.0572	L	L	M	H	M	M		
13. Nagpur	1.4736 0.9270	1.4122	1.4996	1.2343	1.5602	VH	L	VH	VH	VH	VH		
14. Bhandara	1.0492 1.1263	1.0244	1.2761	0.8150	1.7581	M	H	M	H	L	M		
15. Chanda	0.8279 1.0401	0.8737	0.7031	0.9927	0.8496	L	M	L	L	M	L		
16. Greater Bombay	4.4579	2.4015	2.8780	1.9164	2.6463	EH	EH	EH	EH	EH	EH		
17. Yeotmal	0.6994 0.8173	0.9118	0.9891	0.8710	0.8857	L	VL	M	M	L	L		
18. Nanded	0.7720 0.8220	1.0105	0.9960	0.9890	1.0367	L	VL	M	M	M	M		
19. Parkhedi	0.3760 0.8687	0.9214	0.8676	0.9337	0.8919	L	L	M	L	M	M		
20. Bhir	0.7090 0.8808	0.7998	0.6883	0.8456	0.8269	L	L	L	L	L	L		
21. Osmanabad	0.7164 0.8546	0.8595	0.6292	1.1068	0.8316	L	L	L	VL	H	L		
22. Sholapur	1.0880 0.8592	1.2293	1.3765	1.0242	1.3616	M	L	H	VH	M	VH		
23. Satara	0.8567 0.9185	0.9417	1.0004	0.9261	0.8878	L	M	M	M	M	L		
24. Ratnagiri	0.8162 0.9888	0.8742	0.7422	1.1779	0.7984	L	M	L	L	M	L		
25. Kolhapur	0.9729 1.0223	1.1150	1.1816	0.9520	1.2594	M	M	F	H	M	H		
26. Sangli	0.8771 0.9407	1.0194	0.9644	0.9294	1.1861	L	L	M	M	M	H		
MYSORE	1.0031 0.9590	1.0832	1.0695	0.9967	1.2031								
1. Bidar	0.8822 0.9277	0.8890	0.7094	0.9891	0.9018	M	L	L	L	M	M		
2. Gulbarga	0.9213 0.8253	1.0207	0.9623	1.0037	1.0334	M	VL	M	M	M	M		
3. Bijapur	0.8643 0.8342	1.0082	1.0661	0.8871	1.1096	L	VL	M	M	L	M		
4. Raichur	0.8579 0.8408	0.9982	1.0689	0.9295	1.0099	L	VL	M	M	M	M		
5. Belgaum	0.9389 0.9563	1.0774	1.2022	0.9194	1.1654	M	M	M	H	L	R		
6. North Kanara	1.0742 1.1630	0.9346	0.8737	0.9818	0.9072	M	VH	M	M	M	M		
7. Dharwar	1.0312 0.9131	1.1860	1.2330	1.0583	1.3040	M	L	H	H	M	H		
8. Bellary	0.9970 0.9286	1.0824	1.0405	1.0067	1.2141	M	L	M	M	M	H		
9. Chitradurga	0.8986 0.9362	0.9889	1.0375	0.8829	1.0777	M	L	M	M	L	M		
10. Shimoga	1.1559 1.1090	1.0373	1.0095	0.9604	1.1576	M	R	M	M	M	H		
11. South Kanara	1.2043 1.0953	1.2037	1.3483	1.0936	1.1964	H	R	H	VH	R	H		
12. Chikmagalur	0.9620 1.1628	0.8643	0.8745	0.8487	0.8604	M	VH	L	M	L	L		
13. Tumkur	0.8007 0.9739	0.8174	0.7766	0.8155	0.8447	L	M	L	L	L	L		
14. Kolar	0.8622 0.9686	1.0003	0.9557	0.8589	1.2328	L	M	M	M	L	H		

(Table 7 contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
15. Bangalore	1.7175	0.9510	1.9482	1.6202	1.4124	1.6467	VH	M	VH	VH	VH	VH	VH
16. Mysore	0.8222	1.0432	0.8015	0.7148	0.8146	0.8523	L	M	L	L	L	L	L
17. Mysore	1.0980	0.9994	1.1616	1.1971	1.0646	1.2533	M	M	H	H	M	H	H
18. Coorg	0.9746	1.1266	0.8656	0.8522	0.9396	0.7531	M	H	L	L	M	L	L
19. Hassan	0.8280	1.0135	0.8179	0.8801	0.7970	0.8399	L	H	L	M	L	L	L
<b>ORISSA</b>		0.9256	1.0249	0.8950	0.7567	0.9128	0.8705						
1. Miyurbhanj	0.7307	0.9432	0.7149	0.7207	0.7780	0.6025	L	L	L	L	L	VL	
2. Keonjhar	0.7525	0.9893	0.6903	0.6270	0.7217	0.6936	L	M	VL	VL	VL	VL	
3. Sundergarh	1.0169	0.9231	-0.254	0.9686	0.9611	1.1560	M	L	M	M	M	H	
4. Sambalpur	0.9752	1.1961	0.8920	0.9272	0.9233	0.7937	M	H	L	M	M	L	
5. Bolangir	0.8720	1.0490	0.8021	0.7232	0.9294	0.6771	L	M	L	L	M	L	
6. Dhenkanal	0.9010	1.0664	0.7727	0.6772	0.8927	0.6756	M	H	L	L	L	L	
7. Cuttack	1.1978	1.1003	1.1223	1.0651	1.1827	1.0680	H	H	H	M	H	M	
8. Puri	1.0306	1.1185	0.9421	0.7319	1.0316	0.9996	M	H	M	L	M	M	
9. Baudh-Khandmals	0.7620	0.9545	0.6546	0.5198	0.9241	0.3786	L	M	VL	VL	M	VL	
10. Kalabandh	0.6256	0.8975	0.7438	0.6112	0.9316	0.5644	L	L	L	L	M	VL	
11. Koraput	0.7383	0.8580	0.5781	0.5661	0.9451	0.6579	L	L	L	VL	M	VL	
12. Ganjam	1.0622	1.0754	1.0163	0.7659	1.2123	0.9355	M	H	M	L	H	M	
13. Balasore	0.8717	0.9818	0.9423	0.9563	0.9912	0.8384	L	M	M	M	M	L	
<b>PUNJAB</b>		1.2227	1.0979	1.1424	1.1160	1.1043	1.2022						
1. Lahore and Sialkot	0.7108	0.9753	0.4487	0.7026	0.5773	0.0000	L	M	VL	L	VL	VL	
2. Kangra	0.8146	1.0759	0.7071	0.7195	0.7829	0.5695	L	H	L	L	L	VL	
3. Gurdaspur	1.5900	1.1426	1.2913	1.1973	1.3819	1.2259	VH	H	H	H	VH	H	
4. Amritsar	1.8057	1.1941	1.4573	1.5726	1.3438	1.4821	VH	VH	VH	VH	VH	VH	
5. Sialkot	1.6347	0.7673	1.1347	1.2039	1.7631	1.1518	H	VL	VH	H	BH	H	
6. Hoshiarpur	1.1284	1.0611	1.175	1.1239	1.1528	1.0385	H	H	H	H	H	M	
7. Jullundur	1.8141	1.1705	1.3669	1.4849	1.3014	1.4232	VH	VH	VH	VH	VH	VH	
8. Kapurthala	1.4453	1.1460	1.2372	1.4376	1.1952	1.0765	VH	H	H	VH	H	M	
9. Potohar	1.1699	1.1637	1.0613	1.0682	1.0501	1.0504	H	VH	M	M	M	M	
10. Ludhiana	1.8002	1.1877	1.4064	1.4204	1.3114	1.5050	VH	VH	VH	VH	VH	VH	
11. Ambala	1.6595	1.0753	1.3505	1.4173	1.2543	1.3997	VH	H	VH	VH	VH	VH	
12. Patiala	1.3843	1.1400	1.2188	1.1890	1.1932	1.2618	H	H	H	R	H	H	
13. Sangrur	1.0467	1.1325	0.9803	0.9401	0.9982	0.9745	M	H	M	M	M	M	
14. Bhindoda	1.1065	1.1309	1.0310	0.9298	1.0117	1.1462	M	H	M	M	M	H	
15. Bissar	0.9403	1.0862	0.9605	0.9516	0.8554	1.1032	M	H	M	M	L	M	
16. Kural	1.1624	1.1468	1.0797	1.0036	1.0384	1.1946	H	H	M	M	M	H	
17. Rohtak	1.1233	1.1274	1.1069	1.1075	1.0426	1.1794	M	H	B	B	M	B	
18. Gurgaon	1.0848	1.0509	1.0817	1.1933	1.0601	0.9822	M	H	M	H	M	M	
19. Moga	0.8150	0.9770	0.8223	0.7341	0.8648	0.8308	L	M	L	L	L	L	

(Table 7 cont.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	RAJASTHAN	0.8298	0.9220	0.8888	0.7075	0.8917	1.0463						
1.	Gangotri	0.8680	1.0297	0.8227	0.7308	0.7824	0.9568	L	M	L	L	L	M
2.	Churu	0.6559	0.7481	0.7755	0.4648	0.8090	1.0128	L	VL	L	VL	L	M
3.	Bikaner	1.1153	0.7894	1.0356	0.7778	1.0938	1.1844	M	VL	M	L	H	H
4.	Jhunjhunu	0.7220	0.8088	0.8682	0.5801	1.0051	0.9341	L	VL	L	VL	M	M
5.	Sikar	0.8016	0.8550	0.9105	0.6524	0.9392	1.1055	L	L	M	L	M	M
6.	Nagaur	0.6630	0.8218	0.7508	0.6475	0.7449	0.8468	L	VL	L	VL	L	L
7.	Jodhpur	0.8465	0.8352	0.9970	0.7229	0.9741	1.2821	L	VL	M	L	M	H
8.	Jaisalmer	0.7949	0.8816	0.6226	0.6165	0.6513	0.5742	L	L	VL	VL	VL	VL
9.	Barmer	0.5342	0.7144	0.5779	0.4112	0.6033	0.6939	VL	VL	VL	VL	VL	L
10.	Pali	0.9447	0.9792	0.8952	0.8639	0.9638	0.8079	M	M	L	L	M	L
11.	Ajmer	1.2722	0.9685	1.2762	1.2040	1.2158	1.4116	H	M	R	H	H	VH
12.	Jaipur	1.1655	0.9803	1.1960	1.0322	1.1810	1.3565	H	M	H	M	H	VH
13.	Alwar	0.8076	0.9299	0.9103	0.7276	0.9440	1.0235	L	L	M	L	M	M
14.	Bharatpur	0.8052	1.0056	0.8348	0.6198	0.8594	0.9392	L	M	L	VL	L	M
15.	Sawai Madhopur	0.8121	0.9782	0.8511	0.8116	0.8574	0.8642	L	M	L	L	L	L
16.	Tonk	0.8063	0.9462	0.8234	0.6934	0.8572	0.8862	L	L	L	L	L	L
17.	Bundi	0.8821	0.9970	0.8636	0.8918	0.8283	0.8708	M	M	L	M	L	L
18.	Kota	1.0346	0.9300	1.0479	0.8805	1.0749	1.1530	M	L	M	H	H	H
19.	Jaipur	0.7669	0.9604	0.7516	0.6930	0.7932	0.7311	L	M	L	L	L	L
20.	Bhilwara	0.8091	1.0253	0.8257	0.9191	0.7628	0.8099	L	M	L	M	L	L
21.	Chitorgarh	0.7900	1.0117	0.7452	0.7218	0.7226	0.7811	L	M	L	L	VL	L
22.	Banswara	0.6811	0.9759	0.5449	0.4716	0.4793	0.7032	L	M	VL	VL	VL	L
23.	Dungarpur	0.6853	0.9814	0.5648	0.3428	0.6157	0.6983	L	L	VL	VL	VL	L
24.	Udaipur	0.8617	1.0169	0.8724	0.7559	0.8332	1.0278	L	H	L	L	L	M
25.	Shiroli	1.0725	1.0566	0.9024	0.6694	1.0624	0.8801	M	H	M	L	M	L
26.	Jalore	0.6663	0.8877	0.6582	0.4852	0.7772	0.6414	L	L	VL	L	VL	
	UTTAR PRADESH	1.0231	1.0721	1.0631	0.9642	1.0149	1.1214						
1.	Uttar Kashi	0.6620	0.9526	0.4705	0.4864	0.5438	0.3377	L	M	VL	VL	VL	VL
2.	Chamoli	0.6486	0.9773	0.3169	0.4234	0.4568	0.0000	VL	M	VL	VL	VL	VL
3.	Pithoragarh	0.7110	1.0708	0.3800	0.4127	0.6133	0.7000	L	H	VL	VL	VL	VL
4.	Almora	0.7980	1.1414	0.6094	0.4678	0.6779	0.6381	L	H	VL	VL	VL	VL
5.	Garhwal	0.7153	0.9967	0.6007	0.4754	0.6661	0.6167	L	M	VL	VL	VL	VL
6.	Tehri Garhwal	0.6874	0.9953	0.3324	0.5084	0.6265	0.4073	L	M	VL	VL	VL	L
7.	Dehradoon	1.7604	1.1830	1.3699	1.2251	1.4022	1.4315	VH	VH	VH	H	VH	VH
8.	Saharanpur	1.6871	1.1133	1.3470	1.2630	1.3614	1.3825	VH	H	VH	H	VH	VH
9.	Muzaffarnagar	1.4613	1.1238	1.2490	1.3002	1.2251	1.2093	VH	H	H	H	VH	H
10.	Bijoor	1.2997	1.0623	1.2123	1.1760	1.1368	1.0228	H	H	B	H	H	M
11.	Nainital	1.1263	1.2653	0.9458	0.8760	0.9744	0.9534	M	VH	M	M	M	M
12.	Pilibhit	1.0190	1.0701	1.0030	0.8670	0.9846	1.1506	M	H	M	L	M	H

(Table 7 cont.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
13. Bareilly	1.2248	1.0619	1.2648	1.2081	1.1711	1.4340	H	H	H	H	H	VH	
14. Rampur	1.0838	1.0136	1.2047	1.1764	1.0103	1.4364	M	M	H	H	M	VH	
15. Moradabad	1.1650	1.0622	1.1925	1.1005	1.1161	1.3871	H	H	H	H	H	VH	
16. Meerut	1.7651	1.1379	1.3975	1.4634	1.3345	1.3978	VH	VH	VH	VH	VH	VH	
17. Bulandshahar	1.1949	1.1603	1.0649	0.9845	1.1010	0.9816	H	VH	M	M	H	M	
18. Budaud	0.8653	1.0745	0.8840	0.7061	0.8642	1.0715	L	H	L	L	L	M	
19. Shahjahanpur	0.9815	1.0492	1.0486	0.9414	0.9907	1.2192	M	M	M	M	M	H	
20. Kheri	0.7964	1.0439	0.7597	0.7380	0.7490	0.7821	L	M	L	VL	L		
21. Bahraich	0.7783	1.0276	0.8047	0.7024	0.7477	0.9734	L	M	L	L	VL	M	
22. Sitapur	0.8678	1.0569	0.9246	0.8875	0.8640	1.0323	L	H	M	M	L	M	
23. Hardoi	0.8218	1.0481	0.7997	0.6587	0.8330	0.8743	L	M	L	L	L	L	
24. Farrukhabad	1.0262	1.1434	1.0154	0.8836	1.9837	1.1725	M	H	M	M	M	H	
25. Etah	1.0037	1.1528	0.9265	0.8117	0.9912	0.9267	M	VH	M	I	M	M	
26. Aligarh	1.4247	1.1634	1.2788	1.2866	1.1916	1.3684	VH	H	H	H	VH		
27. Mainpuri	1.2563	1.1335	1.1589	0.9592	1.2001	1.2700	H	H	H	M	H	B	
28. Agra	1.6949	1.1325	1.4209	1.4441	1.2651	1.5592	VH	H	VH	VH	VH	VH	
29. Maingpuri	1.0135	1.1644	0.9429	0.9873	0.9627	1.8516	M	VH	M	M	M	L	
30. Etawah	1.0016	1.1421	0.9823	0.8348	0.9821	1.1092	M	H	M	L	M	M	
31. Jalaun	0.9208	1.0955	0.8531	0.5916	0.9327	0.9484	M	H	L	VL	M	M	
32. Kanpur	1.8076	1.1314	1.5489	1.6592	1.2885	1.7926	VH	H	VH	VH	VH	VH	
33. Unnao	0.8279	1.0872	0.7787	0.7304	0.8266	0.7377	L	H	L	L	L	L	
34. Lucknow	1.8560	1.0903	1.5909	1.4911	1.4979	1.7951	VH	H	VH	VH	VH	VB	
35. Bareilly	0.8491	1.0845	0.8067	0.7160	0.8695	0.7882	L	H	L	L	L	L	
36. Gonda	0.8115	1.0767	0.8064	0.7674	0.8159	0.8155	L	H	L	L	L	L	
37. Basti	0.7616	1.0563	0.7211	0.7311	0.7121	0.7103	L	H	L	L	VL	L	
38. Gorakhpur	0.9017	1.0639	1.0594	1.0164	0.9371	1.2612	M	H	M	M	M	H	
39. Deoria	0.7715	1.0388	0.8172	1.0273	0.7284	0.7244	L	M	M	VL	L		
40. Ballia	0.9665	1.0807	0.9072	0.7521	1.0579	0.8210	M	H	M	L	M	L	
41. Obazipur	0.9078	1.0713	0.8922	0.8322	0.9963	0.7899	M	H	L	M	L		
42. Azamgarh	0.8911	1.0878	0.8583	0.8242	0.8711	0.8534	M	H	L	L	L	L	
43. Faizabad	0.9159	1.0903	0.9668	0.8408	0.9201	1.1411	M	H	M	L	M	H	
44. Sahanpur	0.8177	1.0875	0.7329	0.6109	0.8312	0.6945	L	H	L	VL	L	L	
45. Pratapgarh	0.7998	1.0795	0.7107	0.5771	0.8210	0.6666	L	H	L	VL	L	L	
46. Jaunpur	0.8627	1.0659	0.9086	0.8208	0.8895	1.0036	L	H	M	L	L	M	
47. Varanasi	1.4470	1.1287	1.3369	1.2834	1.2359	1.5167	VH	H	VH	H	VH	VH	
48. Mirzapur	1.9844	1.1207	0.9428	0.8910	0.8845	1.0614	M	H	M	M	L	M	
49. Allahabad	1.0986	1.0593	1.2259	1.1291	1.1133	1.4631	M	H	H	R	R	VH	
50. Rae Bareli	0.8386	1.1037	0.7709	0.6150	0.8891	0.7362	L	H	L	VL	L	L	
51. Patchpur	0.8920	1.0956	0.8464	0.7194	0.9663	0.7790	M	B	L	L	M	L	
52. Banda	0.8291	1.0786	0.7375	0.5974	0.7886	0.7665	L	H	L	VL	L	L	
53. Hamirpur	0.9021	1.0735	0.7964	0.6016	0.8958	0.8276	M	H	L	VL	L	L	
54. Jhansi	1.0964	1.0771	1.0344	0.8017	1.0517	1.2187	M	B	M	L	M	H	

(Table 7 cont.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
<b>WEST BENGAL</b>													
1.	Darjeeling	1.1999	1.0694	1.2926	1.2946	1.2649	1.3063	H	H	H	VH	H	
2.	Jalpaiguri	1.0365	1.2129	1.0451	1.2094	1.0223	0.8961	M	VH	M	H	M	M
3.	Cooch Behar	0.8794	1.0539	0.8972	0.7609	1.0237	0.8284	L	R	L	L	M	L
4.	West Dianjour	0.8602	1.0432	0.8978	0.8342	0.9536	0.8610	L	M	L	L	M	L
5.	Malda	1.0663	1.0483	0.9588	0.7868	1.1524	0.8754	M	M	M	L	H	L
6.	Murshidabad	1.1716	1.1219	1.0956	0.9724	1.1621	1.0753	H	H	M	M	H	H
7.	Birbhum	1.0626	1.1987	1.0571	1.2246	1.0126	1.0678	M	VH	M	H	M	L
8.	Nadia	1.2611	1.0421	1.1951	0.9763	1.2389	1.3235	H	M	H	M	VH	H
9.	Burdwan	1.4152	1.1717	1.3102	1.4630	1.1807	1.3245	H	VH	VH	VH	R	H
10.	Bankura	1.0669	1.1476	1.0209	1.0323	0.9506	1.0342	M	H	M	M	M	M
11.	Purulia	0.8934	1.1379	0.9174	0.9612	0.9235	0.8674	M	H	M	M	M	L
12.	Hooghly	1.7510	1.1613	1.5036	1.8057	1.2999	1.4737	VH	VH	VH	VH	VH	VH
13.	24 Parganas	1.9056	1.0907	1.6713	1.8914	1.6180	1.4997	VH	H	VH	EH	EH	VH
14.	Howrah	2.6412	1.1227	1.7696	2.2102	1.3101	1.6818	EH	VH	EH	EH	EH	VH
15.	Midnapur	1.0280	1.1225	1.0453	1.0094	1.0320	1.0800	M	H	M	M	M	M
16.	Calcutta	4.4087	...	2.3729	2.4817	2.0304	2.7300	EH	...	EH	EH	EH	EH
<b>UNION TERRITORIES AND OTHER AREAS</b>													
<b>ANDAMAN AND NICOBAR</b>													
ISLANDS		1.2644	1.0301	0.9358	1.0783	0.9083	0.8171	H	M	M	M	L	L
DELHI		3.8375	...	2.0673	2.0147	1.9538	2.2460	EH	...	EH	ER	EH	EH
<b>HIMACHAL PRADESH</b>													
1.	Chamba	0.7471	1.0306	0.5685	0.5694	0.5670	0.5588	L	H	VL	VL	VL	VL
2.	Kinnaur	0.7306	1.0376	0.4386	0.6948	0.5591	0.0000	L	M	VL	L	VL	VL
3.	Mandi	0.8002	1.1123	0.6692	0.6245	0.6977	0.6585	L	H	VL	VL	VL	VL
4.	Bilaspur	0.7935	1.0667	0.7049	0.6556	0.7977	0.6035	L	M	L	L	L	VL
5.	Mahasu	0.7646	1.0376	0.6551	0.7436	0.7293	0.4460	L	M	VL	VL	VL	VL
6.	Sirmur	0.8361	1.0630	0.7459	0.7932	0.7478	0.6918	L	H	L	L	VL	L
<b>LACCADIVE, MINICOY &amp; AMINDIVI</b>													
ISLANDS		1.3249	0.8890	0.7379	1.2046	0.9165	0.0000	H	L	L	H	L	VL
MANIPUR		1.0733	1.1740	0.8806	0.8314	0.8185	1.0034	M	VH	L	L	L	M
TRIPURA		1.0169	1.1030	0.9851	0.9265	1.0318	0.9552	M	H	M	M	M	M
<b>NAGALAND</b>													
1.	Mokchung	0.7253	1.0144	0.5593	0.1373	0.8458	0.5438	L	M	VL	VL	L	VL
2.	Tuensang	0.6710	1.0144	0.2649	0.0708	0.5718	0.0080	L	M	VL	VL	VL	VL
3.	Kohima	0.7543	1.0144	0.6217	0.1453	0.8948	0.6786	L	M	VL	VL	L	L
<b>NEFA</b>													
<b>DADRA &amp; NAGAR HAVELI</b>													
<b>GOA DAMAN &amp; DIU</b>													
<b>FONDICHERRY</b>													
INDIA		0.9861	0.8473	1.1185	1.0949	1.0657	1.1976						

References :

1. Pal, M. N. (1962)—Composite Index of Economic Development : A method of regional analysis of economic development with special reference to South India. Regional Survey Unit, Indian Statistical Institute, New Delhi.
2. Pal, M. N. (1961)—Quantitative Delimitation of Regions, Bombay Geographical Magazine, Vol. 8 & 9, pp 69-82.
3. Pal, M. N. (1961)—Zur Berechnung eines kombinierten Konzentrationsindexes, Raumforschung und Raumordnung, Bonn, 2, Vol 21, pp 87-93.
4. Regional Survey Unit (1962)—Report of South India : Macro-regional Survey Unit, Indian Statistical Institute, New Delhi, Chapter III.
5. Hotelling, H. (1933)—Analysis of a Complex of Statistical Variables into Principal components. Journal of Educational Psychology, Vol. 24, pp 417-420 and 498-520.
6. Girschick, M. A. (1930)—Principal Components, Journal of the American Statistical Association, Vol. 31, pp 519-528.
7. Thurstone, L. L. (1931)—Multiple Factor Analysis Psychological Review, Vol. 38, pp 406-427.
8. Wilks, S. S. (1938)—Weighting systems for linear functions of correlated variables when there is no independent variables, Psychometrika, Vol. 3, pp 24-43.
9. Maxwell, A. L. (1961)—Recent trend in Factor Analysis Journal of the Royal Statistical Society, Series A, Vol. 124, pp 49-59.
10. Hagood, M. J. (1943)—Statistical Methods for Delimitation of the Regions Applied to Data on Agriculture and Population, Social Forces, Vol. 21, pp 287-197.
11. Berry B. J. L. (1960)—An Inductive Approach to the Regionalisation of Economic Development. Essays on Geography and Economic Development, edited by N. Ginsburg, Chicago, Illinois, pp 78-107.
12. Holzinger, K. and H. H. Harmon. (1941)—Factor Analysis: A Synthesis of factorial methods. The University of Chicago Press, 1941.
13. Pal, M. N. (1963)—A Method of Regional Analysis of Economic Development with Special Reference to South India Journal of Regional Science, Vol. 5, pp 41-58.