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MEASUREMENT OF REGIONAL DISPARITIES IN INDIA: A CONCEPTUAL ANALYSIS

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I. Introduction

The problem of regional disparities in India has been accentuated over the plan periods although balanced regional development was the major thrust during third five year plan. Lopsided industrialization in urban industrial growth centres has aggravated the spatial variations existing in different regions of the country. Mahalnobis strategy of rapid industrialisation through the promotion of heavy industries, lopsided infrastructural development, the strategy of Green revolution, tax devolution and Grants-in-aid by the Finance Commission have accentuated the dimension of regional disparities in India. The broad indicators of both inter-regional and intra-regional inequalities can be contemplated in terms of differentiation in per capita SDP, growth rate of per capita SDP, literacy rate, per capita consumption of food-grains, monthly per capita consumer expenditure, per capita consumption of electricity, industrial growth rates agricultural growth rates, poverty ratio, Tax devolution and regional disparities and PQLI etc..

The present paper makes an ingenious endeavour at exploring various growth theories underlying regional disparities, various indicators used for measuring regional disparities and desideratum of regional planning for assuaging the cruder form of inequalities in India.

II. Theories of Industrial Location and Spatial Development:

The first comprehensive effort at developing a theory of location was made by Alfred Weber in 1909 in his book 'Theory of Location of Industries'. Weber emphasized the cost factors, assuming competitive pricing, a rational producer would choose a location where lowest costs were incurred. His approach was known as the least cost approach to the theory of industrial location. Urban agglomeration contributes to industrial location. The actual behaviour of industries will depend on the index of value added through manufacture. If we relate this index of value to the weight to be transported we get the coefficient of manufacture whenever it is high, an industry has atendency to agglomerate.

P. Sargant Florence has introduced the concept of Location Factor and Coefficient of localization which measures the degree of geographical concentration of a given industry. The formula for the coefficient of localisation can be expressed as

$$C = \tfrac{1}{2} \sum_{i=1}^{N} | r_i - R_i |$$

where

$$r = [\, a_i / \sum_{i=1}^{N} a_i \,] \text{ for region i}$$

a_i = Labour in a given industry

$$R_i = [\, A_i / \sum_{i=1}^{N} a_i \,] \text{ for region i}$$

where A_i = all industrial labour

N = total number of regions in the country.

The value of C varies from 0 to 1 and the relative magnitude of c characterises the dispersal of a given industry. The location factor is an index of the degree of concentration of an industry in a given region and expressed as $P_i = d_i / D$.

Where $d_i = a_i / A_i$

$$D = [\sum_{i=1}^{N} a_I] / [\sum_{i=1}^{N} A_i]$$

a_i = labour input of a particular industry in region i

A_i = all industrial labour in region i

If the location factor is unity, the industry is evenly distributed over the whole country because the proportion of the total industrial workers engaged in industry i in the region would be equal to the proportion of the total industrial workers engaged in the same industry in the country as a whole. If the location quotient is greater than one, the region has a higher share of the industry compared with the country as a whole and if it is less than one, the region has a lower share than the country as a whole.

To highlight the spatial cluster of industries, Alagh and associates have calculated location quotients and specialization coefficient in addition to input-output tables.
The location quotient was defined as

$$L_{ik} = \frac{e_{ik}}{E_k} / \frac{E_i}{E}$$

Where e_{iK}denotes employment in industry i in region K (i = 1, 2 … n, K = 1, 2 …… m), E_K denotes total industrial employment in region K.

$$E_k = \sum_{I=1}^{n} e_{iK}$$

E_i denotes employment in industry i in all regions. $E_i = \sum_{K=1}^{m} e_{iK}$

E denotes total Employment in all regions. In case e_{ik}>1, region K specialises in industry.

Specialization coefficient was defined as

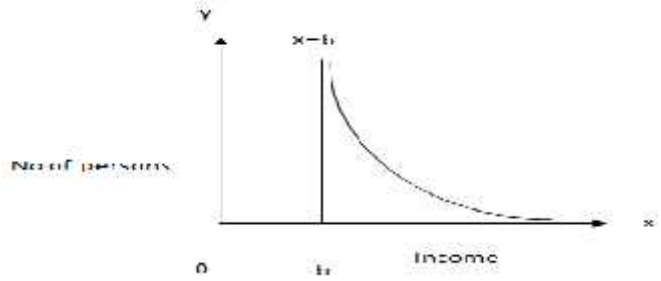
$$S_K = \frac{\sum_{i=1}^{n} \left| \frac{e_{ik}}{E_k} - \frac{E_i}{E} \right| .100}{100}$$

If S_K = 0, region K has the same industrial mix as the national economy and if S_K = 1, the region specialises in one industry only

Rank -Size Rule
Actual experience has shown that the arrangement of urban areas follows a certain hierarchy. The rank size rule observed by singer, zipf, Auerbach, Lotka and others seeks to represent this hierarchy. Singer in his article, "The courbes des population" A Parallel to Pareto's Law" attempted to ascertain whether a relationship similar to pareto's law of Income Distribution existed between the number and size of towns. Pareto's law establishes a relationship between the number and size of income. On the basis of data from many countries pareto constructed cumulative frequency distribution which indicated how many persons had income not below certain sums. Pareto found the shape of the curves resembled that of a hyperbola whose equation is given by

$$y = \frac{B}{(x-b)^{\sim}}$$

when $x \to b$, $y \to$ ã and when $x \to$ ã, $y \to 0$. This shows that x = b and y = 0 are two asymptotes of the curve. The curve is shown below



The form of the pareto curve is obtained on putting b = 0, then

$$y = Bx^{\sim} \text{ or } \text{Log } y = \log y = \log B - {\sim}\log x$$

Which yields a straight line on logarithmic paper on these lines the rank size rules is defined as $r = p_N, p_r^{J\text{-}q}$ where p_N denotes population of the largest or first ranking settlement. P_r denotes population of the settlement of rank r when q is constant.

The logarithm transformation would be

$$\log r = \log p_N - q \log p_r$$

which shows that the plotting of ranks against size on double logarithmic paper yields a straight line with a slope of (- q)

Growth Pole Theory

It was developed by the French regional economist Francois perroux in 1955. He was basically concerned with the phenomenon of economic development and with the process of structural change that accompanied this phenomenon. He has attempted to explain how modern process of economic growth deviated from the stationary conception of equilibrium growth. Perroux has based his theory on schumpeter's theory of development and theory of inter industry linkages and industrial interdependence. According to him, "growth does not appear everywhere and all at once; it appears in points or development poles, with variable intensities; it spreads along diverse channels and with varying terminal effects to the whole of the economy". It resembles to perroux's idea of an economic space as a field of forces consisting of centres or poles or foci from which centrifugal forces emanate and to which centripetal forces are attracted. Each centre, being a centre of attraction and repulsion, has its proper field, which is set in the field of other centers.

Trickle Down and Polarisation Effects

On growth poles theory the favourable forces are referred to by Hinrchman as the trickling down forces while the adverse forces are referred to as polarisation effects. Through the trickle down forces progress is trickled down to the backward areas from the growth pole. Such forces work basically through(i) inter-regional trade and (ii) transfer of capital to backward regions. The growth pole might attract labour from the backward regions and help in reducing the pressure of population and consequently disguised unemployment. The polarisation effects can discourage growth in the hinterland on account of the following factors.

a. The industries in such regions may find it difficult to compete with industry in the growth pole particularly as transportation facilities are improved.
b. Owing to better investment opportunities in the growth pole, the investors in the hinterland may invest their savings in the growth pole rather than in the hinter land.

c. The worst polarisation effect from the point of view of the hinterland is that it might be drained of the best part of its labour force. Instead of absorbing the disguised unemployed the progress of the growth pole may be dendue the hinterland of its key technicians and managers as well as of the more enterprising young men.

Myrdal's Theory

According to Myrdal, "If things were left to market forces unhampered by any policy interferences, industrial production, commerce, banking, insurance, shipping and indeed almost all those economic activities which in a developing country tend to give a bigger than average return and in addition, art, literature, education and higher culture generally would cluster in certain localities and regions leaving the rest of country more or less in a back water. In Myrdal's analysis, the growth in progressive regions affect the growth in lagging or depressed regions through (i) spread effects and (ii) backwash effects. The spread effects are the centrifugal forces or expansionary momentum emanating from the centres of economic expansion to other regions. Spread effects have a positive impact on the development of other regions. The backwash effects are those emanating from the centres of growth that discourage growth in other areas. Because of their rapid growth, in contrast to the stagnation of other regions, the centres of growth or progressive regions attract net immigration from other parts of the country. There is a net movement of population, capital and goods in favour of the progressive regions while the backward regions are continually denuded. Since the migration from backward regions to progressive regions is generally selective in the sense that it is normally the young, the educated and the healthy that migrate, the age structure in the lagging regions becomes lopsided. All these factors have an adverse effect on the growth of backward regions. According to Myrdal in the marginal case the two kinds of effects will balance each other and a region will be stagnating. But this balance is not a stable equilibrium, for any change in the forces will start a cumulative movement upward or downward.

Regional Analysis Methods

Kendall in 1939 used Principal Component Analysis for constructing an agricultural productivity index for England. Later on Hagwood in 1943 applied this method to delineate major regions of United States into relatively greater homogeneity by constructing composite index from the selected variables. According to Kendall's method the index is that linearly weighted aggregate of variables which maximises its aggregate squared correlation with the constituent variables. This index is optimum as it is determined from the correlation matrix of the indicators with high inter-correlations between them, having normal and hence similar statistical distribution of the indicators. The index is constructed from the correlations between the indicators and hence aggregate representativeness of the indicators in the index is the highest. Kendall's index is statistically the same as the first principal component related to factor analysis.

The index is

$$Z = \sum_{i=1}^{n} I_i Z_{ij} \qquad \ldots (1)$$

When $Z_{ij} = \frac{x_{ij} - \overline{x_i}}{\pm_{xi}}$ is the standardized variable indicator, x_{ij} being the suitably transformed ith indicator, x_i being the mean and $\overline{\pm_{xi}}$, the standard deviation i = 1, 2...n, j = 1, 2.... N, for observation Z is the normalized Kendall index of the Jth spatial unit (observation). It is normalized in the sense that $\sum_{i=1}^{n} I_1^2 = 1$ when I_1 = ith component of

I_1
the eigen vector = L = I_2, expectation of Z = E (z) = 0 and standard deviation
:
I_n

of z is $\check{E}\lambda$ when λ = eigen value = $\sum_{i=1}^{n} r_i^2$, r_i = i th factor loading (2)

If R be the correlation matrix of the suitably transformed x_1^1s variables, then and I's can be determined from the equation

$$RL = \lambda L \qquad \ldots (3)$$

or $(R-\lambda I)L = 0$ and $|R - \lambda I| = 0$ for the existence of a non-trivial solution, for $L \neq 0$ I being the identity matrix. $L\grave{a}.L = \sum_{i=1}^{n} I_i^2 = 1$, equation (2) can be stated as

$$Z = \sum_{i=1}^{n} I_i Z_{ij} = \frac{1}{\sqrt{a}} \sum_{i=1}^{n} r_i Z_{ij} \text{ when } I_1 = \frac{r_1}{\sqrt{a}} \text{ and } E(z) = 0$$

Thus the standardised Kendall index becomes

$$Z_0 = \frac{1}{\sqrt{a}} \sum_{i=1}^{n} r_i Z_{ij}$$

$$= \frac{1}{\sqrt{a}} \sum_{i=1}^{n} r_i \frac{x_{ij} - \overline{x_i}}{\pm_{xi}}$$

$$= \frac{\sum_{i=1}^{n} b_i \overline{x_i}}{\sqrt{a}} \left[\frac{\sum_{i=1}^{n} b_i x_{ij}}{\sum_{i=1}^{n} b_i \overline{x_i}} - 1 \right]$$

Where $b = \frac{r_i}{\pm_{xi}}$, putting $Z_0 = \frac{\frac{I_m - 1}{\sqrt{a}}}{\sum_{i=1}^{n} b_i \overline{x_i}}$

We have $I_m = \left[\frac{\sum_{i=1}^{n} b_i x_{ij}}{\sum_{i=1}^{n} b_i \overline{x_i}} \right] \qquad \ldots (4)$

Where I_m is the Kendal's index with $E(I_m) = 1$

A Modification

For inter-temporal comparison of development. Kendall's index is proposed to be modified by dividing the values of the selected indicators by their respective base year average value.

Hence $y_{ij}^t = \frac{x_{ij}^t}{\overline{x_{i0}}}$, where x_{ij}^t = i the indicator of time, 't' of x_jth observation, $\overline{x_{i0}}$ = average of the ith indicator in the base year y_{ij}^t is the scaled indicator

and $y_i^{-t} = \frac{x_i^{-t}}{x_{i0}}$, $\mathbf{t}_{\mathbf{yi}} = \frac{\pm^{t}_{xi}}{x_{io}}$

E (Y_i) = 1 for the base year

E (Y_i) >=<1 for other years.

The index is $z\grave{a} = \sum_{i=1}^{n} 1_i z_{ij}'$ ... (5)

Where $Z_{ij}' = \frac{Y_{ij} - \overline{y_i}}{\pm_{yi}} = \frac{1}{\sqrt{a}} \sum_{i=1}^{n} r_i \left(\frac{Y_{ij} - \overline{y_i}}{\pm_{yi}}\right)$

When E ($Z\grave{a}$) = 0 and standard deviation of $z\grave{a}$ is $\check{E}\lambda$ and E ($z\grave{a}_i$) = 0, SD of $z\grave{a}_i$ = 1 for any year. The eqn. (5) can be expressed as

$$z' = \frac{1}{\sqrt{\lambda}} \sum_{i=1}^{n} a_i (y_{ij} - \overline{y}_i) \text{ when } a_i = \frac{r_i}{\sigma_{yi}} \text{ and } I_i = \frac{r_i}{\sqrt{\lambda}} = \frac{\sum_{i=1}^{n} a_i}{\sqrt{\lambda}} \left(\frac{\sum_{i=1}^{n} a_i Y_{ij}}{\sum_{i=1}^{n} a_i} - \frac{\sum_{i=1}^{n} a_i \overline{Y}_i}{\sum_{i=1}^{n} a_i} \right)$$

$$\text{putting, } z\grave{a} = \frac{I_k - \frac{\sum_{i=1}^{n} a_i \overline{Y_i}}{\sum_{i=1}^{n} a_i}}{\sqrt{a} / \sum_{i=1}^{n} a_i}$$

We have $I_K = \frac{\sum_{i=1}^{n} a_i Y_{ij}}{\sum_{i=1}^{n} a_i}$, I_K is the modified Kendall index.

When E (I_K) = 1 for the base year as E (y_i) = 1 for base year

and E (I_K) >=<1 for other years as E (y_i) >=<1 for other years.

Method of Measuring Spatial Disparities

Following Williamson, spatial disparities have been measured by Coefficient of variation of the overall and sectoral indices. Coefficient of variation

C.V. = $\frac{\pm_{Ik}}{\overline{I_k}}$ x 100 where $\pm_{\mathbf{iK}}$ denotes SD of the Kendall index estimated as per modification. $\overline{I}_K$ denotes state average of the Kendall indices for the districts estimated as per modification.

III. Measures of Inequality

Range: It is based on comparing the extreme values of the distribution i.e. the highest and the lowest income level. It is defined as the gap between these two level as a ratio of mean income Thus E= ($Ma\chi_I\ y_i$- $Min_i\ y_i$)/μthen le. If income is divided absolutely equally then clearly E=0. At the other extreme if one person receives all the income, then E = n. E lies in general between o and n.

Relative Mean Deviation: It relates to comparing the income level of each with mean income to sum the absolute values of all the differences and the sum as a proportion of total income. $M = \sum_{i=1}^{n} /\mu - y_i /n\mu$. With perfect equality M = 0 and entire income going to one person only M = 2 () n-1)/n.

Variance and coefficient of variation: Instead of simply adding the absolute values of the gaps if we square them and then add, this would have the request of accentuating differences further away from the mean. $V = \sum_{i=1}^{n} (\mu-y_i)/n$ coefficient of variation is the square root of the variance divided by the mean income level. C = V ½ . Coefficient of variation captures the property of being sensitive to income transfers for all income level and unlike variance it is independent of mean income level.

Standard Deviation of Logarithms

$$H = [\sum_{i=1}^{n} = (\log \mu - \log y_i)\ 2/n]^{½}$$

Logarithmic transformation staggens the income level tend to soften the blow in reflecting inequality since it reduces the deviation H as a measure of welfare not concave at all at high income level. If one wants social welfare to be a concave function of individual income, then H as a measure of inequality can cause problems, despite attractive features in other respects. Further H depends on arbitrary squaring formula after a logarithmic transformation and it shares with V and C the limitation of taking differences only from the mean, (2).

Gini Coefficient

It is the ratio of the difference between the line of absolute equality and the Lorenz curve. It is exactly one half of the relative mean difference which is defined as the arithmetic average of the absolute values of differences between all pairs of income.

$$G = (½\ n^2\mu) \sum_{i=1}^{n} / y_i - y_j$$

$$= 1- (½\ \mu\ ) \sum_{i=1}^{n} \sum_{j=1}^{n} \min_{(Y_i, Y_j)}$$

$$=1+ (1/n) - (2/n^2)\ [y_1+2y_2+……..+ny_n]$$

For $y1 \geq y_2…….. \geq Y_n$

Theil's Entropy Measure

An Interesting measure of inequality proposed by Theil (1967) derives from the notion of entropy in information theory. One formula that satisfies the property is the logarithm of the reciprocal of x. $h(\chi) = \log \frac{1}{x}$. The entropy or the expected information content of the situation can be viewed as the sum of the information content of each event weighted by the respective probabilities.

$$H() = {}_{i}h({}_{i}) = {}_{i}\log( )$$

Closer the n probabilities $_i$ are to () the greater is the entropy. If $_i$ is interpreted as the share of income accruing to person I, H() attains its maximum value of log n. If we subtract the entropy H() of an income distribution from its maximum value of log n, we get an intex of inequality. This is Theil's measure

$$T = \log n - H$$

$$= {}_{i}\log n_i$$

Dalton's Measure: Dalton reckons the ratio of actual social welfare as his measure of equality considering the utility level to be positive

$$D = [\sum_{i=1}^{n} U(y_i)]/nU(\mu)$$

Atkinson's Measure: Atkinson's defines the equally distributed equivalent income of a given distribution of a total income. It is defined as that level of per capita income which if enjoyed by everybody would make total welfare exactly equal to total welfare generated by the actual income distribution. Putting Ye as the equally distributed equivalent income

$$Ye = y/[n(y) = (y_i)]$$

IV. Strategy for Reducing Regional Disparities
Special Plan for the KBK Districts of Odisha
The undivided districts of Koraput, Bolangir and Kalahandi (later reorganised into eight districts since 1992-93) cover 47,646 sq km area and comprise 14 subdivisions, 37 Tehsils, 80 CD Blocks, 1,437 Gram panchayats and 12,293 Villages. The KBK districts, with population of 72.87 lakh (19.80 per cent of the States population) have 89.95 percent rural and 54.66 per cent ST (38.41 per cent) and Schedule Caste (SC) (16.25 per cent) population as per 2001 Census. Demographically, tribal communities dominate this region.

The backwardness of the KBK region is rooted in its history. Recurrent droughts and floods have adversely affected lives of the people and their economics in these districts. Hostile agro-climatic conditions, poor connectivity and infrastructure and physical isolation characterize this region.

More than 50 per cent of forest area of these districts has been considerably degraded. These are mostly revenue forests on hill slops which have not been surveyed. Whereas the total area of forest under KBK districts on record is 15,957 sq km (that is, 33.5 per cent), actual forest cover is only 12,690 sq km. This includes 5,703 sq km. of dense forests, 6987 sq km open forests and 3,267 sq km barren forests. The continuous process of forest degradation adversely affected livelihoods options of the poor.

The KBK districts have been the focus of attention since the 1980s. A long-term Action Plan for a period of seven years was launched in 1995-96. This plan was further received in 1998-99 and the Revised Long Term Action Plan (RLTAP) was put in place of period of nine years. This RLTAP was actually a sum total of the allocations made by various Central Ministers for CSS and ACA allocated by the Planning Commission to fill critical gaps. This ACA was released in the form of 70 per cent loan and 30 per cent grant.

On the advice of the Planning Commission, the state Government started preparing the Special Plan for the KBK districts from 2002-03 onwards. An allocation of Rs. 200 crore was made for the special Plan for the year 2002-03, which was later enhanced to Rs. 250 crore after approval to the scheme in 2003-04. Thus, an allocation of Rs. 250 crore was made for the Special Planning during the Tenth Five Year Plan period, from 2003-04 to 2006-07, under the RSVY on 100 per cent grant basis. The RSVY was replaced by the BRGF from 2006-07. The Districts Component of the BRGF covers 19 districts of Orissa. All the eight KBK districts are included in the 19 districts of Orissa covered under the districts component.

In 2006-07, it was decided that the eight KBK district norms, with the balance being provided under the KBK Special Plan. Accordingly, an annual allocation of Rs. 120 crore is being made under the districts component of the BRGF for the eight

KBK districts and the remaining allocation of Rs. 130 crore is being made through the special Plan for the KBK districts from 2007-08. In all, funds to the order of Rs. 3,080,06 per cent head have flowed to this region under the aforesaid programmes since 1995-96 to 210-11. In addition, this region has been recently receiving development funds under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Gram Sadak Yojana (PMGSY), SSA, NRHM and other development programme. With improvement in the fiscal conditions of the state funds to this region has also improved in recent years.

BRGF

The BRGF, launched in late 2006 at the end of the tenth Plan, was designed to redress regional imbalances in development. It aimed catalyzing development in backward areas by converging, through supplementary infrastructure and capacity building, the substantial existing development inflows into these districts as part of a well conceived, participatory district plan.

District Component of the BRGF

The BRGF District Component provides financial reasources for supplementing and converging existing development inflows into identified districts, so as to :

1. Bridge critical gaps in local infrastructure and other development requirements that are not being adequately met through existing inflows;
2. Strengthen, to this end Panchayat- and Municipality building, to facilitate participatory Planning, decision-making, implementation and monitoring, to reflect local felt needs;
3. Provide professional support to local bodies for planning, implementation and monitoring their plans; and
4. Improve the performance and delivery of critical functions assigned to panchayats, and counter possible efficiency and equity losses on account of inadequate local capacity.

The BRGF District Component subsumed the ongoing RSVY. The management of the scheme was also shifted from the Planning Commission to the Ministry of Panchayati Raj (MoPR), given that planning was to be through Panchayati raj Institutions (PRIs), culminating in a Draft Development Plan prepared by the District Planning Committee (DPC). It was hoped that the focus on decentralized participative planning in the implementation framework for the scheme would catalyse the formation and functioning of constitutionally mandated DPCs, an arrangement that had hitherto been neglected in most States.

Currently, the KBK districts received funding under three components of the BRGF- Rs. 130 crore under the special Plan Rs. 120 crore under the district Component and Rs. 240 crore under the IAP. However, the mode of utilization is different and the authorities choosing the schemes are different! The State Government decides the schemes to be taken up under the Special Plan, the PRIs the schemes under the District Component and the three member committee comprising of the Collector, the SP and the DFO, under the IAP. Needless to say, a lot of money swirls around in the district, but there is no plan, only a health plan, an education plan, a BRGF plan and an IAP plan!

V. Regional Planning Policy in India

In view of glaring regional disparities in India the planners have accepted the importance of balanced regional development since the inception of planning era. The second plan stated, “In any comprehensive plan of development, it is axiomatic that the special needs of less developed areas should receive due attention”. The third plan devoted a separate chapter to balanced regional development when it stated that balanced development of different parts of the country, extension of the benefits of economic progress to less developed regions and widespread diffusions of industry are among the major aims of planned development.

To provide an integrated approach to the problems of regional inequalities, the sixth plan adopted the mechanism of area planning and sub-plan approach. The seventh plan recognised that the two critical determinants of a region’s economic status were agricultural productivity and human resource potential and reduction in inter-regional disparities in these two elements would help in reducing regional imbalances.

In the liberalised regime economic planning was redefined by the Govt. under Eighth FYP. The regulatory planning system was replaced by market friendly indicative planning under which little scope was left for regional planning. However it embarked upon special area development programmes which do not aim at removing inter state disparities in per capita SDP. The Ninth plan document admitted that private investment may do little to eliminate regional disparities. It stated that it will be necessary to deliberately bias public sector investment in infrastructure in favour of less well off states.

To emphasise the importance of ensuring a balanced development for all states. Tenth FYP includes a state wise break up of the broad development targets including targets for growth rate with the national targets. Sectoral pattern of growth and its regional dispersion within the state would be required to achieve the growth targets set for the states.
The Eleventh FYP embarked upon inclusive growth strategy for the promotion of HDI and GDI to ensure balanced regional development. Considering the planning period as a whole, the policies adopted by the Govt. can be classified into either of the following categories.

a. Policies aimed at industrialisation of lagging regions.
b. Policies for development of irrigation, agriculture and allied activities.
c. Policies aimed at providing infrastructural facilities such as transport, communications etc. in backward regions.
d. Transfer of resources from Centre to States in the form of plan assistance, non-plan assistance and discretionary grants in such a way as to reduce regional disparities.
e. Special programmes for the development of backward and less developed regions.

Under the first heading the measures include (i) location of public sector projects in backward regions, (ii) use of industrial licensing policy to direct private investment to backward regions and (iii) encouragement to prospective entrepreneurs to set up industries and concessional finance from nationalised banks and financial Institutions.

For the purpose of reducing regional disparities in agricultural development, the 7th plan had the thrust on development of dry land or rainfed farming. A special rice production programme was also launched in about 20% of the blocks of the eastern regions.

The Govt. provides a number of fiscal and financial incentives like subsidies, tax rebates and income tax concessions etc. for the establishment of industries in backward areas. To encourage potential entrepreneurs to set up industries in the backward areas, a number of other programmes such as:

1. Use of industrial licensing policy to encourage setting up of industries in backward areas.
2. Location of large scale public sector projects in backward areas.
3. Setting up of rural industries in backward areas.
4. Establishment of industrial estates.
5. Infrastructural development in backward regions.

Planning Commission, Finance Commission and discretionary grants do not exhibit any bias or discrimination in favour of the backward states. The ratio of loans and grants in plan assistance is fixed at 70:30 and does not discriminate the backward states.

Social development programmes such as Hill Areas Development Programme, North Eastern Council comprising North Eastern Hilly Regions and Desert Development programme will mitigate regional disparities. Eighth plan to Eleventh plan embark upon social sector cum rural development for which greater chunk of plan outlay has been earmarked for rural areas.

Comprehensive poverty eradication programmes such as NREGS, regional planning, de-centralised planning, Grants-in-aid to economically backward states and establishment of industries in backward states will mitigate the cruder form of regional disparities.

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