CHAPTER SIX

STRATEGIES FOR BALANCED REGIONAL DEVELOPMENT OF KARNATAKA

Strategies for Regional Development:

Rectification of Regional unbalances assumes a critical importance in the Fifth Five Year Plan. The problem of backward areas being essentially a problem of area development, calls for an area approach. The first step would be to identify the backward areas in which efforts are to be concentrated during the fifth plan period.

Reducing Inter State Imbalances:

The plans of the state so far have laid emphasis on overall development through an aggregate and sectoral strategy than on regional planning with a bias toward, a redressal of the peculiar problems and deficiencies of the various regions. That is why despite massive outlays under the FYPs a majority of the districts are still below state average.

Economically backward areas experience some kind of circular consultation of forces which tend to act and reach upon one another in such a way as to keep the poor region in a state of parent such regions. Provide a weak response to the spread effects and a strong response to backward effects. These regions need appropriate strategy to overcome the geographical inertia through a package of short term and long term perspective and integrated regional plans.

In the light of the findings of imbalanced regional development in the previous sections, it has become very much imperative for suggesting appropriate strategies to be adopted so that utmost goal of balanced regional development can be achieved.

92. Mysore State Fifth Five Year Plan 1974-79.
achieved in the coming decades in Karnataka. "Development is a multidimensional process. It stands for transformation of society. It indicates qualitative, multifaceted, balanced change," and of late, retaining environmental quality through ecological balance, are considered some of the basic objectives of regional development. The strategies include a spatial strategy, organisation and management, and an institutional framework with financial resources, legislative competence and administrative authority on the lines of the Model Town and Country Planning Act, 1960. Diagnosis of the spatial structure and spatial process and creating a macro framework with due recognition of areal differentiation constitute the preliminary exercise in this regard.

Striking regional contrasts in the distribution of resources and levels of economic development exist in Karnataka as at present. Reorganisation of States on linguistic basis has not been a solution so far, to eradicate regional disparities and even as a strategy, it fails to meet the situation. Hence, meaningful resource regions are to be delineated and production complexes are created to mobilise and utilise the local resources for development.

Strategy for Agricultural Development:-

In the "cluster approach", the strategy for agricultural development will concentrate in a selected group of taluks, on intensive exploitation of all the agricultural facilities available for the maximisation of production. Increase in productivity should be the basis of agricultural development.

In the course of the analysis, it is observed that there are a number of taluks which possess less area under rice but have shown very high yield of 35 to 40 quintals per hectare as in Gubbi in Tumkur District, Sagar in Shimoga District etc., where as the average yield is 20 to 25 q.p.h. Such glaring imbalances also occur in other important crops like jowar, ragi, pulses and oilseeds. Hence there is a need for finding ways and means to increase the productivity in the culture regions.

The strategy adopted for rice cultivation should also hold good for other crops. To achieve this liberal provision for irrigation, supply of better seeds, fertilizers and pesticides, chemicals, equipments, provision for maintenance of agricultural machinery and equipments be made in depressed regions, if possible, free or heavily subsided, to marginal or sub-marginal forms. Provision be made for well equipped store houses and direct access to regulated markets.

The National Bank for Rural Development (NBARD) will provide necessary loans and the co-operative societies can be improved to serve the best interest of the farmers. The Core Areas of the major crops and the infrastructure facilities available could be identified. The steps to be taken for further development of these regions are: (i) intensive cultivation and (ii) increase in production supported by attractive prices; (iii) Side by side steps should be taken to develop animal husbandary, to improve the livestock resources and make the farmers fully engaged in gainful employment throughout the year. For instance Gobar Gas can be profitably exploited by pooling the cow-dung and such other waste material of the entire village. China has used the waste materials to develop farmyard manure in a very efficient manner and this could be tried through the Village Panchayats. Model Farms can be started with the help of the rural unemployed at the Panchayat level.
Programmes can be scheduled in a better way to involve the youth in rural development programmes on a large scale during the weekends and holidays. Work experience must be made compulsory before university Degrees are awarded. Youth can take up adult education, family welfare, medical aid and such other fields of social work.

The following strategy is recommended: (i) facilities and provisions for supply of inputs in kind in return for levy after harvest, (ii) minimum cash transactions in the credit facilities offered; (iii) creation of storage and warehousing facilities as a part of co-operatives, (iv) more soil and water testing laboratories; (v) one man laboratories, in each village of 1,000 families; (vi) information Bureau at Taluk level-library, (vii) Tele-Vision, Exhibitions, Handouts and demonstration units be provided; (ix) land use survey, cropping pattern and success stories as part of innovation and diffusion; (ix) self help and Rural Youth Clubs be started.

Strategies for Increasing Food Production:

A realistic plan is necessary if the food requirements as well as the nutritional standards are to be maintained in Karnataka. The State Government has its levy policy and adequate stocks are maintained by the government and distribution through fair price depots is undertaken in all the taluks of the State. Thus, an estimate of supply and demand should be made and a fair support prices to the farmers be given for their produce.

To increasing agricultural production and development and soil conservation work be taken up. Out of an estimated 5.05 million hectares nearly 50% of the land has been brought under contour bunding and the remaining work requires atleast
another 8 to 10 years at the present rate of progress. The soil samples have got to be tested and at the present rate of 0.10 million samples a year, the work cannot be completed in 10 years. The work should be speeded up. Fertiliser production will have to be increased from 0.37 million tonnes to 0.95 million tonnes. More than 50% of the cropped land in Karnataka will have to be guarded from pests and diseases and the advanced technology should reach the farmers in the rural inaccessible fields with the help of a very efficient and devoted extension staff. Unemployed Graduates may be employed in this field after a brief training; it is better to convert 50% of the existing rural Higher Secondary Schools into agricultural Schools so that the educational efforts are geared up to the requirements of the rural communities.

Supply of inputs will have to be streamlined through Farmers Service Societies and Consumer Co-operatives and Fair Price Depots. The Agro-Industries Corporation should decentralise its activity and reach all the villages with the help of teams of extension staff.

Dry Farming has to be popularised in view of the fact that more than 60% of the crop land in Karnataka depends on the monsoons and assured rainfall is scanty. Dairy Farming should be encouraged further in the dryfarming zones. There are a number of Irrigation Projects and Hill Stations in Karnataka, where Model Horticulture Farms can be established by the Command Area Development Authorities (CADAs). Similarly, Rose, Lillies, Jasmine and variety of flowers can be raised and popularised on commercial lines. A co-ordinated well integrated farming practice should give full employment to the rural families and this can check urban migration.
Strategy for Industrial Development:

Industrial Development at present is skeletal and extremely poor. The high concentration of a few large units and a large number of smaller units in a few big towns and cities completes the picture of distribution of industries in Karnataka. Karnataka fortunately has a strong industrial base and a very strong financial support for further industrial development. Maximum benefits and ample opportunities are given to private enterprise and unfortunately, enterprise is lacking. There are instances of financial and other concessions being taken from the State and being siphoned off to the units located outside the State. This situation has developed due to corrupt officials within the Financial Organisation.

There are a number of major industrial centres, (developed as well as potential) which are located in the 'Big Triangle' in the heartland of the State. There are subsidiary areas shown within as well as outside but close to the six triangles, i.e., triangular industrial complexes like Bangalore, Mysore, Gulbarga, Karwar, Belgaum and Bijapur. There is a Big Triangular Industrial Complex which encompasses the Aluminium Centre of Belgaum in the North, the Steel centre in Shimoga-Bhadravati in the south and Bellary-Hospet Steel centre (potential) in the east. This 'Big Triangle' covers a large area rich in potentialities for industrial development, with a strong mineral and agricultural base, where a number of manufacturing units have come up proving their viability. A giant steel complex will have to be established soon to fully exploit the available raw material and infrastructure facilities.
PIG No. 46 PLANNING REGIONS Bangalore-Mysore Axis

scale 1 cm. - 5 km.

TERRITORIAL PRODUCTION COMPLEX

BANGALORE-MYSORE AXIS

- tourism
- machine tools
- sugar
- textiles
- electronics
- paper and chemicals
- automobile
- aromatics
- sandal oil & soaps

FIG No. 46 PLANNING REGIONS Bangalore-Mysore Axis
The Bangalore Triangle has three vertices at Kolar in the East, Tumkur in the north and Mandya in the west. The Mysore Triangle has three vertices viz, Mangalore to the west, Hassan to the east and Mysore to the south. The Karwar Triangle has Karwar in the west, Hubli-Dharwad to the west and Kumta-Honnavar or Bhatkal to the south, as the vertices. The Bijapur Triangle has Bijapur, Gulbarga and Raichur as the vertices. The Bidar Triangle and the Belgaum Triangle can be taken up subsequently after an intensive development of the four triangular complexes on priority for balanced regional development industrially. The Belgaum Triangle has Belgaum, Nipani and Bagalkot as the three vertices while the Bijapur Triangle has Bidar, Gulbarga and Bijapur as the vertices.

This strategy for industrial development is strictly in compliance with the principles of spatial planning for industrial development. These are based on the potentialities of the region.

**Strategy for Human Resources Development:**

In a region where a large, rural, illiterate population lives, it is extremely difficult to organise and develop human resources. No other country in the world except perhaps, China has a more stupendous problem of organising a huge population mass in the age group of 5 years to 22 years. In India it comes to almost 46% of the total and to take the country to 21st century is a gigantic task before the governments—both the central and the state. To achieve this, the National Education Policy (NEP) has been launched. India has to get rid of the shackles of traditional, dogmatic caste—and creed-based social, political and cultural development. It should develop a more rational, scientific and technologically sound development path to step into the 21st century. We should not leave 80% of the people in rural areas behind in our anxiety to take the 20% of the urban dwellers to the 21st century. It is worth considering
the pitfalls in the present educational policy and to ponder whether the present educational policy, we should not throw away the baby along with the bathwater. And one is afraid, it is exactly this that we are going to do today.

Population Threshold for Educational Amenities:

One of the basic principles of planning is to spatially organise the available resources. The threshold population dictates the basic minimum needs and planning can be made to infuse growth impulses into selected centres and achieve a balanced regional development of education. Karnataka has: 1. The Coastal Plain; 2. The Malenad; 3. The North Karnataka Plains and the 4. South Mysore Plains. All these regions require separate technical educational and research facilities. The distribution of the educational institutions must be based on the population potential and growth rate and the regional needs. All the facilities need not be provided in all the four regions. Specialisation such as forestry in Malenad, fisheries in coastal plains, wetland and plantation agriculture in Command Areas of Irrigation Projects and Ghats, Dryland agriculture and horticultural development in rain-deficit areas are ideal paths to development. In fact, it would be more feasible to convert all the rural colleges into agricultural colleges and agricultural schools and rural polytechnics forthwith. In fact more and more of automobile, agri-engineering, electrical, mechanical and production engineering schools should be started in rural areas. One can see illiterate young boys working in garages and workshops in places like Chikodi and Gokak while engineering graduates are unemployed in Belgaum. This would open our eyes to realities of things, Educational experts should consider the consequences of proliferation of general educational colleges in rural areas in this context.
Once the human resources are properly managed, it will help the other aspects of resources development including improvement to livestock, conservation of wild life, natural vegetation, etc.

5.1.5 **STRATEGIES FOR RURAL DEVELOPMENT**

An Integrated Rural Development Strategy should take into consideration: 1. a strong economic base; 2. The quality of life and 3. The quality of environment. A strong economic base necessarily includes modern scientific farming and development of anyone or more of the allied activities like fisheries, lumbering, horticulture, quarrying and livestock rearing to supplement agricultural activities and being in some additional income. Biogas plants, wind mills, processing of plant and animal wastes and scientific hobbies will make rural life more attractive.

The quality of life can be improved by the adoption of rural redevelopment programmes starting with new layouts, proper drainage and scientific land use planning, and protected water supply. Development of rural roads, electricity and organisation of the rural market through skillful means will contribute towards better living in the countryside. In addition to agriculture, skills and trades can be developed further by training artisans, providing them raw materials and organising the sales of the craft materials. This will invigorate the economic life of the rural people and the quality of the environment depending on proper use of the available land, water and natural resources can be achieved.

A utility complex, as a part of rural reconstruction is advisable. A sketch plan is given here with a view to show how facilities can be improved at the grass root level in order to make the countryside more attractive to both young and old. (Fig. 5)
By suitable strategies, the retired people from big cities can be attracted to the villages and their experience in various fields of activities can be profitably utilised in the rural areas without incurring much overhead costs. Such model villages can be started at the panchayat level. A definite slant can be given to develop rural country under Integrated Rural Development and Pilot Schemes to suit rural requirements. Rural youth can play a leading role in the task of rural reconstruction. Leadership should come from local, as well as outside organisations, which are presently fretting away their energies in unproductive activity, particularly in politics and gambling. A new orientation on these lines is more than ever before needed today, as huge sums of money are being spent on smaller groups and the large rural population do look forward to some sort of return on such investments.

(a) INTEGRATED RURAL DEVELOPMENT

During the last few years, efforts have been made to provide a number of institutional or structural facilities for development of rural areas here and there. Wherever some of these are not available, steps are being taken to provide them as the basic amenities. Even the rural roads are being included for improvement in a phased manner. It is proclaimed that there will be no village without drinking water, electric power and well-paved roads within the next few years in Karnataka.

A little encouragement, on the part of the officials entrusted with development task will enlist more and better cooperation but the task force is not in the required strength. It is better to train a large number of village youths for an integrated rural development programme and put them on schemes like adult education, family welfare work, and manning the single teacher schools, helping the villagers to maintain

94 These are the Village School, the Village Co-operative Society, the Post Office, The Local Fund Dispensary or primary health centre, the police out-post or police station, the Gram Sabha, Mahila Mandal, the Balwadi etc.
their diaries, help them on farms in irrigation techniques, soil management, administering pesticides and fertilisers etc. The unemployed youth may also help the villagers in their poultry farms and procuring fish fingerlings or seedlings, or in horticulture, etc. Most of these activities are neither impossible nor costly and prohibitive. These require a little bit of ingenuity and good programming which are not forthcoming from the present Block Development Officers who act on strict rules and regulations. This will also enthuse the local villagers to involve themselves in development activities more actively; which is lacking now.

Integrated rural development programme (IRDP) is also one of the strategies devised to eradicate rural poverty and create employment in rural areas and has been implemented so far in 85 taluks of Karnataka. Under the scheme, these blocks will get 50% Central assistance to implement the schemes such as TRYSEM (Training Rural Youth for Self Employment) and Area Planning for Full Employment Programme. Out of the 85 Blocks selected in Karnataka 43 Blocks are intensive Blocks which would get Rs.1.0 million per block per year and the remaining 42 blocks will get 0.5 million as normal blocks. The selection of the blocks is based on criteria which facilitates equal distribution of funds as far as feasible. 40 blocks from Small Farmers Development Agency and 20 Blocks are from the Command Area Development Authorities (DADAs) on a 50:50 basis for intensive and normal schemes.

The IRD Programmes aim at raising the income level of the identified target group by creating additional gainful employment. 400 families including 100 artisans are to get the benefit from the IRDP, in addition to the benefit derived from TRYSEM. It has been proposed to identify target groups

95. Govt. of Karnataka, Draft Sixth Year Plan - 1978-83.
in selected areas, in clusters instead of uniformly scattering the funds. The accept is on S's and ST's and the programme emphasises conduct of rural household survey to ascertain the living standards and chalk out plans. It is doubtful how IRDP scheme would really bring in regional planning. Allocation of additional funds for certain selected programmes in a few selected blocks does not really make any sense if regional development is the objective, as is professed by the planning authorities. The physical achievement is not satisfactory as only 7.2% in all the 5 blocks of Bidar district and 48.4% of the funds in blocks of Ballary district have been utilised. The reason for the poor performance is attributed to the delay in the release of funds. Belgaum blocks registered 56% progress as against 7% in Chitradurga district blocks. Here again, the performance is very poor.

Thus, multiplication of schemes, in the name of new strategies under regional planning has not served any purpose. In all these ad-hoc measures, there is no concerted effort to get at the root of the problems of rural poverty and rural unemployment, and to identify the other problems. It is also distressing to note that even the funds released after long delay are not fully utilised due to administrative bottlenecks. Hence, neither the planning nor the implementing authorities have any seriousness in the business of the Rural Development Programmes.

INTENSIVE AND INTEGRATED RURAL DEVELOPMENT PROGRAMME

Several special schemes have been taken up in order to promote a very intensive and integrated rural development such as the Drought Prone Area Programme, Small Farmers Development Agency, Marginal Farmers and Agricultural Labourers Programme, Command Area Development Authority, PIREP, Food for Work Programme etc. in addition to a number of programmes instituted as early
as 1960s such as Grow More Food and the Integrated Agricultural Development Programme. All these, in addition to a number of Central Sector Schemes and Internationally Aided Schemes are all functioning in different stages in different districts and selected taluks and many a time on parallel lines without any sort of coordination or integrated efforts to pool the resources. Instances such as forest road development under DPAP and Western Ghats Development and also under Development of Forestry and Intensive Afforestation Schemes can be cited. Similarly programmes of the same type are repeatedly included in the Plan Formulation for various schemes. All these indicate a lack of proper coordination and direction in planning. Even the Planning Board at the state level handles such schemes under pressures.

Now that the problem has become so complicated that the Government is thinking of a single agency to control the DPAP, SFDA and MFAL under the CORDA-Coordinated Rural Development Agency. Even then many schemes fall outside the purview of this Authority. All such half-hearted and stop-gap mechanisms should be avoided and a single Regional Planning Authority should be entrusted with the task of ensuring the implementation of the various schemes without duplication and in a better coordinated manner.

**STRATEGIES FOR URBAN DEVELOPMENT**

There are 281 urban centres spread over 0.192 million km of area in Karnataka which do not show any single well established pattern of distribution. There is no uniformity in their pattern of spatial allocation of funds and urban amenities to their respective rural surroundings; nor is there any concerted effort to attain such a balanced regional development in respect of urban amenities, so far. Thus, an effort is made here to provide a basis pattern of urban structure for the four major
planning regions of Karnataka. Distance is an important criterion in the development of urban centres. The principle of least effort/resistance plays a very crucial role in the development of certain centres; here the accessibility factor shows various degrees of conveniences depending on the type of road and type of transport available. The amenities provided constitute yet another significant aspect of city development which often renders a city attractive or unattractive to visiting tourists or commuters. The presence or absence of cheap and comfortable lodging facilities decides the movement factor of tourist traffic. Non-availability of facilities on the one hand and lack of transport facilities on the other, adversely affects the development of towns. The towns like Haunsbhavi, Karkala, Dandeli, Bagalkot, Kunigal which would have developed greatly but have failed so far. An integrated area development plan will help to improve these towns.

Lack of sound economic base is evident in most of the urban centres of Karnataka, which have grown into prominence by virtue of their agricultural resources, or mineral or forest resources. But they have failed to attract large capital investments and to develop themselves. On the other hand, these have developed into ideal sites for exploitation of their catchment area and rendering the region impoverished over time. Malpe, Udupi come in this category.

A strong functional base is needed even for large cities like Bijapur where the population of the city exceeds 0.1 million. Lack of portable water supply, despite the presence of a big river nearby, is a factor which needs careful assessment of the potentialities of this urban centre. Bijapur has gradually declined to the present state of neglect, despite the fact that the region has a strong handloom sector, skilled workers, large livestock and mineral resources, which ought to have
developed the economic base. Lack of capital and quick and efficient means of transport have restrained the industrial growth. Further utter neglect of this peripheral region under the erstwhile Bombay Presidency, has caused much damage to the economic condition of the region. This has got to be now revised at enormous costs. This is not an isolated case of neglect. The case of Chitradurga, Harihar, Belgaum, Karwar, Kumta and Sirsi are all the same.

It is felt here that sectoral allocations will inhibit growth in the case of integrated urban development unlike rural. To start with, atleast 10 towns can be selected in each region, and financial allocations for all round development can be made so that their return can be profitably ploughed back into other selected Master Plans. Each town should have certain basic amenities, besides a strong urban industrial function to create employment opportunities. The present plan has ignored the potentialities of small towns in creating employment. Many important constraints of economic development prevented successful development of urban centres like Kumta-Honnavar, Harihar-Davanagere, Bagalkot, Rakkavi-Banhatti, Channapatna Ramanagara, etc. These have to be identified and suitably remedied.

There are 226 Municipalities in Karnataka covering a population of more than 7 Million with an income of about Rs.250.00 Million. While they do have enormous responsibilities and expenditures greater than their incomes, it is also a fact that they have unlimited opportunities to improve their functions and enhance their incomes and the present state of the municipalities leaves much to be desired.

The main reason why the municipalities have failed to perform their normal functions has been attributed to lack of funds. But the real fact is that these municipalities are suffering under conditions of their own creation. Inefficiency,
FIG. No. 47

HYDERABAD-KARNATAKA

OBRAK
BAGARA aaliyan
HUMN
CHINGHAL
ALAND
GULBERGA
INDI
SINDA
OCHRAPUR
GODAM
FIG No. 48 PLANNING REGIONS Upper Krishna Basin
lack of drive and failure to enlist the cooperation of the elite public, rampant corruption, mismanagement, nepotism, defalcation of funds and petty politics have driven them to extreme situations of bankruptcy.

REGIONAL HARMONY: DEVELOPMENT OF BACKWARD AREAS

The regional concept ideally stated provide answers to the occurrence and persistence of spatial inequalities in deeper as a natural process in functional organisation of the regional economy around a related few locating and areas. The Regional economic plan are the regional physical plan are the two sides of the coin of development. However there is no inherent mechanism to ensure that the benefits of development are distributed uniformly among all regions. On the contrary, development is likely to accentuate the disparities. Lack of identification of suitable techniques and methods might be responsible for the State's inability to coordinate the sectoral economic planning with spatial sectoral planning.

The Government have adopted a number of alternative strategies and prepared schemes for achieving one of the major objectives of the Sixth Five Year Plan. These are: (1) Identification of Backward Areas by means of six selected indicators. Weightages have been assigned to these and composite ranking has been used to prepare the Index of development of the 19 districts. The backward areas have been classified on the basis of the index of development and a package of policies with a definite area slant has been thought of, for purposes of achieving balanced regional development.


97. Demographic factors, Occupational pattern, Land utilisation, agricultural development, industrial development and infrastructural development.
These policies are: 1. Two Tier Planning Process
(a) State Sector and (b) Outlay for District Sector Scheme
and distribution of plan outlay among the districts on the
basis of selected criteria with a slant on preferences and
higher outlays for backward districts.

It is a desirable necessity that to delineate the
Planning Regions as proposed and appoint Regional Directors
under Karnataka Regional Development Corporation with statutory
administrative and financial powers to appoint technical
personnel and to draw experts from the various specialised
fields to constitute a task force for each division. This
will ensure that the plan funds are operated in a much better
way than at present. The present approaches are faulty and
will not deliver either economic equality or social justice;
unfortunately leading to social unrest and class conflicts
in the rural areas. A schematic presentation of the proposed
Institutional Structure and Organisational Method of Regional
Development Planning has been suggested. 98

SPATIAL ORGANISATION FOR MULTI LEVEL PLANNING

Planning exercise started with the policy decisions on
investments and sectoral allocation of the some at a single
point at the national level. The State-wise allocation of the
some constituted the whole planning exercise although the spatial
aspects were not taken into consideration in the beginning.
However, the defect was realised and during the Third Five Year
Plan and broad hints were spelt out in the plan documents
under 'Regional Planning'. Increasing disparities in the
tempo of development among the diverse geographical regions
called for a detailed policy frame and the Planning Commission
reoriented the aims and objectives to cover the economically
weaker sections and the down-trodden. The minimum Needs
Programme, the SPDA, the MFAL and such other special schemes

98. Presented to the IVth Indian Social Science Congress,
at Shanti-Niketan, W.B. in 1979.
were formulated. Regional disparities also called for a rethinking on the entire planning process. It was felt that a new strategy also needed a new methodology, a new organisational set up and appropriate institutional changes. It was also felt that democratic planning demands popular participation and adequate autonomy and or decentralisation of the entire planning process. Planning for welfare and balanced regional development led to multi-level planning with an emphasis on District Planning, Block Level Planning and ultimately Village Planning too. As a first step in the directions, the two tier planning strategy was adopted by Karnataka in the Sixth Five Year Plan in 1978 and prepared a data base and established the Regional Planning Unit in the State Secretariat.

Insofar as planning involves decisions with strong territorial implications capable of promoting or hampering growth in various areas, they will necessarily be of died concern to the legislators as individual and groups of politicians (Alouso 1968). Inter regional disputes must be seen as resulting from structural differences among the regions (Harmsen T 21st ICF Sympotive Methods. P.23). Although the regions cannot move, the people can and indeed do more with the result a lot of difficult problems arise with respect to designing goals for inter regional development in terms of balance and equity (Kuklinsky 1969).

100. Ibid
101. Ibid
The prime of goal of development in economically backward countries is generally rapid increase a total production and National increase leading to an increased standard of living for most of people and particularly those belongs to the low income groups (Aconus 1968). The deliberate transformation of the social and industrial structure of the underdevelopment regions and corresponding adjustment of the spatial structures of the regional economy appears to be necessary countries for a gradual reduction of inter regional disparities. The goal of integration of regional space bears on the facilities for transportation and communication as well as on inter regional trade and for long term nature. Here the efforts to create an integrated modernisation of permanent significance.

Multi-level planning, too, has the spatial as well as the sectoral approaches and presently, the latter approach has been implemented. While there is some awareness of the importance of the regional approach and a limited awakening to the spatial dimension of developments, no positive action has yet been taken at the national level to make regional planning a part of the Indian system of Planning. The spatial approach to multi-level planning requires certain preparations such as a strong data base, a net-work of expert cartographers and regional planners to prepare the base maps and data procession computer facilities. Such basic facilities are lacking at present. In the absence of infrastructural requirements and prevalence of sectoral allocation of plan funds, all efforts are bound to fail.

The Spatial Organisation for multi-level planning can be carried out without disturbing the present administrative and revenue units such as the Village Panchayat and the taluk, the District, Sub-Divisions and the Divisions. As suggested earlier, a suitable Task Force should be created down from the existing villages upwards to Divisions. Once the Planning regions are delineated in close conformity with the administrative units i.e. the Taluks, the task of allocation of funds become easy. Even the district constitutes an ideal spatial unit for purposes of Need-based Plans. However, in view of the pressure of population and the consequent strain on the meagre resource base, the strategy should be formulated to check uneconomic movement of labour, goods and services. Increasing mobility need not necessarily bring increased prosperity to the region, in view of the fact that aggregation economics ultimately lead to accelerated impoverishment of the poorer regions and enrichment of the developed regions and the backward regions tend to remain under developed indefinitely. Hence, the most desirable strategy in spatial organisation for multi-level planning would be one of strengthening the rural economic base. The State can be delineated into the Macro order spatial planning units and a State Planning Authority confining its functions to the present State Boarders.

Thus, Karnataka can be broadly divided into four major Macro Planning regions based on physiography, namely 1. the coastal Region, 2. the Malenad, 3. The Northern Maidan consisting of Bombay Karnataka and Hyderabad Karnataka Plateau, and 4. the Old Mysore Plateau or the Southern Maidan.

(1) The Coastal Region:- Covers an area of 7700 sq.kms. (6.62% of the State). It has an average elevation of 75 metres, reaching 150 metres in some places. It is a 370 km long, 13 km to 32 km wide in the north (better Kannada district) and 50 to 103. See the Model for Organisation Structure of Regional Corporate Management, Chapter V.
65 km wide in the south (Dakshina Kannada District) and has a hot land climate.

(2) The Malenadu Region is also 650 km long extents from Belgaum in then to Chamarajanagar get 50 to 65 km wide belt of highly elevated land. The average higher is 152 metres reaching as high as 900 metre in some parts of the south (Chickmagalur district). It has 11.14% of the State's total population and has a hot wet climate.

(3) The Northern Maidan: is a trappanless undulating plateau covering 46.8% state area possess 40.45% & State Population It has an elevation raising from 365 metres to 610 metres above MSL.

(4) The Southern Maidan: is the case of old Mysore Plateau with an average elevation of 915 metres. It is a laid of high ground an undertaking plateau coming 32.03% of state area possessing 41.79% of State population.

These physiographic regions can also be delineated under the River Valleys and Command Areas of the Irrigation Projects, namely the Cauvery Basin, the Tungabhadra basin, the Bhadra Basin, the upper Krishna Valley, The Ghataprapha and Malaprabha command areas etc. (Map.No:Fig.No.43).

Thus, close to this comes the delineation of cropping regions for one of the major objectives of planning is to achieve maximum food production, if possible within the available land. A number of cropping regions, such as the Rice region and the Pulses zone, can be delineated based on the extent of area, yield and production of the principal cereals. The Principal cereal crop regions can also be subdivided under: (a) cereals and pulses, (b) oilseeds, (c) pulses and (d) cereals and cash crops (e.g. Jowar-Cotton-Tobacco, or the Rice-Sugarcane, or Ragi-Pulses-Oilseeds).
The delineation of industrial regions becomes quite an important and complicated task, next to agricultural regions. They are, (a) mineral-forest based, (b) agriculture based, and (c) live-stock based industrial units, which render themselves to easy identifications.

Without disturbing the administrative boundaries of the District and Taluka, the Planning Regions have been delineated under the three categories namely, Macro, Meso and Micro regional Planning Units. (See Chapter IV).

In the matters of development administration the state should directly authorise the Taluk-level regional development authorities to formulate schemes, implement them, within the broad frame work of District Level Planning Boards and send the reports without any intermediaries at the District and Divisional levels. While all the regional/national economic programmes, that requires huge funds, can be formulated and implemented at the State Level and Divisional levels, the major development projects can be formulated at the Division or District level and be implemented by the same authorities. This will reduce the burden of the Planning Board; at best the latter can sit as an advisory body supervising the programmes. In all palla planning regions, the district boundaries should be avoided at all costs. With the suggested shift in the responsibilities of planning from the district revenue officials to the regional development authorities, this temptation can be automatically averted. Further, the Planning regions for the different purposes shall be delineated by these regional planning authorities and it will not pose any major problems.

104. Western Ghat Development Board, Malenad DB Coastal DB and Malnad Development Board.
The present research will greatly benefit such a practically useful exercise. A number of alternative plans and different regions for different purposes have been delineated without disturbing the Taluks as the present 175 taluks are eminently suitable for the purpose.

THE AREA DEVELOPMENT PLAN FOR KARNATAKA

The Government of Karnataka have evolved a pattern of 'growth centres' based plan on the criteria of size of population and the amenities available at the centre, which are misleading due to the fact that population size in Rural Karnataka neither suggests the degree of Central location nor the degree of amenities provided. There are centres with a high degree of nodality and better accessibility that are devoid of amenities. On the contrary amenities are available although centrality is absent in some places, since during the last two or three decades, amenities have been doled out at the time of General Elections to win over the community.

The most important criterion in the selection of 'growth centres' or 'the service centre' is distance. Distance is a critical factor in space economy and regional analysis. This fundamental factor in space economy and regional analysis. This fundamental aspect is missing in the Area Development Plans prepared by the Government of Karnataka. A modified area Development Plan for Karnataka has been suggested here in order to set right the inherent weakness of the one suggested by the Government Planning Department. All the Class-I cities have been taken as "Growth Points" and Development Area of the First Order. Certain amenities which are characteristic of these centres are to be distributed over a wide tract rather than concentrate them in a few locations.
A very interesting feature of the urban landscape of Karnataka, as also elsewhere in the country is that of development of twin towns. There are larger 'Twin Cities' and twin towns almost accounting for 10% of the total number of urban settlements in Karnataka. These twin towns have developed by virtue of the resource background of the region, to sustain the twin urban settlements within commuting distances of less than 45 minutes time or 25 Kilometres of distance. Incidentally almost all of them are well served by good road transport and possess a high inter-city or inter-town commutation; some of them are also served by railway. While some of these twin towns are functioning complementary to each other, there are also some competitive ones which seek to grow at the cost of the twin counter-part by reducing the twin components to either a satellite town or merge with its neighbourhood to from the twin city metropolis.

All these twin towns and twin cities of Karnataka show a regularity in their growth and development. They have undergone different stages in their life cycle like the twin towns, twin city urban area, twin city urbanised area and twin city metropolis. There are examples of twin city megalopolises elsewhere in the World. Bangalore city has its twin component in the Bangalore Cantonment with its own separate Municipal administration. Hubli-Dharwad twin cities are 21 Kms. apart, Shimoga-Bhadhravati have only 18 Kms of intercity distance.


106. The megalopolises are: Tokyo-Yokohama and Osaka-Kobe in Japan or Twin City Metropolis of Minneapolis-St.Paul, Minn.USA.
Harihar-Davangere are separated hardly by 10 kms distance with much of the inter-city area already put to urban use like industries. While Hubli-Dharwad have a common Municipal Corporation, Shimoga-Bhadravati are planning to amalgamate to form a single Municipal Corporation with an integrated Master Plan. The case of Belgaum-Shahapur is very interesting in that the two historically famous towns are hardly separated by a pair of Railway lines. While Shahapur had assumed great prominence during the days of Adil Shahi, it has retained its individuality even to-day. Belgaum has come into prominence only during the British period with a cantonment. The other twin towns are: Gokak-Konnur, Rakkavi-Banhatti, Chitguppa-Hummbad, Hampi-Hospet, Belur-Halebid, Kumta-Honnavar, Udupi-Malpe.

All these go to present a unique landscape on the urban scene. Instead of fusing into a dominant single town during the last century and a half, they have retained their individuality playing the role of either complementary or competitive during their different stages of growth. They should be planned properly as a large part of its inter-city area have remained untouched by urban functions. These twin cities can operate as growth centres for their respective rural service areas due to availability of ample space for development at low costs. Land speculation should be avoided.

For the purpose of integrated rural-urban development programmes, the selection of towns to function as "growth centres" is based on the most important spatial constraint: distance. Distance plays a very critical role in the development of urban centres. This determines the trend and direction of growth of towns in many cases.
Broadly, there are 22 pairs of towns called 'twin towns' and 'twin cities' which can be developed on the most modern lines of urban development planning integrating their surrounding rural areas. Besides these, there are the towns of the Cauvery Basin (14), towns of the Tungabhadra Basin (34), and the towns of the Krishna Basin (26) and Rail-head towns (44). Incidentally, the rail-head towns also possess highways. These are ideal centres as, "development nodes", "vertices" of industrial-triangular complexes, development axis and development poles, and individual growth centres or central places. Here, no single dominant conceptual base is adopted for the development pattern.

The strategy for the integrated rural urban area development is not divorced from planning for homogeneous economic areas. As such, it is necessary to identify a certain strong resource base and to develop a well integrated scheme for allround development of the region, providing for infrastructure facilities and location of certain mutually dependent small scale and medium or large sized industries. For instance, there is a drought prone area of Dharwad and Bijapur district tract where the agricultural production consists of cotton, oilseeds and pulses. It would be economically feasible to set up cotton ginning and pressing mills here and at the same time plan for utilisation of the available cotton seed for production of oil cakes for cattle feed and lint of fine grade for acetate fibres. These activities will provide gainful employment to the drought prone taluks of Dharwad and Bijapur districts.

These are well marked areas such as (a) areas of further development in the already developed areas; (b) areas of integral development bringing together the different sectors of economic activity into a mutually integrated scheme of development; and (c) areas of improvement where the resources are lacking and scope for development is limited so that living conditions can be improved. These can be appropriately planned quite efficiently.