CHAPTER 4

Imperatives towards sustainable Rural Development

The scope of the interpretation of the analysed data has focus at each stage and level of the various sectors analysed with a bearing on the availability / non-availability of information at the grassroots level. It reflects / suggests on the improvement of the traditional pattern of information wherever it is existing. It is also seen that in majority of sectors there is no visibility of growth in the development as well as the sustainability in development process.

Land and people

Gaps in the availability of data is a clear indication of non-co-ordination in the compilation of data collection process. The emphasis here is all the more true since a total and comprehensive data as planned and projected is most important in decision making. This alone helps for a crucial, sustainable and visible growth.

The basic data collection should be through a trained manpower under each sector and the honesty and sincerity of coding of this data has serious and long implications. This is the basic edifice on which the developmental planning and the
pyramid structure is developed with in-built short range and long range visions of rural development and national growth. The course mid-term corrections both at horizontal and vertical development of various sectors can be incorporated without affecting the basic infrastructure. For this purpose, the importance of the field staff needs hardly be emphasised. Systems approach both at training and data collection level for the creation of the information infrastructure needs to be adopted.

In the present micro study, information is lacking through which the growth in urban and rural population is measured in terms of rural development. An appropriate pattern would have helped in monitoring the disproportionate growth of urban and rural populations by monitoring the migratory tendency.

The functioning of the democratic institutions like Mandal Panchayats and Zilla Parishads of our social system have fallen short of our expectations. Repeated changes and experimentation, on a non broad-based initial structure is responsible for disorder and non-effective functioning. Result Low level achievement of the rural development goals even after 40 years of their existence. The relative growth of the development sector, is therefore not a reflection of the true visible and sustainable development. This reflects on the non-representative participation of local people to bring out the much needed social, cultural and economic equality in the rural development.

The development process clearly indicate the growth in the data fields during the period of study i.e., from 100 in 1981-82 to 282 during 1992-92. This is a clear indication of the incompleteness of the coverage of information with the relative development factor. The variety of these data fields also indicate that new patterns have emerged from general to specific areas in each of the sectors. The marginal
increase in the cultivable land area and area under irrigation, no increase at all in the forest area clearly indicate the lacuna in the gathering of the required data in a structured and analytical way or there has been laxity on the part of the local administration. If the data were to be available at each stage of implementation, correction course would have been indicated each year so that there could have been better results during the decade (period under study) for a steady growth related to various other rural development sectors to improvise the conditions of the rural poor. Absence of horticultural data before 1992-93 is again a reflection of no performance or non-performance of this important sector of rural development. It is also significant to note that data collection is not comprehensive in coverage in agricultural sector.

Area and Population

There is no registration of the spread of data or the trend of increase in population beyond taluk level. This information gap is quite significant and obvious for infrastructure planning of various sectors as the land and human population are primary ingredients in the growth and development of rural areas. Keeping the number of taluks constant has two implications with reference to proper planning for administration, geographical contiguity and the smaller taluks can be better controlled and administered in a democratic process. It is a fact that the Mysore Taluk has got the lion's share in the development of almost all sectors except agriculture since Mysore city was the seat of power of the erstwhile princely state of Mysore. The obvious reason for imbalance development of rural areas of other taluks is the absence of primary information/data creation in a proper consolidated and co-ordinated manner. Absence of this proper documentation and management information system has resulted in weak link piecemeal growth of rural sectors. The
negative impact is clearly noticeable in improper utilisation of river water, underground water, towards agriculture, irrigation, health, sanitation and hygiene of rural areas. Industrial recycling of the effluent water where traditional industries exist. There is emergent need to work out / map the underground water profile, distribution, replenishment or recharge during monsoon. Analysis and design of its use on a long range and equitable basis throughout the district is required. No taluk be neglected to get its due share in all aspects of social setting for its all-round development. There is scope for co-ordination of various developmental processes between each taluk in the district at the vertical hierarchy. Also, scope for giving special emphasis to resources, talents for local development in all the sectors, making use of the participatory management at horizontal level of development.

No increase in the number of taluks implies and also is the evidence of the available facts that there is migration to taluks from the villages. This is a negative trend in the rural development process. If the most basic infrastructure is made available at the village level and that should be our final goal, the migration stops and they create an environment of better living for themselves but also exhibit and export their talents in special craftsmanship, artisanship which moves them to regional, national and international level e.g. Handicrafts, Wood Carving, Ivory carving etc.

The concept of systems approach for sustainable development helps to eliminate the indiscriminate exploitation of environmental sources and resources. The nursing of formal and non-formal education to vast majority and its uneven distribution wherever it is available has added to the improper or non-development of the rural areas. The local people need to be exposed in a systematic way on a relating scale of formal and non-formal literacy education, so that they involve themselves in the developmental planning and process of their village, hamlet etc and thus become
Application of non-formal education kindles the local talents for better application of information technology for utilisation and also adaptation of new technologies with local modifications to suit their demand. The increase in the literacy percentage in the district from 31.34 to 47.82, though an increase of 17%, still falls short of the expectation needs a better emphasis in the light of the new education policy (1986).

Minerals and Ores

From times immemorial, it has been the trait of man to make use of his-natural surroundings for his benefit and better living. Mysore district has been fortunate being endowed with mineral wealth. Since these resources are not replenishable, their total potential have to be carefully studied for proper utilisation for posterity without imbalancing the environment. Unfortunately, information in this sector is incomplete to the extent that data on only few major minerals and ores are available and are exploited, thus imbalancing the environment instead of better utilisation. The data on other lesser minerals and ores would definitely help in local industries using the latest technology by transfer initially for the local benefit which could be extended in stages and phases towards Regional, National and International levels. There is also need for in-depth study in this area which has a vast potential for indigenous technological development as well as technology transfer utilisation for immediate local economic well being, thus improve the rural infrastructure. For example Granite Polished slabs industry sustains both at local level to national and international levels and good export potential and foreign exchange earner too. This entitles utilisation of man power at all levels of training.
There is vast scope to identify major industries as well as related ancillary industries throughout the district. All these could be possible only with the perception of technological process, its demand and use for local benefit and development. There is dire need to study market data in a more scientific way than the traditional short vision temporary and non-sustainable approach to information base or data base creation at the grassroots level to build a sustainable and permanent industrial infrastructure which can be easily merged with the national mainstream.

**Rivers**

There is no comprehensive data for the optimal utilisation of the water resource to areas of agriculture, irrigation, industries, drinking, hygiene and sanitation of the rural masses. There has been no water resource management data to control and co-ordinate these sectors in the rural areas. There is scope for profiling the underground water using remote control technology which is in our reach. Statistics on the effluent water treatment of river water utilised by the industries is incomplete. Growing concern of the river water pollution is an indication of the incomplete application of available technology for industrialisation. It is also seen that there is no planning in the setting up of the various industries on the river course (industrial proliferation). This has lead not only to pollution problem but also has negated the local employment problem. There is scope for developing a district level planning system in this area.

**Agriculture**

Agriculture has been the backbone of development of all civilisations and nations. Even the most industrialised nations have given primary priority to agriculture and all its related subjects in the course of their development. With a broad agricultural...
base and development which will sustain them for long time to come, they have built a strong industrial edifice later in successive stages. In the Indian context of developmental planning the case has been reverse. Much attention was given to heavy industries, totally forgetting that India is basically agrarian and 80% of its habitat live in villages. With the realisation that the development pyramid has been topsy-turvy, even the midcourse corrections during the consecutive plan periods have become costly experiments. Silver lining in the dark cloud of these experiments have been the achievement of green revolution to the teeming millions. This achievement at the national level has been possible with the assistance of few states. In order to maintain and improve this situation, it has become imperative that this sector should be given aggressive importance both at basic planning level and at the level of implementation. The data on agriculture though not exhaustive indicate increasing trend in the produce, cultivable area and irrigating land. This is mainly due to the utilisation of artificial manure and better farming methods. Depletion of the forest area is distressing and this damage could have easily been avoided if we were to take lessons of the disastrous effects that had befallen many developing nations due to deforestation. The rectification of this mistake has started though late, than never with massive afforestation drives in all the deforested land, including the free land areas of the rural, urban and urban conglomerates. The rapid depletion of forest resources and massive industrialisation could have been lessened, if we had taken lessons from many developing countries which faced similar problems.

There is vast scope for R&D in the agricultural implements and farming sectors to meet the local needs. Information is lacking and there is need for closer coordination between various aspects of agriculture and field staff of the Government departments and agricultural universities and the actual farmers in the field. There
is absolute need for the creation of a local database, which can be better utilised along with the well established international databases like AGRIS etc (1). The local database not only throws light on the planning and execution of projects of local priorities which helps in immediate rural development. Later these efforts can be extended, merged and modified to be part of information networks at rural, national and international levels. This is a rectification process.

Soils

Establishment of Command Area Development Authority (CADA) and Agricultural Research Stations is an indication of forethought towards development. The unfortunate situation is that there is no co-ordination of the created and collected data in a formal way both at R&D level and at implementation level with proper feedback to recycle the process for alteration and improvement of methods. The whole process of development has been one way only without provision for cross checking and even if there is provision it is not executed sincerely. Thus the need for user education at every level and all levels gains importance. The whole process of information generation, maintenance and discrimination from grass root level to the highest level of implementation should be a looped structure with in-built facility and flexibility for mid course correction, constant updating and improvement.

Horticulture

Horticulture plays an important role in the rural development, a highly potential sector next only to agriculture, has a very vast rural base. The horticulture produce is a basic necessity like stable food for human well-being. The inclusion of basic data from 1993 in the official records clearly indicate the neglect of this sector earlier. Horticulture extends beyond the scope of fruits, vegetables and flowers.
farms at individual and corporate level. A quick economic earner since the products are perishable, it is important that proper information infrastructure with basic data can influence better growing conditions, preservations and sales at local and regional markets. With the development of technology on food preservatives and vegetable produce and quick transport system, it is very much possible that this industry can flourish in the rural areas with local employment potential for rural development.

Extensions of horticulture to the areas of medicinal plants and herbarium farms to feed the R&D experiments for the preparation and production of medicines both to allopathic and Indian systems of medicine like Ayurveda, Unani and Siddha is a vast outlet for rural base development. Also the perfumery industry which has a international potential leans on the various types of tropical flowers and plant extracts of herbs. This is another offshoot of horticulture which can be tapped for rural development. Thus there is need for the creation of an information infrastructure base for all these indigenous industries.

Proper documentation also promotes development of herbal insecticides and pesticides for agricultural produce and prevention of food crops and also pharmaceutical technology applications.

Commercial cultivation - Industrial value & information gap:
Other most horticultural crops like Coffee, Coconut etc offer very good scope. E.g. Coir from Coconut trees is a major raw material for Coir Industry. Other by-products like Coconut as food, Coconut oil as food and for perfumes.
Land Utilisation

There has been an improvement in land utilisation between 1981-1985 (Available data) in forest, non agricultural land, barren and uncultivable land. There is a phenomenal decrease in the permanent pastures and other grazing lands from 1,40,753 hectares to 99,123 hectares. This is a clear case of non-formal planning in the absence of primary documentation. This also reflects that there is no proper linkages at operational level resulting in a temporary, piece-meal approach. This also calls for a proper time bound system planning which sustains the development process to the next stage of growth. Our five year plans have yielded muskey and mushroom growth and development in all the major sectors of rural development. In the absence of proper statistics our plans have been built on a weak base and restructuring with mid-course corrections have taken the development process at a tangent and the final results have been poor and non-sustainable.

Animal Husbandry

In this particular sector it is observed that there is a lopsided growth. Total potential is not tapped. Only in the area of cattle, cattle feed and milk production the district has not fallen behind. Mysore dairy which is a part of the Co-operative production and marketing federation called Karnataka Milk Federation (KMF) has achieved its nearest goal of operation milk flood. The related milk products like cheese, ghee, butter have unfortunately been a high tech industry out of the purview of participation of rural folk, thus denying the opportunity for rural development in initial stages. The scope for cattle feeds industry like beans oil seeds and rice cakes for better yield is again not covered in the village industries, which is a modification of the highly traditional, slow and low yielding grinding technology. Here again there has been no data as to the laying off of the methods of technologies viz. traditional...
facilities causing unemployment and under employment in village settings. There is no evidence of co-ordinated and democratic efforts for the general co-operational financial help for rural economic development.

The other related industry which is mainly in the hands of the entrepreneurs is the sudden surge of poultry industry which is guided by the Egg Authority of India which imposes restrictions on the standards and their marketing. The Government’s support for establishment, development and maintenance of poultry farms includes the health care and hygiene of the birds and their feeds etc. Though there is sporadic development, the spur cannot be taken up as a planned sector with reference to its supply and demand. The chicken meat industry is a highly disorganised sector and needs a total in-depth study for proper and balanced development. This is equally true with the meat of Sheep, Goat and Pigs. There is neither primary data nor even a planned thinking of development in their totality. The future requirement of their meat, leather and wool - quality control of each of these, their demand and supply studies are highly inadequate. This acts as a major rural development indicator looked from its potential. The leather, hide and tanning and wool industry are not only highly competitive, wherein utilisation and upgradation of indigenous technologies will, go a long way towards rural development. Lack of monitoring the development programmes towards the policy and goal strategy is clearly evident. This has led to no-achievement or under achievement in this sector. Only efficient systems analysis with proper documentation and statistics, subsequent storage, maintenance and updating of the information infrastructure with better retrieval and dissemination systems can help achieve results. Like in agricultural sector, technical impact and social necessities have added value to these animal products, as consumer goods thus providing scope for application of technologies at the point of raw products and even finished
expands the scope for local employment, for skilled and experienced persons with provision for training in the rural sector. For example in the dairy sector at the beginning of the co-operative movement, the processing centres were urban based with movement of raw material from villages to towns and cities. With the stabilisation and development of the co-operative movement, the process has been reversed with the establishment of processing centres in the village setting i.e. technologies are moving towards villages. This is a point to be highlighted. Much needs to be done in this matter.

**Industries**

With reference to rural development scenario, the district is dotted with a large number of small scale and related ancillary industries. The chart for the period under study, indicates only three major small scale industries and its subsidiaries. The direct comparison indicates that there is no steady growth in these units. There is a decline in the number of units for the year 1990-91 to 1992-93. The reason could be the crunch in the basis resources, like raw material, finance, human resource co-ordination, no constant R&D activity which involves utilisation of technology by innovation, adaptation and through modification. Finally marketing data which is crucial to get an edge over competitors to balance the supply and demand keeping the standard/quality of the final goods. Only proper primary data and its analysis would have helped to project the rate of growth and its acceleration. In the absence of these, the sustainability is not visible for recording and analysis. This is due to lack of perception on the part of development planners to document the data they create and also to utilise the existing data. The other parameter is the authenticity of the existing data for verification and cross reference. Thus there is no scope for validation to check the cause and effect. This data vacuum leads to un-
analysable growth. This points out to the absence of an information infrastructure system for development measurement and analysis.

The potential for industrial growth is well established in Mysore District. There is also growth rate in other sectors. But there is no channel by which growth stages are recorded and the use of data or information to accelerate the growth towards the targets. This is a clear indication that integrated and sustained growth are not achieved.

The data available or given is highly inadequate for closed analysis of the industrial scene. Except for the general increase in the number of units under each heading, data on various parameters and other environments like transport, communications, other infrastructure facilities like water supply, drainage, un-interrupted power supply, communications for the proper and co-ordinated development of industry are totally lacking.

Requirement of adequate and trained manpower to run the industry in the rural setting is also not forthcoming. This results in the bad investment by the entrepreneurs and the units become sick very fast. This will have a felling effort on the moral fabric of locals and affects rural development.

Utilisation of Computers and other information technologies from the stage of conceptualisation of a particular industry to its steaming stage would greatly help to give a solid foundation for its growth and in turn the rural development. There are many examples of industrial units which have suffered for want of ancillary industries and had to close down.
In the case of textiles, the chart clearly indicates the steady decline. Mysore, once a leader in cotton and hosiery industry, had to literally close down. The reasons are obvious - labour and managerial problems, no participatory management principles. Lack of raw data analysis for the study of markets and not updating the technology of processing and disorienting the main focus. This is also a clear case of not developing a backup information system. All these results in 'development' but not a visible or tangible 'sustainable development', reason lack of information infrastructure.

The industrial distribution pattern has not taken into consideration the total resource potential. There is enough provision for establishing specific localised industrial formulations which can cover a better and expensive canvas. Even the spreading of the Industrial Training Institutes and expanding and extending their courses and course content upgradations to cover latest technologies that suit to rural industrialisation. There is a dire need to co-ordinate these into an indigenous technology network.

Power Generation

There is genuine need for more power requirement which is most basic and crucial resource like land and water for any industrial growth with respect to rural development.

Sericulture

This is one of the oldest vocations in the district which works out in two parts - first part is breeding/rearing of the silk worms, development of silk farms and mulberry plantations and marketing the raw silk thread. The second part is the actual manufacture of silk which forms the Filature industry. Both together have a great
potential at international level. There is need to upgrade the methods and technologies to result in faster breeding and rearing of the healthy silk worms to get better yield of quality silk also use of modern textile technology for spinning and weaving of the threads to get better textured fabrics. This industry has an acknowledged background compared to other industries in the district, but has vast potential for expansion and growth.

**Infrastructure facilities**

There is scope for expansion and development of the existing infrastructure facilities. There is no study of in-depth nature in sectors like transport, communications, mass media (TV, Radio, Telephones etc.) with rural orientation. Rural areas are still cut off from the mainstream of social life except in urban-rural enclaves.

There is an urgent need to collect the data on communicable roads, modern transport system like road, rail connections to each and every village and hamlet in the district. A comprehensive network map of no of villages, distances, how far interior etc. needs to be worked out. No data on the traditional local crafts and trades which have a very high potential for development at national and international level markets like Wood, Ivory and horn carving, and joss sticks etc. is available.

**Industrial Estates**

There is need for improvement of the existing industrial estates both in terms of quantity and quality with reference to rural setting. There is also need for better geographical spreading of these estates for balanced development of rural areas of the district. There is need for taluk wise establishment of industrial estates incorporating such vocations that are useful and beneficial to the development of the
taluk in particular and outside in general. Also, Industrial Training Institutes to impart education and training in technologies that benefit the local youth and women individually and better their living style and conditions. They should include latest technologies for training on a need-based environment, establish such systems which would co-ordinate and control the existing industrial estates and Industrial Training Institutes, also bring into this fold newly established estates and training institutes. The course contents should be carefully chosen to cover up gradation of technologies, maintenance of the existing plants. The training should be self-contained so that the trainees can either get employed or can start self-employment which would add to the rural development.

Education
The statistics indicate the increase in the number of institutions. This is a logical continuity with reference to the increase in the population in this category. But there seems to be no long-range planning to meet this requirement as regards to geographical distributions of the institutions. In fact, this is all the more serious when we consider the primary education. The government's policy of free education up to the age of 14 still remains a dream, and the efforts that are done so far and are being pursued have not given substantial results in reducing the school dropouts. The case becomes all the more serious, since the rural environment has not come of age, the majority of the rural parents are either uneducated or just have informal education and cannot think beyond, with reference to the benefits the education can bring to their children. Secondly, the poverty or the abject poverty diverts their school-age children to work for their daily sustenance of bread. Alternatively, with all its efforts, the government machinery have been unable to meet their targets due to social constraints. However, the awareness of the importance of formal and
informal education and training of the rural people to keep them busy with work and
better their living conditions is permeating slowly, though not to the desired extent

There is shortage of trained teachers (human resource) at all levels i.e. Primary,
Secondary and Professional / technical levels. There is a semblance of saturation
at the higher education level. There is no good backing of physical infrastructure
like appropriate buildings, labs and libraries. Thus proper planning is not visible with
reference to rural education and related industry.

The education policy and rural developmental process need a close re-look to
develop a properly co-ordinated network. Educated human resource is not
compatible with the demand in various sectors - general, professional and technical
education for self employment at all sectors and levels of employment in the rural
sector. The education is not practical and need based. Also lacks the process of
continuing education for updating information. The process of higher education and
its examination system calls for better and need based methods to achieve end
results of the educational objectives. Research and Development planning and
execution needs to be planned from the grassroots level instead of the top-down
method. The R&D has to be broad based and need based with respect to local and
rural requirements. In order to create an information infrastructure grassroots level
data base creation at various levels of rural development is suggested. The urban
biased education should be reoriented with rural emphasis. Strict monitoring and
check of the establishment of sub-standard institutions (without basic educational
infrastructure) and heavy enrolment has to be initiated to ensure standard and
quality education. It should be realised that more planning and establishment of
infrastructure will not yield results. It is finally, the human kind that makes any
system work efficiently.
The analysis of various sectors charts in Mysore district indicate that the gravity and concentration of rural developmental programmes are more obvious, prominent and predominant in Mysore taluk and all the more in the city of Mysore and its suburbs. The data also indicate that in the 1980s the process of osmosis or diffusion has set in, in which there is a slow movement of development back towards the rural areas, villages in particular. This movement of technologies, processing and production to rural areas is not in a sustainable manner to commensurate with information infrastructure and R&D infrastructure. Thus even today there is no facility for crisis management in any rural sector.

References
[1] Agricultural University Extension Department and their activities
'Krishimela' Central/State Agricultural departments, 'Krishikshetra Exhibitions/Demos'