7.1 Introduction

In this chapter an attempt is made to evaluate the issues and challenges in rural infrastructure development in Chamarajanagar district. The availability of various infrastructural facilities varies from district to district in the same state and they also vary between taluks of the same district. The existing issues and challenges of the rural infrastructure between the four taluks of the district has been assessed in the present study.

The provision of basic rural infrastructure facilities to the population, especially those living in rural areas has been the most important priority of the region. In rural areas of the region, there is a high prevalence of disguised unemployment particularly in agriculture and other allied activities. Access to land and ownership of land is the factor accounting for income differences. Rural areas are viewed as concentration in little value for economic demand with respect to infrastructural services. The fact remains that state interventions, despite their large scale of operations, never aimed at any basic structural changes in the agrarian society. The numerous programmes that included massive interventions are such as the Integrated Rural Development Programme (IRDP), Minimum Needs Programme (MNP), and Public Distribution System (PDS) and rural infrastructural development programme and they are adopted to safeguard the interest of the rural people.

Rural areas are often perceived to generate low demand for infrastructure services, thus imposing a major constraint on the viability of rural infrastructure facilities. While demand for connections of infrastructural facilities is much lower when compared to urban areas, the number of rural customers is often willing to pay and to consume more than is commonly expected. Precise quantitative measures of rural demand is difficult because estimating demand is complex. If willingness or ability to pay is measured before a service is introduced, they may lead to underestimation of the potential demand. The impact of education or information about the service is much higher when the service is visible, and to this extent most estimations account for demand inadequately.

The ensuing section attempts a rough estimation of the demand-supply gap in different sectors and some broad diagnosis of how the system has addressed the respective infrastructure sector needs over time. This section gives some idea, not only of the gap, but also the current outreach of infrastructure services. The full
picture, however, is not complete without understanding the quality of service delivery. The actual demand is likely to be higher than what these figures convey to the extent that infrastructure was created but lies underused due to partial or discriminatory access.

7.2 Rural Infrastructure and Governance: Inter linkages

“Economic growth and human development are strongly determined by the prevailing infrastructure development scenario. Rural infrastructure in India in terms of its roads, electricity supplies, telecom facilities, irrigation systems, water supply and sanitation, market yards, schools and health centres is woefully short of demand. It is almost totally publicly funded, and the governments at the centre and the states, have severe budgetary constraints. The local governments like Zilla Panchayath in case of rural areas are largely dependent on central and state government disbursals, and are thus hardly ever in a fund surplus situation to spare money for infrastructure investment. Rural communities themselves are impoverished and unorganized, so community financing of infrastructure is not possible beyond a certain limit. In this context the role of private capital in filling the need gap acquires tremendous importance. Seventy per cent of Indians live in villages and rural infrastructure is a key determinant of rural development and economic and social well-being” Mahajan Vijay (2007).

“Institutional and financing arrangement relevant for service provisioning are derived from the nature of the infrastructure in question, in terms of its public good versus private good characteristics (a rural road tends to be public in nature, an in-house electric connection is a private good), and the scale of the services helps a single community or many communities. Even for most ‘heavy capital investment’ intensive infrastructure, some part of the recurring expenditure can be paid by the consumers. It is critical that policy-makers recognize the need to balance cost sharing strategies with objectives of maximizing outreach to the poor. As a rule, the potential for private sector interest in providing infrastructure increases as the activity shifts from public to private. A shift from smaller to more extensive coverage also tends to transcend community based solutions” Mahajan Vijay (2007).

The important role of infrastructure and services in rural development is well established in the development literature. Todaro (1989, 1992) argues “that the level of capital accumulation and capital accumulation embodied in infrastructure
development in a country is a crucial factor determining the pace and diversity of economic development. Although the direct link exists between productive investments and growth, social and economic infrastructure (such as roads, banks, irrigation, and power) facilitates and integrates economic activities. For example, a farmer can increase output by adopting a new technology or investing in farm machinery, but without adequate transport facilities and market institutions, the extra production may be worthless. That distance to the main paved road and the quality of the road infrastructure connecting to the main road are significant determinants with communities that have access to all season roads earning, on an average, higher prices than communities that have only access to seasonal roads or communities that do not have access to roads”.

7.3 Community Participation

Involving local communities is important factor in rural infrastructure development programmes and it has received a greater acceptance. Being the main reason, sustainability of the infrastructure investments can only be secured by involving the users from the very start when works priorities are identified. Participation of Local communities can be secured through various mechanisms, it is completely depending on the type of works, and can take different forms at the various levels implementation of the project.

The promotion of the development of human and physical resources in rural areas requires a greater importance and recognizing the fact that local people are themselves the main implementers of development projects. If the people are not participate passively in projects, they become inactive and will depend on external inputs. In order to avoid this situation, local decision-making in project planning and implementation is important. In other words, a project that the local people themselves plan and implement is given priority as local materials and human resources are utilized effectively by the local people’s initiative and responsibility. Local independence and sustainable development of project outcomes are enhanced by the effective use of local resources.

The classical approach to secure local participation in rural infrastructure development has been through a hierarchy of development committees at village, district and provincial levels. These organizations can shelter the appropriate demonstration of both political and technical bodies as well as meticulous user
groups. In the past, these institutions have played a central role in the credentials and selection of individual development projects, which form the basis for the infrastructure development programmes of the district and regional authorities.

A major shortcoming with this arrangement has been the lack of clear criteria and planning guidelines, with the result that the development committees have often produced wish lists with limited cross-sectoral integration. Community participation in rural infrastructure facilities covers a wide spectrum of participatory mechanisms. The most common arrangements are as follows.

- Involving the communities in the formulation of development plans and budgets,
- Local communities providing some or all resources required for the works in the form of providing their own labour, tools, materials and cash.
- Local communities or user groups take charge of the works implementation, either directly by organizing themselves into work groups or by engaging a local contractor,
- Local communities or specific groups are contracted to carry out works under the supervision of local government authorities, local communities monitor the works carried out by local government and private contractors.

The appropriate form of community participation depends on the type of works being carried out, and the solutions found to be effective in one sector may not necessarily be appropriate to apply in other sectors. However, as the main users of the infrastructure facilities, it is important that they are involved as part of the management process from the identification stage throughout to the maintenance and operation stages.

7.4 Measurement of Social Benefits

Measurement of social benefits of rural infrastructural projects is an efficient investigation of the social processes and factors that affect the influence of the society. The major purpose is to minimize the negative impact of the projects and maximize the social benefits of the region. It is being conventional through collection of base line socio-economic conditions of the rural area to avoid the negative impacts, normally the families are recognized and assessed for the impacts in terms of loss of
land, property and livelihood. In this process, suitable action plan is prepared to rehabilitate and resettle the affected persons or families.

For measuring, the social benefits of environmental and social issues are given importance through a proper steering. While preparing and planning for rural areas holding discussion with the local community through the mechanism of the Gram Panchayath in order to determine the most adequate alignment, sort out issues of land availability (including forest land), moderate any adverse social and environmental impact (including barrow fits and channeling drains) and elicit necessary community participation in the programme is necessary. It is being organized by conducting a mandatory of propagation along with the project with Gram Panchayath, revenue officials and forest officials for identifying various issues related to land requirements for the development of rural infrastructural facilities to a particular region and its impact on landowners, environmental impacts and other social issues. During the propagation of the developmental activities, the opportunity shall be given to interested persons to put forward their point of view. At the end of the propagation alignment shall be finalized after recording the issues that arose during the propagation and the action proposed to resolve the issues relating to rural infrastructural facilities in the region.

7.5 Environmental Issues

In the development of rural infrastructural facilities rural environment represents the “structure of system, institutions, and practices in villages for sustainable use of environmental and natural resources while ensuring security of livelihood and a reasonable quality of life. While the scope of environmental infrastructure is often narrowed down to the provision of suitable water supply, sewerage disposal, and sanitation systems in a particular region, it has within its purview (a) acquisition, protection, and maintenance of open spaces, (b) clean up and restoration of degraded lands, (c) integration of existing wildlife or habitat resources, (d) sustainable approaches to controlling flooding and drainage, (e) developing river corridors and coastal areas, and (f) forest management. Reconstruction of natural resources through activation of watersheds, renewal of wastelands along with enhancement of farm productivity, is a component of environmental infrastructure that is attaining increasing importance as expanding anthropogenic activity stresses natural resources beyond their natural regeneration capability.
Here stock of the rural environment and proposed institutional mechanisms to keep the juggernaut of socio-economic development rolling without impediments is necessary. They present a snapshot of the current rural environment demonstrating the phenomena through which irreversible degradation of the environment has resulted. And they examine the veracity of the widely held position that poor social and economic conditions of villagers compel them to overly exploit the environment, leading to a vicious circle of degradation of natural resources perpetuating poverty” Sarkar Runa (2007).

7.6 Infrastructure Development and Sustainable Development

The concept of “sustainable development basically implies a characteristic of a system or a resource to last intact forever. Currently there are two distinct concepts of sustainability in vogue. One, the economist’s worldview of sustainability is concerned about the long-term constancy of economic output, income or consumption. Two, the ecologist’s and biologist’s concept of sustainability which relates to long term preservation of biosphere, that is, the sustenance of human populations and biodiversity conservation in a given geographical region, endowed with limited natural resources. The economic sustainability is production and consumption oriented and latter the ecological sustainability has sustenance of people and biodiversity conservation as its focal points of the region” Bartelmus (1997).

Economic sustainability implies the proper maintenance of produced capital and natural capital (natural resources and environment) used in the production of goods and services. Ecological sustainability can be defined in terms of fulfillment with the carrying capacity limit of natural systems. The number of people generally measures carrying capacity in natural system for a specified period at a particular standard of living. Obviously, carrying capacity depends on the level of desirable standard of living, type of production technologies in use time horizon of analysis and external trade with regions.

Sustainable development is a major means of development of infrastructural facilities for the rural areas that meets the needs of the present without compromising the ability of future generations to meet their own needs. This definition emphasizes the need for the present generation to ensure inter generational equity by safeguarding the interests of future generations through maintaining the natural resources for the future generation. In these respects, it is very similar to the concept of sustainable
livelihood by which the securing the access of both present and future generations to basic necessities of life such as food, clothes, shelter, security, freedom, basic literacy and health care on a long term basis.

7.7 Issues

The present study has highlighted various issues related to rural infrastructure development in Chamarajanagar district. It aims and attempts to examine the various works related to identification and implementation of rural infrastructure development projects in government, public sector, NGOs and other institutions in order to bring about changes in implementation of different projects in the district. This is necessary to ensure comprehensive infrastructural development and to optimize the benefits from the same. So the study also considers a few criteria to evaluate rural infrastructural development and to understand the status of infrastructure development and to examine disparities among the taluks infrastructure index is constructed.

These disparities in the development and provision of infrastructural facilities are mainly responsible for development gaps between the taluks. By and enlarge Chamarajanagar district is endowed with adequate natural resources and physical endowment thus there is also scope for tourism. However, to create by creating sustainable livelihood opportunities in relatively backward taluks infrastructural facilities are required with the focusing on human resources development and regional transformation.

Constitutional provisions give the impression that by themselves they would have been an effective trigger for the empowerment of panchayats. However, there has been a decade long lag between the constitutional mandate and effective functional transfer to them. The reasons are several. Though the Constitutional provisions make it clear that panchayats shall be set up at the district, intermediate, and village level, the extent of empowerment of these panchayats is left to the State governments concerned to be determined through their enabling legislations. One view is that Article 243 G, which speaks of empowerment of the panchayats does not make it mandatory for a state to endow panchayats with all powers and authority as listed in Schedule XI.

The most frequent argument made against devolving powers and responsibilities to panchayats for rural infrastructure creation is the one that they lack
capacity to manage the enhanced powers that are given to them. However, supply of capacity before giving the true powers leaves panchayats confused about how they should use their capacity. On the contrary, if one truly empowers local governments and holds them accountable for their newly earned responsibilities, they have an incentive to define and seek out the capacity support they need. Capacity building then becomes demand driven. Thus, devolution itself becomes a trigger for accelerating capacity building. These arguments against devolution are that panchayats are crippled by adversarial politics and are prone to elite capture.

7.7.1. Designing, Planning and Implementation System

The first imperative in designing, planning and implementation systems involving multiple levels of government is to ensure the role of clarity. Assigning clearly defined activities to each level of government is essential both for efficient delivery of services as also for people to hold these levels accountable for their performance. When local governments are assigned clear tasks, devolved funds and made accountable for their performance of these newly assigned responsibilities, they have a big incentive to demand the capacity required for effective performance. Empowered panchayats with clear roles assigned through activity mapping would also begin to demand the staff for effective performance. Therefore, activity mapping can spur appropriate placement of functionaries for better service delivery.

7.7.2 Strengthening the Gram Sabha

The Gram Sabha can be a powerful instrument of downward accountability, if properly empowered and convened regularly. Ideally speaking a good framework for empowerment of Gram Sabhas would be that at the minimum, it will have powers to approve plans, programmes, and projects before they are taken up for implementation by the panchayath at the village level. It would identify beneficiaries of poverty alleviation and other programmes and issue certification of utilization of funds by the panchayath at the village level for the above programmes. In the context of infrastructure development, this would also mean that Gram Sabhas have the power to undertake community contracting both for construction of rural infrastructure projects and for their maintenance.

Parallel bodies are set up by the central or state governments to plan and execute development projects in areas which are in the functional domain of local governments, using funds provided by the central or state governments or donor
funds. They are called parallel bodies because they have a separate system of decision making on resource allocation and execution of projects independent from the Panchayath Raj set up. These parallel bodies could be manned by bureaucrats, elected representatives and even non-officials and community representatives. They have considerable autonomy, flexible procedures and function in isolation directly reporting to the state government and sometimes to the central government. Examples of parallel bodies are DRDAs, Forest Development Agencies (FDAs), societies set up for SSA, societies set up for different health programmes like Blindness Control, TB Eradication, AIDS Control, district project management units of externally assisted projects and so on.

7.7.3 Social Attributes of Infrastructure

Public infrastructure faces disuse and apathy at the hands of its target segment, its users. There are often no clear incentives to maintain public infrastructure at the local level. In addition, factors, which have created an institutional environment for low maintenance of infrastructure, include the non-excludability of public infrastructure, concern for social justice leading to absence of or low user fees, and ownership and operation by a public bureaucracy. The government mostly limits its role to infrastructure creation, without creating a local institutional set-up with user participation, which has a stake in the maintenance, use and other issues such as billing, recovery of payments and so on.

7.7.4 Political Attributes of infrastructure

Allocation of resources for infrastructure creation is as much a subject of political decision-making as anything else. Such allocation is often based on parameters that go beyond the infrastructure deficiency of an area, or its people, or even the efficiency of resource use. Infrastructure requires large, lumpy investments, and politicians use this as an opportunity to bestow visible patronage on their constituents. The elected representatives to the government often waive user charges for political mileage and gains from their voter base. This creates distorted responses on the part of the consumers and also adversely affects their attitude to infrastructure, and willingness to pay for it. This offers perverse incentives to the users to misuse infrastructure services and get away with inadequate or no payments.
7.7.5 Demand–Supply gap in Rural Infrastructure

Rural areas are often perceived to generate low demand for infrastructure services, thus imposing a major constraint on the viability of rural infrastructure projects. Precise quantitative measures of rural demand will be difficult because estimating demand is complex. If willingness and ability to pay are measured before a service is introduced, they may lead to underestimation of the potential demand. The impact of education or information about the service is much higher when the service is visible, and to this extent, most estimations account for demand inadequately.

7.7.6 Agricultural Markets

Agricultural markets constitute the first contact point with commercial circuits for the producers and 80 per cent of the household incomes of the rural masses is estimated to be spent at these markets. Their development, therefore, ‘with proper operational, pricing and technical efficiency constitutes the foundation of integrated market system for distribution of agricultural and allied produce.

7.7.7 Funding from Governmental Sources

The infrastructure investments in rural areas are mired in hidden and explicit subsidies and heavy losses. The approach to investment in rural infrastructure was traditionally that of complete state support as such investment was viewed as economically unattractive and also too complicated for the private sector to consider. However, public investment was the only source of finance for rural infrastructure.

7.7.8 Pricing of Infrastructure

The required reforms in infrastructure sectors include restructuring of pricing as an essential part of effective management. In irrigation, a chasm exists between the cost and pricing of irrigation, which does not augur well for the development of irrigation infrastructure. The water rates collected by several states served by public works are revised regularly to keep pace with the escalating costs, nor are sufficient to meet the working expenses, let alone cover fixed investment or earn a rate of return over the investment.

7.7.9 Role of Other Public Financial Institutions

7.7.9.1 Small Industries Development Bank of India (SIDBI)

SIDBI has schemes designed for developing industrial infrastructure for small scale industries (SSI) and integrated infrastructure. The former caters to small
industrial parks, common facilities, warehousing and market facilities of up to Rs 10 crores and the latter caters to cluster development by creating or upgrading infrastructure facilities including water, power, telecom, industrial effluent plants, and others of up to Rs 5 crores in rural and backward areas. These schemes had provisions of grant funding from the Central and State Governments and lending by SIDBI, but do not seem to have made a dent in infrastructure financing in India. SIDBI could have played a role complementary to NABARD-RIDF in the interests of creating an enabling environment for rural non-farm sector enterprises but has mainly confined its work to urban clusters.

7.7.9.2 Housing And Urban Development Corporation (HUDCO)

HUDCO is a national financing agency with a dedicated focus on housing for economically challenged sections of society. The non-housing portfolio of HUDCO includes sanitation and water supply, sewerage, drainage, solid waste management, roads, and bridges. While the infrastructure financing is increasing as a proportion of HUDCO’s portfolio, the concentration is entirely urban. While HUDCO has lent over Rs 2, 60,000 crores for infrastructure projects in urban areas, it currently provides finance only for shelters in rural areas. The expertise and resources of apex institutions can be better utilised by enhancing its scope to include rural infrastructure as well.

7.7.9.3 National Co-operative Development Corporations (NCDC)

NCDC was established in 1963 under the Ministry of Agriculture. It extends term loans to co-operative for creation of infrastructural facilities like godowns, cold storages, equipments financing, transport vehicles, boats, and other tangible assets and also for establishment/modernisation/expansion/rehabilitations/diverfication of agro-processing industries. The scope of the NCDC’s activities has been extended by an amendment to its Act; to include assistance for certain notified services in rural areas like water conservation, irrigation and micro irrigation, agro-insurance, agro-credit, rural sanitation, animal health, and so on.

7.8 Public-Private Partnership in Infrastructure Provision

The recent years have also shown a perceptible shift in government approach to infrastructure development. Concerns were raised about escalating costs and inefficiencies in infrastructure projects. Hence, private initiative was sought to be encouraged in creating infrastructure and the area that was highly considered to be
solely in public domain. The advantages that Public Private Partnership (PPP) offers in terms of cost saving, access to specialized expertise and proprietary technology, sharing of risks with private sector and the ability to take up a larger shelf of infrastructure investments, Government of India is actively encouraging them. The shift towards PPPs is primarily driven by the inadequacy of budgetary resources. However, an enlarged role of PPPs also provides an opportunity to introduce competitive suppliers of infrastructure services leading to improvement in the quality and services and reduction in costs. PPPs also ensure the sparing of sparse public resources for other sectors where private sector would be relevant to go.

7.9 Rural Infrastructure Development: Role of Administration

With rapid expansion of the economy, rising per capita incomes, and growing awareness and assertion of rights by an increasingly educated population, both the need for good governance and the demand for good governance have increased. Good governance is needed for effective implementation of Plan schemes. It is also needed for ensuring that ordinary citizens can effectively access public services that are their right. Finally, it is needed for a better functioning of the private sector in the economy. Poor governance leads to corruption, both petty and large, both of which corrode the moral fabric of the society. Large-scale corruption occurs either because of mishandling of government contracts, or because discretionary decision making in some areas is used to the advantage of some. Corruption undermines the legitimacy of the system in the eyes of the public and reduces potential for achieving efficiency through competition.

Decision-making and implementation of the any scheme is executed by the administrative in juncture. Administration is not merely holding power instead; it has to be guided about the developmental activities of the region. Effective administration should rule out the disparity among rich and poor in rural lot, because good rural administration is needed for rural development and richness. Rural infrastructure is not possible without good administration according to administrators and economic thinkers. The administration is needed to the reach through various government interventions, programmes and policy measures for effective delivery of the infrastructural services. These are the measures to be taken to take care of rural areas,
- There must be co-ordination between government departments and Panchayath Raj Institutions so that development become programmes are effective.
- Panchayath Raj Institutions should frame projects depending on the region’s backwardness.
- Proper training should be given to government officials and elected members at village, taluk, and district levels for undertaking developmental activities through involving the peoples towards administrative reforms.
- Meeting of the wards and gram sabhas must be held regularly so that problems of the region can be solved.
- Construction and maintenance of public toilet facility and community toilets by gram Panchayath requires attention.
- State government has to provide many grants for the developmental activities.
- All developmental activities partners must be involve in the developmental activities by E-governance, computers must be utilized in developmental activities in gram Panchayath with the appointment of computer operators.

7.10 Skill Development for Employment Generation

- There is need to address the issue of jobless growth of the organized sector and service sector in the region. If this issue is not addressed, the gaps in terms of labour and income, working conditions and social security, between a small group of formal employees and a larger group of informal workers would go on widening, thereby leading to polarization of development.
- The unorganized sector should be strengthened and sustained with investment to ensure its growth. Due to inter-dependence between the organized and unorganized sectors, labour productivity in the unorganized sector is crucial for improving employment conditions in the organized sector. It is obligatory on the part of the Government to address the livelihood and employment needs of these vast populaces.
- While skills need to be developed and upgraded from the demand and supply perspective, industry-specific and technology specific skills also need to be simultaneously promoted. This necessitates large-scale development of training institutions and trainers, particularly in the emerging trades, where currently there is an enormous shortfall of skilled workers.
7.11. Conclusion

The infrastructural network remains poorly developed and most of the essential services for the development of the agricultural and other sector remain inaccessible to the majority of the population that contributes significantly to national wealth. Without essential infrastructure development and appropriate services in the rural areas, the task of reducing poverty or improving livelihoods will be a daunting one. It is necessary to analyze the extent of infrastructural facilities which are essential services for agricultural and other development activities to reach out to the rural areas.

The economic environment of Chamarajanagar district has to be changed from a situation where essential services are being provided by the government. In this context, it is observed that improvements in rural incomes will attract services to rural areas. Against this background, government has to think of some alternative approaches and institutional arrangements to develop and provides these services. However, the development and provision of basic rural infrastructural facilities still remains the responsibility of government.