CHAPTER-I
INTRODUCTION
The world is still predominantly rural, especially in the context of developing countries. Even with the boast of industrialisation and urbanisation, the fact cannot be denied that a major part of world population live in rural areas and depend on agriculture and allied activities for their living. In almost all parts of the world, rural poverty rates are higher than urban ones, and more people live below poverty line. In 2002, the poverty rate for rural areas in developing countries (30 percent) was higher than twice that for urban areas (13 percent). Since two-third of the population of the less-developed countries also still live in the rural sector and this is the reason that the magnitude of poverty, illiteracy and ill-health is higher in rural areas than in urban areas.

The World Development Report 2008 emphasizes on conditions where, when, and how agriculture can be an effective instrument for economic development, especially for favouring the poor. The question arises: can one make agricultural growth more effective for poverty reduction? How can government help the transition of large populations out of agriculture, without simply transferring the burden of rural poverty to urban areas? How can development protect the natural resource endowment for agriculture? How can negative environmental effects of modern agriculture be contained?

In other words, in formulating the rural development policy the whole approach has to be fundamental and targeting towards empowering the rural areas. Attention is to refocus on rural communities' potential to grow, create jobs, give access to food, and contribute to balanced development, prosperity, and social peace. Thus, rural development is considered the key to national development in the less regions of the world.

It is required to find out the problems and face the challenges that block rural progress. Nevertheless rural areas are emerging as potential sources of livelihoods, producers of food, and overall engines of growth. Support to rural farm and non-farm activities, to invest in more effective and profitable crops and farming techniques, and to build local economic and social infrastructure (including social protection, skills development, and enterprise services), and to local development in general, are viewed as important parts of a solution to the
crisis. The role of rural areas as “shock absorbers” is increasingly acknowledged, whether in crises of food insecurity, economic downturns, or wars and natural disasters. Focusing on rural areas to prompt integrated and participatory reconstruction offers the greatest chances of reviving economies, restoring the social fabric, and ensuring sustainable and resilient livelihoods and development. Indeed, rural areas hold considerable potential for economic growth, with high returns on investments and prospects for productive, decent jobs and livelihoods. Initiatives in various developing countries and emerging economies indicate that when given proper support, agriculture and other rural activities can thrive and become engines of growth and innovation. The goal was to build up the structural and human resource capacity of rural communities so that they could become the drivers of their own development and future.

It cannot deny the significant role played by rural sector in Indian economy that affects in diverse ways almost all the economic activities in the country and provides employment to the maximum number of people and making it the most important source of national income in India. It also supplies food for the survival of the entire population of India. It supplies raw materials for the industries. A large part of the revenue of the government is also obtained from the rural sector. In short, the rural sector can be rightly considered as the backbone of Indian economy. Former Prime Minister Indira Gandhi, has rightly observed that “India lives in her villages. Our progress therefore depends on the extent to which we can overcome the poverty and neglect of our rural folk.” In spite of the significant role of rural sector in the country’s economy, it continues to be neglected.

India has undoubtedly made marvelous socio-economic development after independence and it is one of the most advanced countries in the Third World India has its own highly developed atomic power projects that makes it the seventh most industrialized nation in the world having the third largest pool of engineers, doctors, and technocrats, and stands forth in the agricultural production. India has established itself as an economic power by continuing to stimulate two-way flow of trade with the Third World countries especially Africa.
and Asia. But the development is not visible in its concrete shape because of the mass population growth and rising expectations.

India has many problems to solve, many tasks to perform, many challenges and demands to meet and miles to go in transformation from traditional society to a modern society in rural context. The process of rural transformation in India portrays a picture of hope combined with anxiety. The silver-linings on the horizon lies in India’s output and productivity, creation of a vast net-work of administrative set-up, acceptance of modern technology on a wide scale, development of the means of communication, power, irrigation and energy. But it is overcast by the dark clouds of increasing concentration of economic power in few hands, starvation and hunger, ever expanding unemployment, miniaturization of holding, population boom, pressure on land, insufficient pace of structural change and increasing proletarianization of the peasantry. A serious and sustained consideration of all concerned rural development strategies, people’s participation in the process of local planning, adequate land and tenancy reforms and their effective implementation, fundamental changes in the structural patterns, personnel and management systems is needed in order to change the rural scene in India.

The planning experts and policy makers are looking forward to rural development as a solution to the problems of poverty in developing countries. India is a developing country where socialistic pattern and development by planning had been accepted, rural development assumes greater significance. And this task of rural development and modernization is impossible without adequate means of communication and transport with the urban areas.

India is basically a rural country, where majority of the population actually lives and works in villages, the need for rural development acquires special significance. National development is inconceivable and impossible without rural development. According to 1981 census, 78 per cent of the Indian (680 millions) lives in villages whereas there are not more than 3000 cities and towns. It is clearly clear that rural people, particularly the rural poor and weaker sections of the society, who are numerically in clear majority, are facing a mental and spiritual crisis of rising ambitions and awareness of their rights and
opportunities. At the same time they are facing hardened social and economic alienation marginality as usual. Also growing ‘felt’ injustices, inequalities, exploitation and expropriation in their present life and dark and uncertain future for their progeny are being faced which calls for urgent need of constitutional guarantees, planned development projects, and target-oriented special projects focused on to them.6

1.1 CONCEPTS OF RURAL DEVELOPMENT:

Rural development is an inter-disciplinary and multi-disciplinary area of development thinking, experimentation, exploration action and research. The concept of rural development, as enunciated by the World Bank, marks such a change. The World Bank defines rural development as a strategy designed to improve the economic and social life of a specific group of people—the rural poor. Rural development involves extending the benefits of development to the poorest among those who seek livelihood in the rural areas. The group includes small scale farmers, tenants and the landless.7 James H. Copp has defined rural development as a process through collective efforts, aimed at improving the standard of living and self-realization of people living outside the urbanized areas. He further contends that the ultimate target of rural development is people and not infrastructure and according to him one of the objectives of rural development should be to “widen people’s ranges of choices”. The efforts should be toward preservation and improvement of the rural environment and rural development planning may be conceived of identifying the complex of the factors which contribute to the creation, change or development of a rural area or community.8

Lassey highlights that the focus of rural development should be on, 1) preservation of ecological balance with a view to make use of life-supporting resources, 2) proper use of land, 3) healthy living conditions, 4) aesthetically pleasing environment, 5) effective social, economic, and governmental institutions, 6) improved human welfare in terms of minimal economic and social level, 7) physical structures and adapted landscape of pleasing design, 8) comprehensiveness that is full range of physical, biological and human factors in rural regions.9
Rural development is emerging as a basic strategy for economic development all over the World, and India is no exception. The Third World Countries are making efforts towards economic, social and political development after attaining independence from colonial rule. The Poverty, health and development are complementary and interwoven to each other as is proved by various research and development works keenly done by social reformists and scientists.

Rabindranath Tagore and Mahatma Gandhi, the two great souls of modern India, considered that the eradication of poverty, developing the inner self and building up a good health to be the most important preconditions for sustainable national development.

In the modern age every democratic government has to face gigantic task of all-round development. According to Weinder, development is a state of mind, a tendency, a direction, rather than a fixed goal, it is a rate of change in a particular direction.

The Government of India has planned the road in the rural areas with several rural programmes of the Government of India but without paying any attention to the ground realities and need priorities of rural masses. The Government of India is spending huge amount of funds over last few decades through Minimum Needs Programme (MNP), National Rural Employment Programme (NREP), Rural Landless Employment Generation Programme (RLEGP), Jawahar Rozgar Yojana (JRY) and so many other such programmes, they are unable to give more than 50 per cent actual connectivity to about 6 lakhs villages. A systematic planning effort using the huge funds, which is being spent on these ad-hoc programmes, would have met the employment objectives and at the same time are acting as a boom for the people of villages, the network connectivity which they are trying to pursue through these programmes. Presently, the Ministry of Rural Development runs more than nine dozen programmes or schemes for poverty alleviation and rural development in India. The Ministry focuses mainly on providing housing facilities with sanitation facilities for BPL (Below Poverty Line) people, providing guaranteed 100 days wage employment plus asset creation through them, nurturing self-employment
through micro-credit facilities, providing rural connectivity by creating all weather roads. The road constructed under the PMGSY (Pradhan Mantri Gram Sadak Yojana) is not giving connectivity to rural hinterland but in the process is also transforming the very nature of rural setup itself. Drinking water facilities and sanitation facilities is also value addition to the quality of lives. The Ministry spends substantially on creating awareness and publicity through campaign like Nirmal Gram Puruskar. The progress under all schemes for rural development has to be sustained over a period of time to have a white impact. At present, the progress is not uniform across all schemes. Achievements are also not similar in all States. The Prime Minister Dr. Man Mohan Singh has directed all project Directors to work together in a way to bring down Urban Rural Divide that will improve "Economics of Agriculture" and to integrate rural development in overall perspective of the economic growth of India.\(^\text{13}\)

Rural infrastructure in its physical form consists of roads, electrification, irrigation and drinking water, and telecommunication connectivity. Each of these form an indispensable element for carrying out proper and sustainable rural development, need of all season roads is indispensable, where development work is to be carried out. Rural economic development is influenced by road connectivity in many ways; poverty reduction, productivity enhancement, improvement in quality of life, in mobility and accessibility, agricultural development and rural industrialisation.\(^\text{14}\)

The role of Community Development Programme is most vital role in changing the face of rural India. In post-Independence era great national leaders stressed the importance of rural reconstruction plans. Poet Rabindranath Tagore advanced a detailed plan for rural India. In his Swadeshi Smaj he stressed its role and pleaded for immediate action. Gandhiji gave us his plans on rural reconstruction and theory of self-sufficient village unit. Keeping all these thoughts in mind a new movement was started in free India with a new promise.\(^\text{15}\)

Jawaharlal Nehru, the nation's first Prime Minister, can be called the architect of planning in India. He viewed planning as a way of developing the country and at the same time avoiding the unnecessary rigours of the industrial
transition in so far as it affected the lives of the masses living in India's villages. Moreover, he recognised that planning was a positive instrument for resolving imbalances and contradictions in a large and heterogeneous country, such as India. The first three Five Year Plans are generally regarded as the most lively phase in India's planning exercise.\textsuperscript{16} In the First Five Year Plan, Community Development Programme was described as "The method through which the Five Year Plan seeks to initiate a process of transformation of the social and economic life of the villages."\textsuperscript{17} In India the central approach to any development programme has to be one of enabling the poor and other disadvantaged people to improve their situation, both social and economic.

1.2 SOCIO-ECONOMIC DEVELOPMENT:

According to T.N. Chatuvedi, it as a process which stands for "transformation of society."\textsuperscript{18} Thus, development is a complex phenomenon comprising many dimensions-social, political, economic, administrative and cultural. Development in the sense of 'Nation-building' and 'Socio-economic Progress' has become the principle goal of India's polity. And the government plays a key role in the nation's efforts to achieve it. The central government has adopted development planning as a policy tool for promoting social and economic development. For upliftment of any country, first and foremost concentration should be on rural development which has indefinitely received due attention from all quarters, particularly since implementation of the development plans.\textsuperscript{19} The major responsibility of a welfare state is to provide enough opportunities and support to its citizens, specially to those belonging to disadvantaged groups, to develop themselves to their fullest capacity, through their initiative and participation in development programmes which are specially evolved for the purpose. However, in most of the situations, the major emphasis of development programmes is on economic development because a large majority of community belongs to the weaker sections of the society. It is well recognised that unless economic development programmes are supplemented with social development programmes for health, nutrition, education, sanitation, environmental hygiene and social welfare etc., it would
lead to imbalance and the ultimate goal of enabling the weaker sections of the community to attain better quality of life would not be achieved.\textsuperscript{20}

Social development means development of social services like education, health\& recreation and provision of justice for the socially deprived groups such as scheduled castes, backward classes and women. Social development is a broad concept and it is consider quite close to economic development. In fact, in the process of modernization, both economic and social development have to go hand in hand in the politically developed country.\textsuperscript{21}

As Schumpeter rightly says that "Economic development is not a phenomenon to be explained economically......(but) is dragged along by the changes in the surrounding world."\textsuperscript{22}

Economic development is no doubt an important component of development. Raising national income, reducing poverty\& more equitable distribution of wealth and income are all essential components of economic development.\textsuperscript{23} The World Development Report(1991) defines economic development," as a sustainable increase in living standards that encompass material consumption, education, health and environment protection".\textsuperscript{24} Agriculture progress is normally regarded as a prerequisite of economic development. In the modern times economic development has come to be associated with industrialization. But the fact is that industrialization can follow only on the sound heels of agriculture. On the basis of available evidence, with the exception of Great Britain, Industrial development in all presently developed countries proceeded on the basis of agricultural self-sufficiency and increase in agricultural productivity, which was made possible through the State intervention in numerous ways such as subsidized farm inputs, free expertise and extension services, price guarantees and the provision of overheads in terms of credit, marketing and numerous social and civil amenities. In the developing economy, therefore, agriculture has to be given priority in order to accelerate the rate of economic progress.\textsuperscript{25}

The important contribution to the programmes of industrialization and general economic development, and most necessary conditions, which must be fulfilled before an economy gets itself ready for a process of self- sustained
growth. During the process of development, interdependence between agricultural and industrial sectors has become stronger. This close interdependence is reflected in (a) the supply of raw materials and inputs from agriculture to industry, and vice-versa; (b) the supply of wage goods to the industrial sector; (c) the supply of materials from industrial sector to the agricultural sector for building up economic and social overheads, like machines of different kinds, river valley projects; building, etc. and (d) The supply of basic consumption goods like cloth, furniture, etc. to the rural population. The important part here is that while the growth and diversification of agricultural production have helped various types of industries and diversification of employment, a short fall in agricultural growth in some years had an adverse effect on industrial production, that adversely affects prices, causing an imbalance and hardship in the economy. Rural development cannot be treated in isolation and it is to be considered as an integral part of the total social and economic development of the country.

If one talk about the Third World countries which have vast poor rural population, economic growth cannot be sustained unless institutional innovations to improve both productivity and quality of life of people in rural areas. This can be brought in specially in the field of health and education and also institutional infrastructure necessary for mobilizing both economic and political resources. The forth component of rural development should be institutional building at the village level and the organization and management of men, money and material resources. 26

In other words, rural development will be influenced by the economic resources of the country combined by the political commitment of the national leadership. These two aspects are again influenced or shaped largely by the unilateral and bilateral aid received from the developed nations and the international organizations responsible for development in different sectors. This dependency operates at two levels, the first level is that developing nations are dependent upon the on international organizations. Secondly villagers are dependent upon their national governments which are relatively new and have less resources of their own, and have insufficient institutional infrastructure, lack
of political will due to political instability and lack of technical know-how or inadequate technological advancement. The fifth important component of rural development is “self-reliance” which needs to be brought in local initiative, participation and mobilization of existing resources. The last but not the least dimension of rural development, should be focused on the distributive justice in so far as the poor segments of the rural population are concerned. In the context of Third World countries, rural development would also demand increase in agriculture production and productivity.27

Industry helps raise the necessary infrastructure required for agricultural progress. This may consist of means of transportation and communication, trade and commerce, banking and marketing channels etc. The most necessary condition for a rapid economic and social development is agriculture, can contribute substantially to the improvement of the rural as well as the overall economy of the country.

1.3 INFRASTRUCTURE DEVELOPMENT:

Generally, infrastructure or social overhead capital refers to basic public services and facilities which provide an environment for productive activities of individuals and groups in society. “Infrastructure” is a frequently used word, but there is no consensus in economic literature on its precise meaning. The terms “Infrastructure” and “social overhead capital” are often used interchangeably. Lewis(1955) prefers to include public utilities, ports, water supplies, and electricity in the definition of Infrastructure.28 Higgins(1959) includes transport, Public utilities, schools, and hospitals.29 Hirschman(1958) lists facilities for law and order, education, public health, transportation, communications, power, water supply, irrigation, and drainage. He makes a distinction between a wider concept of social overhead capital, as listed above, and a “hard core” limited to transportation and power. He sets out four conditions for distinguishing social overhead capital from directly productive activities: (1) the services provided by the activity are to facilitate, or in some sense are basic to, the carrying out of a wide variety of economic activities; (2) the services are provided in practically all countries by public agencies or by private agencies subject to public control and are provided free of charge or at rates publicly regulated; (3) the services cannot
be imported; and (4) the investment needed to provide the service is characterized by "lumpiness." Infrastructural development play a key role in the economic development of a country. Rural infrastructure in its physical form comprises of roads, electrification, irrigation and drinking water, and telecommunication connectivity. Each of these form an essential element for proper and sustainable rural development. Rural economic development is influenced by road connectivity in many ways; poverty reduction, productivity enhancement, improvement in quality of life, in mobility and accessibility, agricultural development and rural industrialization. The absence of a dependable and adequate infrastructure leaves the country backward. Standard of living and forces people stagnate in poverty. As K.C. Pant rightly said, "Infrastructure sectors may not always be an engine of growth directly but they are essential rails on which the wheels of progress can proceed with sustainable speed. Without a strong and viable infrastructure, it is difficult to achieve rapid and sustainable growth,......which is necessary for progressively eradicating poverty."31

The role of infrastructure is complex and its effects are indirect. As a result, development economists have not focused on infrastructure as much as they have on directly productive activities such as agriculture and industry. In the hierarchy of development goals, rural development had always occupied a significant place but the promotion of industrial growth and development of infrastructure for agricultural development has cost it a little. Different services continue to be administered on traditional lines and the infrastructure has been found to be inadequate in terms of the ensuing tasks. It would follow that if the financial position of the Indian people is to be improved, the strategy of development has to aim at the improvement of the lot of these rural people mainly engaged in agriculture. A programme of rural reconstruction is required for this. With the facility of roads and road transport, the programme of rural reconstruction can be implemented to the fullest extent. It is because it is the roads and road transport which can reach the interior of villages, into the fields and the work places. Road transport makes possible mobility and accessibility in rural areas leading to economic and social progress. Much of the resources lie untouched due to inaccessibility. This is how a large proportion of land remains
idle though otherwise it is suitable for cultivation. Agricultural efficiency suffers because of the inadequate provision of roads and road transport in rural areas. Due to lack of transport, inputs like commercial fertilizers may arrive after the growing season is half over or not arrive at all. The high cost and the long delays involved in transportation of perishable farm products may discourage their production and have repercussions on food supplies. When the farmer face difficulties in the movement of products, they have no incentives to grow surpluses, Similarly a large part of forest and mineral does not make any contribution to the removal of poverty because it cannot be shifted to a place where it is needed.

The basic demand for transport in rural areas arises owing to the need for marketing the produce, to attend fairs and festivities, and the need for inter-village movement due to various social reasons. The agriculturist wants that his produce should be marketed at a place where he may secure an adequate price for his wares, whether food grains, animal products, or raw materials of industry. Naturally for this, he has to carry the goods to nearby bigger villages, towns or cities. This can be done only when he has transport facilities. A villager also needs transport to attend fairs and festivities in the nearby areas. Then he has to get medical facilities, educational facilities, and attend marriages etc. in nearby big villages or towns. This cannot be possible if ready means of transport are not available. However, inter-village and intra-village traffic in goods and passengers so generated is small in size and volume by urban standards. It is because villages are of small size and agriculture is done on small scale basis. Further, the village industries generally use local raw material. This limits the size and volume of traffic to be carried. Then, it is mostly short distance traffic, requiring movement from village to village, with in the village and from village to the nearby town. Similarly, almost all the traffic originating in rural areas is variable both in regard to time and volume. Village to towns movement of goods is only for a few months. These characteristics of the traffic point to the necessity of developing roads and road transport in the rural areas. It is because it is road transport which is suitable for small load and for short distance traffic.
1.4 ACCESS INFRASTRUCTURE:

There is need to view rural roads and road transport as a basic infrastructural facility for rural development. The task of rural development and modernisation is not possible without transportation. Rural roads play an important role in social awakening. They are highly labour intensive production work and they would make a significant contribution to creating jobs for the unskilled worker. Road transport can transform the face of rural India if our planners and administrators view its contribution to the economy in the correct perspective and regard it as an integral part of the nation's well-being.\textsuperscript{32}

It is universally recognized that an effective transport system is crucial for sustained economic growth and modernisation. No doubt, transport plays a significant role in the overall development of the nation's economy. Inadequacy in this infrastructure is an important deterrent for the success of nation's effort in diversifying its production trade. It is not only the key infrastructure inputs for the development process but also plays a significant role in promoting national integration.

The twenty first century has highlighted that transport innovations and development influence the pace and growth of economic development. Obstacles in movement restrict the market, increase production cost and raise price beyond competitive reach of the consumers. A higher rate of growth will definitely mean higher transport demand. Many say that transport sector runs parallel to the growth of Gross Domestic Product. Transport is also necessary for connecting villages with towns, remote and developing regions close to one another. Gandhi, however, untiringly stressed the importance of villages and mentioned that, "If the villages perish, India will perishes too." He advocated production by masses and not mass production.\textsuperscript{33}

The relationship between villages and towns has been one of the earliest problems of civilization. The word 'civilization' carries with it the etymological meaning of urbanisation and thus the early concept of civilization itself reflects a bias against villages. Transport is a key input for production. It processes, adequate provision for transport infrastructure and services helps in increasing productivity and India's resolution to move to greater heights in transport sector
is certainly going to cause greater demand for transport which in turn will lead us to experience a high growth rate. The Ninth plan therefore rightly emphasized "The need for improving the capacity and quality of them (roads) transportation system through technological up gradation and removing distortions in inter-model mix by evolving a national tariff and investment policy. It also laid stress on the need for ensuring an improved transport system to provide speedy, efficient, safe and economical carriage of goods and people."\(^{34}\)

The general lack of infrastructure leads to wastage and delays, which increases the cost of agricultural commodities. Therefore, one should not get astonished to know that about 10 per cent of the total output of food grains and about 30 to 40 per cent of the total output of fruits and vegetables get wasted every year. Of course these estimates vary from commodity to commodity and area to area. Not only this, the lack of general infrastructure in rural areas leads to huge inefficiencies in the distribution chain from the producer to the consumer. For an example, in most of the developed countries there are only two or at the most three intermediaries in between the producers and the consumer, but in a country like India there are at least five to six intermediaries in between the producer and the consumer. Each of these intermediaries increases the final cost of agricultural commodities and makes them dearer. Ultimately the consumers pay more than what they would have paid if there were fewer intermediaries. As a result, producers get only 50 per cent of the final price paid by the consumer in the case of cereals and 40 per cent in the case of fruits and vegetables. These facts clearly signify the importance and the urgency of raising investments in rural infrastructure. Such investments would not only reduce losses, eliminate large number of intermediaries in between the producer and the consumer and increase farmer’s share in consumer’s rupee will also have a significant impact on rural poverty. All this can be changed and villagers will be benefitted with new all-weather road. As producers, they will enjoy higher net prices for their marketed surpluses; as consumers, they will pay less for urban goods. If there is no school in the village itself, those children who already attend one elsewhere will spend less time travelling to and fro, and those who did not attend earlier may do so now. If there is a village school, it is the teachers themselves who may appear more regularly. The same goes for medical
treatment. Children and those adults with chronic ailments can easily make regular visits to the clinic; and in an emergency, those in need of medical attention will be able to reach the clinic sooner, that can save their life. Measuring the road’s effects on these movements of goods and people is, relatively straightforward. Valuing the resulting benefits is another matter altogether. The new road greatly affects not just the decisions of what to produce and consume in the sphere of what might be called ‘textbook goods’, they also affect those having to do with the formation and maintenance of human capital, including life itself. It will be argued that valuing the benefits that arise in connection with more favourable prices of goods, improved educational attainment and lower morbidity involves a common (money) metric which is directly related to effects that are fairly readily measurable – provided families decide not to educate their children fully. On the other hand, the benefits of reduced mortality, even if such reductions can be measured with some confidence, do not fit into this convenient scheme of things. The same will hold, moreover, if children are fully educated. How, then, are these benefits to be estimated in practice?35

Today, other modes have developed providing transport more effectively and efficiently. Pipelines for the movement of liquids, aircraft for higher speed, long distance travel and trucks offering speed, flexibility and door to door services for short and medium levels provide better alternatives. The most important, the road transport is closely linked with the economic development and social integration of the country. It is the dominant mode of transport for the movement of passengers and freight in India. It is suitable for short, medium and long distance traffic. The long distance traffic as served by National Highways and State highways, inter-district and intra-district traffic by major district roads, feeder traffic connecting rural centers of production to market outlets by other district roads and local traffic by village roads and urban roads. It can give extra advantage in terms of easy availability, flexibility of operation, adaptability to individual need, door to door service and reliability. It is the main means of transport in hilly and remote areas. As a result road transport earned an increasingly higher share of passengers and traffic freight in comparison to other modes of transport.
It is one of the basic infrastructures for economic development of backward areas. It also provides feeder services to rail traffic, airways, ports and harbours. Road transport also has a unique role in the movement of people and goods and offers a cheaper and more viable means of transport. In order to meet the needs of the local movement of goods and passengers roads are used. In recent times the multiplication of road transport has been necessitated due to the great increase in population. With Independence of India, passenger road transport industry has been growing fast with a huge growth potential.

1.5 OVERVIEW OF DEVELOPMENT OF RURAL ROADS IN INDIA:

The history of roads is as old as the history of man on earth. The prehistoric men traced out a narrow way for going out for hunting the food. The narrow way was as footpath or pathway. The pathway is considered as the first road mark laid on the surface of earth. The utility and necessity of pathway gradually developed with the introduction of wheeled carts. The pathway was widened into a roadway which was the beginning of road as a means of communication and transport. In the Ancient history of India, it is clear that Indians knew the science of road construction. The excavations at Mohenjodaro and Harappa (Pakistan) have established that even 3500 years BC, there was a well-designed network of roads, and streets were paved at that time.

1.5.1 ROADS DURING THE BRITISH RULE:

The economic and political shifts caused much damage in the maintenance of road transportation. Thus, with the fall of Mughal Empire, the condition of roads became deteriorated. At the beginning of the British period, a number of old Mughal roads, connecting important military and business centers were metal led and some new roads were constructed by Military boards during the time of Lord William Bentinck. But the military boards did not have a satisfactory arrangement for the administration of roads. It was only during the administration of Lord Dalhousie that the central public works department was established to look after the construction and maintenance of roads. Later, other departments too created such provinces. Lord Mayo and Lord Ripon contributed a lot in the development of roads because the local bodies took hold of affairs of construction and maintenance of roads. With the development of Railways in
India, the road development received a serious setback. The work of road construction and maintenance was given a secondary importance. The roads gradually lost the interest of the government. Major roads, except those of military importance, mainly centered on the feeder roads to railways. Thus, the outlook on road development was completely altered and they were considered to be only of local importance. According to Government of India Act of 1919, the affairs of all the roads, except those of military importance and certain other roads of national importance were transferred from the central government to the provincial governments. The provincial governments, took over the direct responsibility of construction and maintenance of roads of provincial importance. They placed the greater part of road mileage in the charge of local bodies. After World War-1, motor transport came to the fore-front which created revolution in India’s transportation system. Under the continued effect of high speed motor transport, the existing roads soon get deteriorated. The local bodies, with their limited financial and meager technical resources, could not deal with the situation properly. The increased motor traffic, further deteriorated the condition of roads. Then the government of India made the first attempt to pay attention to the needs of roads in November, 1927. It appointed the Indian Roads Enquiry Committee under the chairmanship of Mr. M. R. Jayakar to examine and report on road development in India. This committee indicated that mileage of roads in 1927 was 199140 (318624kms) of which 30 per cent was surfaced. The committee observed that the development of the road system in India was desirable for general welfare of the country as a whole and in particular for better marketing of agricultural products and for ensuring the social and political progress of the rural population which will be advanced by the increased use of motor transport. On recommendation of the Jayakar committee, the central road fund was enforced on first march, 1929. The petrol tax surcharge at the rate of two annas per gallon (2.64 paise per liters) of the petrol consumed by motor traffic was imposed to build the road development fund. Out of annual revenue, thus collected, 20% was to be retained by the central government. They used this fund for meeting expenses on the administration purpose, research and the development of roads. The balance 80% of the central road fund was to be distributed among the provinces,
according to their petrol consumption, for maintenance and construction of roads.\textsuperscript{36}

1.5.2 INDIAN ROADS CONGRESS:

In 1934, a semi-official technical body known as Indian Roads Congress (IRC) was established by the central government as per recommendation of the Jayakar committee. This body was formed of national importance for controlling standardization, specifications and recommendations regarding design and construction of roads and bridges. But the economic depression during that time was the main cause of delay of development programme. In December, 1943 the Government of India convened conference of Provincial and State Chief Engineers at Nagpur to consider the problems of post-war development. This conference drew a plan for road development which came to be popularly known as Nagpur Plan. The roads were divided into four classes viz., National Highways, Provincial and State Highways, District Roads and Village Roads. Village roads which though essentially from tracks to be designed, constructed and maintained under the authority of the Provincial and State Highways Department. Thus, the classification gave special status to village roads. Especially the plan provided that all classes of roads would be regarded with equal importance for national welfare. One class would not progress at the expense of another. Development would be balanced between the classes and would proceed in a planned sequence, taking into account the need for bridges. In the provision of adequate rural communication, the need for both village and district was to be stressed. The Highways Department of a Province or an Indian State designed and constructed all these roads. The system of construction or maintenance of any roads by District Boards or other local or village authorities was condemned as wasteful and inefficient. Village and other district roads were also to have adequate stream crossings so that they were available for use with the minimum interruption. Nagpur Plan provided for the construction of 1,50,000 miles (240000kms) of the village roads. This plan in general assessed the needs of the country in the respect of roads for 20 years and laid down targets for 10 years. The main objective was to bring every village within 8kms of a highway in a well developed agricultural area and within 32kms in an under-
developed area. The road target set forth in the Nagpur Plan was achieved in 1958, and in 1959 another plan was prepared. Subsequently Bombay Plan, the Second Twenty Year Road Development Plan (1961-81) was formulated and recommended for implementation. The objective of the plan were to bring every village: i) Within 6.4kms of a metaled road and 2.8kms of any road in a developed agricultural area; ii) Within 12.8kms of a metaled road and 4.8kms of any road in semi-developed area; iii) Within 19.2kms of a metaled road and 8kms of any road in an under-developed and un-cultivated area. This Road development Plan divided road into five classes-national highways, state highways, major district roads, other district roads and classified village roads. The construction programme among other things planned to construct 2,89,800 kms of other district roads and 3,62,250kms of classified village roads. Rs.630 crores were to be spent on the construction of classified village roads as against Rs.650 crores for other district roads. In continuation, third Twenty Year Road Development Plan, known as Lucknow Plan (1981-2001) was conceived and implemented.

Currently, the Road Development Plan Vision-2021 has been brought out to guide the Central and State Governments in developing the road infrastructure of adequate standards in the country. The strategy proposed in the vision document for planning rural roads emphasized the need for preparation of master plans for rural road network in each district. The planning of network for the district may cover all habitations with minimum population of 100 and above to be served by all-weather roads.

The Vision also gives priority by way of special attention to the coastal regions, tribal areas, deserts and hill areas for road development in general. It has also recommended for consideration to improve the existing fair-weather roads to all-weather standards, by providing adequate cross drainage structures wherever they are missing and also for completion of works in progress.

1.5.3 PLANNING OF RURAL ROADS:

As India launched the era of planned development in 1951, it had around 400,000 kms of serviceable road network. Only 20 per cent had all-weather road links. Over the 20-year plans i.e. Nagpur Plan (1943-61), Bombay Plan (1961-81),
Lucknow Plan (1981-2001), Road Development Vision 2021 formulated by Chief Engineers in-charge of roads under the aegis of Indian Road Congress have served as sound reference framework for the central and State Governments to formulate their successive Five Year Plans. Now the Indian Road Congress is engaged in preparing a fresh plan of road development in the country. It may be made clear that it was during the First Five Year Plan of India itself that it was realized that the State Governments should pay special attention to the development of village roads with the cooperation of the villagers. Villagers were to contribute a portion of the cost of construction by way of free labour, free gifts of land or cash money. The Central Road Organisation formulated a “Model Scheme” for the development of village roads on a cooperative basis. It made an initial offer of a grant of the order of Rs.15 lakhs from the Central Road Fund Reserve for specific road projects. Road development in the villages made great progress under the programme of the community development projects.

The Second Five Year Plan worked on the development of village roads. The plan did not fix any target of village roads. It emphasized that through the cooperation of various non-official agencies (Prantika Rakshak Dal and Bharat Sewak Samaj) and the villagers the programme would receive due attention. In this plan special attention is given to comparatively backward areas of Tripura, Assam, Himachal Pradesh, Rajasthan, Jammu and Kashmir etc. received special attention.

Third Five Year Plan of India also paid special emphasis to the development of roads in the rural areas for which various states made special provisions in this regard. Efforts were made to achieve the desired coordination among the various agencies which were responsible for the development of village roads. Agencies also worked to secure contribution from the people for construction of roads in the rural areas. Again, the under-developed areas of Jammu & Kashmir, Rajasthan, Himachal Pradesh, Manipur, Tripura and the Andaman and Nicobar were given priority in the development of roads under the plan.

Himachal Pradesh is a hilly state, and its topography is quite different from other States of the country. The predominant way to traverse the length
and breadth of the state is by road transport and Railways. Waterways though are not very common have little relevance in the State. Road Transport, there, is the backbone for the all-around development activities in the State.

The scattered pattern of population distribution invokes its own cost for provision of public utilities and basic services such as electricity, drinking water supply, telephones, LPG, school and dispensary. The state’s population is distributed amongst as many as 20,118 villages and 57 towns. The problem is further increased by the fact that villages are mostly fragmented into a number of habitations. Even the towns are not compact physical entities. Their localities are separated by open spaces. For that reason, it is often not possible to ensure a threshold population for a given service to make it break even. A ‘welfare state’ has limited options and is obliged to bear such liabilities. The state has implemented a series of development plans to create an infrastructure based on its requirements and potential. It initially focused on creating transportation and communication facilities, which were considered basic for the development of the hilly areas.

The Fourth Five Year Plan (1969-1974) observed that economically backward regions and hilly areas did not have communication facilities. A large number of villages still did not have facilities of road links with market towns and with one another. Therefore, special emphasis was put on the development of rural roads. The plan document indicated that rural roads were necessary for the growth of the rural economy and for increase in agricultural production. According to the Fourth Five Year Plan Document, State Governments had agreed to keep aside about 25 per cent of the total outlay on road development for rural roads. Local resources were also to be mobilised. Priority was to be given to roads leading to market towns.

As the development of rural roads is a subject of the state list, the Central Government did not pay attention to rural roads un-till 1967, when a special committee under the Chairmanship of Shri H.P.Sinha was appointed. The Committee studied the rural roads and the connectivity pattern. They also recommended certain criteria for developing and for allocation of budget for this purpose. Since the Fifth Five Year Plan, funds were allocated under various rural
development programmes such as Minimum Needs Programme (MNP), National Rural Employment Programme (NREP), Rural Landless Employment Guarantee Programme (RLEGP), Jawahar Rozgar Yojana (JRY), etc. for the development of rural roads.41

During the Fifth Five Year Plan period (1974-79) rural roads became an indispensable part of Minimum Needs Programme (MNP) of the Central Government and received importance for development. The programme envisaged connectivity of all villages with population of 1500 and above, as per 1971 census, with an all-weather road by the end of the Fifth Five Year Plan. It also suggested cluster approach for connectivity in hilly, coastal, tribal and desert areas, where the villages were less populated. During the year 1978, the Working Group set up at Planning Commission projected an estimation of around Rs.1100 crore for providing all weather connectivity to all the villages of India. This resulted into, 30% of the total outlay was diverted towards rural road sector during Sixth Five Year Plan (1980-85). In the same manner, the plan outlay under the Seventh Five Year Plan (1985-90) was Rs.1729.40 crore for developing rural roads. During the Eighth Five Year Plan (1992-97) emphasizes was put to link all villages with a population of 1000 and above on the basis of 1981 census and to accelerate village connectivity in backward regions and tribal areas. To promote socio-economic development of a country it is necessary to have sufficient infrastructure facilities. Roads establish rural-rural, urban-urban and rural-urban connectivity. They do so by encouraging the flow of goods and services and mobility of people between regions. “There has been a steady growth in the road network between 1950-51 and 1989-90. The total length of national Highways has increased by about 70% between 1950-51 and 1989-90 while the increase in the case of all other roads is of the order of 54 per cent.”42

Because of the weak and deficient planning principles, the country could achieve only 50 percent of rural connectivity in 50 years. The vast potential of rural India, both social and economic, is suppressed in the absence of 100 percent road connectivity. During the Ninth Five Year Plan (1997-2002), the Government revised the connectivity criteria under MNP. The revised norms for connectivity
of villages adopted the 1991 population census as the base and the criteria were as below:

A. Plain areas: (i) 100% of all villages with population above 1000 and (ii) 75% of all villages with population between 500-1000.

B. Hilly areas: (i) 100% of all villages with population above 500 (ii) 75% of the villages with population in range of 200-500.

C. Tribal, coastal, reverie and desert areas: 100% of the villages with population above 500 and (ii) 75% of the villages with population in range of 200-500. It was further stipulated that in case the above criteria does not ensure connectivity to 85% of the village population in a district, then the emphasis would be given to the villages with lesser population than mentioned above.

In fact, most of the growth has occurred in the rural road sector, while the National and State Highways have expanded at the rate of 1.24 and 1.82 percent p.a. respectively. Though, the efforts were made over the years at the State and Central levels through programmes, about 40 percent of the villages in the country. The Government has failed to connect by all-weather roads. According to the information provided by the State governments, there were about 2.62 lakh unconnected villages/habitations in the country on 1st January 2000.

1.6 HIMACHAL PRADESH: AN OVERVIEW

Historically, Himachal Pradesh has experienced different stages of social transformation and came into being on 15th April, 1948 as a centrally administrative territory by the integration of 30 princely states. Himachal Pradesh, which made a transition from a patchwork of feudatory states, to the status of a Chief Commissioner’s Province in 1956, a consolidated geographical entity in 1966, and a full-fledged state in 1971. On the way, the Part C State of Bilaspur was merged into it in 1954. The territorial evolution of the State made a profound influence on the structure and style of its politics and administration. Thereby, the development process too got defined in diverse ways in terms of priorities and pace over time. Administratively, the state is organised into 12 districts, 75 tehsils, and as many development blocks.
Himachal Pradesh with an area of 55,673 sq. Km. is one of the smaller states of India. It ranks 17th among the States and Union Territories in terms of area, which is one-sixth of the largest state—Rajasthan. Its population is 60.8 lakh, Himachal Pradesh ranks 21st among the States and Union Territories. Its population is 27 times below that of the most populous state, Uttar Pradesh, that indicates its smallness. The state accounted for 1.7 per cent of the total area of the country and 0.59 per cent of the total population in 2001. With a density of 109 persons per sq. Km., it ranks 28th among the states and Union Territories which is much below the all-India average of 324 persons per sq. Km. The Urban population constitutes 9.79 per cent of the total population of the State, the lowest among all States and Union Territories. Almost eight out of every ten persons in the state are literate, and it ranks 11th in terms of literacy.44

Considering the geography of Himachal Pradesh, roads are an important component. There are National Highways, and other arterial and rural roads. When India became Independent, Himachal Pradesh had with no roads, but has done well to build an estimated 27,737 km of motorable roads by 31st December 2002.

The literacy rate of Himachal Pradesh is 76.48 per cent with male literacy at 86 per cent (Census 2001). Its educational infrastructure is well developed and ranks high on the educational development index. The Health and Family Welfare Department provides health services to the people. The state has a large network of 90 civil hospitals, 66 community health centres, 439 primary health centres, 22 civil dispensaries and 2,069 sub-centres, increased utilization of public health services. Strengthening of primary health sector; Improving the quality of secondary health care.45

1.7 STATUS OF RURAL ROADS IN HIMACHAL PRADESH:

The most important problem of India in general and Himachal in particular is that there is need to improve the economic and social conditions of rural people who live below poverty line. The landless labourers, small and marginal farmers, artisans and other weaker sections of society should be taken into consideration.
The hill areas have unique geographical setting. They are not the same as those of plains, in any direction whatsoever. The hill State of Himachal Pradesh, by and large remained backward and isolated from the mainstream of the national life in the past. During British regime, the rulers did not pay any attention to this area. This was not useful to their political economy. Moreover, on account of the nature of the remote and inaccessible terrain of this hill state. The peculiar geographical situation, climatic conditions and negligible attempts of development prior to the political independence were largely responsible for the backwardness of Himachal Pradesh.

Roads play a vital role in the economic growth of Himachal Pradesh. 29,329 km of motorable roads has been built by the Government September 2006. The road sector has been given high priority. The Ministry of Rural Development has the responsibility of ensuring that every habitation over 1000 population and every habitation with more than 500 in hilly and tribal areas is connected with an all-weather road by 2009. This is expected to generate multiplier effects in the rural economy of linking production to markets and services. The Pradhan Mantri Gram Sadak Yojana since 2000, is undertaking the work of building roads since 2000 and has been modified to address the above goals within the stipulated time-frame.

The developmental works are undertaken in the areas of irrigation, road, rural housing, rural water supply, rural electrification and rural telecommunication connectivity. This is being undertaken by Bharat Nirman.

The Bharat Nirman has three main goals that fall within the mandate of the Ministry of Rural Development: rural connectivity, rural housing and rural water supply. Specific targets are to be achieved under each of these goals so that there is accountability in the progress of this initiative. Bharat Nirman is viewed as an effort to unlock rural India's growth potential and to be a key for ushering a new era. It is also expected that Bharat Nirman will lead to considerable rural assets creation along with the National Rural Employment Guarantee Act. Bharat Nirman however is a collective agenda that includes every Indian has a role either as a user or as a partner. The targets of Bharat Nirman Components under its purview is being committed to be achieved within the prescribed time-frame.
The wake of economic liberalization and structural adjustments and in order to provide a safety net, especially for the rural poor, top priority has been accorded to rural development through introduction of new programmes and restructuring of the existing one. The primary concern of the economic planning and development process of the country is development of rural areas and the rural people.

In the year 2000, around 40 per cent of the 825,000 villages in India did not have facility of all-weather access roads. This constrained economic activities and access to essential services. Nearly 74 per cent of India's rural population, constituting the majority of India's poor, were not fully integrated into the national economy. In the year 2000, the Government of India embarked on the ambitious program Pradhan Mantri Gram Sadak Yojana (PMGSY), whose ultimate aim is to draw India's villages into the mainstream, especially in three domains. First, with improved, all-weather connections to markets, villagers should face more favourable prices for inputs and outputs. This will definitely raise their incomes and sharpen their incentives to cultivate more intensively. At the same time they will pursue new activities and invest in new methods. Second, it will reduce the time spent travelling to and from school (and in the rainy season, by making the trip actually possible). An all-weather road should improve the attendance, not only of pupils, but also of their teachers. It will of course promote the formation of human capital and the growth of productivity over the long run. Thirdly, by likewise improving the villagers' access to timely treatment, especially in the event of accidents and bouts of acute sickness, the connection should lower mortality and morbidity. Improvements in these domains will, if realized, reduce poverty and increase productivity in both the short and the long run.46

A well-developed infrastructure is for capital formation and hence for economic development. Of many components of capital formation, transport and hence the road connectivity, is one of the most important ones. That way road connectivity is a prime determinant of economic development. In the State as on 31.12.2013, 9,987 villages as shown in Table 1.1 were connected with roads:
Table 1.1
Villages Connected with Road in H.P.

<table>
<thead>
<tr>
<th>Villages with Population more than</th>
<th>As on 31st March</th>
<th>As on Dec. 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>1500</td>
<td>205 208 208 208</td>
<td>208</td>
</tr>
<tr>
<td>1000-1499</td>
<td>266 266 268 270</td>
<td>271</td>
</tr>
<tr>
<td>500-999</td>
<td>1208 1216 1231 1238</td>
<td>1243</td>
</tr>
<tr>
<td>250-499</td>
<td>3191 3240 3316 3374</td>
<td>3403</td>
</tr>
<tr>
<td>Below 250</td>
<td>4671 4700 4765 4827</td>
<td>4862</td>
</tr>
<tr>
<td>Total</td>
<td>9541 9630 9788 9917</td>
<td>9987</td>
</tr>
</tbody>
</table>

Source: Economic survey of Himachal Pradesh 2013-14

To undertake evaluation studies of particular region, the essential perquisites i.e. resources, demographic features, agro-economic features, socio-economic features, infrastructural features etc. are taken into consideration for assessment and knowledge about the state of the sample region. The three districts of Himachal Pradesh have been selected for present study.

1.8 DISTRICT SHIMLA AT A GLANCE:

The area of district Shimla is 5,131 sq. kms. Its boundaries touch by Kinnaur district in the Northeast, by Kullu and Mandi district in the Northwest, by Solan and Sirmour districts in the Southwest and by the state of Uttrakhand in the Southeast. The district comprises seven subdivisions and seventeen tehsils and sub-tehsils. The district has been divided into nine community development blocks namely Rampur, Narkanda, Theog, Mashobra, Chopal, Jubbal and Kothkhai, Rohru, Chhohara and Basantpur. This has been done for rural development.

Agriculture is the primary occupation of the people in the district. The different types of soils and agro-climatic conditions are quite suitable for growing varied type of cereals, off season vegetables, temperate and stone fruits and other cash crops in the district. Whereas lower elevations are suitable for the
production of cereal crops, stone and citrus fruits, places in higher elevations, are most suitable for the growing of seed potatoes, off season vegetables and temperate fruits. Apple production has proved to be a major instrument in changing the economic lot of masses in the district.

One the important occupations of people in Shimla district is animal rearing. Most of the households keep animals. Nearly 10 per cent of total livestock of the state are in district Shimla alone. A progressive increase in the district has been seen in milk production and as a result, it ranked third with respect to milk production in the state. Further, the district ranked fifth with respect to wool production in the state.

About 19 per cent of honey production in the state originates from district Shimla. As far as floriculture is concerned, here also the district ranked third with respect to area under flowers in the state. Among various flowers grown in the district, Gladiolas followed by Marigold occupied highest area in the district. The industrial sector is quite poor in the district due to difficult geographical terrain. The decennial analysis of growth of population in district Shimla, has been found that the population recorded a positive growth, in each decade, except the decade 1901-1911. In contrast to 207 per cent increase, in male population during the last century, female population recorded marginally higher i.e. 222 per cent increase in district Shimla. 79.57 per cent of total population lived in rural areas in the year 1991 but in the year 2001, 76.85 per cent of population lived in rural areas in the district. However, as against it, the corresponding figures for the state as a whole stood at 91.31 per cent and 90.20 per cent respectively during the years 1991 and 2001.

It is observed that the sex ratio of this area has been quite unfavourable right from the beginning of the last century. In the year 1901, sex ratio was 853 in the district. It was 894 in the year 1991, and marginally improved to 896 in the year 2001, yet this value is much lower, when placed against the sex ratio of 970 for the state and 933, for the country as a whole. Among different blocks, overall sex ratio 300 stood highest in Basantpur block followed by Chhohara block. On the contrary, it was lowest in Mashobra and Rampur block.
An important observation made with respect to sex ratio is that as compared to overall sex ratio, sex ratio in the age group of 0-6 years, on an average stand on a better footing in the district as per 2001 Population Census. However, it was not uniform in case of all the blocks of the district. In all the blocks, in rural areas, overall sex ratio stood higher than in urban areas.

Average female work participation rate stood at 44.24 per cent in the district and the corresponding value for males turned out to be 57.51 per cent. The rural areas reveals very little gender gap in work participation rate, but in contrast, this gap is quite substantial in the urban areas. In terms of rural-urban areas also, there existed a big gap in gender work participation rate.

A study of Panchayat administration in district Shimla has been found that out of total Panchayat members, as against 59.42 per cent male members, the share of female members stood at only 40.58 per cent. Out of total Panchayat members, 67.18 per cent of members belonged to general category and 32.77 per cent to SC category. As far as gender empowerment as reflected through the decision making power of women. As far as the position of Pradhans in various Panchayats is concerned, in contrast to 66.12 per cent male Pradhans, there were only 33.88 per cent female Pradhans. The mandatory norm of 33 per cent of women participation was satisfied in all the blocks of the district. The educational attainments form an important factor that determines the pace of economic growth as well as the level of human development. A significant fact which emerged from 2001 census is that the literacy rates in rural and urban areas are not significantly different from each other. Rural males have a literacy rate of more than 73 per cent in all the development blocks. Even rural females have not lagged far behind in this respect. 

1.9 BASIC PROFILE OF DISTRICT MANDI:

The present District of Mandi was formed with the merger of two princely states Mandi and Suket on 15th April, 1948, when the state of Himachal Pradesh came into existence. Ever since the formation of the district, no change has been witnessed in its jurisdiction. The district is situated between 31°-13'-50" and 32°-04'-30" north latitude and 76°-37'-20" and 77°-23'-15" east longitude. It is bounded by Kangra on the north west, Hampirpur and Bilaspur in
the west, Arki tehsil of Solan district in the south, Shimla district in the south-west and Kullu district in the east. The greater part of the district is mountainous terrain with the main ranges of mountains running from the north to the south with the system being broken up by innumerable transverse spurs. The most conspicuous is the Jalori range which is crossed by a high road from Kullu to Shimla by a pass named as Jalori pass.

Administratively, at present the district has nine Tehsils, seven Sub-tehsils, ten Community Development Blocks, five Local Urban Bodies (two Municipal Committees and three Nagar Parishads), 473 Panchayats constituting 2877 Wards, ten Panchyat Samities, and a Zila Parishad. There are five Forest Divisions in the district.

Geographically, Mandi district accounts about 7.10 per cent of the total geographical area of the state and is predominantly rural. The rural area comprises of 99.33 per cent, out of the total geographical area of 3950 sq. km. The development of the rural areas thus is important for the development of the district. There are only 5 towns in the district and out of a total of 3338 villages, 85 per cent are habitated. Mandi has 10 Community Development Blocks and Karsog is the largest (518 habitated villages) and Mandi Sadar the second largest block Of the total population of the district, more than 93 per cent reside in the rural areas, with an average population 251 per inhabited village. This distribution of the population has repercussions for the development planning and implementation in the district. The population density works out to be 214 for the rural and 2263 persons per square kilometer for urban areas. The average population density 228 for the district as a whole. The Block wise analysis shows that Balh block ranks the highest with the population density of 455, followed by Gopalpur and Chauntra with the corresponding figure of 387 and 279 respectively.

The number of females per thousand of males is estimated at 1013 for rural areas and 894 for urban areas, with a figure of 1012 for the district as a whole. Occupational distribution provides an index of participation of the population in the economic activities, which has impact on overall human development; such classification according to 2001 Census. Of the total
population in the district nearly 50 per cent constitute the total workers. The proportion of main workers in the total working population works out to 65.83 per cent in the district. The district has of 42.65 per cent cultivators, 0.32 per cent Agricultural labourers, 21.90 per cent other workers and rest are 0.96 per cent. The district has of 28.98 scheduled caste and 1.17 scheduled tribes population.

In terms of literacy, Mandi district is reasonably well placed with the literacy percentage 75.24 per cent as against 76.50 per cent for the state as a whole.

The district has undulating topography and villages are remotely located and depend heavily on road network for their economic and social development. The diversity of agro-climatic conditions offer niche advantages of producing wide variety of tropical, sub-tropical, temperate fruits and nuts in the district. The lower hills and valley areas of the district are suitable for growing a range of sub-tropical fruits, mid hills are good for temperate stone fruits and Kiwi, high hills good for growing host of temperate fruits and nuts.  

1.10 BASIC PROFILE OF BILASPUR DISTRICT:

The Bilaspur district is situated in Satluj valley in the outer hills and covers area of 1,167 sq. Kms. Its boundaries touch Una, Hamirpur, Mandi and Solan districts. Satluj is the main river which passes through the middle of the district and divides it into almost equal parts. The New Township Bilaspur should be regarded as the first planned hill town of the country.

As per 2011 census, 93.42 % population of Bilaspur districts lives in rural areas of villages. The total Bilaspur district population living in rural areas is 356,827 of which males and females are 179,653 and 177,174 respectively. In rural areas of Bilaspur district, sex ratio is 986 females per 1000 males. If child sex ratio data of Bilaspur district is considered, figure is 903 girls per 1000 boys. Literacy rate in rural areas of Bilaspur district is 84.08 % as per census data 2011. Gender wise, male and female literacy stood at 90.93 and 77.22 percent respectively. In total, 266,816 people were literate of which males and females were 144,487 and 122,329 respectively.
1.11 NATIONAL RURAL ROADS DEVELOPMENT AGENCY:

Government of India has constituted a National Rural Roads Development committee (NRRDC) during the year 2000, with an aim to provide connectivity to all unconnected villages. The Committee has been assigned to identify the road length required for total connectivity, the detailed specifications for construction of all-weather road, fund requirement and suggestions for implementation mechanism. The National Rural Roads Development Agency (NRRDA) has been set up as a society under the Societies Registration Act on 14th January, 2002. This agency provides technical support to the programme.

The NRRDA provides support on the following:

1) To provide inputs to Ministry of Rural Development for framing appropriate Action Plan for effective and optimum result oriented implementation of PMGSY keeping in view the broad policies/guidelines and the budgetary resources made available by the Ministry of Rural Development.

2) Scrutiny of the proposals received from States and Union Territories for consideration by the Ministry of Rural Development.

3) This agency deals with matters relating to State Rural Roads Development Agencies (SRRDAs). It also monitors their progress in respect of the road-works with particular reference to time frame for completion, Technical Specifications, Project Appraisal and Quality Control methods, expenditure incurred by the State / Union Territories, planning for and plantation of other suitable trees on both sides of the rural roads. To hold meetings of the Performance Review Committee/ Regional Review Committee for periodic review of progress of PMGSY and send periodic reports to the Ministry on the progress of implementation of road works by the States or Union Territories.

4) This agency also interacts with State Governments, other Ministries/ Departments, national and international Bodies (Asian Development Bank...
and World Bank) with a view to take concerted action for effective and meaningful implementation of PMGSY in a convergent manner.

5) To seek sufficient budgetary support for PMGSY from Ministry.

6) To undertake study, research activities, Pilot Projects, etc. and evaluate different technologies in respect of Rural Roads, and advise on appropriate design and specifications of rural roads including bridges and culverts, measures to improve the Quality and Cost-norms of the Rural Roads.

7) To appoint reputed Technical Institutions as Principal Technical Agencies and State Technical Agencies to perform the tasks to be entrusted to them and Independent Monitors from among serving or retired Engineers, Academicians, Administrators and other Agencies, with experience in Rural Roads and to review their performance.

8) To oversee and inspect through Independent Monitors, the execution of the road-works cleared by the Ministry and being implemented by States or Union Territories through their Executing Agencies.

9) To arrange suitable Training Programmes for functionaries involved in the implementation of the Rural Roads Programme; organise or sponsor to Workshops and Seminars in respect of Rural Roads and publish books, literature, print, audio-visual, publicity material in respect of the PMGSY

10) To give guidance to States in the matter relating to accounts and financial management of PMGSY, and also to monitor and follow up for compilation and audit of Accounts by the SRRDAs and review their Action Taken Reports on Audit observations

11) Timely re-payment of principal amount of loan and payment of Interest to NABARD.

12) Timely re-payment of principal amount of loan and payment of Interest to NABARD.

13) To maintain and upgrade OMMAS through an engaged agency (C-DAC) and monitor the progress made by SRRDAs in respect of updation of
OMMAS including On-line generation of Accounts and submission of proposals for release of funds to Ministry of Rural Development.

1.12 PRADHAN MANTRI GRAM SADAK YOJANA (PMGSY):

On the recommendations of the NRRDC, Government of India launched a nation wide programme called "Pradhan Mantri Gram Sadak Yojana' (PMGSY) on 25th December, 2000. This Yojana is helpful to provide road connectivity, through good all weather roads to all rural habitation of targeted population. In earlier programmes, the village with a defined population was the target for providing connectivity, while the PMGSY envisaged 'habitation' as the unit, to reach out to more settlements and more people with accessibility. The programme aimed to provide connectivity to all habitations up to 500 and above population in plains as well as in respect hilly, desert and tribal areas the habitations with 250 and above population is targeted.

During the years 2005-06 to 2008-09, Government of India conceived Bharat Nirman as time bound business plan to provide rural infrastructures. Government earmarked six major rural infrastructures namely, rural roads, telephone connection, irrigation, water supply, housing and electrification were identified and over Rs. 1,74,000 crore for the development.

1.13 PLANNING FOR PMGSY:

Success of any programme depends upon a well defined plan of action. All the concerned should know the requirements and the action to be taken to meet the requirements. Construction of Rural Roads is no exception to this. In order to have a well-defined assessment of the requirements of Rural Roads for connecting the unconnected habitations, a Master Plan was prepared. This plan gave the details of the existing roads and those proposed to be constructed for connecting the unconnected habitations. Many surveys were made through which the necessary data was collected, analysed and used in developing the Master Plans at different levels. The Master Plans for the National Level, the Regional Level and the Local Levels are prepared in the Highway sector.
1.13.1 Planning and Selection of Road Work:

Master plans prepared at the district level are referred as District Rural Roads Plan (DRRP). The District Rural Roads plan would indicate the existing road network system in the district. It would also clearly identify the proposed roads for providing connectivity to unconnected habitations, in an economic and efficient manner, so that it would be low cost and at the same time of maximum utility. In preparing the District Rural Roads Plan, it is necessary first to indicate the weights for various services. The District Panchayat is the competent authority to select the set of infrastructure parameters best suited for the district, categorise them and accord relative weights to them. This is communicated to all the concerned before commencing the preparation of the District Rural Roads Plan.

Once this exercise is completed, the Core Network for the Block is identified by making the best use of the existing and proposed road facilities in such a manner that all eligible habitations are assured for the basic access. The population, as recorded in the Census 2001, shall be the basis for determining the population size of the habitation. In order to determine the population size, the population of all Habitations within a radius of 500 metres (1.5 km of path distance in case of Hills) may be clubbed together. In the blocks bordering international boundary in the hill States (as identified by the Ministry of Home Affairs), however, all habitations within a path distance of 10 km may be treated as cluster for this purpose. This cluster approach would enable provision of connectivity to a larger number of Habitations, particularly in the mountainous areas. The aim of this programme is to provide connectivity to all habitations up to 500 and above population in plain and in respect of hilly, desert and tribal areas the habitations with 250 and above population is targeted. It was planned to provide connectivity in a phased manner. In the general order of priority for connectivity, first priority is accorded for new connectivity. The order of priority for new connectivity and upgradation is given in Table 1.2.
Table 1.2  
Priority Given on the Basis of Population Size for new connectivity and up gradation

<table>
<thead>
<tr>
<th>Priority</th>
<th>Population size of Habitations being connected</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1000 and above</td>
</tr>
<tr>
<td>II</td>
<td>500 – 999</td>
</tr>
<tr>
<td>III</td>
<td>250 – 499</td>
</tr>
<tr>
<td>IV</td>
<td>Up gradation of through routes</td>
</tr>
<tr>
<td>V</td>
<td>Up gradation of selected link roads</td>
</tr>
</tbody>
</table>

Source: www.pmgsy.in

A Core Network is that minimal network of roads (routes) that is necessary to provide the basic access to essential social and economic services to all eligible habitations in the selected areas through at least one all-weather road connectivity.

It is the responsibility of the State Government/ District Panchayat to oversee that land is available for taking up the proposed road works. The PMGSY does not provide funds for land acquisition. However, the State Governments draw up policies in order to make the needed land (including forest land if necessary) available. Care is taken that the process of acquiring land for road works serves the common good and is also just and equitable. In selecting road works, a Government consider only the rural roads forming part of the Core Network and the following order of priority has to be followed:

1) Precedence is given to new connectivity, with priority to connecting habitations of higher population.

2) Upgrading through routes.

3) Up Link Routes.

Upgrading activities are proposed in a district, only if no New Connectivity remains to be taken up in that district. Where as the routes that include the Village Panchayat Headquarters, market centres, educational or medical services or those places which are notified as places of tourist interest, falls into the category of exception. In such cases, provision of New connectivity may be made irrespective of the population size.
1.13.2 State Level Agencies:

States have been advised to make the following institutional arrangements:

(i) A State Rural Roads Development Agency (SRRDA) or similar body with distinct legal status, to receive PMGSY funds and act as nodal point for rural road sector policy and management.

(ii) Executional arrangements overseen at State Level by officers of the SRRDA including State Quality Coordinator (SQC), Financial Controller, Empowered Officer, IT Nodal Officer etc.

(iii) Programme Implementation Units (PIUs) at Division/District Level for managing the programme, accountable to the SRRDA.

(iv) Arrangements for efficient management, including:-
   - Online Management, Monitoring and Accounting System (OMMAS)
   - 3 tier quality control
   - Transparent tendering using Standard Bidding Document

(v) Separate Bank Accounts for 'Programme', 'Administrative' and 'Maintenance' funds, centrally managed by the Agency and operated by the PIUs.

(vi) Each State Government shall set up a State-level Standing Committee (headed by the chief Secretary or Additional chief Secretary) including all the main stakeholders of the programme viz; Secretaries of the Departments of Rural Developments, Panchayats, PWD, Forests, Finance, Revenue and Transport. The State Technical Agencies and State Informatics Officer (NIC) may also be invited to participate.
   
   (a) The Committee shall vet the Core Network, the CNCPL and CUPL and shall clear the annual project proposals. The progress and quality control will also be monitored by this Committee.
   
   (b) Resolve issues relating to land availability and forest/environment clearance.
   
   (c) Oversee maintenance funding arrangements for the Core Network.
1.13.3 Preparation of Proposals and their Clearance:

The preparation of detailed proposals for Road Works and their clearance involves the following stages:

A. Detailed Proposals:

At first the district Panchayat approves the list of Road works. The proposals are then forwarded through the District Programme Implementation Unit (PIU) to the State Level Autonomous Agency. It is the responsibility of the State Level Autonomous Agency to vet the proposal. They ensure also that they are in accordance with the guidelines and places them before the State Level Standing Committee. A detailed scrutiny is made by the State Level Standing Committee, the PIU prepare the Detailed Project Report (DPR) for each proposed road works. The preparation of DPR requires collection and analysis of data (such as inventory and engineering surveys, soil investigations, Hydraulic data, etc.) required for the design of pavements and cross-drainage works. The broad guidelines for preparing the Detailed Project Reports are as follows: 1) The Rural Roads constructed under the PMGSY must meet the technical specifications and geometric design standards given in the Rural Roads Manual of the Indian road Congress (IRC) (IRC :SP20:2002). The carriageway of 3.0metres to allowed where traffic intensity is less than 100 motorised vehicles per day and where the traffic is not likely to increase due to situations like, dead end, low habitation and difficult terrain conditions. The traffic can be increased than this level, the carriageway should be of 3.75 metres. 2) The Rural Roads under the PMGSY have to be surfaced roads, and, by and large, sealed surfaced roads. 3) Where locally available material, including products like fly ash are available, they should be prescribed, subject to adherence to the technical norms. 4) The Rural Roads constructed under PMGSY must have proper drainage facilities.

B. Scrutiny of Project Proposals:

The Ministry of Rural Development has identified reputed Technical Institutions to scrutinize the project proposals. The purpose of the State Technical Agencies (STA) is to provide the requisite technical support to the State Governments and undertake Quality Control tests on specific requests. The
selected State-level Agency consolidates the proposals from each PIU, after verifying that they have been duly scrutinized by the respective STAs. Their next step is to prepare the State Abstract and send all the project proposals to the NRRDA. The NRRDA scrutinizes the proposals received from the State Level Agency. They further ensure that the proposals have been duly made keeping in view the Programme Guidelines and they have been duly verified by the STAs. The proposals for each state are then put up to the Empowered Committee for consideration.

1.13.4 Empowered Committee:

At the Central level, the project proposals received from the State Governments are considered by an Empowered Committee. The Secretary, Department of Rural Development is the chairman of this committee. The Recommendations of the Empowered Committee are, thereafter, submitted to the Ministry of Rural Development for final clearance for action.

1.13.5 Types of Roads:

A variety of materials can be used for the construction of roads, depending on the local conditions of soil, rainfall, expected traffic and the environment. Some of the materials that can be effectively used for durable roads are:

1) Construction of Cement-Concrete Roads: In order to establish the techno-economic feasibility and appropriateness of cement concrete roads in the rural road construction programme, the National Council for Cement and Building Materials (NCCBM), an Agency of the Ministry of Commerce & Industry, is executing a programme for construction of cement-concrete roads on a pilot basis in selected States.

2) Use of Modified Bitumen: Modified Bitumen of various kinds including polymer-modified bitumen and rubber-modified bitumen have been found suitable for improving the quality of roads. This material can also help to have techno-economic advantage in certain traffic, terrain and climatic conditions. The details are specified in the Rural Roads Manual (IRC:SP20;2002).
3) Use of Fly-Ash And Soil Stabilization Measures: In order to facilitate the use of fly-ash in the construction of rural roads as well as soil stabilization measures/techniques, the NRRDA is in touch with premier research institutes such as the Central Road Research Institute (CRRI) to develop appropriate specifications in this regard.

1.13.6 Execution of Road Works:

All the states are trying hard to implement the programme of execution of road works. The starting point for the development of rural roads is the preparation of a District Rural Roads Plan and the Core Network. The road works approved by the Ministry of Rural Development are executed by the Executing Agency at the State level through the Programme Implementation Unit (PIU) in each district. The process of Open Competitive Bidding using a Standard Bidding Document (SBD) is used to execute the work that guides the evaluation of the tenders and the execution of works.

1.13.7 Time Period Allowed for Completion of Projects:

PMGSY is being implemented in accordance with the programme guidelines. In plain areas, the projects are to be completed within a period of 9 working months from the date of issue of the Work order. This time period for execution is extended up to 12 calendar months in case the period for execution is likely to be adversely affected by monsoon or other seasonal factors. Where a package includes more than one roadwork, the total time given for completion of the package is 12 months. In the hilly States the work is executed in two stages. Consequently, this time period will apply separately in respect of each stage. Delayed execution of projects could adversely affect clearance of the proposals in subsequent years. PMGSY does not provide for any cost over-runs. The State Government has to bear any cost over-run, either due to time over-run or for any other reason whatsoever. Except for Hill States, the Road works under the PMGSY are not to be taken up in stages. Once road works are taken up, they should be completed to the requisite technical specifications in the prescribed time frame.
In case of the Hill States and Andaman & Nicobar Islands, a period equivalent to two working seasons, about 18 months, is allowed to the Executing Agency in order to complete the projects cleared by the Ministry of rural Development under the programme. This facility given to enable the formation to stabilise during one season, followed by metal ling and surfacing in the subsequent working season.

The Nodal Department of the State Government for PMGSY identifies a State Level Autonomous Agency, with a district legal status, under its control for receiving the funds from the Ministry of Rural Development. Each State Government has to set up a State-Level Standing Committee to vet the Core Networks and the related project proposals. This is done in order to ensure that they have been formulated in accordance with the officials guidelines. It is the responsibility of the State Level Standing committee to make a close and effective monitoring of the programme and overseeing the timely and proper execution of road works. Each State Government /UT Administration has identified one or two Executing Agencies. These Executing Agencies are the Public Works Department, Rural Engineering Service/ Organisation, Rural works Department, ZillaPrishad, Panchyati Raj Engineering Department, etc. The Executing Agencies comprises of a programme Implementation Unit (PIU) in the district for the purpose of road works.

1.13.8 Inspection of PMGSY Works By Public Representatives:

State Governments have been directed to arrange joint inspection of ongoing as well as completed works under PMGSY by Hon’ble MPs, Hon’ble MLAs and functionaries of Panchayati Raj Institutions. The arrangements of joint inspection are as:

1) It is the responsibility of the Superintending Engineer concerned of the zone/region will request Hon’ble MP and Zilla Pramukh representing that zone/region once in six months to select any PMGSY project(s) for joint inspection. The schedule of joint inspection will be fixed as per the convenience of Hon’ble MP/Zilla Pramukh.
2) The Executive Engineer in-charge of a division will request Hon'ble MLA/Chairperson of the Intermediate Panchayat concerned once in three months for joint inspection of any PMGSY project(s) as per their choice and according to their convenience.

3) Similarly, it lies under the duty of the Assistant Engineer in charge of the sub-division to request the concerned Sarpanch of the Gram Panchayat once in two months to select any PMGSY project(s) for joint inspection. Joint inspection of the project(s) may be arranged as per their convenience.

1.13.9 Citizen Information Boards:

Citizen Information Boards are displayed in local language at prominent locations in the benefited habitations indicating the volume of materials used in each layer of the pavement.

1.13.10 Quality Assurance:

It is expected that the roads constructed under this programme would be of very high standard, requiring no major repairs for at least five years after the completion of construction. Accordingly, very high technical specifications as laid down by the Indian Roads Congress (IRC) given in the Rural Roads Manual (IRC:SP20:2002) have been prescribed for these roads. The State Governments/Union territory Administrations, which are implementing the programme should take the responsibility of ensuring the quality of the road works. The quality Assurance is effected through a three-tier mechanism. The State Governments are responsible for the first two-tiers of the Quality Control Structure.

The first tier comprises the Programme Implementation Unit or the Executive Engineer, whose major responsibility is that they should ensure that all the materials utilised and the workmanship conform to the prescribed specifications. Moreover it is also their responsibility to ensure that all the tests prescribed by the National Rural Roads Development Agency are carried out at the specified time and place by the specified person.

As the second-tier of the Quality Control Structure, periodic inspections of works are carried out by Quality Control Units engaged by the State.
Government, independent of the Executive Engineers. It is the work of these officers to carry out random tests and also get samples of materials tested in well equipped laboratories. Each State Government/ Union Territory Administration is expected to appoint a senior Engineer (not below the rank of a Superintending Engineer) to function as the State Quality Coordinator at the State level. This senior Engineer would oversee the satisfactory functioning of Quality Control mechanism within the State/ Union territory.

As the third -tier of the quality Control Structure, the senior retired engineers with life long experience in road construction, designated as National Quality Monitors (NQM) are engaged by NRRDA for the inspection of the road works at random. The National Quality Monitors inspect the road works with particular reference to Quality. Samples are taken from the site and get them examined by any competent technical institution. They also report on the functioning of the Quality Control mechanism in the districts. If they find any work in progress to be ‘poor’ or ‘average’ by the NQM, the State Government has to ensure that the contractor replaces the material or rectifies the workmanship within the time period stipulated. An NQM re-inspects all works rated ‘poor’ and ‘average’ during the inspection of work in progress after a rectification report has been received from the State Government. The State Governments/ Union Territory Administrations are expected to put in place systems to identify and take appropriate action (including blacklisting in serious cases) against the contractors and the field engineers who are found negligent in ensuring the quality of road works. The State blacklist the concerned contractor where the completed work of a contractor is found to be ‘poor’ or ‘average’ and no PMGSY works to be given to such a contractor in future. It falls under the responsibility of the State Governments/ Union Territory Administration to ensure that all the PMGSY road works qualify to be rated at least ‘good’ during implementation and ‘very good’ on completion.

1.13.11. Maintenance:

Maintenance of rural roads is an issue to be seriously addressed. The State Governments are responsible for the maintenance of these roads for the first five years. The Performance Guarantee for 5 years is unconditionally
obtained from the contractors before placing Work Order for the PMGSY roads. Hence, the responsibility of maintenance is to be shoulderred by the Panchayati Raj Institution concerned. The finances of these institutions need to be suitably augmented for ensuring proper maintenance. It is also needed to build their capacity (within their organisations) to be able to provide maintenance on a regular basis. The concept of Assets Management needs to be properly understood for carrying out the maintenance of Rural Roads. The principle behind it is that the assets created should not be left to their fate. Special attention should be taken to manage them with appropriate management systems that contemplate the assessment of the requirements, the prioritization to suit the budget and the development of a systematic plan of action for the maintenance, repairs or rehabilitation of the roads constructed.

1.13.12. Financing of Funds:

In order to achieve the objectives of the programme, the requirement of funds was initially estimated to be rs.60,000 crores. Rs.50,000 crores should be used for New Connectivity and about Rs. 10,000 crores for upgrading the existing roads at prices prevailing in the year 2000. After assessing the extent of connectivity required to be provided on the basis of the Core Network, the requirements of funds has been revised to rs.1,32000 crores. Out of which rs.66,000 crores will be spent for the New Connectivity and the balance of rs. 56000 crores for purposes of upgrading the roads.

1.13.13 Allocation of Funds:

Allocation of funds to the State/Union Territories is based on weights of 75 percent for need (share of unconnected habitations in the total number of unconnected habitations of the country) and 25 percent for Coverage (share of connected habitations in the total number of connected habitations of the country). A more realistic criterion for the allocation of funds to the States and Union Territories would be the estimated cost of the PMGSY works in the States and Union Territories, based on the Core Network. At just the Core Network is prepared. It is only afterwards that it is possible to estimate the length of roads for New Connectivity as well as upgrading for every district. Freedom is given to the States to distribute the State's allocation among the districts, 80% weight to
the road length required for providing connectivity to unconnected habitations and 20 percent weight to the road length in need of upgrading under the programme. The funds for the states are released in favour of the Autonomous Agency created in a state for the purpose with effect from the Financial Year 2003-2004. The funds are credited directly into the designated Bank Account of the Autonomous Agency. In making district-wise allocation, the number of habitations taken up under the PMGSY or any other programme is not included from the total number of unconnected habitations (even if the road works are still under execution). The figures not only the connected but also the unconnected habitations in any district would keep on changing every year till such time as all the unconnected habitations (of the stipulated population size) have been covered in the district.

1.13.14 Resource Mobilization:

According to the Central Road Fund Act, 50 percent of the Diesel cess is for rural roads, and 50 percent of Diesel cess and the Petrol Cess constitutes one pool, of which 57.50 percent goes to the National Highways; 12.50 percent to Railways for the development of under-ways, over-bridges and the erection of safety works at unmanned rail-road crossings. The balance of 30 percent goes to the State Governments for developing other roads. These roads include those of inter-state and economic importance. The funds available are clearly inadequate to finance a programme of this magnitude within the given timeframe. The Government is testing its best to tap internal resources to achieve this aim. The Ministry of Rural Development has instructed the State Governments to explore the possibility of leveraging the necessary resources for increased implementation of the PMGSY on the basis of their annual revenue stream equal roughly to the present PMGSY allocation. It is the responsibility of the Ministry of Rural Development to provide a guarantee for such leveraged funds. External Funding Agencies like the World Bank, the Asian Development Bank, the Japanese Bank for International Cooperation (JBC) and the DFID have evinced interest in funding the programme. The domestic capital market also is to be tapped for the purpose. The strategy that is being followed for financing the projects is as follows:
Stage 1 Use Diesel Cess directly Stage 2 Use the World Bank/ the Asian Development. Stage 3 Get the better off States to leverage their allocation under PMGSY at the State level. Stage 4 Raise resources from the domestic capital market.

1.13.15. **On-line Management and Monitoring System** :

A web-based on-line management and monitoring system exists for monitoring the implementation of works under PMGSY. For this purpose the details of each construction activity (road works) in every district, that includes the details of contractors, are required to be fed into the on-line system on a regular basis. The details are to be fed in using an off-line module developed for the purpose in places where on-line system is not functional.

1.13.16. **Training And Capacity Building** :

The rural roads constructed under PMGSY are expected to be of high quality. That’s why special training programme are being organised for the project implementing staff in the DPIUs, contractors and engineers in very aspects of designing, construction and quality control in the execution of road works. Primary responsibility for the organisation of training programme lies with the State Technical Agencies. The Principal Technical Agencies access the training requirements and they help the State Technical Agencies in building up their capacity for imparting training to the field staff.51

1.14 **FORMULATION OF PMGSY–II** :

Rural Road Connectivity, and its sustained availability, is a key component of Rural Development as it assures continuing access to economic and social services and thereby generates increased agricultural incomes and productive employment opportunities. It is also as a result, a vital ingredient in ensuring sustainable poverty reduction which demands sustainable rural connectivity encompassing a high level of quality of construction followed by continuous post construction maintenance of the road asset and in fact of the entire network. With the aim of ensuring rural connectivity, Government of India had launched the Pradhan Mantri Gram Sadak Yojana on 25th December, 2000 to
provide all-weather access to eligible unconnected habitations as a strategy for poverty alleviation.

Many States have substantially completed New connectivity and Upgradation under PMGSY. At the same time many other States are likely to be in the same position within a year or two. This was possible because of the 12th five year plan.

Keeping in mind the asset value of the road network, it is increasingly necessary to ensure that assets already created are maintained and yield services as originally envisaged before going on undertaking commitments for creating more assets. Hence, a programme, called Pradhan Mantri Gram Sadak Yojana (PMGSY)-II, is being conceived. This has been done on sharing basis to consolidate existing rural road network by upgradation, renewal and maintenance of the vast network already created. In order to formulate the draft policy for the PMGSY-II. The experts have already started discussions with experts in Rural Roads sector on 24th April, 2012.

Under PMGSY-I, out of the targets fixed under new connectivity plus upgradation over 70% of the projects have been sanctioned and many of them have been come to an end. However, the roads, both taken under the PMGSY-I as well as other schemes for rural roads, have failed to receive the desired attention on the maintenance front. This has led to erosion of assets created under different programme and even they have become unable to sustain the assets created. The need for maintenance and consolidation of existing rural roads network has been stressed at various fora, such as XII Finance Commission, XIII Finance Commission, Working Group on Rural Roads for 12th Five Year Plan. In this backdrop, the necessity for consolidation of existing network was felt in order to ensure that it fulfills the primary objective of connectivity along with mobility to the extent possible for the local community. This will enable economical transportation of goods and for services to provide better livelihood opportunities as a part of poverty reduction strategy. This is now proposed through a programme called PMGSY-II.
1.14.1. Objectives of PMGSY – II

Justification of the Scheme :

It is proposed that PMGSY-II consolidates the existing rural road network. It would cover Up gradation of existing selected rural roads that are based on a criterion to make the road-network exuberant. The selection of routes would be with the objective of identification of rural growth centres and other critical rural hubs and important rural places. Development of Rural Hubs & growth centres are crucial to the overall strategy of facilitating poverty reduction through creating rural infrastructures. Rural hubs provide markets, banking and other service facilities that will enabled and enhance self employment and livelihood facilities. They also help ensure raw materials and labour inputs for off-farm activities. The benefits of economic growth will also be brought to the rural hinterland, including white goods, automobiles etc. PMGSY-II, by recognising growth centres/rural hubs and facilitating their connectivity to the hinterland will catalyse livelihood based programme, that will include the Nation Rural Livelihoods Mission (NRLM) launched in the 12th FY. PMGSY-II envisages consolidation of the existing Rural Road Network to improve its overall efficiency as a provider of transportation services for people, goods and services. Its aims will be to cover up gradation of existing selected rural roads based on their economic potential and their role in facilitating growth of rural market centres and rural hubs. It is important to develop the growth centers and rural hubs as it is really critical to the overall strategy of facilitating poverty alleviation through creation of rural infrastructure.
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