

## **A Study on Road Infrastructure on Agricultural Development in India**

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### **ABSTRACT**

Agriculture plays an essential role in the process of economic development of India. Agricultural development is an integral part of overall economic development. Road transport plays an important role in agricultural development. Development of road infrastructure is imperative and for agriculture and overall economic growth and also improving the quality of life. Better roads can reduce transaction cost associated with agricultural activities. Public investment can play several roles in creating the enabling environment necessary to stimulate agricultural growth.

**KEY WORDS:** Road infrastructure, development programs. PMGSY, BharathNirman, RIDF

### **1. INTRODUCTION**

India is a predominantly agrarian in nature. Regardless of prompt growth in other sectors agriculture and allied sectors still the major sector contributing 16% towards Gross Domestic Production (GDP). About two third of the total population of the country lives in rural areas which are directly or indirectly allied with agriculture. According to estimates agriculture sector has occupied about 53% of total labour force and its direct and indirect contribution in annual exports of the country is around 23%. Indian agriculture is characterized by lack of proper infrastructure facilities.

Among the agricultural infrastructure road infrastructure plays a very significant role in accelerating agricultural production. Rural road connectivity is one of the key components for rural development. A good road network reduces transport cost, accelerates efficient delivery of farm inputs and increase special agricultural production and distribution. Good infrastructure leads to expansion of market, economies of scale and improvement in factor market operation. The majority of the study recognizes that infrastructure investments has a strong impact on rural incomes and especially on small holders.

Rural roads were not only providing connectivity to rural area also affecting change in cropping pattern due to access to markets, increasing productivity by facilitating availability of inputs like seeds, fertilizer and pesticides, realization of better prices to farmers for agricultural products.

Construction of rural roads inevitably leads to increase in agricultural production and productivity by bringing in new land into cultivation or by intensifying existing land use to take advantage of expanded market opportunities.

## **ROLE OF INFRASTRUCTURE IN AGRICULTURE AND RURAL DEVELOPMENT**

It is estimated that 15% of crop produce is lost between the farm gate and the consumer in the world because of poor roads and in appropriate storage facilities, adversely influencing income of farmers. Strengthening rural infrastructure can lead to lower production costs which can further increase the agricultural output and income for rural farmers.

Improved infrastructure also leads to expansion of markets, economics of scale and improvement in factor market operations. The development of rural infrastructure helps to enlarge market with greater access to factors of productions.

Dominance of poor is more in rural areas compared to urban areas. Therefore any investment that helps to increase in rural production, income and employment is expected to reduce poverty. Improvement in rural roads effect agricultural development followed developments of social services.

The most significant justification of the large scale public investments in rural roads is to help the largely agrarian rural economy in exploiting the income opportunities for the farmers. India's most ambitious rural road program PMGSY is also primarily aimed at providing connectivity to the markets. Development of small scale and cottage industries becomes possible in rural areas due to the close road contact with their urban markets and availability of raw materials at cheap prices.

The economic impact of road on overall and agricultural development is as follow.

### **INCREASE IN CROPPING INTENSITY**

Improved road was increase in cropping intensity to some extent via increase mechanization.

### **CHANGES IN CROPPING PATTERN**

With an improving the road infrastructure which leads to change in cropping pattern towards cash crops. The cash crops were taken as those crops which are mainly produced for sale in an area.

### **INCREASE IN YIELD**

This has increased the use of fertilizer and seeds, resulting in mild increase in yield because of road infrastructure.

### **SAVING OF WASTAGE IN MARKETING**

The road has been reduced the wastage in marketing due to reductions in distance and on time in transport of agricultural produce especially perishable crops like vegetables.

### **BENEFIT OF VEHICLE OPERATING COST**

The immediate benefit of a road infrastructure would be savings in vehicle operating cost and employment generation to rural poor from construction of road.

## **RURAL ROAD INFRASTRUCTURE DEVELOPMENT PROGRAMME IN INDIA**

The necessity of a proper road network for the socio-economic development of rural India and consequently the whole country was understood quite early in India. The first road development plan of 1943-61, popularly known as Nagpur plan, looked at the road needs of the country on long term basis and for the first time classified the road system into National Highway (NH), State Highway (SH), Major District Roads (MDR), Other District Roads (ODR) and Village Roads (VR). The last two classes of roads form the rural road system in the country. The third road development plan known as Lucknow Plan (1981-2001) estimated rural road requirement for the country and had spelt out various measures to develop rural roads. This plan suggested several approaches for rural development. These approaches include preparation of long term master plan for rural roads, stage construction in view of low level of traffic in initial stage of development of rural road, integration of rural road development plan with other rural development program.

### **PRADHAN MANTRI GRAM SADAKYOJANA (PMGSY)**

In order to create durable and permanent assets an adequate provision for drainage and protection works as well as quality control during construction and maintenance of assets Govt of India had launched PradhanMantri Gram SadakYojana (PMGSY) on 25<sup>th</sup> December 2000 as a centrally sponsored scheme to assist states. The primary objective of PMGSY is to provide connectivity by way of an All-weather road (with necessary culverts and cross drainage structure, which is operable throughout the year) to the eligible unconnected habitations as per Core Network with a population of 500 persons and above in plain areas.

### **BHARAT NIRMAN**

Bharat Nirman, one of the important programs, launched by Govt of India in December 2005, identified six crore infrastructure sectors in rural areas viz. rural housing, irrigation, drinking water, rural roads, rural electrification and rural telephone connectivity. Initially it was launched as a time bound program of construction of rural infrastructure for implementation during four year period 2005-09.

## **FINANCING THE RURAL ROAD INFRASTRUCTURE**

Rural roads often receive the least attention in the network. This is because they are funded from a number of sources at national, regional and local levels. They are managed with inputs from central, regional and local governments and are situated at the inter section of transport, agriculture and local government mandates.

### **RURAL INFRASTRUCTURE DEVELOPMENT FUND (RIDF)**

Government of India instituted Rural Infrastructure Development Fund (RIDF) in 1995 in NABARD instructing it with the responsibility of channelizing financial resources to the state Governments for rural infrastructure development. Since inception RIDF around 5.37 lakhs project involving a amount of rupees 1,84,107 crore were sanctioned under various tranches. Out of the

RIDF loan sanctioned on 31<sup>st</sup> March 2014 agricultural related sectors 43% rural roads 31% and bridge 12% and balance 14% was sanctioned under social sector projects.

## **2. CONCLUSION**

Rural road links communication and their agricultural fields to the main transport system and markets. Improving rural roads reduces transport cost and stimulates marketing. This results in increased production and productivity, crop diversification and increased profitability. It is very difficult to expect private sector participation in this area and till that time public investment must have to come in a big way and without any further delay. This crucial development of rural infrastructure neglected during the reforms decade, need to be state financed in a time bound manner to prevent rise in urban rural disparition in growth and development.

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