## 3. Infrastructure and Agricultural Development in Karnataka State

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The growth enhancing nature of infrastructure warrants a closer scrutiny of the relationship between the level of agricultural development and the level of agricultural infrastructure from the regional perspectives. Accordingly, our major aim in the present project is to analyse the role of infrastructure in promoting agricultural development vis-à-vis regional development in Karnataka State. The present exercise will help us to identify the backward regions on the basis of adequacy or inadequacy of the level of agricultural infrastructure, as well as to suggest policy measures to improve the performance of the economy of Karnataka.

Review of various studies on infrastructure and agricultural development reveals that these studies in general have established a positive linkage between infrastructure and agricultural output and employment. With this in the background, the present study has the following specific objectives:

- To estimate the trends in major components of infrastructure for agricultural development in the country across major states so as to understand the position of Karnataka;
- To analyse the level of development of various agriculture infrastructural indicators across different districts in Karnataka, so as to understand the disparity in infrastructure development; and
- To provide broader policy suggestions on infrastructural development in Karnataka.

The analysis has been divided into two parts: the first part deals with the analysis of secondary data on agricultural infrastructure at the country level, and the second part focuses on analysis of data at the State level. At the country level, we made a comparative analysis of infrastructural facilities in various states to ascertain the relative position of Karnataka. District-wise analysis of Karnataka has been attempted to further highlight and underscore the state level findings. At the state level, we analysed the inter-linkage between selected infrastructural facilities and the overall agricultural development. A district-wise analysis of selected infrastructural facilities has been attempted to examine the inter-district disparities in the agricultural sector in the State. We selected the following nine important agriculture infrastructural facilities: a) Number of regulated agricultural markets in each district; b) agricultural credit per capita rural Population; c) Number of agricultural cooperative societies per lakh of rural population; d) Number of bank branches per lakh population giving agricultural credit; e) Bank advance per lakh population; f) Number of farm contact centres; g) Existence of rural development centres; h) Existence of agricultural

research centres; i) Existence of agricultural training centres; j) Length of rural roads in Karnataka; k) Number of telephones used in different districts; and l) Number of fertiliser sales outlets.

The study covers all the districts for two time periods, particularly between the early 1990s and early 2000. Principal component analysis has been used to analyse the district-level data so as to find out the relative backwardness of the districts.

## Results

At the country level, analysis of various indicators of agricultural infrastructure reveals that there exists a disparity between different states in terms of level of infrastructure. Though Karnataka's performance in terms of many of the infrastructural indicators is relatively superior to that of other states, there exists vast scope for improving the infrastructural provision in the agricultural sector so that increased food grains production could be realised in the coming years. Since the agricultural sector in the State contributes around 37 per cent of the gross state domestic product (GSDP) and half of the rural population in the State depends on the agricultural sector, infrastructural bottlenecks can be a major constraint in alleviating the overall poverty in the State. Hence, it is suggested that the State Government continue to invest in rural infrastructural facilities. Apart from this, the government should develop the necessary institutions to attract private investment in areas where there is scope for the private sector to play a role. Having argued for enhancing the level of agricultural infrastructure in the State, we then go on to analyse the infrastructural adequacy or inadequacy in different districts of Karnataka so as to derive some policy conclusions about which district and infrastructure indicator needs immediate attention using selected infrastructural indicators.

At the State level, we ranked the districts according to infrastructural facilities available. All the districts are classified into three major categories depending on their ranks: the districts ranked among the first nine are classified as Category-1, those ranked between 10 and 18 are classified as Category-2, and those with ranks between 19 and 27 are treated as Category-3. Based on this classification, we found that Category –3 districts require immediate attention in the area of agricultural infrastructural facilities. It should, however, be noted that some of the districts belonging to this are highly urbanised and the role of the agricultural sector in these sectors is very limited. Hence, we need to carefully interpret the results. In addition to the remaining districts in Category-1, many of the districts in Category-2 are those where agricultural and allied activities are predominant. Therefore, focusing on the agricultural infrastructural development in these districts would be a worthwhile attempt.