

Annexure-VIII Sl. No. 14

SUMMARY OF THE FINDINGS OF THE REPORT
OF MINOR RESEARCH PROJECT

Title of the Project: “Mechanization in Agriculture, Problems and Prospects-
A case study of Udupi Taluk”

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Name & College of the Principal Investigator:

Mrs. Susheela R Rai

Associate Professor and Head, Department of Economics

St. Mary’s Syrian College, Brahmavar-576213

The main purpose of the study is to analyse and assess the status, progress and problems of farm mechanisation in Udupi Taluk. A special emphasis has been given to paddy cultivation as majority of farmers used mechanised farming in the cultivation of paddy. For the purpose of study all the four hoblies of Udupi Taluk have been given equal importance. The methodology followed for the study is empirical along with pretested schedules, interviews and informal discussions. Hundred and twenty farmers have been selected from Udupi Taluk which consists four hoblies, viz., Udupi, Kaup, Brahmavar and Kota. 30 farmers from each hobli were selected as sample farmers. The field work was conducted during 2014-2016. The secondary source of data have been collected and assessed. Limitation of the study have been identified and listed.

The findings in this study reveal that the farmers who own land are more than the tenant farmers. On an average the education profile of these farmers is up to the mark. Their monthly/annual income is comparatively less, but majority of the farmers are regularly receiving fixed amount of money from their children or close relatives who work in cities.

The study also reveals that the members of SC/ST group people who own land are very limited. Majority of the sample farmers are belonging to small farmer’s

category. The number of marginal farmers is also comparatively higher. But the percentage of big farmers is very low. So, the farmers are of the opinion that the small size of land holdings makes mechanized farming less economical.

However, through the study it is revealed that there is severe dearth of agricultural labourers which is the only reason why the farmers in the study area are slowly moving towards mechanized farming. But the overall observation indicated that the progress of farm mechanization is in its initial stage which is being experimented in the case of paddy cultivation. So this study tries to analyse and assess the progress, prospects and problems of mechanisation with special reference to paddy cultivation.

Paddy is the main crop in this region. Majority of the farmers grow only one crop as they fully depend on rain fall as source of irrigation. The uneven rainfall, lack of rainfall, scarcity of labour etc. made these farmers to adopt mechanized farming which is more productive and time saving. As a part of farm mechanization, farmers in this region use High Yielding Variety seeds and chemical fertilizers to get higher yield.

The soil condition, temperature etc. are highly suitable for paddy crop. The youngsters are not ready to continue family farming; the aged farmers are worried about the future of farming. There is lack of awareness among the small farmers about the mechanized farming. These farmers have no knowledge about the Agricultural Extension Centres functioning in the Taluk. More than 50% of the sample farmers have not visited these agencies and they have not taken any assistance from the agencies. At the same time there is lack of custom hiring of required agricultural equipments. For the majority of farmers mechanization of agriculture means using harvesters or transplanters for cultivation.

The study reveals that due to lack of agricultural labourers and increasing cost of cultivation some medium farmers have stopped cultivating their land. Less than 15% of farmers have converted their cultivable land into commercial sites and sold them for better price. Because of this practice in some parts of study area, there is a considerable decline in the agricultural land. More than 10% of farmers have converted their rich agricultural land for commercial crops.

The study also confirms that the extent of use of machines differs from hobli to hobli. For instance the sample farmers of Kota and Kaup hoblies use more

number of equipments like paddy transplanters, drills, sprayers, threshers, weeders, harvesters etc. However in Udupi hobli, the farmers have better awareness about the facilities, package of equipments available and the government's subsidies. They make use of these facilities to increase the yield per acre and also cultivate more land even if there is more scarcity of agricultural labourers. The study reveals another important fact that though there is an Agricultural Regional Research Centre in Brahmavar, majority of the farmers in this hobli do not have any idea about its existence and more than 40% farmers have not seen or visited the centre. The research findings or output have not been used by these farmers. Though many types of equipment are available in these centres for hire, farmers have no knowledge about the same and they depend upon the machineries transported from other areas for hire.

The study also reveals that 80% of paddy cultivation depends on natural rainfall. Irrigation sources are very limited and farmers who have their own arrangement for irrigation, they only grow two or three crops. Well irrigation and use of electric pump sets are the most important sources of irrigation.

The study confirms that the farmers in this region use HYV seeds and according to them HYV seeds result more yield and take less time to grow. As they use HYV seeds, farmers have to go for chemical fertilizers to match the seeds. Majority of farmers use combination of organic and chemical fertilizers. But the problem is that these farmers do not have required knowledge to use chemical fertilizers in right ratio.

The most significant fact that severe shortage of agricultural equipments in the study area, small farmers are of the opinion that, shortage of farm equipments, lack of custom hiring facilities and higher cost of equipments are the most important hurdles they face in the process of mechanization.

Finally, the whole exercise reveals that continuation of cultivation in future is not very bright. The majority of the sample farmers say that as their children are educated and work in cities, there is less chance of them taking interest continuing traditional farming. A few of the farmers are of the opinion that government should take some measures to instil interest among younger generation to take up cultivation as their profession.

In spite of these findings, after the introduction of partial mechanization in Udupi Taluk, many farmers who have stopped cultivation once, are one again

taking interest in cultivating their land, which is a positive change observed during the field study.

Thus after globalization the pattern of cultivation has undergone lot of changes in this region. As majority of farmers have basic education, they are able to replace the high cost pattern of cultivation to low cost pattern. One such pattern is adoption of the partial mechanization that is using machines in those areas, where it helps them to reduce the cost. For example using tillers/tractors for tillage, transplanters to cultivate, combined harvesters for harvesting etc. There is a need for creating awareness among the small farmers about farm equipments and their use, custom hiring, benefits of availing the facilities provided through Agricultural Extension Agencies. Additional diploma courses must be started in Agricultural Regional Research Centre thereby to train farmers to operate these farm equipments and repair them whenever necessity arises.