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SUMMARIES OF GROUP DISCUSSION

Subject II

Labour Scarcity in Agriculture and Farm Mechanisation

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The introduction of the farm machinery to substitute for labour is a common phenomenon associated with the release of labour for employment in other sectors of the economy. Farm mechanisation also facilitates cultivation of a larger area in less time with the same labour force. The purpose of mechanisation is also to produce more from the existing land, using machinery as a complementary input required to achieve higher land and labour productivity. The future of agriculture is dependent on penetration of scale and gender – neutral farm machineries.

In this session, altogether 25 research papers were submitted covering various issues related to agricultural labour and farm mechanisation and out of which 5 papers were presented. The major issues discussed in these papers were farm mechanisation, MGNREGA and agricultural labour supply, reasons for labour scarcity, dynamics of labour utilisation, impact of labour scarcity on the spread of labour saving implements and supplementary and complementary effects on labour employment.

Transformation of Indian agriculture has lead to various structural changes in the employment of human labour. One of the serious problems concerning labour employment is its seasonality which has caused under-utilisation of available labour in some seasons and over-utilisation in other periods. Indian agriculture is dominated by small and marginal farmers. Small holding is one of the major constraints on adopting farm mechanisation. In this context, establishing custom hiring or farm service centres could facilitate use of farm machines by these farmers.

The papers covered all- India, inter-state comparisons and case studies relating to particular crops and states. Most of the papers concluded that there is visible scarcity of labour across states as indicated by increase in wage rates. However, the pace of increase in wage rates varies across the states. Although some studies pointed out that MGNREGA contributed to increase in wage rates and labour scarcity in agriculture, some other studies enumerated various causes like increased urbanisation and non-farm employment opportunities. Farm mechanisation was at a much higher level in Punjab and Haryana, while it is at a very lower level in Orissa and Madhya Pradesh, and other states fall in between. The growth rate in farm mechanisation is higher in all the states including Punjab and Haryana, which indicates that even well developed states also did not reach saturation in farm mechanisation. The laggard states like Orissa and Madhya Pradesh, are also picking up in farm mechanisation. Faster mechanisation reported in chickpea, wheat, while slower mechanisation reported in cotton and sugarcane. There is a need for development of farm

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machinery suitable for specific operations like cotton picking and sugarcane threshing and harvesting to reduce labour demand in peak season.

In Tripura, the declining trend of agricultural labour has shifted the cropping pattern from food grain to high value horticultural and plantation crops like rubber due to their low labour requirements. The use of machine power was found to be increasing in operations like field preparation, harvesting, winnowing and transportation due to labour shortage. Although the estimates revealed an increase in the intensity of mechanisation in Maharashtra, it did not seem to have contributed to any significant displacement of work animals per hectare of net sown area. It was inferred that since the use of animals for draught purpose had shown no significant increase, farmers should resort to modern techniques of tilling as substitute to animal power in the face of growing farming activities.

The most important national rural development programme at present is MGNREGA. MGNREGA enhances choice of work options to casual labour in rural areas and employment provided under this scheme has resulted in agricultural labour scarcity. It was suggested that the MGNREGA works need to be properly planned so that agricultural activities during peak season would not suffer. It was also suggested that MGNREGA needs to have provisions to include agricultural activities during peak periods. The level of farm mechanisation has increased after the implementation of national rural employment guarantee scheme. The increased farm mechanisation is a desperate attempt of farmers to tackle the labour scarcity that occurred after implementing MGNREGA. Some of the studies clearly highlighted that the implementation of MGNREGA has caused agricultural labour scarcity resulting into the wage hikes that have led to intensive adoption of farm mechanisation while a few others studies brought out that MGNREGA role is minimal. MGNREGA was not responsible for the shifting of labour from agricultural sector as it is not providing any permanent employment rather it had only provided social security to those who had given up agriculture owing to their age or to women folk because of their better wage rate.

High economic growth, fast infrastructure development and more wages are pushing farm labourers to migrate to urban areas or find alternative job opportunities. The reasons identified for labour scarcity included higher wages in other locally available jobs, seasonal nature of agricultural job and presumption of agricultural job as a low-esteem one. It was also observed that the available labour saving technologies and implements could have positive impact on the productivity levels of crops, if adopted. Mechanisation being one of the critical inputs of production followed by preservation of food crops could increase yields through the improvement of water control and better soil preparation. The labour shortage had created a potentially vast opportunity for farm equipment makers. Population dynamics and labour shifts had led to changing farm landscape. Farm mechanisation has to go a long way in identifying, designing, and manufacturing and up scaling of the specially designed machines suitable to local topography and crop structure in consideration with social and environmental factors.

The house at length discussed all these issues arising out of those presentations and deliberated in detail. After thorough discussion the following points emerged for further research.

1. Labour scarcity and farm mechanisation needs to be studied in detail both at macro and micro level across various farm situations to verify whether there is any linkage between this two.
2. The movement of labour productivity and wage rates in real terms need to be assessed.

3. How far farm mechanisation helps in improving labour and land productivity and quality of agricultural production?
4. Can custom hiring services meet the labour scarcity problems of the small and marginal farmers?
5. Research may be oriented towards developing scale and gender neutral labour saving technologies/implements.
6. Present status of labour utilisation also needs to be studied thoroughly to ascertain the shortage of labour which adversely affects the agricultural production.
7. Is it possible to link MGNREGA with agriculture for a win –win situation for both?
8. Is seasonality of crop production affecting the labour employment? Can a diversified farming system provide year round employment of labour?
9. State specific and crop specific studies are important to facilitate formulation of location and crop specific policies.
10. There is also a need for the study of relationship between farm mechanisation, land tenancy structure and farm size.
11. For each crop, study of operation wise needs of the farm machinery may be helpful in development and wider adoption of farm machinery.