Agro-Economic Alerts

Aiding the future of India's farmers and agriculture

For kind attention of:

The Hon'ble Prime Minister's Office,
the Ministry of Agriculture and Farmers Welfare,
and all others interested

Emerging Critical Situations and Threats in India's Agricultural Economy

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its nutritive value and taste and it constitutes a special item of food dishes in many parts of the region. Further, dry fish is also used extensively as poultry feed for its rapid growth and the farm owners even believe that it can protect the birds from the attack of some common viruses.

- The market has witnessed marked improvement during the last 20 years as pointed out by the DFMA. With the exemption from GST in recent time, the market has further expanded, thereby covering large residential areas in the vicinity of the township.
- However, the development of this market has also resulted in some of the side-effects, majorly the inconvenience caused to the local residents.
- Further, inadequate infrastructure and improper planning has added to the woes of fish merchants.

Actions suggested

- At the behest of government patronage, the Jagiroad DFMA may take initiatives to manage the market activities in a more scientific manner, with a greater focus on the creation of necessary infrastructural support including provision for good drainage system.
- Adequate storage facilities, adoption of modern packaging technology and creation of facilities for the processing of dry fish would further prove to be conducive for Asia's biggest dry fish market.
- Training programmes should be organized on the handling of dry fish meant for the traders, which in turn would increase the efficiency of the entire marketing system.

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Information sources:

Field visits and personal interviews of members of Dry Fish Merchant's Association.

Alert 3: Challenges and Opportunities of the System of Rice Intensification (SRI) in Madhya Pradesh

Key Highlights

- The traditional rice cultivation practices have undergone many changes with time. For instance, the cumbersome labour-oriented practices were replaced by mechanical interventions.
- Hence, in order to identify the bottlenecks in adoption of a modern practice – the System of Rice Intensification (SRI) - a study was conducted in Mandla and Balaghat districts of Madhya Pradesh and a sample of 120 respondents (60 beneficiaries and 60 non-beneficiaries) was selected. The study pertains to the primary data collected for the agriculture year 2018-19.
- SRI practices result in a sharp decrease in inputs such as seeds, chemical fertilizers and water supply which directly affect profitability (Ram 2018). It is a different way of cultivating rice though the fundamental practices remain more or less the same as adopted in

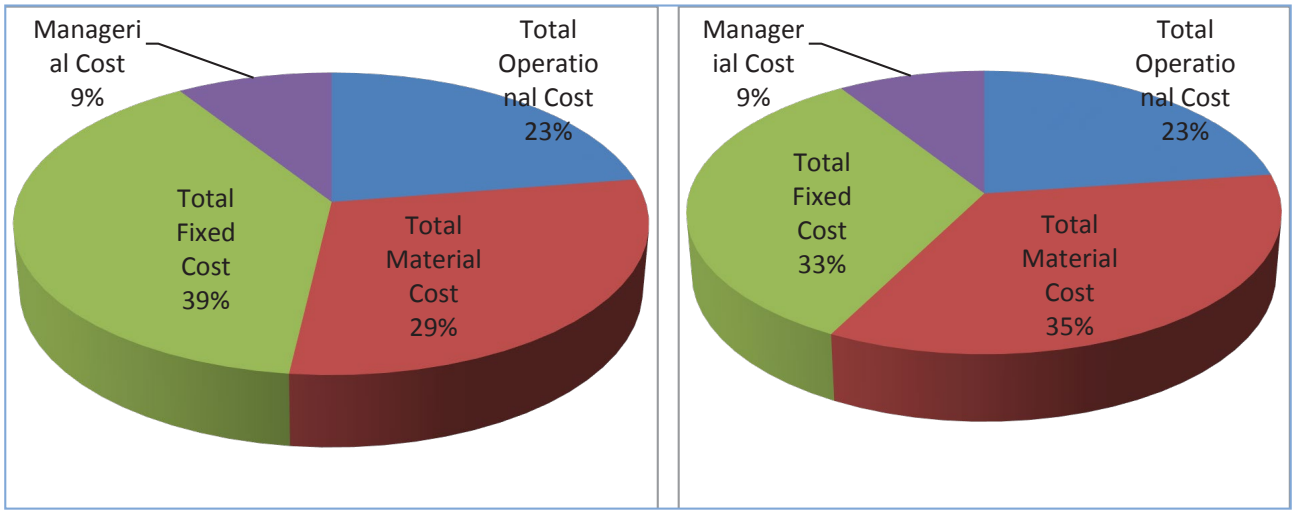
the conventional method. It just emphasizes altering of certain agronomic practices of the conventional way of rice cultivation.

- However, it was found that along with the advantages of SRI, there were a few major constraints faced by the beneficiary households related to labour and the supply of inputs.

Observations

- SRI method of sowing is labour intensive because only one plant is to be planted on each hill with proper plant to plant and row to row distance which requires more number of skilled labourers. This resulted in huge demand for human labourers at the time of transplanting. This has direct effects on the cost of cultivation. The cost incurred on human labour for an average beneficiary was found to be 21.85 percent higher than the non-beneficiary.
- The cost of cultivation was found to be marginally higher in SRI (1.4 percent) as compared to the traditional method of sowing. This was mainly due to higher proportion of fixed costs incurred on the farms.

Figure 4: Contribution of Different Costs in the Calculation of Cost of Cultivation in SRI (1) Beneficiary Farmers and (2) Non-Beneficiary Farmers



Source: AERC Jabalpur

- In total variable cost, the share of total operational cost was lower as compared to the material cost which revealed that the beneficiary households as well as non-beneficiary households were adopting recommended technologies partially (Figure 4).
- Major proportion of operational costs in SRI accounted for the mechanical cost, while among the material cost items, the cost of fertilizers was the major cost.
- The drastic reduction in expenditure on seed in SRI intervention was observed, which directly reduced the cost by 8.65 percent as compared to traditional method of sowing.
- This clearly revealed that due to the adoption of SRI system of rice cultivation there was a reduction in cost of production, enhancement in productivity, and due to early harvesting, farmers fetched higher price for their produce.
- The marginally higher price (1.31 percent) of produce in the market due to early harvest in SRI method of sowing, resulted into increase

in gross income (20.97 percent) as compared to traditional method of sowing.

- Marginal gap was observed when SRI method (farmer practices) was compared with recommended package of practices of SRI of rice cultivation. Cost-benefit ratio was found to be identical under both the levels of adoption due to unavailability of labours at the time of performing various farm operations, high labour charges, lack of skilled labour, lack of irrigation facility, inadequate supply of electricity and lack of skill oriented training regarding SRI method of rice cultivation.
- The major constraints as expressed by the majority of beneficiary rice cultivators were unavailability of labourers at the time of requirement of performing farm operations, high labour charges, high cost of input materials, lack of capital, high price of seed, lack of irrigation facility, lack of skilled labour, inadequate supply of electricity and lack of training.
- The comparative cost and profitability of SRI method on beneficiary farms as per recommended package of practices revealed that the cost benefit ratio is more or less identical in both the systems. This leads to the conclusion that the present level of adoption of SRI method is quite profitable. But there is still a scope to reduce the cost of cultivation by reduction in cost of seed used.

Actions suggested

- Training on nursery management and planting method should be given to the farmers. An extra emphasis should be given for optimal use of the seeds.
- Better management of rainwater and in-situ moisture conservation techniques should be provided at farm level through demonstration. Further, supply of quality bio-fertilizers should be ensured.
- To improve the efficiency of various farm operations and up-scaling the production as well as profitability, the rice-transplanter should be introduced through custom hiring system. It would improve the accuracy and ensure timely operations at higher scale. Through this, the expenditure on human labour would be curtailed, which is a major cost in cultivation of rice through SRI.

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