Market Information on High Value Crops

POLICY BRIEF

Crop diversification helps in minimizing risks, enhancing farm income, generating employment, and improving land quality. It is especially important in Third World countries where poor infrastructure, institutional and marketing facilities hinder gainful returns from agriculture. In India, while the government is promoting cultivation of horticultural crops as a part of overall strategy towards crop diversification, their marketing poses a serious challenge due to perishable nature of the produce, lack of storage and transport facilities. Limited opportunities for spatial and temporal arbitrage often force fruit and vegetable cultivators to sell their produce at sub optimal prices. Hence, special emphasis is being given to developing Agricultural Market Information System (AMIS) for marketing of horticultural crops by many states in the country.

While transaction cost theory indicates that ICT based AMIS is likely to result in better prices to the farmers, studies indicate that AMIS in developing countries rarely operates under ideal market conditions and several factors limit its contribution. Furthermore, most studies deal with marketing of staples whose sale is either restricted by government regulations or is not unduly influenced by lack storage facilities. On the other hand, perishability is the number one risk faced by growers of horticultural crops (Chang, 2011). Against this backdrop, this policy brief presents recommendations based on findings of a study carried out to understand if market risks unique to horticultural crops influence use of AMIS by farmers and its effect on their income.

RECOMMENDATIONS

1. Market led extension
Due to changes happening at national and international levels, Indian agriculture is shifting towards diversification, efficiency and commercialization of the sector. Consequently, farmers need information not only on improved technologies but credit, insurance, market, etc. Hence, Public Extension System, which is the main source of information for majority of the farmers’, has to reorient itself and move beyond technology dissemination. The Public Extension System which has traditionally concentrated on providing production advice has to extend its services to market related information including market trends, demands and prices. Marketward orientation of agriculture through extension or market led extension is essential for maximizing farm income and converting greater productivity from improved technologies into profit.

2. Price information through AMIS
The share of high value products in Indian agriculture has increased significantly over the last two decades. Fruits and vegetables now account for 18% of the country’s agricultural output. Most of these products need to be stored or processed immediately after harvesting. But, absence of cold storage facilities, poor infrastructure and lack of transportation are major stumbling blocks for future growth of high value agriculture in India. At the same time, demand in rural areas for these commodities is low and the marketable surplus with smallholders, who account for more than 50% production, is too small to be traded economically in distant urban markets. Due to high transportation costs and small quantity, access to reliable and up-to-date market information, through AMIS, is especially critical for these farmers to trade in nearby markets.

3. Farmers’ Cooperatives
More than 80% of farmers in India are small holders. This limits their access to inputs, credit, extension services and participation in the market. Functioning as a group rather than as individuals not only empowers them but also ensures economies of scale. While group approach can span a range of arrangements for various purposes, there is a need to form and nurture farmers’ cooperatives to provide access to agricultural services, inputs and markets. Farmers’ cooperatives enhance bargaining power, and reduce cost to individual farmers. As efficiency in agriculture is dependent upon several factors, farmers’ cooperatives will be better equipped to provide access to all critical services required by the farmer. In addition, farmers’ groups/ cooperatives are also
High Yielding Varieties (HYVs) were introduced in India during 1960s and are highly input responsive and their management requirements are specific and exacting. Public extension in India reorganized itself to meet the challenge and technical information in the form of package of practices on important cereal crops was disseminated to the farmers. However, poor performance of the sector in recent years and consequent impact on declining rural poverty and national growth, vastly changed production environment and market opportunities have led to emphasis on high value agriculture. Diversification of agriculture from staples to high value crops requires market orientation on part of farmers and extension personnel. Several policy documents have identified setting up and improving Agricultural Marketing Information System as one of the priority areas and providing a market reorientation to the extension system.

Transaction cost theory indicates that ICT based AMIS is likely to yield better prices to farmers. One aspect that has largely remained unaddressed in literature is the relationship between nature of crop, use of AMIS and price realization. Most studies deal with marketing of staples whose marketing is either restricted by government regulations (in India) or is not unduly influenced by lack storage facilities. This study examines if market risks unique to horticultural crops influence use of AMIS by farmers and its effect on their income. The study was carried out in Wayanad district, which is the largest producer of banana in the state of Kerala, India. As distance from the market can critically influence use of AMIS, the main trading centre in the district was used to divide the district into two spatial zones and one village from each zone was selected randomly using chit method.

**Table 1: Information needs of Banana farmers in Kerala, India**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Type of information</th>
<th>% of farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Market price</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Pest control</td>
<td>72.5</td>
</tr>
<tr>
<td>3</td>
<td>Subsidy &amp; credit</td>
<td>64.5</td>
</tr>
<tr>
<td>4</td>
<td>Post harvest technologies</td>
<td>60.8</td>
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<tr>
<td>5</td>
<td>Organic farming</td>
<td>59.5</td>
</tr>
<tr>
<td>6</td>
<td>Weather</td>
<td>57.5</td>
</tr>
<tr>
<td>7</td>
<td>New varieties</td>
<td>54.2</td>
</tr>
</tbody>
</table>

Information was collected from 120 banana cultivators and some traders using pretested interview schedule and checklist respectively. Farmers expressed a wide variety of information needs. Price information was sought by all the respondents. Due to several reasons, some farmers sell their produce directly to retailers. They still use price information from mass media, friends, and price paid by the consumers as the basis for fixing the selling price. There was significant difference in the mean price obtained by farmers using AMIS and non users. This difference was observed in both the villages and the results hold true for both the common varieties of banana cultivated in the study area.

Wholesale traders preferred to pick up the crop from marketing centres even though the price was higher. This was due to availability of large quantity, freedom from scouting for the fruit from different markets, arranging for transportation and ensuring quality.

**Fig 1: Banana Marketing Centre in the study area**

In the study area, farmers who use organised marketing channel/ AMIS were also members of Self Help Groups formed by Vegetable and Fruit Promotion Council Keralam. The farmers were not only involved in collective marketing but had greater access to extension advice, credit and participated in training programs on fertilizer application, pest control, selection of suckers and post harvest management. Though majority of the farmers were small holders, they were able to remain competitive due to innovative institutional arrangement. While access to price information
through AMIS helped in price fixation, trading in large volumes enhanced their bargaining potential.

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