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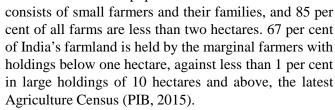
Enhancing income of small holder farmers:appropriate strategies and policies

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Small holder farmers play an important role in global food security and according to the Food and Agriculture Organization (FAO), four-fifths of the developing world's food is produced by small-sized farms (FAO, 2012). Small holder farmers need to improve their incomes and competitiveness to achieve and sustain a decent standard

of living. It has been estimated that globally, 500 million farmers (85% of the world's total) have access to less than 2 hectares of land. Smallholders using under 2 hectares are currently providing 70 per cent of the world's food and researchers perceive smallholders as having substantial potential for providing food security and viable livelihoods (HLPE, 2013). Almost 50 per cent of India's total population



Small farms face numerous challenges in production, especially in terms of access to essential factors of production such as credit, inputs (seeds, fertilizers, pesticides), information and production technologies in addition to poor access to output markets (Pingali, 2012 and Poulton et al., 2010). Moreover, the following factors critically affect smallholder incomes.

- Access to agricultural services including know-how, inputs (seeds, fertilizer, tools), equipment and machinery
- Access to financial services such as credit, loans, savings and insurance
- Increased participation of women and youth and equal economic empowerment
 - A strong local economy.
 - Growth in domestic and international markets
 - Decent markets with stable demand, fair prices,

and favourable trade terms

Srinivas and Proctor (2009) have identified the following key issues for the empowerment of small-scale farmers in India.

- Share models of what works in India and why? Specifically on good and innovative methods of

empowering farmers in markets

- Evaluate existing models of self-help groups that have effective business processes for collective marketing
- Build platforms for dialogue at state and sub-state levels for (commodity) market chain planning and improvement of small-scale farmers market access
- Align national research to meet policy needs of farmers and

develop techniques that can be adapted by the small-scale farmers (or are at least scale neutral)

- Improve systems of data collection and dissemination regarding crop production e.g. acreage under cultivation, relevant treatments (pesticides - organic or otherwise, fertilizer, manure, etc.) at different stages of production and on market price information
- Synthesise and support the better use of data on agriculture and farming practices
- Develop new business models linking farmers to modern market intermediaries to improve market access for the poor
- Invest in a market-orientated agricultural extension to facilitate production market linkages
- Conduct research into the impact of specific market related policies and interventions on different categories of farmers
- Mobilise farmers and their organisations at regional and national levels for better advocacy
- Collectivise the farmers marketing operations in order to reduce the transaction costs
 - Pilot innovation to link producer organisations with



 $consumers\ and\ thus, minimise\ the\ number\ of\ intermediaries$

– Develop and share innovation to reduce the cost of

insurance of commodity warehousing, institutionalise warehouse receipt systems particularly in the rural areas.

Therefore, there is a strong need for supporting smallholder farmers by building capacity and skill sets, strengthening cooperatives and farmer organizations and promoting access to credit, markets, mechanization and technology. Pratap *et al.* (2017) opine that for



better targeting of policy it is important to identify the farmers' with low income and low access to technology, markets, credit, information and infrastructure. Some of the avenues and extension strategies have been described for their potential for enhancing farmers' income.

Government programmes and schemes: Several new programmes and schemes have been launched by the government to increase farm income. There are several mega flagship programmes, including the Pradhan Mantri Krishi Sinchayee Yojana, Soil Health Card scheme and Pradhan Mantri Fasal Bima Yojana. Moreover, the last three Union budgets had various programmes to step up investment in the agriculture sector. However, more is needed to make it efficient, competitive and sustainable. There are three possible options to supplement government investment: Converge various region-wise government schemes into one umbrella programme to check duplication of efforts and reduce administrative costs. Incentivise corporate social responsibility (CSR) initiatives for agricultural development schemes, developing agri-infrastructure such as agricultural markets, warehouses, cold storage, cold chains, irrigation delivery and extension services through publicprivate partnerships (Joshi, 2018). Public-private partnerships need to be harnessed for increasing efficiency of research and farm productivity with enhanced investment and funding (Sendhil et al., 2017).

Contract farming: Contract farming is the contractual arrangement between farmer and the firm, whether oral or written, specifying one or more conditions of production and/or marketing of an agricultural product. The contract between farmers and buyers insulates farmers from price risk, helps them develop new skills and opens new markets. Baumann (2000) defined contract farming as a system where a central processing or exporting unit purchases

the harvests of independent farmers and the terms of purchase are arranged in advance through contracts.

In India, contract farming is regulated under the Indian Contract Act, 1872. The Act has many general provisions that are relevant to contract farming, including the formation of contracts, obligations of parties and consequences in case of breach of contract. A new a draft model contract farming Act, 2018 has also been formulated with a proposal to set up a state-level agency, the

contract farming (Development and Facilitation) Authority, which would put contract farming outside the ambit of the APMC. At a broad level contract farming is a winwin situation for both farmers and company as it aims, to provide a proper linkage between the farm and market, promote high degree of competition at the supply and market end and minimize intermediaries in order to increase famer's income.

Advantages of contract farming for farmers: The main benefits for small holders to undertake contract farming are: Access to productivity enhancing inputs, as some companies provide timely inputs and the payment is recovered after the crop is delivered in such cases the farmers' need for credit is also lowered. Access to credit is eased as the farmers' are provided financial assistance from the companies with repayment option of post harvest cash settlement. Risk management is possible through farm diversification with technical support from the company. Extension advice and information support in the form of crop specific planting, pest and disease management, markets, quality and safety standards help the farmers to produce high quality products. Contract farming can fill the gap of lack of investment and land improvement by supplying quality inputs, giving technical guidance and management skills.

Potential disadvantages of contract farming for farmers: There is an element of risk for farmers that companies may fail to honour their contracts. This could occur if the company finds that the venture is not profitable or if it loses the market for the product line. It is important that farmers and their supporting organizations do a detailed study of the company before embarking on the contract and ensure that legal protection of the farmers is safeguarded in the contract. Moreover, predetermined

prices do not take care of food inflation and in case there is a price rise of the product, the farmer cannot take advantage and make a substantial profit as he is under contract to sell at the price agreed upon beforehand (Jayshree, 2017).

On a positive note most of the problems farmers face with respect to agricultural marketing can be overcome and the farmer need not resort to distress sales due to lack of sufficient storage facilities. There is a need for educating the farmers about legal safeguards with provisions for quick and just dispute settlement between the big corporations and small and medium farmers.

Group farming: Group farming as an alternative model to enhance small farmer productivity and profitability needs to be explored. Group farming may refer to a model wherein small farmers voluntarily pool their resources (land, labour, capital and skills) to create a larger enterprise and cultivate it jointly, sharing costs and benefits (Agarwal, 2018). Since the smallholders face production constraints, pooling of resources and joint cultivation would enable them to enhance their productivity, overcome labour shortage, economise on input, transport and marketing costs.

Education and training in groups is able to influence change in three broadly defined ways: By delivering new knowledge and skills, by providing interaction with 'experts' (that is, facilitators, trainers or teachers) and by providing opportunities for interaction with peers (fellow training participants).

Agri-tourism: potential for enhancing farmers' income: Agri-tourism or Farm tourism is a sub-sector of rural tourism. According to Roberts and Hall (2001), farm tourism is one of the five categories of rural tourism, the others being ecotourism, cultural, adventure and activity tourism. Moreover, the Agro tourism philosophy aims to increase farmers' incomes and the quality of life of rural society (Zoto *et al.*, 2013).

Agri-tourism as an income earning enterprise can be successfully set up by individual family farms, run by women's groups or farmer producer organization with well planned activities to earn stable income all year through. Forward and backward linkages play an important role in enabling the farm families to plan and implement various activities under agri-tourism. Organizing specialised training programmes to impart skills in grooming, house-keeping, logistics management will instil confidence in the farm families to provide in-house agri-tourism services to urban clientele. Customized tour packages could be planned and provided to different clientele *i.e.*, for school tours, corporate meetings, family get-together and college

reunions. Thus, agri-tourism has the potential to provide substantial income during off-season to the farm families. **Institutional support for skill development of farmers:** Investment in human capital or skill development is a critical factor in enhancing farmers' incomes and thus, the Agriculture Skill Council of India (ASCI) was set up in January 2013 as a Section 25 company under Companies act of Ministry of Company Affairs (*asci-india.com*). The endeavour of ASCI is to work towards building capacity in the Agriculture Industry and bridge the gap between laboratories and farms. It envisions upgrading skills of Cultivators, Agricultural Labours and Direct and Indirect labour engaged in Organised and Unorganized Agriculture and Allied industry.

ASCI has developed a set of 157 Qualification Packs for developing the skills in the persons engaged in agriculture and allied sectors in emerging sectors of agriculture *viz.*, Farm Mechanization and Precision Farming, Agri-Information Management, Dairy Farm Management, Poultry Farm Management, Fisheries, Animal Husbandry, Post-Harvest Supply Chain Management, Forestry and Agro Forestry, Watershed Management, Amenity Horticulture and Landscaping, Production Horticulture, Seeds Industry, Soil Health Management, Commodity Management, Agri Entrepreneurship and Rural Enterprises and other Allied segments.

Agri-startups: There is a huge potential for agri-start ups to help in enhancing farmers' income by providing infrastructure for storage, marketing, food certification and setting up soil testing laboratories. A small farmers' agribusiness consortia (SFAC) can take the lead in developing appropriate institutional arrangements to aggregate the produce for storage and marketing by involving agribusiness start-ups (Joshi, 2018).

Policy support: Smallholder farmers need supportive policy environment (Shenggen *et al.*, 2013) and these policies and investments should focus on, promoting context-specific farm-size policies, supporting productive social safety nets, improving risk mitigation and adaptation strategies, linking agriculture, nutrition and health, promoting pro-smallholder value chains and increasing smallholder-friendly financing and investment. Abhraham and Pingali (2017) opine that policy for reducing the cost of accessing credit, quality inputs and R and D to support intensification and diversification is needed to transform low productivity agricultural systems. More investment in agricultural research, improvements in efficiency of research and reorientation of research agenda taking into consideration the emerging challenges and opportunities

in agriculture is the need of the hour. Moreover, on the Government side the need is for sufficient budgetary allocation (Gulati and Banerjee, 2020) and enhancing farmers' access to institutions, improving infrastructure with respect to irrigation, electricity and roads more emphasis on soil based nutrient use. Improving the efficiency of agricultural markets, creating state of the art processing facilities, skill development and non-farm employment guarantee as these have an indirect influence on agriculture and rural development (Pratap et al., 2017).

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