



RICAREA Seminar
on
SUSTAINABILITY OF SMALL FARMER
IN
THE CHANGING AGRICULTURAL
SCENARIO

Date: 08 Dec.2018, Saturday

FIRST CIRCULAR



Photo Courtesy: N. Palmer (CIAT)

Most of the world's farmers are smallholders with less than two hectares of land. With more than 2.5 billion people world-over depending on agriculture for their livelihoods, their financial risks are high and the returns are low. Smallholder farmers in developing countries play a key role in meeting the future food demands of a growing and increasingly rich and urbanized population. However, smallholders are not a homogeneous group that should be

supported at all costs. According to the Agricultural Census of 2010 - 11, there were a total of 138.35 million operational holdings in India. The total area operated was 159.59 m ha and the average size of an operational holding was 1.15 ha. The average size of all holdings of size 2 ha or less – which constituted small and marginal holdings as per the official definition – was 0.60 hectare. Holdings of size 2 ha or less accounted for around 85% of all holdings and 45% of the total area operated. The number of persons who were part of small farmer households was close to half a billion.

Almost 50% of India's total population consists of small farmers and their families, and 85% of all farms are less than two ha. Plainly the situation of small farms is of enormous importance to the overall social wellbeing of India.



Photo Courtesy: The Kellogg company

The levels of income received by small farmer households were low, in both absolute and relative terms. The average incomes received by small farmers were not much higher than the minimum wages in agriculture stipulated by State Governments and hence incomes are inadequate to meet investments or any requirements other than daily consumption needs. The available data suggest that the situation of the rural sector in India is in crisis: incomes for small farmers and landless workers are extremely low with no indications of improvement resulting in very poor quality of life. Farmer suicides account for 11.2% of all suicides in India According

to Chand (2017) the farm income was reported to be inadequate for 53% of the farm households who operated on less than 0.63 ha of landholdings to escape poverty.

Most of the farmers' suicides are due to perennial debt trap in which they get entangled, failing to earn reasonable income levels.

Logically, Small farming must be potentially as productive as largescale commercial farming. It has been shown that intensive family labour has the potential for producing crops as efficiently as mechanized capital-intensive farming. Small farmers in traditional agricultural settings have been reasonably efficient in allocating their resources and respond positively to price incentives.



According to the International Food Policy Research Institute, the ability of small holder farms to be successful is hampered by such challenges as climate change, price shocks, limited financing options, and inadequate access to healthy and nutritious food. By overcoming these challenges, smallholders can move from subsistence to commercially oriented agricultural systems, increase their profits, and operate at an efficient scale--thereby helping to do their part in feeding the world's hungry.

It is well established that the small farmer was the pivot of India's *Green Revolution*. In the decades of 1970's to 90's, small farmers were earning reasonably well to support their families. However, in the current scenario, the public investment in agriculture and rural development has declined from almost 20% during *Green Revolution* period to currently less than 10%. Moreover, following the globalization and role of WTO, the small farmer is hit hardest and there are no matching policy changes towards protecting the economy of the small farmer.

Some of the measures that might bring about some improvement in the economy of small farmer are considered as under:

- Make crop & animal production more efficient allowing diversification.
- Empower smallholders with knowledge of technologies oriented towards novel & diversified systems of production: This involves training of farmers in new skills in out-of-box agricultural activities *viz.*, mushroom production, honey production through apiculture technologies, seed production, inland fishery technologies etc., in addition to regular crop and animal production activities.
- Enhance biodiversity of farm with productive tree plantations linked to animal production
- Improving farmers' income from non-farm sources that support farming,
- Enhancing efficiency in the use of resources & generating renewable inputs from within the farm
- Minimizing the expenditures on non-renewable inputs,
- Ensuring remunerative price to farmers by providing direct linkages with markets and by cutting down the play of middle-men
- Rescue more farmland / waste land management
- Look after every small farmer in terms of availability of easy credit and marketing

- Revitalize Extension net-work with direct linkages with farmers and
- Research Centres / KVKs to be linked to small farms

Dry land technology must be improved towards achieving long term sustainability with small farm holding in focus. In view of high variability in agro-climatic conditions in such unfavourable areas, research must become increasingly location-specific with greater participation or interaction with farmers. Horticultural crops that are land-saving and water-saving should be encouraged in dry land areas

The required level of investment for the development of marketing, storage and cold storage infrastructure is lacking. The government has not been able to implement schemes to raise investment in marketing infrastructure.



Photo Courtesy: Mr. Kondal Rao (DRR)

Non-traditional approaches on out-scaling innovations linked to higher productivity, sustainability and profitability through most appropriate diversified, secondary and specialty agriculture linked to post-harvest management, especially around proper storage,

value addition and better access to market - would help in enhancing income of small farmer

In view of the second generation challenges our country is facing in terms of decline in the factor productivity growth, poor soil health, loss of soil organic carbon, ground and surface water pollution, water related stress, increased incidence of pests and diseases, increased cost of inputs, decline in farm profits and the adverse impact of climate change the task of the small farmer in achieving sustenance has become more intricate, without external assistance.

The present pace of climate change exerts influence on agriculture with respect to production timing, product quality, availability of inputs and their costs, cultural practices, pests and diseases, post-harvest and marketing costs.

Financial viability and Priority issues within the Climate Change Response Strategy will have to be discussed with extreme events like unusually low or high rainfall, extremes in temperature, intense sunlight or wind like that of *Phailin* Cyclone in East Coast of India that caused harm to the crops and animals. Suitable horticultural species including some unconventional tree species with resilience to vagaries of weather; but possessing soil enhancing properties and Carbon sequestration attributes must find a place on small farms too. Ensuring the implementation of proven farm pond water harvesting system, conservation of natural resources, nutrient management and intercropping of annuals within the perennial tree plantations can ameliorate the situation.

The papers to be presented at the above Seminar and the recommendations that would emerge are expected to throw more new light in ameliorating the situation of the small farmers.

The Seminar represents an effort to collate the available knowledge from all sources including the successful case studies on farmers'

fields with specific reference to small farms under diverse agro-ecological conditions and present the conclusions in an intelligible form for everyone including scientists and farmers.

The Agenda for the Seminar shall be as follows

- Inaugural Session: Inaugural Address by Dr. Trilochan Mohapatra Director-General ICAR & Secretary to the Govt. of India DARE and KEYNOTE ADDRESS to be delivered by Dr R.S. Paroda Former Secretary to the Govt. of India DARE & Director-General.
- Technical Session 1 :Chairman : Dr V.Praveen Rao, Vice-Chancellor, PJTSAU
Invited Experts will be presenting their papers on (a) Empowering Small Farmer with latest skills on effective and efficient management of small farms (b) Implementable horticulture and agro-forestry based systems to insulate the dwindling economy of small farms, (c) Animal production and Dairy based systems including Inland Fisheries for small farms, (e) Inexpensive post-harvest and product development suited to small farms (d) Management of drought and aberrant weather at the level of small farms.
- LUNCH BREAK
- Technical Session 2: Chairman: Dr V. Damodar Naidu, Vice-Chancellor. ANGRAU.
This session consists of presentation of (a) Papers on ameliorating the economy of small farms, (b) Policy measures needed to enhance the performance and income levels of small farms and (c) SPECIFIC CASE STUDIES that would bring out the successful management of small farms leading to remunerative income levels

- Plenary Session: Chairman: Dr E.A. Siddiq, Former Deputy Director-General, ICAR & Honorary Professor of Eminence, PJTSAU
Review of the models and Practical Recommendations
- It is proposed to honour two successful small farmers at the Seminar
- POSTER SESSION: There shall also be a simultaneous Poster Session presenting the implementable results of investigations on sustainable farming systems. Participants interested in submitting their Papers for Poster Session may prepare their presentations as per the standard format for scientific publication in A3 Size and send the manuscripts to Dr K.P.C. Rao, Secretary, Retired ICAR Employees' Association (RICAREA), Hyderabad at the e-mail Id ricarea@gmail.com on or before November 05, 2018 along with the proof of their registration for the Seminar. Three best poster papers as adjudged by an Expert Committee shall be awarded suitably .

REGISTRATION: Participants other than Invited Experts are required to register themselves by paying a registration fees of Rs. 2,000/-, which can be remitted by Demand Draft in favour of Retired ICAR Employees Association, Hyderabad before November 05, 2018. Contributions by cheques / Demand Drafts drawn in favour of RETIRED ICAR EMPLOYEES ASSOCIATION may please be sent to Dr Y. Muralidharudu, General Secretary, RICAREA, ARC Complex Flat No. 101, Vidyanagar Hyderabad - 500 044 Telanagana State Phone 040-27642579, Mobile: 9704542061

Those of the participants choosing to remit the Registration Fee on line may use the following Bank details pertaining to RICAREA
Name of the Account Holder : Retired ICAR Employees' Association
Phone Number of the Account holder: Landline:040-27642579,

Mobile: 9704542061 (General Secretary Dr. Y. Muralidharudu's Mobile)

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Branch Code: Last six characters of IFSC Code represent Branch code.

MICR Code: 500011122

Student Participants may get registered themselves paying a concessional fee of Rs. 1,000/.

Venue of the Seminar: Seminar Hall, Prof. Jayshankar Telangana Agricultural University, Rajendra nagar, Hyderabad - 500030

Organizing Committee:

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Dr Sammi Reddy, Director, ICAR-Central Research Institute for Dryland Agriculture, Hyderabad

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Dr R.N. Chatterjee, Director, ICAR-Directorate of Poultry Research, Hyderabad

Dr Kulkarni, Director, ICAR-National Research Centre for Meat and Meat products

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