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## NEWS

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### **78th Annual Conference of the Indian Society of Agricultural Economics**

The 78th Annual Conference of the Indian Society of Agricultural Economics will be held under the auspices of Institute of Economic Growth, Delhi during November 1-3, 2018. Dr. S. Mahendra Dev, Director and Vice Chancellor, Indira Gandhi Institute of Development Research, Mumbai has been elected to preside over the Conference. The following three subjects have been selected for discussion at the Conference.

- (1) Seven Year Plan for Agriculture – Output and Biowaste Management.
- (2) Post-Harvesting Requirements for Reducing the Gap Between What Consumers Pay and Farmers Receive.
- (3) Social and Community Organisations for Agricultural Development and Coping with Limited Non-Renewable Resources.

The Indicative Outlines on the three subjects would be circulated to the members and member institutions. **The Outlines on all the three subjects have been made available in our Society's website** [www.isaeindia.org](http://www.isaeindia.org). Research papers not exceeding 10 pages each (typed in double space – A4 size – on one side only) including tables, annexures, reference, etc., are invited for discussion at the Conference. Three copies of the papers along with Summaries (not exceeding 250 words) should reach the Society's office not later than May 15, 2018. In the case of papers accepted for publication in full length in the Conference Number of the Journal, the authors should email a copy each of their papers at: [isae@bom7.vsnl.net.in](mailto:isae@bom7.vsnl.net.in) or send the CD of their papers in Microsoft Word for quick conversion.

### **Best Paper Presentations by Ph.D. Scholars from Different Universities of India**

In view of the overwhelming response received last year, it was decided to continue to organise a special session containing paper presentations by Ph.D. Scholars from different Universities of India. For the purpose paper presentations were invited from Ph.D. scholars on the basis of their Ph.D. research or any relevant topic pertaining to Agricultural Economics at the 77<sup>th</sup> Annual Conference of the Society at Meghalaya. The Committee consisting of two experts considered the paper-presentations made during the special session organized during the Conference and announced name of awardees for ten best presentations with a certificate with a cash prize sponsored by the host institution.

### **Professor Ramesh Chandra Agrawal Prize Award**

The Indian Society of Agricultural Economics has instituted in 2004 Professor Ramesh Chandra Agrawal Award of Excellence for contribution to Agricultural Economics. The Seventh Biennial award will be made to an Indian author who has made significant outstanding contribution to theoretical or empirical studies in the field of agricultural economics. The award will consist of a citation and a cash prize of Rs. 25,000. A three member jury of eminent scholars will select the awardee. The name of the awardee will be announced and the presentation will take place at the 78<sup>th</sup> Annual Conference of the Indian Society of Agricultural Economics to be held at Institute of Economic Growth, Delhi from November 01 to 03, 2018.

### **ISAE Fellow Award**

The Society has instituted in 2011 for awarding ISAE Fellows each year for Senior Scholars who have made continuous outstanding contribution to the profession. The honour of Fellow, to be given annually, to an Indian Scholar who has made outstanding contributions to the field of agriculture and rural development. For this purpose nominations were invited from the past Conference Presidents and Presidents of the Society. The Fellow Selection Committee of eminent economists considered the nominations received during the year 2017 and unanimously awarded the ISAE Fellow for the year 2017 to Dr.K.Palanisami, Dr.Pratap S.Birthal and Dr. Suresh Pal.

### **Dr. D.K. Desai Prize Award for the Best Article published in the IJAE in 2016**

Under Dr. D.K. Desai Prize Award Scheme instituted by the Indian Society of Agricultural Economics, ten articles published in the three regular issues of the Indian Journal of Agricultural Economics during the year 2016 were considered for prize by the Prize Awards Committee. On the recommendations of the Prize Awards Committee, the Society awarded a prize of Rs. 10,000/- to the following full length article which was adjudged the best :

“Consumer Demand System for Long Term Projections” by Kirit S. Parikh, Probal Ghosh, Alwin D’souza and Hans P. Binswanger published in April-June 2016 issue of the Journal.

### **Dr. Anamitra Saha Prize Award for the Best Article published in the IJAE in 2016**

Under Dr. Anamitra Saha Prize instituted by the Indian Society of Agricultural Economics ten articles published in the three regular issues of the Indian Journal of

Agricultural Economics during the year 2016 were considered for prize by the Prize Awards Committee. On the recommendations of the Prize Committee, the Society awarded a prize of Rs. 10,000/- (Rupees Ten thousand only) to the following full length article which was adjudged the best:

“Dairying as an Instrument for Ensuring Socio-Economic and Nutritional Security in Rural India” by Ayush Kumar and Jignesh Shah published in the January-March 2016 issue of the Journal).

The announcement of these awards was made at the 77th Annual Conference of the Society held at held under the auspices of Central Agricultural University, Imphal at College of Post Graduate Studies, Umiam, Meghalaya on October 14, 2017.

### **Guidelines for Organisation of Regional Seminars**

The Indian Society of Agricultural Economics has a scheme for organising Regional Seminars, from time to time, on topics of current importance. Senior agricultural economists working in agricultural universities/social science research institutions would be assigned full responsibility to hold such Seminars under the auspices of the sponsor University/Department of Agricultural Economics and Indian Society of Agricultural Economics. The organisers will need to submit a detailed synopsis of the subject selected for the Seminar and identify persons in the region who will be able to submit research-based papers on the subject. This preparatory work is essential before the Society could consider financial assistance. The idea is to promote analysis of region-specific issues supported by field level research ongoing in the region on selected subjects. The guidelines for the organisation of the regional Seminars can be had from the Honorary Secretary of the Society.

1. The scholars/institutions proposing to organise such Seminars are at liberty to select the subjects but the focus should be on aspects of importance to the region; and on giving an opportunity to scholars in the region to discuss their work among themselves and with select senior scholars.

2. The scholars proposing to hold such Seminars should submit to the Society well structured and focused synopses on regional themes along with a list of the proposed paper-writers from the concerned region(s). On the basis of this information the Society would be able to decide on the financing of the Seminar.

3. The number of papers invited for discussion at a Seminar should be restricted to about 10 to 12 and the number of participants be limited to about double the number of papers accepted for discussion but not exceeding 25. The duration of the Seminar shall be limited to 2-3 days. The organisers of the Seminar would have the freedom to decide about the selection of paper-writers from the region concerned as well as the participants.

4. Abstracts of the proposed papers on the subject selected for the Seminar should be submitted within three months after they are solicited by the organisers so that they can form the basis for selection of the paper-writers/participants. Besides, some invited papers may also be commissioned.

5. The scanning of the Abstracts, and the selection of paper-writers on the basis thereof will be the responsibility of the scholars/institutions proposing to organise the Seminar. Copies of the Abstracts and the list of selected paper-writers will be submitted to the Society by the Organisers. The Society will then publish the detailed synopsis of the proposed Seminar in the ensuing issue of the Indian Journal of Agricultural Economics.

6. It is desirable to ensure that the invitation to paper-writers is issued well in advance, say about one year in advance of the holding of the Seminar.

7. A first draft of the paper should be submitted by the selected paper-writers to the organisers within three months of the approval of the Abstracts. The draft papers would be peer reviewed and returned to the paper-writers with the comments of the referees, if any, for revision. The reference of the first draft of the papers will be made to the senior scholars experts by the organisers.

8. The revised papers should reach the host institution before two months of the date fixed for holding the Seminar, so that they can be circulated well in advance to all participants. Copies of the revised papers will be sent to the Society by the organisers as soon as they are received from the paper-writers.

9. The Society would nominate a senior scholar from the region to guide the organisation and conduct of the Seminar. The organisers of the Seminar and the nominated expert should conduct, guide, and monitor the discussions at the Seminar, advise the authors to revise their respective papers in the light of the comments made at the Seminar and the comments offered by the nominated senior expert for possible publication by the Society.

10. The organisers of the Seminar should also prepare a summary of the Proceedings of the Seminar and send it to the President of the Society, immediately after the holding of the Seminar.

11. The Society would provide financial assistance to the host institution, the proposal of which is accepted by the Society, to the extent of Rs. 50,000 to meet the expenses of the Seminar. The organisers of the Seminar should send to the Society item-wise statement of accounts duly certified by the head of the Department of the host institution or its auditors.

12. The Society may consider publication of the papers submitted at the Seminar along with the proceedings within five months of the Seminar. In such an eventuality, the editing of the papers and proceedings will need to be done by the organisers. The copyright of the publication will rest with the Society.

**Information on Completed Ph.D. Theses in Agricultural Economics: 2015-2017**

The Society publishes a list of approved Ph.D. Theses in Agricultural Economics in the last issue of the Journal every year. We have not received the list for the previous year. Therefore, the Chairman/Heads of the Department of Economics/Agricultural Economics in Universities and other institutions in India are requested to kindly send us a list of completed Ph. D. Theses in their Departments/Institutes during the academic year 2015-2017 giving the details about the titles of the Ph.D. theses, name of scholars and Supervisors, University to which the thesis was submitted and the year of acceptance of the thesis for the Ph.D. award.



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## **Indicative Outlines of Subjects Selected for Discussion at the 78th Annual Conference of the Indian Society of Agricultural Economics**

The 78th Annual Conference of the Indian Society of Agricultural Economics will be held under the auspices of Institute of Economic Growth, Delhi, from November 1-3, 2018.

The following subjects are selected for discussion:

1. Seven Year Plan for Agriculture – Output and Biowaste Management
2. Post-Harvesting Requirements for Reducing the Gap Between What Consumers Pay and Farmers Receive
3. Social and Community Organisations for Agricultural Development and Coping with Limited Non-Renewable Resources

Research Papers on the above themes are invited from members and other paper-writers for discussion at the Conference. The scope of each of the three themes is spelt out in the enclosed Indicative Outlines below. The Indicative Outlines are also available on the Society's website [www.isaeindia.org](http://www.isaeindia.org).

Three copies of each paper (not exceeding 3500 words or 10 pages), with its Summary in triplicate not exceeding 250 words need to be submitted. The last date for the receipt of the papers at the Society's office is May 15, 2018.

### SUBJECT I

#### SEVEN YEAR PLAN FOR AGRICULTURE – OUTPUT AND BIOWASTE MANAGEMENT

#### *Accelerating Farmers' Income: New Initiatives through Output and Biowaste Management*

The agrarian distress experienced in many states led the Government of India to set its sight on doubling farmers' income by 2022-23. A paradigm shift from production to income has brought in its wake several challenges to identify options, evolve strategies and make action plans for implementation. The biggest challenge is to facilitate agriculture and livestock sector to grow at a rate of 10.4 per cent per annum at 2015-16 price, which according to the Committee on Doubling of Farm

Income is imperative to accomplish the target being set. The Committee' report, as well as the 3 years' strategy document of the Niti Ayaog have suggested expediting the growth agenda by accelerating crop yield through the use of high-yielding seeds, investments in irrigation and improved irrigation techniques, the balanced use of fertilisers, precision farming and related technologies. Reforms in agricultural marketing, diversification to high value commodities, agro-processing and removal of trade barriers on intermediate inputs are other policies that can contribute to higher incomes. The reports also recommend improving the scale of production given the small size of landholdings through the use of a modern land-leasing law that balances and protects the rights of the tenant and landowners.

Agriculture, being the largest sector in the country, has to grow without fail and must generate positive net returns. The income that is accrued to the farmer depends on the level of investment made and availability of resources, which significantly differ across the states and farming practices. Unequivocally, to overcome agrarian crisis, large investments are required not only by the farmers but also by the respective governments in each state in creating necessary irrigation, energy and other infrastructure. Accordingly, the capital requirements in the short, medium and long term have to be quantified at the disaggregate level with a clear understanding that the relatively poorer and lagging regions have higher growth prospects. A thrust on increasing productivity also mandates remunerative prices to the farmers for the commodities grown and safety nets to cover them from various risks. Recognising that agriculture cannot grow fast and given the suggested options require much higher investments, development of infrastructure and institutional support, literature have recommended reduction in input costs, efficient usage of agricultural commodities and creation of off-farm opportunities for additional income that can be ploughed back into agriculture. However, the pertinent questions are:

- (a) What is the magnitude of public and private capital formation in agriculture and irrigation at the sub-national level and the role of institutional credit in augmenting private (farmer) investment in the short, medium and long term for productivity gains?
- (b) How to strengthen the existing and the newly e-NAM systems of agriculture marketing for better price realisation and necessary reforms in the minimum support price policy to handle post-production aspects?
- (c) In what ways the cost of inputs can be reduced in order to increase income from farming? The input economy has been changed due to a shift from saved seeds to non-renewable seeds, which adds to production cost and cost due to increased application of fertilisers and pesticides every year. Though the government extends subsidy on fertilisers, its share in total cost of cultivation has increased manifold, which needs serious deliberations.
- (d) How do farmers use agricultural commodities in an efficient way? The suggested option is to improve the supply chain, which would bring reduction in the post-harvest losses and transaction costs. The post-

production generates biowaste, which is largely burnt, has considerable potential to be turned into wealth.

Elaborating (d) the scattered evidence indicates that farmers do not burn the crop residues and dried leaves, choosing instead to make manure and save on the cost of fertiliser. The scale of such activity, commonly known as compost and vermicomposting (on adding red worms) is low in India but can be tried as a business model. It also has considerable scope towards a diversified cropping pattern for accelerating farmers' income. The biowaste from sugarcane (molasses), maize (corn) and grasses is also utilised for generating bioenergy (ethanol) in many developed countries. Technologies have been developed for addressing waste accumulation from food crops into bio fuel and some other forms of energy. Investigations are called for as the criticality of technological innovations that maintain soil quality by transforming agricultural waste into manure and some forms of energy is the need of the hour. India may require investments in cost-effective technologies as a majority of the farmers may be unable to invest in the available ones and thus require government support. It is important to explore how such management practices can be brought closer to the farmers to lessen as well as utilise the wastage. The modalities of technical knowhow, investments, government support to farmers through credit or capital subsidy and training are not known with certainty. Scrutinising the location-specific needs may also be required given the dominance of cultivation of paddy and maize in the North and some states in South and of sugarcane in Uttar Pradesh and Maharashtra.

The Niti Aayog's 7 years plan (2017-2024) is underway and deliberations on accelerating agricultural productivity and transforming biowaste into wealth will be helpful in evolving appropriate strategies and actions for implementation at the ground level. Keeping doubling of farmers' income as the key goal, the researchers can write empirical papers on the above overarching issues or carry out case studies on following indicative sub-themes:

1. What are the policy reforms needed to achieve the key goal of doubling farm income and other goals of growth, equity and sustainability? Reforms can cover important factors that determine these goals. These factors are (a) price policy; (b) subsidies and investments; (c) land issues; (d) irrigation and water management (e) research and extension; (f) credit; (g) domestic market reforms and diversification; (h) International trade. What are the policy reforms needed in all the above 8 factors? What kind of new institutions are required to achieve the goals? How to strengthen the present institutions.
2. What technological interventions will contribute to raise efficiency, reduce cost and increase farmers' income? The paper can focus on resource conserving technologies (zero tillage, system rice intensification, mechanisation of specific agricultural operations, technology for water etc.) along with integrated pest

- management, and integrated farming systems approach and the required investments.
3. The private and public capital formation in agriculture and irrigation to achieve the DFI target with a focus on the disadvantaged regions and farmers' short- and long run credit requirements.
  4. The feasibility of bringing efficiency in the use of agricultural commodities through post- harvest and processing activities. The paper can explore scaling up of such activities through reforms in agriculture marketing, establishment of Farmer Producer Organisations/cooperative societies and other ways to link farmers with markets and reduction in post-harvest losses. The efficacy of minimum support price policy and market intervention scheme in facilitating remunerative price to farmers for their produce can also be delved into.
  5. How can rising costs of production of major crops be contained? Can strengthening of the input delivery mechanism, especially seeds and extension through public agencies under the existing institutional set up help? The focus can also be on the need for governance reforms, say in the supply and distribution of fertiliser and irrigation water.
  6. What is the magnitude of biowaste generation in agriculture and the existing utilisation technologies to convert it into manure and gas? The focus can be on the economics of biowaste, saving in input cost, increase in soil fertility and farmers' income, scope of scalability of technology and potential to generate employment - on-farm and off-farm.
  7. Policies for initiating cost effective technologies for converting waste into productive materials, in particular the institutional support that can be extended to the small land holders in meeting the capital, loan and training requirements in setting up of units and bio-energy devices.
  8. Develop a roadmap for biowaste management with a focus on its status and potential for the benefit of farmers. It will be useful to document successful examples to draw lessons for wider replication across the states through Krishi Vikas Kendras and/or other institutional system. The experience of Southeast Asian countries where landholdings are small and policy focus is more on farmers' income than production can also be looked into for policy purposes.

The paper writers should focus on writing empirical papers on the above proposed outlines and avoid descriptive analysis.

#### SUBJECT II

##### POST-HARVESTING REQUIREMENTS FOR REDUCING THE GAP BETWEEN WHAT CONSUMERS PAY AND FARMERS RECEIVE

India's agricultural sector has made tremendous achievements since the Independence. From the stage of a net importer of foodgrains, India became a net

exporter of different agricultural commodities. Some estimates suggest that India's total production of agricultural commodities is more than one billion tonnes today. But, this achievement seems to have not benefitted the farmers, as the average monthly income of the agricultural household as late as 2012-13 was only Rs. 6,426 (NSSO-SAS, 2014). The inadequate post-harvest facilities are primarily responsible for poor farm income. On the one hand, poor post-harvest infrastructure facilities lead to wastages of agricultural commodities, which is in the range of 10-30 per cent of production in fruits and vegetables. On the other hand, the inadequate post-harvest facilities (such as state managed procurement centres, cold storage facilities, road and transport, etc.) often forces the farmers to sell their crops immediately after harvest through intermediaries at throwaway prices. This neither helps the farmers nor the consumers. With long supply chains, innumerable intermediaries and exorbitant marketing charges and fees, the costs of the produce increases substantially that results in very low producer's share in consumer's rupee in most commodities (which ranges only from 20 to 45 per cent). The reduced margin realised from the market continues to be the root cause of widespread farm indebtedness and distress. Though the importance of market infrastructure had been underlined by the National Commission on Agriculture (1976) and reiterated by the National Commission for Farmers (2006), a renewed thrust has been given for strengthening post-harvest infrastructure facilities in the context of the union government objective of doubling farmer income by 2022-23. Keeping in view the broad theme of the subject, the paper writers may focus on the following areas:

- 1). The Government of India has circulated with the model Agricultural Produce and Livestock Marketing (promotion and facilitation) Act 2017 with the aim to promote unified national market for agriculture so as to create better marketing infrastructure for agricultural commodities and promote alternative markets like private wholesale markets and direct purchase channels . Can this Act alone bring the desired results in terms of reducing the marketing costs and improving marketing efficiency?
- 2) Similarly, the model contract farming (promotion and facilitation) Act 2018 can also be assessed for its goodness, role in reducing the farmer market and production risk and whether the contracting agencies and states would find it attractive and whether it can be used to create alternative channels for farmers and especially for small and marginal farmers.
- 3) The e-NAM network was introduced during April 2016 and a total of 585 markets are expected to be on the e-NAM platform by March 2018. What is the impact of e-NAM network so far on the price realised by farmers? Can this facility be useful for all crops and for all categories of farmers? Will this be useful to marginal and small farmers who account for more than three-fourth of India's total farmers and who sell to traders and agents due to interlocking of credit and produce markets?

- 4) A large number of farmers' markets (direct marketing) are operating in different States in different names (for example, Apni mandis in Punjab, Haryana, Rythu bazaars in Andhra Pradesh and Telangana, Uzhavar Sandhai in Tamil Nadu, Shetkari Bazaars in Maharashtra and Raitha Santhe in Karnataka). Anecdotal evidence reveals that the producer's share in the consumer's rupee and marketing efficiency is higher in these markets as compared to organised retail outlets, hawkers and other outlets. If this is true, why are these markets not scaling up and not being replicated throughout India? Paper writers can study the farmer and consumer benefits and obstacles to scaling of these markets.
- 5) Farmers' involvement in post-production stages is argued to have increased the infrastructure, marketing and farmers economic benefits. MAHAGRAPES, Tamil Nadu Banana Growers Federation (Tiruchirapalli), Mahanaar, and farmer producer companies are a few examples in this regard. The role of these organisations in post-harvest management and farmer benefit may be worth studying to examine more robust and viable value chain models.
- 6) As and when the prices of food commodities increases due to short supply or any other reasons, Minimum Export Price, import duty reduction, and Essential Commodities Act are swiftly imposed by the government. Has the essential commodities act helped contain food inflation? Are there alternatives to tackle the issue of sudden price rise in the market and if farmer income is the objective, should the export and import policy be more consistent?
- 7) Post-harvest facilities are needed the most for pulses, and oilseeds where the penetration of contract farming mode is low. Paper writers may bring out good examples in handling post-harvest requirements of these crops and examine any experiments which have happened in the recent past.
- 8) Various policy measures attempted in the last few years at the union and state levels can also be examined for their goodness and effectiveness and implementation and gaps if any.
- 9) The State agencies have been procuring considerable amount of paddy and wheat at MSP in some states. This is probably the best post-harvest facilities available to farmers so far. What is the impact of state procurement policies on the income of the farmers? How widespread is this facility and whether it is cost effective and helps tighten market in favour of farmers can be examined. Why are the state agencies unable to procure large quantity of pulses and oilseeds unlike paddy and wheat?
- 10) Some recent studies reported that the commission agents are acting as integral part of the supply chain in the agricultural market. But, it is also true that these agents harm the farmer interest due to interlocking. Can the new farmer based agencies replace these agents in major crops? The role of PACS in procurement at the local level should be assessed and lessons drawn for larger adoption if effective in reaching MSP at local level.

- 11) Many food supermarkets are reaching out to farmers for buying directly with collection centres. The effectiveness and inclusiveness of such operations needs to be assessed. One can also evaluate whether the farmers selling produce to such buyers are better-off vis-à-vis other farmers?
- 12) Some states are implementing price deficiency schemes. These interventions need to be assessed for their coverage and effectiveness and whether such schemes can be sustainable especially in more perishable crops.
- 13) The inclusion of some commodities in PDS and mid day meal schemes at the local level can also be examined for its farmer benefit and reduced post harvest losses and costs of procurement.

These are only indicative outline. The paper writers can also cover any other issues that fall directly under the broad theme of the subject.

### SUBJECT III

#### SOCIAL AND COMMUNITY ORGANISATIONS FOR AGRICULTURAL DEVELOPMENT AND COPING WITH LIMITED NON-RENEWABLE RESOURCES

Agriculture is the key sector for inclusive and sustainable growth of the Indian economy. Although its contribution to the country's gross domestic product (GDP) is around 15 per cent, its share in total employment is about 44 per cent (World Bank, 2017). To meet the growing demand India needs to increase its food grain production from 252 million tonnes in 2015-16 to around 339 million tonnes of food grain by 2030 (Kumar *et al*, 2016. *Proc. Indian Natn. Sci. Acad*, Vol 82(5)). Most of the farmers in India are small landholders (with less than two hectares of land), and an increasing trend of land fragmentation has been observed. The share of small and marginal landholding in total landholding has increased from 80.8 per cent in 2000-01 to 85 per cent in 2010-11. Therefore, the future of Indian agriculture is closely tied with the fate of these farmers with small landholdings, who have to face a lot of distress as they generally lack access to credit, market, relevant information and technology adoption. The Situation Assessment Survey conducted by NSSO of India in 2003 reported that around 40 per cent of the farmers did not like farming as a profession and would like, given the choice, to change their source of livelihood.

Public policies in India have mostly focused on increasing agricultural production and realising food security. The issues related to improving the farm income and livelihood of the farmers have not been adequately addressed. The farmers have had to cope with both production and marketing risks. Production risks include adverse weather conditions and climate change, input price change, access to credit, policy and regulatory risks. There has been an emphasis on increasing the productivity through the intensive use of external inputs, which may lead to degradation of renewable and non-renewable natural resources. Various studies have shown that intensive agriculture has led to loss of soil fertility, soil erosion, soil toxicity,

diminishing water resources, pollution of underground water, increased incidence of human and livestock diseases and global warming. Thus, there is a need for promoting sustainable agriculture that aims at successful management of resources for agriculture to satisfy changing human needs, while maintaining or enhancing the quality of the environment and conserving the natural resources. Recently, role of NGOs in promoting low external input and sustainable agriculture (LEISA) has been recognised in India.

The farmers, especially those with marginal and small landholdings, are faced with several challenges and their hardship gets compounded due to change in the market environment caused due to liberalisation and deregulation of the economy. The deregulation has led to the State withdrawing from many supportive functions. Due to liberalisation, farmers find themselves at receiving end because of increased competition from global markets and entry of new corporate actors in agriculture food network. These firms often aim to perform vertical coordination in their supply chains, in order to ensure greater control over the production processes and to help in procuring the agricultural produce to meet their quality requirements (Barghouti *et al.*, 2004. Agril.and Rural Dev. discussion paper, World Bank). The resource-poor farmers with small landholdings also face major hindrances in accessing efficient modern market chains and struggle to meet standards of agro firms. The high transaction costs and low bargaining power due to small volume make their participation difficult. Hence, they generally sell much of their produce in the local market immediately after the harvest and often at low prices. They also suffer due to variable quality, seasonality, limited storage capacity and poor market information.

There are major challenges in increasing agricultural production in a sustainable manner in the light of land fragmentation, degradation of natural resources, impact of climate change and changing market environment. The farmers with small landholdings can better face some of these challenges by becoming part of a farmers' collective by pooling their resources for mutual support and collective action. It will enable them to strengthen their voice for expressing their needs and to take advantage of economies of scale in buying, storing, bargaining and selling. They can work collectively towards sustainable agriculture by a judicious use of non-renewable resources and relying more on renewables.

The social and community organisations such as NGOs, farmer producer organisations (FPOs) etc. can be roped in for achieving agricultural development in a sustainable manner. FPOs are the institutions that can be geared towards protecting small farmers from ill-effects of liberalisation and to incentivise them to participate in modern competitive markets. Farmers in India can organise themselves through several legal forms of organisations such as cooperatives, societies and trusts, private limited companies, public limited companies and producer companies.

Producer Company (PC) is a legal entity, enacted in 2003 as per section IXA of the Indian Companies Act 1956, of the primary producers of any kind, viz., agricultural produce, forest produce or any other local produce. To facilitate this



process, the Small Farmers' Agribusiness Consortium was mandated by the Ministry of Agriculture. The aim of the PC is to empower and improve the bargaining power and quality of life of small and marginal farmers/producers in India. The membership of PCs in India includes informal self-help groups and individual producers, registered self-help groups and individual producers and only institutional members.

The farmers' collectives are experiencing many challenges including lack of finances, lack of technical knowledge to professional management skills etc. There are many organisations, such as NGOs, voluntary organisations etc. working at regional and national levels who have dedicated their services for the agricultural and environmental sustainability. These organisations have technical knowhow as well as managerial skills. Their role as promoters of producers' organisation for sustainable agricultural development is very important.

Considering the emerging importance of social and community organisation for agricultural development and coping with limited non-renewable resources, the researchers are invited to contribute their papers on the following sub-themes:

- Factors affecting profitability and sustainability of different forms of farmer producers' organisation (FPOs)
- Challenges limiting the growth and viability of the FPOs
- Ways to ensure product quality and maximise benefits from existing markets
- Ways to improve coordination between FPOs and buyers
- Case studies of the farmer producer companies in improving agricultural production, income and livelihood of the farmers
- Case studies of the NGOs, SHGs supporting FPOs for sustainable agriculture

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