

RE
E
P
O
R
T



NATIONAL CONFERENCE

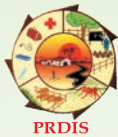
Revisiting Agricultural Extension Strategies for Enhancing Food and Nutritional Security, Sustainable Livelihoods and Resilience to Climate Change

-Towards Transforming Agriculture

22nd - 24th, April 2017



Organisers



Sarvareddy Venkureddy Foundation for Development (SVFD) & Participatory Rural Development Initiatives Society (PRDIS)



H.No 2-6-41/7, Plot no 75, Sathsang Colony, Upperpally, Rajendranagar, Hyderabad

Ph : 040-65556560, 7993979850, www.extncon2017.org extncon2017@gmail.com

in Collaboration with



Professor Jayashankar Telangana State Agricultural University (PJTSAU)

Knowledge Partners





Sri Sri Sri Tridandi Srimannarayana Ramanuja Chinna Jeeyar Swamiji offering his blessings to delegates.



Presentations cum Discussions



Dr.S.P Gosh, Ex DDG,Horticulture Chair person,Dr. Vinita Sharma and R.K. Samanta Co-chair persons of the Lead paper session- 1 presentations.



Mrs.V. Usha Rani, DG,MANAGE Chair person,Dr. Kirit N Shelat, and Dr.Narayana Gouda Co-chairmen of the Lead paper session- 2 presentations.



Poster Presentations



Dr.S.Jayarama Reddy, Treasurer, PRDIS and Dr.C.Beena, V.P, PRDIS receiving mementos as a token of appreciation



National Conference

On

“Revisiting Agricultural Extension Strategies for Enhancing Food and Nutritional Security, Sustainable Livelihoods and Resilience to Climate Change - Towards Transforming Agriculture”

Held from 22-24th April 2017, at PJTSAU, Hyderabad, India

REPORT

Organized by

Sarvareddy Venkureddy Foundation for Development (SVFD)

Participatory Rural Development Initiatives Society (PRDIS)

In collaboration with

**Professor Jayashankar Telangana State Agricultural University (PJTSAU)
Rajendranagar, Hyderabad**

PREFACE

This Conference mainly focused on major Sustainable Development Goals (SDGs) relating to farming communities and Agricultural Extension Strategies that could play crucial role in achieving the targets and transforming the future of agricultural development. It is expected that the outcomes would directly impact the development scenario in agriculture and allied sectors.

About 400 participants attended the National Conference including senior officials from ICAR, Ministry of Agriculture, Ministry of Rural Development, GoI, Extension Professionals and Directors of Extension from National Level Agricultural Universities and Institutions, ICRISAT, Directors of Agriculture/ Horticulture/ Animal Husbandry/ Fisheries from state Departments of Agriculture, besides NGOs, Input Dealers, Research Scholars, Farmer Organizations etc.,

Dr.W.R.Reddy, Director General, NIRD & PR, Rajendranagar, Hyderabad Inaugurated the Conference. Valedictory address was delivered by Dr.V.Praveen Rao, Vice Chancellor, PJTSAU, Rajendranagar, Hyderabad. Key note address was presented by Dr.A.K.Singh, DDG (Extn), ICAR, New Delhi.

The National Conference was conducted under the overall guidance of Dr.V.V.Sadamate, Prof.S.V.Reddy, Dr.M.N.Reddy, Dr.M.Suryamani and Dr. Hemnath Rao. The Conference was also addressed by Mr.B.Rajender, IAS, Joint Secretary, Ministry of Agriculture, GoI, Smt. V.Usha Rani, IAS, Director General, MANAGE, and Lead Paper presentors namely Dr. V.V.Sadamate, Dr.Hemnath Rao, Dr.A.V.R.Kesav Rao, Prof.R.P.Singh, Dr.Sesikiran Bondala and Dr.P.Venkataramaiah.

The invited speakers, Dr.Kirit Shelat, Dr.Dilip Kumar, Dr. K.Narayana Gouda, Dr.S.P.Ghosh, Dr.K.P.Wasnik, Dr.Sanjay Panwar, Dr.G.Perumal, Prof.R.K.Samanta, Dr.Vinita Sharma, Dr. Lalita Narayanan, Dr. Laxmi Priya Sahoo & Dr.Vijaya Khader have participated in the deliberations and provided technical input for arriving the practical recommendations.

The organising committee extends special thanks and gratitude to the Chief Guests, Guests of Honor, Lead Paper Presenters and Invited Speakers & Participants. The gracious presence of Smt.G.Jayalakshmi, IAS, Director General, NIPHM and Dr.Kalpna Sastry, Director, NAARM is duly acknowledged.

The Organizing Committee resolved to pay special tribute to Sri Sri Sri Tridandi China Srimannarayana Ramanuja Jeeyar Swamiji for accepting the invitation & delivering a talk on Farmers Distress and Welfare which was acknowledged with a standing ovation by the audience.

Dr. Ashok Dalwai, IAS, Addl Secretary and Mr. Amitab Goutham, IFS, Joint Secretary, Ministry of Agriculture, GoI as well as Dr. J.P.Mishra, Advisor (Agril), Niti Aayog have provided encouragement and Guidance for organising the conference for which we are very grateful.

The Conference Organizers extends special thanks to various Universities, National Institutions like NIRD & PR, NAARM, MANAGE, Osmania University, NIPHM, Extension Education Institute (EEI), EPTRI, SEP, ICFA, SAHAYAM and REEDS for accepting to be knowledge partners. We are especially thankful to Professor Jayashankar Telangana State Agricultural University (PJTSAU), Hyderabad for providing venue for the Conference and for being a major collaborator. We are also indebted to various sponsors specially Society for Extension Professionals (SEP), ICAR, NITI Aayog, NABARD, REEDS, Indian Council of Food and Agriculture (ICFA), SVFD, SBVR Agricultural College and Input Companies for support provided to the conference.

The organizing committee congratulates the life time achievement awardees namely, Dr.Suresh Kumar, IAS (Retd), Former Additional Chief Secretary & DG, MANAGE, Dr.B.S.Hansra, Former ADG-ICAR & Director, School of Agriculture, IGNOU, and Justice Vaman Rao, Former High Court Judge, Hyderabad as well as Dr. A.K.Singh, DDG (Extn), ICAR, Dr. V.V.Sadamate, Fomer Advisor (Agril) Planning Commission and Dr. M.N. Reddy, Former Director (MANAGE) for receiving Extension Leadership Awards.

We are also grateful to all the contributors of the abstracts & papers as well as the agencies participated in the exhibition. Similarly we are indebted to all the members of the organizing committee and subcommittees who have worked hard for the conference. The staff of PRDIS/SVFD & EEI deserves grateful acknowledgment for their dedicated work. The conference secretariat comprising of Mrs.A.Sreelakshmi, Mrs.V.K.Prasanti.M, Mrs. A Maria Victoria, Mrs.C.Sarika, Mr.Shrey, Mr. Narendra, Mr.V.Praveen and Dr. M. Preethi, Professor, EEI, Hyderabad deserves all appreciation for taking the entire load of pre- conference work and their wonderful support during and after the event.

Dr. V.V.Sadamate
Conference Chairman

Prof. S.V.Reddy
Conference Director

CONTENTS

S.No		Page no
I.	INTRODUCTION	1
	1.1 Objectives	
	1.2 Conference Themes / Sub-Themes	
	1.2.1. Agricultural Extension and SDGs	
	1.2.2. Food and Nutritional Security	
	1.2.3. Sustainable Livelihoods	
	1.2.4. Adaptation and Resilience to Climate change	
	1.2.5. Peace and Wellbeing of Farming Communities	
II.	Highlights of the Inaugural Session	3
III.	Presentations of Lead Paper Abstracts	9
	3.1. Feeding Millions for Food and Nutritional Security – The Indian Context – Prof. (Dr) R.P.Singh	
	3.2. Sustainable Development Goals and Nutrition security-Dr. Sesikeran Boindala MD	
	3.3. Aligning Agricultural Extension Strategies for Realizing the targets of Sustainable Developmental Goals (SDGs) - Dr.V .V.Sadamate	
	3.4. Revisiting Agriculture Extension Strategies for Sustainable Livelihoods - Dr.Hemnath Rao Hanumankar	
	3.5. Climate Change Adaptation and Mitigation – Role of Extension - AVR Kesava Rao	
	3.6. Peace, Happiness and Well being of Farming Community - Dr. P. Venkataramiah	
	3.7. Entrepreneurship, Skill Development and Livelihood Generation by Dr. K.P. Wasnik, Additional Commissioner (Extension), DAC & FW, MoA & FW	
	3.8. Role of Extension in Promoting Small-scale Fisheries and Aquaculture for Sustainable Rural Livelihoods- Dr. Dilip Kumar	
	3.9. Strategy for promotion of small holder horticulture- Dr.S.P.Ghosh	
IV.	Group Sessions- Presentations cum Discussions	18
	Session-I : Agricultural Extension & SDGs	
	Session II : Food & Nutritional Security	
	Session III : Sustainable livelihoods and Peace and well being of Farming Community	
	Session IV : Climate Change	
V.	Special Session on Farmer distress and Well being -Sri Tridandi Chinna Srimannarayana Ramanuja Jeeyar Swamiji	22
VI.	Valedictory Session	23
VII.	Conference Recommendations	28
VIII.	Organizing Committee	33
IX.	Conference Sub Committees	34
X.	Knowledge Partners	35
XI.	Conference Sponsors	36
XII.	Messages	38
XII.	Programme Schedule	41
XIV.	Media Reports	45

I.INTRODUCTION

In September 2015, the member countries of United Nations agreed on 17 goals with 169 targets that set the agenda for sustainable development interventions over the next 15 years. It is interesting to note that most of the goals and targets relate with what the extension profession has been advocating and practicing for a long time. However, there are four important concerns, where agricultural extension can play a major role namely enhancing food and nutritional security, sustainable livelihoods, resilience to climate change and peace and well-being of the farming community. The conference addressed these major concerns with the following objectives.

1.1 OBJECTIVES

1. To scope agricultural extension and its linkages with related Sustainable Development Goals (SDGs).
2. To analyze regional variation on Food and Nutritional status of vulnerable groups.
3. To assess relevance of agricultural extension in promoting sustainable livelihoods.
4. To examine and integrate the role of agricultural extension in facilitating adaptation of communities to climate change.
5. To reorient agricultural extension in addressing farm distress and for promoting peace and wellbeing of the farming communities.

1.2 CONFERENCE THEMES/SUB-THEMES

1.2.1 Agricultural Extension and SDGs

- Innovative Agricultural Extension Approaches
- Extension & Poverty Alleviation
- Education and Learning (ICT, HRD, M&E, Research etc)
- Gender Equality and Empowerment
- Eco System Sustainability
- Water and Sanitation Management
- Value Chain Management and Marketing

1.2.2 Food and Nutritional Security

- Sustainable Agriculture
- Household Nutritional Security
- Enhancing the Agricultural Productivity and Production
- Doubling the Incomes for Small Scale Farmers
- Access, Affordability and Availability of Food
- Consumption and Production Pattern
- Combating Malnutrition Among Vulnerable Groups

1.2.3 Sustainable Livelihoods

- Farm Sector Livelihoods
- Non-Farm Sector Livelihoods
- Livelihood Concerns among Vulnerable Groups
- Entrepreneurship Skill Development for Livelihood Generation

1.2.4 Adaptation and Resilience to Climate change

- Socio Economic Impact of Climate Change
- Adaptation Measures
- ITKs & Farmer Innovations
- Capacity Building and Institutional Structures
- Extension for Climate Smart Agriculture
- Climate Change Agro Advisories

1.2.5 Peace and Wellbeing of Farming Communities

- Farmer Distress
- Stress Management
- Ethics and Values in Extension
- Psycho - Social and Spiritual Awareness
- Quality Standards of Service delivery
- Farmers Welfare Policies and Measures
- Lifestyle Management

II. Highlights of the Inaugural Session

The National Conference on Agricultural Extension Strategies has begun with invocation song and lighting of lamp by the dignitaries. The welcome address was given by Prof S. Venku Reddy, President & Executive Director, PRDIS, Chairman SVFD & Conference Director. He extended warm welcome to the dignitaries, participants, extension professional, professors, SEP members, farmers, NGOs, Scientists, staff of ANGRAU & PJTS Agricultural University, sponsors and students. He recalled the motivation behind the conference was, a thought provoking article of Dr.Daniel Gustafson, DDG, FAO, Rome on 'Agricultural Extension and the Sustainable Development Goals (SDGs)': published in the Book 'Advances in Agricultural Extension' and released by SVFD. He mentioned that member states of United Nations agreed on 17 goals that set the agenda for Sustainable Development Interventions over the next 13 years.

He further added that it is interesting to note that most of the goals and targets relate with what the extension Profession has been advocating and practicing for a long time. He mentioned there are four important concerns, where agricultural extension can play a major role namely enhancing food and nutritional security, sustainable livelihoods, resilience to climate change and peace and well-being of the farming community. Further he urged for building a happy nation for farmer's well-being.

Dr. B. Rajender, IAS, Joint Secretary, Ministry of Agriculture, GoI, who was a Guest of Honour, said that doubling the income of the farmers by 2022 is the major concern of the government. Agriculture is the principal source of livelihood of about 60% of the Indian population. Hence transfer of technology particularly in production, processing, marketing and improving the capacity will lead to the doubling of the farmer's income. He also said there is a need to improve the yield of pulses, cereals, oil seeds to increase the farmer's income. The farmers need to be secured from the natural disasters and market fluctuations through insurance coverage, etc.

He further mentioned that the government launched e-National Agricultural Market (e-NAM) to ensure that the farmer can get good returns on their produce. He added that there is a need to think about major concerns like protection of crops from wild animals, major crop diseases, crop residue management, lack of convergence etc.

He requested the Universities, ICAR, NGOs and other institutions to give their inputs to modify the policies in the GoI guidelines to increase the income of the farmers and to arrest farmer's suicides which are the major concern of the Nation.

Dr. A.K. Singh, Deputy Director General (Agricultural Extension), ICAR and Guest of honor in his key note address highlighted the challenges in the growth of Indian Agriculture which is closely linked with intensive and proactive efforts of agriculture research, education and technology transfer.

He also explained how the ICAR/SAU front-line extension system plays a catalytic and supportive role. It develops extension methodology, refines and transfers front-line technologies and also provides feedback to scientists. He emphasized the need for Attracting and Retaining Youth in Agriculture (ARYA) in rural areas by training the nation's youth in various agriculture and allied enterprises for sustainable income and gainful employment. Establishing Farmers/Farm women network groups and also involving them in activities like processing, value addition, and marketing as well demonstrating functional linkages with institutes and stakeholders is an important step forward in this direction.

He emphasized that KVK system plays a key role in transfer of modern and emerging technologies in agriculture and allied sectors leading to increase in production, productivity and development of high value agriculture.

He indicated that it is important to identify regions that are more vulnerable to climate change and variability in order to develop and target appropriate adaptation measures. Emphasizing the role of the Village Climate Risk Management Committee (VCRMC), Custom Hiring Centres (CHCs), Seed banks, Fodder banks, Value chain development and Integrating Gender and Nutrition, as well as Convergence. He felt that the need for effective linkage between two public extension institutions KVK and ATMA for delivering effective extension services to the clientele.

He further added that several of the innovations in extension and institutional innovations that have come up in response to the weaknesses in public research and extension, have enough indication of the emergence of an Agricultural innovation system in India. This has resulted in the blurring of the clearly demarcated institutional boundaries between research, extension, farmers, farmers groups, NGOs and private entrepreneurs. Extension has to play a very important role of facilitating access and transfer of knowledge between different entities in the innovation system. He further said to create competent institutional modes to improve the overall performance of innovation system. Inability to play this important role would marginalize extension further. Finally drawing the attention of the conference to Sustainable and climate sensitive agriculture which calls for a focused and robust approach on need based empirical research, identifying potential challenges, prioritizing suitable solutions and designing appropriate interventions for bringing out desirable changes among the targeted clientele. There is a need to strengthen extension advisory for bringing out desirable changes in the existing system for a lasting impact.

Dr. Suresh Kumar, IAS (Retd), Former Additional Chief Secretary & DG, MANAGE, who received the life time achievement award for his service to Agricultural Extension and farmers has profusely thanked the organizers specially Prof.S.V.Reddy for bestowing him for this coveted award. He recalled his association with Prof.S.V.Reddy in the last three decades and his contribution to several institutions connected with Agricultural Extension and farmers welfare.

Dr. B.S.Hansra, Former ADG-ICAR & Director, School of Agriculture, IGNOU thanked Prof. S.V.Reddy for choosing him for life time achievement award. He said that as a scientist he will carry forward the challenges highlighted by Dr.A.K.Singh and try to help the Nation.

Dr. W.R.Reddy, IAS, Director General, NIRD & PR, Hyderabad was the Chief Guest who stated that it's a great opportunity to participate in the conference and meeting such eminent people like Dr. Suresh Kumar, Dr. Hansra and other dignitaries. He congratulated the conference organizers SVFD & PRDIS. He also appreciated the efforts of the organizers in attempting to do the National Conference with the title '*Revisiting Agricultural Extension Strategies for Enhancing Food and Nutritional Security, Sustainable Livelihoods and Resilience to climate change*'.

Reflecting his perception about Agricultural Extension he said we know the problem and we also know the solution but unfortunately we don't know how to implement them and that is the major challenge before us. He stressed that enhancing food and nutritional security itself is a vast area and the sustainable livelihoods would require altogether different approaches. It is really a bold step of organizers to try to decipher the problems, issues, and implementation aspects of these three elements and to be achieved by revitalizing and reinventing the agricultural extension system.

In his opinion agricultural extension system alone cannot address this heavy loaded title of the conference. It can only play a major role and there are many more players, many more actors, many more stakeholders who need to join hands together. The agricultural extension system should rope in all those players. Then only it can achieve its objectives. For addressing all these goals i.e. food and nutritional security, sustainable livelihoods and resilience to climate change, the farmer has to be the focal point. Until unless we achieve the livelihood security of the farmers the rest of the elements are impossible to achieve.

In this context, he said focusing rather than on production alone, focusing on the farmers income and farmers security either in food production or nutritional security or enabling his farm activities to resilience to climate change is necessary. The government both at federal level and state level has recognized this necessity and brought the focus to the farmers. That's how the

doubling of the farmers income, has engaged the attention of the Hon'ble Prime minister Sri. Modi Ji.

For doubling the farmer's income, we can also look at the diversified farm and non-farm activities. In this regard we would need to reorient and re-invent the Agricultural Extension system by appropriate behavioral changes from input supply driven to the market oriented, livelihood oriented extension system. We make each extension worker accountable for 100 households, who mainly depend on Agriculture, derive their major part of income from Agriculture and allied activities.

He mentioned that Private agriculture extension system specially Agriclincs and agribusiness centres need to be encouraged. He added that we are working on very weak, unrealistic data system either on data census or crop cutting data. Market oriented extension system is the need of the hour.

Furthermore, Dr. Reddy stressed on Food and nutritional security as very important while mentioning that the availability of food is more. He opined that we must be very thankful and grateful to the hard working farmers, scientific community and extension workers. Nutritional security of farmers depends on large number of social factors like social customs, gender bias, availability of drinking water, food supply, buffer stocks etc

Agriculture alone cannot make sustainable livelihoods 8.1% of workers depend on agriculture for their employment. Share of non-farm employment has gone up to 27%. Agriculture functionaries and rural development functionaries should work together on common community development schemes for increasing the household income of farmers.

There is a steep decline in farm employment. In 1994 the farm employment emanating from manufacturing is 32% but now it is only 17%. Farm manufacturing activity is coming down day by day due to real estate, construction etc. Focus should be on Rural industrialization and Rural entrepreneurship. In his opinion agriculture extension system should be dynamic to support entrepreneurship and the Agriculture extension worker should become project manager to look after all the farm activities. Disjointed agriculture extension system is the major problem. Extension education system should provide capacity for the extension worker to increase the household income of the farmers. An agriculture officer should be made accountable for a certain number of households. He concluded by saying that the Agriculture extensionist should be passionate, continuously learn and must be change agent, creating trust with farmers to transform rural ecosystem.

Dr.V.V.Sadamate, Former Advisor (Agrl), Planning Commission, GOI and Conference Chairman in his closing remarks, thanked all the Scientists, Chief functionaries and Farmers and everyone for their tremendous response. He also thanked the organizing committee, Institutes of ICAR, NITI Aayog, Agricultural Universities, NIRD&PR, MANAGE and other institutes without which such a big conference is not easy to organize. He thanked everyone for their support, participation and cooperation.

In his closing remarks Dr. Sadamate appreciated the points of Dr. B.Rajender. And mentioned that developing programmes needs sound Agricultural Extension strategies and sound action plans for realizing the targets.

He also said that Dr. A.K. Singh's presentation was very comprehensive and it had covered almost all aspects of agriculture extension in action. The first priority was how extension should respond to the local needs, local government and local priorities. The second priority was the relationship between extension strategies and developing goals. The third priority is what should be the linkages between the Research and Extension and how front-line extension and Extension service should supplement and complement each other. He also stressed the importance and use of ICT, particularly the social media.

In his remarks he also said that Dr.W.R.Reddy mentioned how we can rope in different extension actors and to bring convergence in extension efforts at house hold level and farm level itself is a major challenge and if tackled systematically would also help in doubling of farmers income. He also pointed out what should our strategies for resource poor area for which general prescriptions by extension have not worked well.

Dr.Sadamate, thanked Dr. Suresh Kumar and Dr. B.S.Hansra for accepting the life time achievement award.

He said food security is one of our goal in the conference. He gave message to the students that there is no short cut to success, knowledge has to be associated with application.

He also highlighted about Prof. S.V.Reddy's, outstanding contribution as an academician, who also had worked with World Bank, FAO, Africa and has passion for reforms in extension. He said Dr.Reddy has his own strong team of Professionals, field workers, strong network across the world and strong support from National and International level. He once again thanked all the dignitaries and participants for their presence in the National Conference.

Dr.M.Suryamani, Director, EEL, Rajendranagar and Conference Convener, thanked profusely the Chief guest, Guests of honor and the dignitaries on the dais notably Dr.W.R.Reddy, Dr.A.K.Singh, Mr.B.Rajender, Dr.KalpanaSastry, Dr.V.V.Sadamate, Dr.M.N.Reddy, Mrs.G.Jayalakshmi and Prof.S.V.Reddy. She expressed her gratitude on behalf of the organizers to Dr.W.R.Reddy who was kind enough consented to be the Chief Guest and deliver the inaugural address, Dr.A.K.Singh, Guest of Honor, for accepting and delivering the key note address and Mr.B.Rajendra, Guest of Honor, for associating with conference as Guest of honor and addressing the delegates. Special mention was made about Dr.V.Praveen Rao Hon'ble Vice Chancellor, PJTSAU for his continuous support, guidance and encouragement to organize the mega event. Finally she also thanked SVFD, PRDIS and the organizers, invited speakers, delegates and media for their participation and support.

III. PRESENTATIONS OF LEAD PAPER ABSTRACTS

Session- I

Chairman: Dr.S.P.Ghosh, (Ex DDG Horticulture), New Delhi

Co-Chairs:

- a. Dr.Vinita Sharma, Former Senior Advisor, Department of Science & Technology, New Delhi.
- b. Dr.R.K.Samanta, Former Vice Chancellor, BCKVV, West Bengal

3.1. Feeding millions for Food and Nutrition security- the Indian context by Prof. (Dr) R.P.Singh, Executive Secretary, Indian Agricultural Universities Association, New Delhi.

In the backdrop of West Bengal Famine in India during 1940 when about a million people died without food, the food situation in India till 1959-60 was a state of begging bowl or ship to mouth due to the US support under PL-480, when it was stopped during 1959-60. India was struggling with the situation of begging bowl or ship to mouth due to poor production and productivity of main crops with occasional droughts, poor roads, electricity, irrigation system and infrastructure, all this was due to poverty and lack of education and research. The country was always under the threat due to increasing population (363.2ml in 1951 with the food grain production of 50ml tones only).At this time India was showing great signs of collapsing due to unavailability of food for rising population and the situation was predicted by US economists Padak and Padak brothers, that India will be doomed in few years and the “ Mendel and Malthus theory” will come true when India’s growing population will overtake the agricultural production. They also predicted that there will be starving deaths due to food unavailability and half of the population will die within 6 months. This threatened the viability of the India’s social system with drastic effects of environmental and economic implication.

3.2 Sustainable Development Goals and Nutrition security by Dr. Sesikeran Boindala MD, Former Director, National Institute of Nutrition (NIN), ICMR, Hyderabad.

Almost all the 17 SDGs shall directly or indirectly lead to nutrition and food security and better health. Nutrition security involves the availability and accessibility to a variety of foods that provide all nutrients required for a balanced diet.

A balanced diet is needed for good health and well being (SDG3). It should provide all the macro and micronutrients in the right proportion- It includes

adequate physical activity and water intake. This is rarely achieved unless we consciously adhere to a planned food intake and a planned food production. Historically balanced diet would have never existed. Pre Historic man ate what was accessible and when available. There would have been phases of binge eating and times of near starvation. Human evolution and survival of the fittest would have modified the physiology and metabolism. Protein intakes were very high due to a predominantly meat based food. Fibre and micronutrients would have come through wild fruits, berries, leaves, tubers etc. Tubers honey and natural sugars from other foods were the carb sources. Their energy needs were primarily from Fat from the animal foods and secondarily through carbohydrates. Energy needs would have been higher due to constant physical activity and only sufficient fat intakes would have sustained them. During times of plenty there would have been fat accretion and during winters when food was scarce their energy needs would have been primarily for basal metabolism and keeping warm and this would have come from body fat stores.

Agriculture and domestication of animals and a stable living in small communities had brought about significant change in lifestyle. Carbohydrates would have been the dominant source of energy in their diets along with fruits and vegetables, milk, fermented milk along with meat, fish etc. Physical activity levels would have been more uniform across the seasons. It is possible that body composition would have changed during this transition.

In this manner there would have been significant changes both in the diets as well as activity levels whenever major changes happened in human activity and way of living and food production. Nutritional deficiencies were more common than nutrient excess. Food was processed and prepared in homes and rarely bought off the shelf except the raw and primary processed foods. Hand processed cereals had the goodness of whole grain, crude extraction of oils had all the natural antioxidants and nutrients. Poultry were free living and hence lean. Infectious diseases due to poor hygiene which further worsened the nutritional status were a major problem. During the late 70's in India the pendulum started swinging to the other end of nutritional adequacy and excess. Increased food production, better food technology, large scale processing methods, open market economy across world markets, transportation, more disposable incomes, living on credit, labour saving gadgets across all fields of activity and a fast life with less time for food processing at home.. Physical activity levels fell and energy intakes increased marginally but the sources of energy were refined carbohydrates and fat. While earlier lifestyle changes took several hundreds of years for transition, the present one has happened in less than 50 yrs. In human evolution this is almost an instant change. Unfortunately the genetic programming doesn't change at that speed. The extra energy could not be used since physical activity came down. The overweight and obese population gradually increased initially in urban areas and now even rural and some tribal areas

too. Due to better job and income options in cities and less attractive agriculture incomes, populations have migrated and they had to adapt to the wrong kind of foods compared to their traditional ones. The rapidity of transition from a low glycemic low fat food to a highly processed and exactly the opposite kind of foods have led to an explosion of Non Communicable Diseases.

Chairman Remarks:

Dr.S.P.Ghosh, in his remarks suggested a model extension strategies for promotion of small holders horticulture (or) group extension by farming homogeneous self-help groups of small - marginal farmers on climate basis (b) group capacity building through farmers training in HVCs (Fruits, Vegetables, flowers, spices), field demonstrations of evaluated to production technologies(c) encouraging group marketing of perishable commodities in the concept of farmer producer companies/organization in compact areas of 200 -400 ha and providing micro credit support through micro finance institutions. NABARD Schemes to support micro finance development, Farmer producer organization and support to rural infrastructure development through finance to state governments may be linked for funding support (as agriculture credit). Support rural innovations and development of infrastructures like collections/distribution centers will be essential for marketing of HVCs.

NGOs and Micro Finance Institutions (MFI) need to strengthen and there account ability as partner in rural reconstruction including small holder Horticulture promotion should be an integral component in the new Extension Strategies to doubling the farmer's income. Several suggestions were made on Nutrition including the need for revisiting Nutritional policy and setting up national missions at central and state levels.

Co- Chairpersons Remarks:

Dr.R.K.Samanta, in his address emphasized that the extension is not only extending the knowledge, information and skills but convincing farmers into action. The Extension professionals should feel that every farmer irrespective of country and crops only needs five important things like production technology, actions, inputs, credit and post-harvest technology. The farmer should know how to sell the produce for a better price, because money is most important and even that is the main theme of the extension. The extension professionals should feel something they should do because technology is available which is not reaching the farmers. Its not only the extension responsibility but the total system is responsible, then only things makes into practice and finally farmers get benefit out of it.

Dr. Vinita Sharma, in her remarks said that fortunately country has a very favorable environment. Good suggestions given to PMO/ Top level institutions are seriously looked into for implementation. If common man can suggest the measures to be taken to improve the farmers income are being considered at top level. Here we gathered for two days deliberations for providing direction and improving the quality if extension. The silos of scientific thought coming out of the conference will certainly help the nation to ground the useful recommendations.

Session-II

Chairperson: Mrs.V. Usha Rani I.A.S, DG, MANAGAE

Co-Chairpersons:

- Dr.K.Narayana Gowda, Former Vice Chancellor,UAS, Bengalore
- Dr. Kirit Shelat, IAS (Rtd), Executive Chairman of National Council for Climate Change Sustainable Development and Public leadership (NCCSD), Gujarat.

3.3 Aligning Agricultural Extension Strategies for Realizing the Targets of Sustainable Developmental Goals (SDGs) by Dr. V.V. Sadamate, Agricultural Extension Specialist & Former Advisor (Agriculture), Planning Commission, GoI, New Delhi.

Securing inclusive social and economic developments as well as environmental sustainability are the objectives of all nations and these are the vital elements of the Sustainable Development Goals (SDGs) set by United Nations. There is no denying the fact that without a strong and sustainable agricultural sector, it will not be feasible to realise the goals. More than just its direct impact on hunger and malnutrition, our food system is also linked to other development challenges being addressed in the SDGs. In September 2015, the member countries of United Nations agreed on 17 goals with 169 targets that said the agenda for Sustainable Development interventions over the next fifteen years.

Agriculture has a direct link with different aspects of Sustainable Development Goals (SDGs) like poverty eradication; food and nutritional security; formal, non-formal and lifelong learning opportunities; women's empowerment; sustainable consumption and production; climate resilience; sustainable use of natural resources; conservation of biodiversity; etc. It is also an established truth that the philosophy, principles, approaches and methods of extension education have played a pivotal role in agricultural development across the globe. Extension system has evolved in tandem with the development perspective of India. It has been facilitating the attainment of developmental targets and therefore, it could be an appropriate means for achieving the targets of Sustainable Development Goals. In September 2015, the member countries of United Nations agreed on 17 goals with 169 targets

that set the agenda for sustainable development interventions over the next 15 years. It is interesting to note that most of the goals and targets relate with what the extension profession has been advocating and practicing for a long time. However, there are four important concerns, where agricultural extension can play a major role namely enhancing food and nutritional security, sustainable livelihoods, resilience to climate change and peace and well-being of the farming community.

3.4 Revisiting Agriculture Extension Strategies for Sustainable Livelihoods by Dr.Hemnath Rao Hanumankar, Dean, DMI, Patna, Bihar

In nut shell the paper depicted that making progress with the UN Agenda on Sustainable Development for 2030 implies an unwavering attention to the need for securing sustainable livelihoods for the poor, particularly in the rural areas, as the Sustainable Development Goal 8, highlights. The spectre of climate change further compounds the livelihood challenge as the assets and activities that supported livelihoods for the rural poor in the past could come under such stress that new strategies and completely out of box solutions aligned well with the vulnerabilities and resource endowments of rural communities, would be required to cope with the challenge. With its proven contribution to the path breaking green revolution of the 1970s that revolutionized the food security scenario in India, agriculture extension could be a powerful enabler in realizing the SDGs in general and the SDG no.8 (Promote Sustained, inclusive on sustainable economic growth, full and productive employment and decent work for all) in particular.

Further, the paper elucidates the concept and contours of sustainable livelihoods and identifies opportunities for the time tested agriculture extension system in the country to reorient it to be able to promote capital formation and climate resilient livelihoods that are both stable and sustainable. Since formation and accumulation of capital- natural, physical, social, human and physical, is the key to securing livelihoods for the rural poor, and agriculture extension specialists and professionals are trained to promote the growth of natural capital, a compelling case exists for deeper involvement of the agriculture extension system in promoting sustainable livelihoods in rural areas. Case lets drawn from a past UNDP supported study of MGNREGA have been used to illustrate how capital formation has benefited poor households who participated in the MGNREGA works and the need to revisit agriculture extension which can potentially contribute more to generating and sustaining farm and non-farm livelihoods.

3.5 Climate Change Adaptation and Mitigation – Role of Extension by Dr. AVR Kesava Rao, Scientist, ICRISAT, Hyderabad

Evidences over the past few decades show that significant changes in climate are taking place all over the world because of enhanced human activities in deforestation, emission of various greenhouse gases, and indiscriminate use of fossil fuels. Global atmospheric concentration of CO₂ has increased from pre-industrial level of 280 parts per million (ppm) to 400 ppm in 2014. Global projections indicate higher temperature of 1.5 to 4.5°C by the year 2050, as a result of enhanced greenhouse gases. Climate change predictions for India indicate that warming is likely to be above the global mean and fewer very cold days are very likely. Frequency of intense rainfall events and winds associated with tropical cyclones are likely to increase. The global average surface temperature in 2015 broke all previous records by a strikingly wide margin, at 0.76±0.1°C above the 1961-1990 average. For the first time on record, temperatures in 2015 were about 1°C above the pre-industrial era, according to a consolidated analysis from the World Meteorological Organization (WMO, 2016). Under the threat of increased greenhouse gases and resultant higher temperatures and uncertainty in rainfall regimes, there is a critical need to communicate climate change scenarios, adaptation and mitigation strategies to all stakeholders particularly farmers and agricultural extension personnel to enhance resilience and also to reduce greenhouse gas emissions.

3.6 Peace, Happiness and Wellbeing of Farming Community by Prof. Dr. P. Venkataramaiah, Former Principal / Director, Extension Education Institute (EEI), ANGRAU, Rajendranagar, Hyderabad.

Agricultural Extension as a profession is doing services to the farming community. But the services are still not reaching the needy farmers at right time in right form. In other words public agricultural extension services are not reaching the farmers. Extension workers have not realised that improving well-being and happiness is the ultimate goal of development. Extensionists need to pay more attention to identity interventions that compliment local values whereas extension researchers need to undertake research on harvesting happiness in view of bridging the gap between perceptions of farmers and extension workers, specifically regarding happiness and wellbeing from the farmers themselves. Further, farmers distress and receptive tendencies to new technologies influenced their lifestyle management. Suicidal deaths of farmers, disintegration of joint families, cast system etc., necessitated to cope-up with the winds of change blowing across the country by warranting committed extensionsists to act as farmers friendly Guide and Philosopher with Professional values and ethics.

Today farmers are not satisfied with the dividends they are getting from agriculture especially from rainfed areas suffering heavily due to climatically changes. This calls for radical changes in teaching, research and Extension,

since it is high time to revitalise extension system to meet the demands of farming community. Let us hope for happy and peaceful farmer community, a rich wealth and pride for our nation as well as an effective index for National Development.

3.7. Entrepreneurship, Skill Development and Livelihood Generation by Dr. K.P. Wasnik, Additional Commissioner (Extension), DAC & FW, MoA & FW

Dr. K.P Wasnik narrated the Government efforts in launching National Skill Development Mission by presenting statistics on skill workforce and sector wise employment Trends (UPS), comparative sector wise contribution in GDP and with other Countries. He emphasised the need for skilling the workforce in Agricultural sector wherein there is enormous potential. He further emphasised the areas where more focus is needed namely; in high value agriculture and allied sectors specially in fisheries, dairy, poultry, floriculture and postharvest supply chain. He also highlighted the need for upgrading the skills of farmers, wage workers and agri-entrepreneurs. He narrated skill development programmes of DAC, FW, training infrasture and stated the need for training the extension workers, rural youth and farmers in those areas. During his talk he mentioned the activities and action plans of DAC&FW. Finally he concluded by appealing to all the delegates to contribute for Skill India Mission specially in agriculture sector.

3.8 Role of Extension in Promoting Small-scale Fisheries and Aquaculture For Sustainable Rural Livelihoods by Dr. Dilip Kumar, Aquaculture, Fisheries and Rural Development Adviser International Civil Service FAO of the UN - Retired Ex Director / VC, CIFE (ICAR), Mumbai, India

Importance of Fisheries to Developing Countries

- 1.5 billion people depend upon fish for food, income & livelihood – over 22 million in India.
- 2.6 billion people receive more that 20% of their animal protein from fish, compared to 8% in developed countries.
- Fisheries sector contribute significantly to hard currency scarce developing countries – US\$ 5.5 Billion export from India.

Aquaculture and Fisheries in addressing contemporary challenges

- Potential to complement and supplement crops and allied farming activities and betterment of environment.
- Opportunities of increasing contribution towards challenges of food and nutritional insecurity, rural unemployment and poverty.
- Adequate untapped and underutilized natural resources.
- Good track record of past performance of the sub-sector – over 6% growth

- Small-scale aquaculture offers a viable option for diversification of family farms
- Commercial aquaculture operations for maximizing profits do contribute to increasing employment, taxes, investments, etc.
- Markets across the local and developed world
- Fisheries - basically open access resources which offer valuable means of livelihood for resource poor and most vulnerable population.
- Potential for substantial growth in reservoir and lake fisheries
- Decline in riverine and floodplain fisheries - overfishing, destructive fishing and destruction of habitats
- Small-scale fisheries - impact is small on the macro-economy but at micro level contribution - more tangible in terms of livelihood support, food and nutritional security

Fisheries and aquaculture has immense potential to meeting the challenges of agriculture and rural development encompassing food, nutrition and livelihood security besides complementing to crops, livestock, horticulture and social forestry. Mainstreaming aquaculture and fisheries in the overall framework of agriculture and rural development will have multiplier effect including reduction in input cost, environmental well-being, availability of diversified food basket, diversification of risk and checking farmers suicide. Worth to mention that so far there is no incidence of farmers' suicide where aquaculture is included in the family farming system.

3.8 Extension strategy for promotion of small holder Horticulture by Dr.S.P.Ghosh, Ex. DDG (Horticulture), ICAR, New Delhi.

Agriculture land use of the size of operational land holdings of small, medium and large farmers decreased compared to 1970-71 to present. Out of 159.6 million hectares, 17.15 million hectares are under small and marginal holdings

For horticulture expansion marginal and small holdings play crucial role. Small farmers can opt even for fruit farming.

He gave a case study of Uttar Pradesh on farm loan disbursement status for small and marginal farmers. He also suggested a model for small farmers and horticulture estate concept.

Chairperson Remarks:

Mrs. V. Usha Rani, in her introductory message congratulated the organizers for organizing the National Conference on Extension. She mentioned that the Extension is very important from farmers view point. Today many latest things are happening in extension. But still the extension is in cross roads, lacking direction in which way to go. There are lot of questions whether human face has to continue at field level etc., Research on extension is also

going on a large scale and the findings are useful for implementation of ideas and programmes by extension functionaries.

While answering several questions on the lead paper presentations oriented to extension she dealt at length the role of extension. She said that scientists have to share their technologies. It is not correct to assume that the job of transfer of technology is on the shoulders of the extensionist. It is important that the extensionist, scientists, administrators, policy makers should work together to bring change in Agriculture

Co- Chairman Remarks:

Dr. K. Narayana Gowda, thanked the organizers for the idea of the National Conference. He was very happy to be part of the conference. The speakers were eminent and they contributed valuable input which can go for the policy recommendations.

First & foremost important thing he said was how the farmers income can be enhanced and the farmers can be more comfortable through the extension orientation. In that perspective emphasis was made more on integrated farming systems, so that one can enhance the food productivity, income, livelihood security & address to resilience to climate change. All these things were incorporated in these sessions. But there is a need for man power availability for the system to go well.

There is no uniformity in extension system in the country across the states. After T&V system established in 1980`s it was very active for one and half decades, as of now it needs radical improvement. He suggested that MANAGE can able to take a lead with support of the organizations both State and National level to build a strong extension system that can address the demands of farmers.

Co- Chairman Remarks:

Dr. Kirit Shelat felt honored as a Co- Chair he appreciated that India has the sustainability in agriculture as of now due to the efforts of teams in developing the technology and its diffusion and we are all part of that teams.

He told that we should forget about the schemes which are implemented / under implementation as all are aware of the status including farmers. We should address about two issues in this conference 1. Climate Change 2. Sustainable livelihood. Climate change is a global phenomenon. Farmer and the Agriculture is impacted by the entire value chain and climate change. Coming to sustainability he added that we want a family which should have enough to live, irrespective of any catastrophe which takes place.

IV. Group Sessions- Presentations cum Discussions

Session- I : Agricultural Extension & SDGs

Chair : Mr. Suresh Kumar IAS, Former DG, MANAGE

Co-chair : Dr. K.Narayana Gowda, Former VC, UAS, Bangalore

Rapporteur : Dr. Bharat S. Sontakki, Head, Extension System Management, NAARM.

Dr. P. Chandrashekara, Director, MANAGE

S.No	Participants	Title
1.	Dr. Jagriti Rohit , Scientist (agril.extn), ICAR-CRIDA, Hyderabad	A Framework for development of e-Learning Module on training for Extensionists working in Krishi Vignan Kendras
2.	Dr.Lakshmi Priya Sahoo, ICAR-CIWA, Bhubaneswar, Odisha	Gender Sensitive Extension Strategy for Household Food and Nutritional Security
3.	A.Sreelakshmi, Programme Coordinator and Consultant, Participatory Rural Development Initiative Society (PRDIS)	Futuristic Extension Model for Empowerment and Improvement of Livelihoods of Small Scale Cotton Farmers through Farmer Field Schools, Farmer Life Schools and Supply Chain Linkages.
4.	Dr. Chandrasekhara, MANAGE, Rajendranagar, Hyderabad.	Strengthening Agricultural Extension System - Way forward.
5.	Dr.D.Shireesha, SMS (Agriculture Extension), KVK, Palem, Nagarkurnool dist.	Documentation and Classification of Farmers Innovations and Re-Inventions in Andhra Pradesh and Telangana
6.	M.Swetha, RAD/13-11, Ph.D Scholar, Agricultural Extension, College of Agriculture, ANGRAU, Rajendranagar, Hyd-30, A.P	Extent of Empowerment of Women Entrepreneurs on Risk Orientation and Awareness Creation
7	Teza. J, Ph.D Scholar, College of Veterinary Science, Rajendranagar, Hyderabad.	Constraints and Suggestions on the Acceptability of Mobile Apps in Delivering Extension Services by the Livestock Farmers
8	Dr.B.Savitha, ADE, PJTSAU, Hyderabad	Interactive Information Dissemination System (IIDS) - Annapurna Model
9.	Dr K Yella Reddy, FIE, Director (A&R), Director General, WALAMTARI, Hyderabad, India.	Improving Water Use Efficiency Context of Indian National Water Policy 2012
10.	Dr P. Punna Rao, Deputy Director of Agricultural Extension, ANGRAU, AP.	Innovative Information Delivery Interventions of ANGRAU in Promotion of Sustainable Farm Practices
11	Dr. K. Gurava Reddy, PJTSAU, Rajendranagar, Hyderabad	Up Scaling Strategies for Climate Smart Rice Interventions: A Case Of Climaadapt Project in Southern India

Session II : Food & Nutritional Security

Chair : Dr. Dilip Kumar, Director, CIFA, Mumbai

Co-chair : Dr. S.K. Meti, Director of USA, Raichur
Dr. Vijaya Khadar, Former Dean, Home Science, ANGRAU, Hyderabad

Rapporteur : Dr. S. Senthil Vinayagam, Principal Scientist, Hyd
Dr. V.K. J. Rao, NAARM.

S.No	Participants	Title
1	Dr.V B Dixit, Hisar, Haryana	An integrated extension strategy for dairy development in Haryana
2.	Dr.A.Mrunalini, Dean of Home Science, PJTSAU, Hyderabad	Combating Malnutrition among Vulnerable groups - Role of Agricultural Extension
3.	Dr. B.U.Dupare, Indian Institute of Soybean Research, Khandwa Road, Indore	Educating the rural women for domestic utilization of soybean for household nutritional security
4.	Dr. Asha Joshi, Mumbai- 400 051, Maharashtra	Role of periphyton in periphyton based pond poly culture using Indian carps
5.	Dr.Anand Laxmi N.,Principal Scientist (Physiology), ICAR-Directorate of Poultry Research, Rajendranagar, Hyderabad	Improvement in egg production of PD 3 chicken line with histopathological conditions of the jejunum upon supplementation of fermented yeast culture during and post summer season
6.	Dr.M.Srinivasa Reddy, Assistant Professor, CESS, Hyderabad	Status of Pulses in Telangana - Productivity Constraints and Way Forward
7	Dr.Hema Baliwada, Scientist, CTRI, Rajahmundry	Farmer-led innovation and their techno-economic feasibility for scaling
8	Dr. Ranjan Kumar, Scientist (Animal Science) KVK, Saroiya (Muzaffarpur)	Effects of supplementary feeding on growth performance of local growing kids under field condition.
9	Dr.Bhargav Santhosh, Veterinary Assistant Surgeon, VD, Rangampet, Medak Dist, Telangana.	Constraints hindering adoption of scientific dairy farming practices by members and non-members of DCS
10	Dr. M.Goverdhan	Integrated farming system for sustainable livelihoods
11	Prof. (Dr.) Prakash Shingare Research Officer & Head Ex. Director (Research) Taraporevala Marine Biological Research Station, (Dr BS Konkan Agril. University) Mumbai.	Status of Brakish water fisheries in Maharashtra and opportunities for further development

Session- III : Sustainable Livelihoods and Peace and well-being of Farming Community

Chair : Dr. B.S.Hansra, Former ADG-ICAR & Director, School of Agriculture, IGNOU.

Rapporteur1 : Dr. Ratnachari, Consultant, EEL, Rajendranagar, Hyderabad.

Rapporteur2 : Dr. Sara Kamala, Professor, PJTSAU

S.No	Participants	Title
1.	Dr.P Archana, Teaching Associate, PJTSAU, Department of Agricultural Extension, College of Agriculture, R'Nagar, Hyd- 500030, Telangana State	A Study On Natural Resource Management of Watershed Farmers Of Andhra Pradesh State
2.	Dr.Surya Bhushan, Associate Professor, DMI, Patna	Sustainable Agriculture & Livelihood Diversification: A Case of Mushroom Farming in Bihar
3.	Dr.K.B. Suneetha Devi, Department Of Agronomy, College Of Agriculture, PJTSAU, Rajendranagar, Hyderabad, Telangana	Organic Farming For Sustainable Agriculture With Focus On Agricultural Extension Strategies For Motivating Farmers Towards Organic Farming
4.	Dr.G.Triveni, Assistant professor, Dept. of Vety & A.H Extension, CVSC, Tirupati, Sri Venkateswara Veterinary University	An Assessment on Adoption Level Of Dairy Innovations Among Dairy Farmers in Andhra Pradesh
5.	Dr.A.K.M. Jahangir Hossain	Indigenous Knowledge System (IKS)" -Myth or Reality in Conservation Agriculture
6.	Pushpa.G.Malagittimath	Empowerment Of Rural Women By Desi Bird Rearing
7.	Dr. C. Padma Veni, KVK RUDRUR	Farm And Home Technologies For Women Livelihood Promotion - A Case Of Kvk, Rudrur, Nizamabad, Telangana State
8.	Prof.C.Beena, Professor, Psychology, Osmania University	Life style changes in prison
9.	Jagan Mohan Reddy.M, ANGRAU, Rajendranagar, Hyd	Key elements of failure of the enterprises operated by the women entrepreneurs
10	Dr. T. Vijaya Kumar & Dr. V. Lalitha	Mental Health of Farmers in Telangana - An Analysis of Distress and Causes for Suicides
11.	Niranjan Reddy Challa M.A Psychology, 2nd Year, University College of Arts and Social Sciences, OU, Hyderabad	Psychological Risk Factors Contributing To Farmers Distress -A Conceptual Study

Session-IV: Climate Change

Chair : Dr. Gidda Reddy, Former Director of Extension, ANGRAU, Hyderabad

Co-chair : Dr. Sanjay Panwar, Principal Scientists, ICAR, New Delhi

Rapporteur : Dr. Raji Reddy, Director of Research, ANGRAU

S.No	Participants	Title
1.	Dr. Raji Reddy, Director of Research, ANGRAU	Climate change impacts on Agriculture-Agromet Advisories
2.	Dr. I. Aruna Sri Coordinator, DAATTC, Karimnagar	Strategies for Promotion of Adaptation Interventions for Climate Resilient Agriculture
3.	Dr. Mutturaj Yadav. E., Dept. of VAHE, Vet. College Bangalore	Sustainable Fodder Resource Management Strategies Adapting to Climate Change
4.	Dr.N.Lalitha, Professor, Gujarat Institute of Development Research, Gota, Ahmadabad, Gujarat	GIs, Agro biodiversity and Farmers' Income

After presentations and discussions emerging recommendations were presented by rapporteurs at plenary sessions. In addition about 40 students and scholars have presented their abstracts as posters and were evaluated by the conference sub-committee headed by Prof.Hemnath Rao.H, Dean, DMI, Patna, Bihar. The best oral and poster presentations received certificates and mementos.

During the conference an exhibition was also arranged depicting agri-business, agriculture, food processing and extension models.

V. Special Session on Farmer Distress and Well-being By Sri Trindandi Chinna Srimannarayana Ramanuja Jeeyar Swamiji

Honourable Vice Chancellor, Dr. V.Praveen Rao welcomed Shri Tridandi Chinna Jeeyar Swami. In his address to the participants he elaborately explained about the challenges of farmers that arise from nature, policies, poor food quality because of hybridization, and excess use of chemicals, market etc., and how to overcome them. He explained how to create a favorable environment for farmers to conduct many activities, to cultivate well, grow more food and be happy, physically and socially citing with case studies on organic farming. He also spoke about Nutritive value of food of hybrid and non-hybrid varieties and the king's ethics and attitudes towards farmers from Srimadh Bhagavatam. In his discourse he cited stories from ancient scriptures and clearly explained how the word PRITHVI derived and how to preserve the same in the present day.

Finally he made participants to understand that greed of man is the cause for spoiling agriculture using so much fertilizers, pesticides, water usage resulting damage to the environment and other creatures. He requested scientists to look into

- i. Reducing chemicals as much as possible and preserve earths own energy.
- ii. Reducing hybridization-preserve prestigious pure seed and grow it more in quantity so that even if you give less food its natural core strength remains. The produce with pure core values gives more stamina even if consumed less than the so called hybrid varieties. The consumer should get the best quality of produce at an affordable price by putting proper supply chain management in place. Furthermore he insisted on treating all the animals and creatures with love apart from serving humanity.

Finally he quoted *"My quest is how best we will be able to influence the farmers, not to meddle much with nature, preserve the energy of earth, purity of the food, not to depend much on chemicals"*.

The session ended with warm vote of thanks proposed by Prof.S.V.Reddy, Conference Director, who described the event as a memorable and paid tribute to Swamiji with a standing ovation. The discussions of Swamiji has added additional vigor and motivation to delegates to take the message of peace and well being to the farmers forward.

VI. Valedictory Session

The Chief Guest for the valedictory session was Dr.V.Praveen Rao, Vice Chancellor, PJTSAU, The Guests of Honour were Dr.Y.G.Prasad, Dr.S.Srinivas Rao, Dr.M.N.Reddy, Conference Co-Chair, presided over the session whereas Prof.S.V.Reddy, Conference Director proposed a vote of thanks.

Dr. K.P.Wasnik, Addl Commissioner, (Extn) DAC, & FW, Ministry of Agriculture, GoI & Guest of Honor thanked the organisers for giving him the opportunity for participate and present a paper. He mentioned that the past also one day conferences used to be organised to discuss about field level issues and extension progress, But he is happy to note that this conference is organised for three days duration with intensive deliberations involving galaxy of speakers. He wished such conferences can be repeated in different parts of the country to get recommendations that can revitalise the extension gap. He also complimented Dr. V.Sadamate, Former Advisor Agriculture, Planning Commissioner for his strong support to extension programmes. He further added that he was also instrumental in initiating ATMA, RKVY & National Mission on Agricultural Extension. He said that he is representing Joint Secretary (Extn) and will try to assist in making some of the recommendations emerging out of the conference is grounded on pilot projects initiatally and scaled up later by convincing the higher officials of the Ministry.

Dr.Y.G.Prasad, Director of ATARI Hyderabad and Guest of Honor, in his address mentioned that Recommendations made in the conference are useful to the Agriculture departments, ICAR Research Institutes, KVKs and other institutions in preparing Action plans of various states of India. He addressed that by this we can reach the Prime ministers goal of doubling the farmers income. He also narrated some of the findings of review committee on extension chaired by Dr.T. Rama Swamy and the need for spending more resources in extension.

Dr.S.Srinivas, working as senior scientist in EPTRI and Guest of honour, in his address mentioned about the projects taken up by EPTRI, in collaboration with PJTSAU, ICRISAT and Department of Agriculture. He said that EPTRI prepared a proposal on climate change in Telangana. Under this project they have selected 3500 farmers, another project is treatment of water in Hyderabad in collaboration with water supply board of Hyderabad. The third project is on solar power and production of Biogas by using the vegetable waste. The above are some of the Climate Resilient projects that EPTRI has been working.

Dr.V.Praveen Rao, Honourable Vice chancellor of PJTSAU and Chief Guest, acknowledged presence of all the dignitaries on the Dias, delegates and congratulated all the organizers and scientists for successful completion of the conference. In his closing remarks he addressed the participants on different aspects of farmers such as income status, distress, recognition, technology assessment – refinement revisiting agricultural extension strategies and the role of agriculture extension workers, their capacity building, accountability, marketing, doubling of farmers income strategies, and about how the outcome of the conference will impact the farmers and trying some recommendations as pilots.

In his message he gave a clear picture on present income levels of farmers per month as Rs. 6426, out of which Rs.2069 is from wages and the remaining is from other sources as per NSSO, 2013. Since independence the emphasis was on farming. Rather than on farmer, hence we could achieve self-sufficiency in food grains and nutritional security which has been out of the hard work of farmers. But their income remains very low. Further, he added other aspects of farmer on distress, respect & recognition in the society.

He admired the role of agricultural scientists, when compared with other sectors of scientists, as they contribute to the entire population of the country. He urged the scientists to bring utility based technology through technology assessment and refinement. Furthermore, from his rich experience working in Government and private sector, he urged extension officers should have communication skills and acquiring them early.

He described how to revisit agricultural extension strategies in real time. At present Telangana state is importing vegetables, milk, food grains, fruits etc from neighboring states. Hence the government is working on crop colonies to address the exact requirement of various food items by the entire state. When he was a special officer to government, Chief Minister asked him a couple of questions like, Can you sustain the credibility of Agriculture University among farmers in newly formed state of Telangana? How many farmers can be served by one agriculture officer?. It became a challenge for him, based on the number of farm families, cultivable land, crops and with consultations of all experts, he suggested one A.E.O can be made responsible for 5000 acres covering around 3000 farmers. Similarly, salary and gadgets have been reviewed to meet the requirements. The extension worker should have a blue print of the allocated area to cater the needs, ingenious knowledge and accountability while serving the farming community.

Regarding marketing he quoted the statement made by Dr.M.S.Swaminathan that “future of agriculture in this country is decided by 2’M’s i.e Monsoon and Market”. As per statistics, there is a difference in prices of various agriculture produces between inter-states and intra-states. Madhya Pradesh’s growth rate was high when compared with its previous year’s growth rates. They have done simple intervention by displaying of prices on boards district wise. The

farmer just looks at the board and takes the produce to the district which fetches him a high price. Besides, the chief guest recommended functional cooperatives where farmers can aggregate and bargain for best market price realization and services facilitation.

Towards doubling of farmers income he said, now we have a challenge about how to double the farmers income crop wise, region wise, area wise in 5 years and how to achieve this target. He appealed that all the extension strategies from top to bottom including our research and education needs paradigm shift. In the past we had some seminars, some finding pathways which include enhancing productivity, reducing production cost, stabilizing income etc. Furthermore he suggested to select one or two recommendations emerged out of this National conference which can be piloted in two cluster of villages to benefit farmers. He assured PJTSAU will extend all possible help in the implementation of selected recommendations.

Before concluding he told about the importance of evidence based success stories. Recommended an approach for Home science faculty that “you have to take a village and apply technology, based on the selected recommendations and let people from all sectors like health, agriculture extension, food science integrate and then see the impact”. He finished his message by thanking all the organizers, delegates and participants.

Dr.M.N.Reddy, Co-chairman of the Conference in his presidential remarks briefly highlighted the Chief Guest message and also spoke about the way forward for the conference. In his address, he said that the conference recommendations will be circulated to major stakeholders for their comments and then a round table will be organized at New Delhi with the policy makers and implementing partners with the help of Ministry of Agriculture, Cooperation & Farmers’ Welfare to select the recommendations that can be implementable immediately as pilots. Based on the implementation experience some of them will be scaled up in different regions of the country. He also thanked the delegates for providing useful recommendations to the nation.

Justice Vaman Rao, Former High Court Judge, Hyderabad who was felicitated on the occasion for his contribution to the society gave remarks on proceeding of the deliberations. He highlighted that Dr. A.K.Singh speech wherein he focus on extension field work. He has given two examples that there were two kinds of doctors, one doctor examines the patient gives the prescription and the other doctor who thoroughly understand the problem and encourage the patient to speak and question and not only gives perception but explains the prescription and also advice. He stated that the extension worker should be like the second doctor.

He also agreed with the Vice Chancellor saying that the extension worker need skill of communication and interactive communication and also skill of listening to be successfully advise the farmers. He further added that Extension subject should have more credits on Rural Sociology and Rural Psychology courses so that they may understand the farmer and rural realities better.

Dr.G. Perumal, Former Professor of Extension, TNAU, who has now taken the path of spirituality was felicitated. In his thanks giving address, he mentioned that Extension workers are the change agents of farming community. They must have the qualities like sacrifice, dedication and love for the people. He said that he is cultivating and practicing Natural farming in 10 acres. He is doing natural farming without applying any pesticides. He is conducting many extension programmes at National and International level.

Shri C.S.Koti Reddy & Shri V.Niranjan Reddy, Senior Journalists of 'Simhapuri Raithu' and progressive farmers were also felicitated. Mr.Koti Reddy in his speech mentioned farmers condition now and since many years there is no change. Climate is not cooperating with farmers and there is rapid change in the climate. There are no adequate prices for the produce. policies are made by the officials without considering the actual condition of the farmers. Farmers require Minimum support prices for their cultivated produce.

Dr.V.V.Sadamate and Dr.M.N.Reddy, Senior Extension Specialists, who have done outstanding service to the cause of Agricultural Extension specially being instrumental in making the National Agricultural Extension Mission and Agricultural Technology Management Agency (ATMA) respectively a reality were honoured with Extension Leadership Award.

Furthermore two NGOs namely Mr. M. Gandhi, President, The Konaseema Community Socio Economic Development Society (KSEDS), Ongole, Prakasam District, AP and Mr.P.Premchand, President, Krishi Foundation, Karimnagar, Telangana State were also presented mementos for their contribution to the farming community.

Towards end of the Conference the Best Nodal Training Institute for AC&ABC programme was awarded to Dr.S.P.Singh, Nodal Officer, Varanasi and the best entrepreneurs awards were received by Mr.Nagaraju and Mrs.Sarita Reddy. Incidentally both of these were Alumni of PRDIS, Nodal Training Institute for MANAGE.

Prof. S.V.REDDY, Conference Director has thanked profusely the Chief Guest, Guests of Honor and the dignitaries on the dais notably Dr.V. Praveen Rao, Dr.V.V.Sadamate, Conference Chair, Dr.Y.G.Prasad, Dr.S.Srinivas and Dr.M.N.Reddy. He also expressed his gratitude to the various committees

who worked to make the conference a success. He acknowledged the effort of Chairpersons, Co-chairpersons and rapporteurs of lead papers and group sessions. He specially mentioned about the cultural programmes directed by Dr.A.K.J.Rao, Faculty Member, NAARM, and Krishi High School, Rajendranagar for sparing their valuable time and giving outstanding performance. He thanked all the delegates who have come from various institutions from all over India participated and presented Lead papers and Abstracts in the conference. He finally expressed his gratitude for Sponsors, Press, Media and all other Scientists, Farmers and Students who made it a big success. He assured a follow up by piloting identified crucial recommendations in collaboration with a relevant stakeholders.

The third day of the conference was devoted to field visits. The participants have visited the Millets processing unit, PJTSAU at Rajendranagar and Rural Technology Park (RTP) of NIRD & PR, Hyderabad.

VII. CONFERENCE RECOMMENDATIONS

I. Empowerment of Farmers/Farm Women

1. Agricultural Extension has to play a crucial role in empowering farmers/farm women by organizing them into collectives such as Commodity Interest Groups (CIGs)/Farmer Interest Groups (FIGs), Farmer Producer Groups, Farmer Producers Companies, Farmers' Associations/ Cooperatives and their Federations at Village, Block, District and State level for enhanced bargaining power, collective decision making, sustainable rural livelihoods, all aimed at expanding the incomes stream of the farmers and making the system demand driven.

II. Improving Quality/ Accountability/HRD & R&D of Extension Services

2. In order to enhance the professionalism of the Extension Service Providers, there is an urgent need for improving their professional competencies to address emerging challenges and knowledge frontiers, delinking the system from delivery of subsidized inputs.

3. Accountability of Extension Service Providers should be defined well. It may include parameters like, regular programmed visits, systematic training programmes, linkages with research and markets, enhanced adoption of improved technologies, empowerment of farmers, income gains, ICT use, PPPs promotion etc with their indicators/ measures.

4. Extension should play an intensive role in promotion of the post-harvest management, value addition, Agro-meteorological services, access to credit, insurance and market intelligence.

5. R & D Centres for Agricultural Extension may be promoted in all SAUs and leading ICAR Institutes, linking them with relevant apex institutions like MANAGE, ATARIs, EEs and SAMETIs. This may be achieved by instituting All India Coordinated Research Project (AICRP) in Agricultural Extension promoted by ICAR at the earliest.

6. Training and HRD components of extension service may be given adequate emphasis by bringing in synergies in the programmes and activities of National, Regional, State level and district level institutions, both public and private. Thus there is an urgent need for revisiting the whole training and HRD framework in the context of emerging challenges in agriculture and allied sectors.

7. Extension entrepreneurs and PPPs in extension management may be Systematically promoted for scaling up extension efforts, in targeted areas.

8. The innovative extension models and approaches developed and practiced by the Government/Private/Civil Society groups may be documented by the MANAGE, Directorate of Extension, GOI and SAUs for replication and recognition.

9. Best extension models and practices all over the globe need to be reviewed and documented, to be used and applied to address the Extension role in SDGs. Such studies would need to be jointly undertaken by ICAR, NITI Aayog and other partners.

III. Skill Gap Analysis & Networking with Skill Development Centres

10. Extension Service providers should undertake skill gap analysis (farm and non-farm skills) among the farmers & rural youth in their jurisdiction and network with Entrepreneurship Skill Development Centres to facilitate skill up-gradation. This would (i) provide employment and self-employment opportunities (ii) attract & retain rural youth in agriculture and (iii) promote agriprenuership development in the area for improving the farmers income.

IV. Livelihoods and Agricultural Extension

11. Since promoting the pentagon of capital formation- physical, financial, human, social and natural capital in rural communities is at the heart of sustainable livelihoods (SDG no.8: Promote Sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all), the agricultural extension system needs to be leveraged effectively for design, implementation and monitoring of rural livelihood initiatives.

V. Extension Strategies for Doubling Farm Incomes

12. Strategic extension planning for intensification and diversification of production systems for doubling the farmers' income should receive priority of extension service providers.

13. Location specific farming system innovations and models need to be evolved by KVKs and other R&D agencies for small scale farms which should be up-scaled by the field extension system, as applicable to micro agosituations, for enhancing the farming income.

14. Extension advisories to the farming community should sharply focus on reducing cost of cultivation and increasing the quality of output to be competitive in the market for realizing better prices by following sustainable agricultural practices.

15. Extension Services should use Remote Sensing and GIS applications in technology dissemination and linking farmers with markets through e-Bazars.

VI. Convergence of Extension Services with related programmes

16. Convergence of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) activities with agriculture, to the extent possible, is recommended where extension plays a key role in identifying the shelf of projects and the skills needed.

17. Convergence is needed amongst various extension service providers such as KVKs, ATMAs, SAUs, Private sector agencies and NGOs at all levels. This would be attained by providing requisite operational flexibility to the field functionaries in a particular agro-eco situation to attain common objective.

18. Given the thrust on adopting farming systems approach, the need for a unified extension delivery services is widely recognized. Towards this, there is an urgency to promote a model wherein a single extension worker in a given geographical area, may be trained and retrained to deliver integrated technologies covering crops, livestock, fisheries etc.,

VII. ICT & Social Media Applications

19. Extension services should be strengthened further by intense use and application of ICTs, mass media, internet apps, social media etc., to supplement and complement the service delivery to various categories of farmers.

VIII. Mainstreaming Gender Issues

20. Findings/ recommendations of ccoordinated women network programmes of ICAR- Central Institute for Women in Agriculture (ICAR-CIWA) Bhubaneswar, be integrated to strengthen gender extension services.

IX. Reorienting Extension Services to Climate Change (CC)

21. Agricultural Extension system needs to be reoriented and strengthened to enhance farmer awareness on climate change, agro-met advisories, potential adaptation response and technology options to climate variability and change. National Innovations on Climate Resilient Agriculture (NICRA) outcomes may be suitably incorporated in Climate Change advisories.

X. Reorienting Extension Services to Sustainable Water Use

22. Agricultural Extension should play a crucial role in educating farmers on Water Use Efficiency (WUE) by introducing virtual water approach, timely and judicious application & water foot print to quantify water use. Extension service providers and field functionaries need to be trained on this important aspect and their capacities built accordingly with focus on food & water security.

XI. Extension Focus on Food and Nutritional Security

23. Extension services should adequately address food and nutritional issues with focus on balanced diet incorporating nutri cereals, millets, fruits, vegetables including the animal protein to build a healthy community. Services of Home science professionals available in the KVKs, FTCs & SAUs etc., should be effectively utilized.

XII. Promoting Organic Farming

24. Extension services should encourage organic and natural farming by promoting Eco-friendly technologies and sustainable agricultural practices.

XIII. Feedback Collation and Management

25. Adequate focus is required for Agricultural Extension in obtaining feedback from the farmers, development functionaries, scientists etc.,so as to build mechanism for documenting and analyzing the same. It would (i) provide reliable signals to the research, management and support systems for making the extension services demand driven and (ii) enable them to respond to the emerging challenges in agriculture and allied sectors.

XIV. Peace and Well-being of the Farmers

26. In order to ensure peace and well-being of the farming community, there is a need to reorient extension services for early detection of farmer distress and providing counseling support at individual and community levels. Also, strengthening undergraduate curriculum in agriculture extension is recommended with deeper emphasis on rural sociology and psychology.

27. In view of farmer's distress in many parts of the county, it is strongly recommended to establish counseling, guidance & R&D centres (CGRCs) in State and National Institutions like KVKs, FTCs, SAMETIs, EEIs and MANAGE.

XV. Follow up & Way Forward

28. As a follow up to the conference, it has been decided to have a round table to discuss the recommendations of the conference, to prioritize and to plan the way forward involving the policymakers from Ministry of Agriculture, NITI Aayog, ICAR, select States and other stakeholders.

29. The National Conference strongly recommended piloting key recommendations in collaboration with GoI, States, ICAR, SAUs, NGOs, FPOs and other stakeholders in the next two years, there by crafting a new vision for Agricultural Extension to realize the focused SDGs with Concrete Action Plans (CAPs) & Financial Resource Requirements (FRPs).

VIII. ORGANIZING COMMITTEE

Chairman: **Dr.V.V.Sadamate**, Agricultural Extension Specialist & Former Advisor (Agriculture), Planning Commission, GoI, New Delhi.

Co-Chair : **Dr.M.N.Reddy**, Former Director (Agricultural Extension), MANAGE, GoI, Hyderabad

Conference Director:

Prof.S.V.Reddy, Chairman SVFD, President & Executive Director, PRDIS, Former Professor Agricultural Extension and Consultant World Bank/ FAO

Members

Prof.Hemnath Rao H, Dean, Development Management Institute (DMI), Patna, Bihar

Dr. Bharat S Sontakki, Head, Extension System Management Division ICAR, NAARM, Hyderabad.

Dr. Anand Singh, Director of Extension, PJTSAU, Rajendranagar, Hyderabad

Dr.P.Punna Rao, Deputy Director, Agricultural Extension, ANGRAU, Guntur, Andhra Pradesh

Dr.R.Ratnakar, Former Director, Extension Education Institute, GoI- PJTSAU Hyderabad

Dr. C. Beena, Coordinator for Sahayam Counseling Centre, Vice President PRDIS, Former Professor of Psychology & Registrar Osmania University, Hyderabad.

Prof. S. Jayaram Reddy, Treasurer PRDIS, Former Coordinator, Monitoring and Planning Unit, ANGRAU, Hyderabad

Dr. Ravi K .Reddy, Secretary, REEDS, Hyderabad

Dr.Sanjeev Nayan, Head Of Production & Quality Control, Bisco Bio Sciences Pvt. Ltd., Hyderabad

Mr.Y.Upender Reddy, Former C.E.O Zilla Parishad, Mahaboobnagar District.

Dr.D.Thammi Raju, Professor & Principal Scientist, NAARM, Hyderabad

Dr.S.K.Meti, Director of Extension, UAS (University of Agricultural Science), Karnataka

Dr.P.Gidda Reddy, Formerly Director of Extension, ANGRAU, Rajendranagar, Hyderabad

Convener: **Prof.M.Suryamani**, Director, Extension Education Institute, GoI- PJTSAU and Secretary Society of Extension Professionals, Hyderabad

IX. CONFERENCE- SUB COMMITTEES

S.No	Name of the Committee	Members
1	Finance	Chairman :Mr.Ravi Reddy Dr.Sanjeev Nayan Mr. Y.Upender Reddy Mr.Nagi Reddy
2	Technical Committee	Chairman: Dr.M.Suryamani Dr.Thammi Raju Mrs.A.Sreelakshmi (PRDIS) Ms.V.K.Prasanti.M (PRDIS) EEI Team
3	Publication Committee	Chairman: Dr.I.S.Rao Mr.Shrey
4	Food Committee	Chairman: Dr.Madhu Babu Dr.Bhaskar Rao Mr.Chandraiah, EEI Mr. Loknath, EEI Mrs. Maria Victoria (PRDIS)
5	Accommodation	Chairman: Mr. Om Sharma, PJTSAU Dr.Thammi Raju, NAARM Dr.Radhika Rani, NIRD Mr. Narendra, PRDIS
6	Reception Committee	Chairman: Dr.Anad Singh Dr.Beena Dr.V.V.Sadamate Dr.M.N.Reddy Dr. Gidda Reddy Prof.S.V.Reddy Dr.Punna Rao Dr.M.Suryamani Dr.Jamuna Rani Dr.S.Jayarama Reddy
7	Transport	Chairman : Mr.Srinivasa Raju -EEI Mr.Praveen-PRDIS Mr.Vidhya Sagar-REEDS
8	Registration	Dr.Chandrakshar, EEI Dr.Vijayalakshmi Dr.Vani, Ms.C. Sarika, PRDIS
9	Press & Publicity	Dr.Venugopal Reddy, PJTSAU Dr. S.Jayarama Reddy Dr.Sudhakar
10	Advisor & Awards	Chairman: Dr.Hemnath Rao Dr.Bharat S Sontakki
11	Dais & Decoration	Chairman: Dr.Ratnakar Rao Dr.Manohar Rao Prof.Neeraja Dr.Purnima, Dr.Preeti, Dr.Vijayender Reddy,NAARM 2 Persons from Dr.Beena
12	Exhibition & Poster Committee	Chairman: Dr.I.S.Rao Dr.Savitha, PJTSAU Ms. Praneetha,A.E, PJTSAU
13	Field Visit & Sight seeing	Dr. Senthil Vinayagan, From NIRD, From PRDIS
14	Cultural	Dr. V.K.J.Rao,NAARM Mr. G.Samuel (Dr.I.S.Rao)

X. KNOWLEDGE PARTNERS



EXTENSION EDUCATION INSTITUTE
(Southern Region)



XI. CONFERENCE SPONSORS



NAGARJUNA FERTILISERS AND CHEMICALS LIMITED
NAGARJUNA HILLS , PANJAGUTTA, HYDERABAD-500082.



BALAJI AGRI CHEM



SBVR AGRICULTURAL COLLEGE

(A Unit of Badvel & Sidhout Higher Education Committee)
Affiliated to Acharya N.G. Ranga Agricultural University



STAR FERTILISERS PRIVATE LIMITED
(MANUFACTURERS OF GRANULATED FERTILISERS)

MADRAS FERTILISERS LIMITED

MANALI , CHENNAI-600068



SOCIETY OF EXTENSION PROFESSIONALS

SRI BALAJI AGRI CHEM(INDIA) PRIVATE LIMITED

11-163/1,P.No:44; Flat No:1c,Swetha Residency,Balanagar,HYDERABAD-500 037



THE PROFESSOR JAYASHANKAR TELANGANA STATE AGRICULTURAL UNIVERSITY (PJTSAU)



INDIAN COUNCIL OF FOOD AND AGRICULTURE

214-217, Naurang house, K.G Marg, NEW DELHI.011-41501465



सत्यमेव जयते

NITI Aayog

(National Institution for Transforming India), Government of India



NATIONAL BANK FOR
AGRICULTURE AND RURAL
DEVELOPMENT



XII. Messages



Dear Prof. Reddy

I wish the national conference on Revisiting Agricultural Extension Strategies a great success. This is timely conference and I congratulate you for this initiative.

With warm regards

M S Swaminathan

PROF M S SWAMINATHAN

Founder Chairman, MS Swaminathan Research Foundation

Third Cross Street, Taramani Institutional Area

Chennai-600 113 (India)

Tel: +91 44 2254 2790 / 2254 1229; Fax: +91 44 2254 1319

Email: sami@mssrf.res.in

Twitter: @msswaminathan

Daniel Gustafson, Deputy Director-General (Programmes), FAO



I commend the organizers of the National Conference for taking on the critical discussion related to the role of Agricultural Extension in Enhancing Food and Nutritional Security, Sustainable Livelihoods and Resilience to Climate Change. The Conference could not be more timely as climate change is already damaging the livelihoods of millions of poor people. By 2050 crop yields could decrease by 10-25 percent as a consequence of climate change, increasing food insecurity and poverty.

Climate change is such a huge obstacle because it lowers access to cultivable land, fish stocks and encroaches forests; it constrains agricultural productivity, income opportunities and economic growth and it severely impacts the resilience of agricultural livelihoods. As extension professionals, we have worked for a long time with vulnerable rural households and their communities in areas of uncertain rainfall. With climate change, the geographic scope of vulnerability expands far beyond these areas, even as it exacerbates the vulnerability of those that suffer the most.

There are, however, ways to adapt and there are opportunities for transformation. They require even more creativity and innovation and the concerted efforts of extension, research, community and producer associations, civil society and the government. The role of agricultural extension in addressing these challenges is absolutely vital and increases its importance, being in the centre of most of necessary action in meeting the SDGs on poverty reduction, sustainable agricultural production and climate change.

I wish you every success in the National Conference and look forward to seeing the outcomes.



त्रिलोचन महापात्र, पीएच.डी.

एफ एन ए, एफ एन ए एस सी, एफ एन ए ए एस

सचिव एवं महानिदेशक

TRILOCHAN MOHAPATRA, Ph.D.

FNA, FNASc, FNAAS

SECRETARY & DIRECTOR GENERAL



भारत सरकार
कृषि अनुसंधान और शिक्षा विभाग एवं
भारतीय कृषि अनुसंधान परिषद्
कृषि एवं किसान कल्याण मंत्रालय, कृषि भवन, नई दिल्ली 110 001

GOVERNMENT OF INDIA
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION
AND

INDIAN COUNCIL OF AGRICULTURAL RESEARCH
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
KRISHI BHAVAN, NEW DELHI 110 001
Tel.: 23382629; 23386711 Fax: 91-11-23384773
E-mail: dg.icar@nic.in

MESSAGE

I am happy to know that the Sarvareddy Venkureddy Foundation for the Development (SVFD) & Participatory Rural Development Initiatives Society (PRDIS), Hyderabad in collaboration with Professor Jayashankar Telangana State Agricultural University (PJTSAU) is organizing a National Conference on “Revisiting Agricultural Extension Strategies for Enhancing Food and Nutritional Security, Sustainable Livelihoods and Resilience to Climate Change – Towards Transforming Agriculture” at Hyderabad during 22–24 April, 2017.

While ensuring food and nutritional security to the growing human population, it is also to be kept in mind that the agricultural technologies contribute significantly to the overall enhancement in production and productivity. Nonetheless, technology demonstration and technology transfer are the basis to bridge the lab to land. I am sure, the Conference will deliberate on extension research, sustainable farm income, household nutrition and farmers’ welfare in a holistic manner and evolve a strategic framework for achieving climate resilience.

I wish the Conference a grand success.


(T. MOHAPATRA)

Dated the 17th April, 2017
New Delhi

XIII.PROGRAMME SCHEDULE

Day 1 Saturday (22-04-2017)

Inaugural Session

10.30 to 10.40 AM	Welcome Song & Lighting of Lamp	
10.40 to 10.55 AM	Welcome & About the Conference	Prof. S. Venku Reddy, Conference Director Chairman SVFD and President & Executive Director, PRDIS
10.55 to 11.10 AM	Address by Guest of Honor	Dr.B.Rajender, IAS, Joint Secretary, MoA, GoI
11.10 to 11.30 AM	Key Note Address	Dr. A.K. Singh Deputy Director General (Agricultural Extension) ICAR
11.30 to 11.50 AM	Life Time Achievement Recognition to	<ol style="list-style-type: none"> 1. Shri. Suresh Kumar IAS (Retd) Former Additional Chief Secretary & DG, MANAGE 2. Dr. B.S.Hansra Professor Emeritus (Agriculture) Amity University NOIDA, Campus) NCR
11.50 to 12.00 PM	Extension Leadership Recognition to	Dr. A.K.Singh, DDG (Extn), ICAR
12.00 to 12.30 PM	Inaugural Address by Chief Guest	Dr. W.R.Reddy, IAS, Director General, NIRD & PR
12.30 to 12.45 PM	Felicitation & Mementos to Chief Guest and Guests of Honour	Organisers
12.45 to 12.50 PM	Closing Remarks	Dr. V.V.Sadamate Conference Chairman Agricultural Extension Specialist & Former Advisor (Agriculture), Planning Commission, GOI, New Delhi
12.50 to 01.00 PM	Vote of Thanks	Prof. M.Suryamani Director Extension Education Institute (EEI) GoI, PJTSAU, Hyderabad & Secretary SEP
Technical Session – I – Agricultural Extension Strategies Food and Nutrition		

Security		
1.00 to 2.00 PM	Lunch	
2.00 to 3.30 PM	Presentation of Lead Papers	
	Chair	Dr.S.P.Ghosh, Ex DDG (Horticulture), ICAR
	Co-Chairs	Mrs. Vinita Sharma Former Senior Adviser DST, New Delhi
		Dr.R.K.Samanta Former VC, BVKCC, West Bengal
	Feeding Millions for Food and Nutritional Security – The India Context	Dr. R.P. Singh Executive Secretary Indian Agriculture Universities Association, NASC, Pusa Campus, New Delhi
	Sustainable Development Goals and Nutrition Security	Dr. R. Sesikeran, M.D., Former Director, National Institute of Nutrition (ICMR)
3.30 to 4.00 PM	Tea Break	
4.00 to 5.30 PM	Special Address & Blessings Peace and Well being of Farmers	Paramahansa Parivrajakacharya Sri Sri Sri Thridandi Chinna Sriman Narayana Ramanuja Jeeyar Swami Varu
5.30 to 6.00 PM	Tea Break	
6.30 to 7.30 PM	Cultural Programme	Dr. V.K.J.Rao, Principal Scientist,NAARM
7.30 to 9.00 PM	Dinner	
2nd Day Sunday (23-4-2017)	Technical Session – II Agricultural Extension Sustainable Livelihoods, Climate Change and Peace & Wellbeing of Farming Community	
9.00 – 10.30 AM	Presentation of Lead Papers	Chair: Mrs.V. Usha Rani, IAS Director General MANAGE
		Co-Chairs Dr. K. Narayana Gowda, Former Vice Chancellor, UAS, Banglore Dr. Kirit Shelat Former Principal Secretary, (Agril) Government of Gujarat.
	Agricultural Extension and SDGs	Dr. V.V.Sadamate Agricultural Extension Specialist & Former Adviser Agriculture Planning Commission, New Delhi
	Adaptation Resilience to Climate Change	Dr.AVR Keseava Rao Scientist, ICRISAT

	Sustainable Livelihoods	Dr. Hemanath Rao Dean , DMI, Patna, Bihar Dr. Dilip Kumar, Ex Director / VC, CIFE (ICAR), Mumbai Dr.S.P.Ghosh, Ex. DDG (Horticulture), ICAR, New Delhi.
	Peace and Well-being of Farming Communities	Dr. P.Venkataramaiah Former Principal, EEI, Hyderabad
10.30 to 10.45 AM	Tea break	
10.45 to 1.30 PM	Paper Presentation in Working Groups	
	1. Extension & SDGs	Chair: Mr. Suresh Kumar, IAS Former DG, MANAGE Co-Chair: Dr.Narayana Gowda, Former VC, UAS, Bangalore Rapporteurs : Dr. P. Chandrasekhara Director, MANAGE Dr. Bharat Sontaki Head, Extension System Management, NAARM
	2. Climate Change	Chair: Dr. Kirit Shelat Former Principal Secretary, (Agril) Government of Gujarat. Co-Chairs: Dr. Raji Reddy Director of Research, PJTSAU Dr. Gidda Reddy Former Director of Extension Dr. Sanjay Panwar Principal Scientist , ICAR Rapporteur: C.Sarika, PRDIS
	3. Food Security	Chair: Dr.Dilip Kumar Director, CIFA Co-Chairs: Dr. S.K.Meti Director of Extension,USA, Raichur Dr. Viajya Khadar Former Dean, Home Science, ANGRAU Rapporteurs: Dr.V.K.J.Rao, Principal Scientist, NAARM

		Dr. Senthil Vinayagam Principal Scientist, Education Systems Management Division, NAARM
	4. Sustainable Livelihoods & Peace and Well being of Farming Community	Chair: Dr. B.S.Hansra (Former ADG-ICAR & Director, School of Agriculture, IGNOU) Professor Emeritus (Agriculture) Co-Chairs: Dr. G. Perumal Former DE, TNAU Dr. Punna Rao Principal Scientist (Agril. Extension), ANGRAU Rapporteurs: Dr. Sarakamala Principal Scientist, PJTSAU Dr.Ratnachari Associate Professor, EEI
1.30 to 2.30 PM	LUNCH	
2.30 to 5.00 PM	Plenary Session Presentation of recommendations by the Working group Chair Person	Chief Guest Dr. Praveen Rao Vice Chancellor, PJTSAU
		Guests of Honour Dr.K.P.Wasnik Additional Commissioner, Ministry of Agriculture Farmers Welfare, GoI Dr. Y.G. Prasad, Director, ATARI, ICAR, Hyderabad Dr.Srinivas, Scientist, EPTRI, Hyderabad
	Follow-up actions	Dr. M.N.Reddy Conference Co-Chair
	Closing Remarks	Chief Guest
	Vote of thanks	Prof. S. Venku Reddy Conference Director, Chairman SVFD, President & Executive Director, PRDIS

Day 3 Monday (24-04-2017) Field Visit

- 1. Millet Processing Centre and NIRD (Rural Technology Park) (2) City Tour**



Mr.Suresh Kumar, IAS (Retd), Former Additional Chief Secretary & DG, MANAGE, is honored with Life Time Achievement Award.



Prof.B.S.Hansra, Emeritus (Agriculture) Amity University, NOIDA, is honored with Life Time Achievement Award.



Dr.A.K.Singh, DDG (Extn), ICAR, New Delhi, honored with Extension Leadership Award



Felicitation to Honorable Former Judge A.P High court, Justice Vaman Rao.



Dr.V.V.Sadamate, Former Advisor (Agriculture), Planning Commission, GoI, honored with Extension Leadership Award.



Dr.M.N.Reddy, Former Director (Agril.extension), MANAGE, GoI. honored with Extension Leadership Award.

ORGANISERS

The National Conference is jointly organized by Sarvareddy Venkureddy Foundation for Development (SVFD), Participatory Rural Development Initiatives Society (PRDIS) and Professor Jayashankar Telangana State Agriculture University (PJTSAU).



Sarvareddy Venkureddy Foundation for Development (SVFD) is a non-profit registered organization established in 2013. The foundation works for promotion and advancement of agriculture, rural development, education, health and sanitation, science and technology and welfare activities. The foundation has vision and commitment for the growth and development of farmer, rural and urban poor people. The foundation will play crucial role in mobilizing and motivating the pro-poor with above aims and objectives along with the involvement in the ongoing projects through their meaningful participation. It has high level of credibility, sincerity and honesty of purpose and dedication to the cause of mission. The Foundation is hosted in an independent building having good communication facilities. It has experienced and dedicated staff who can implement the activities to fulfill the vision and mission.



Participatory Rural Development Initiatives Society (PRDIS) is a registered and reputed professional National Level Development Organization (NGO) established during the year 1999 operating from Hyderabad, Telangana, India. Participation, Partnership and Empowerment are the guiding principles of PRDIS. It has been working on the areas of Sustainable Agriculture, Agribusiness, rural development and Natural Resource Management. This organization has also been providing consultancy services to the Central Government various State Government, Agro Based Industries, international Development Agencies on Field activities, Monitoring, Evaluation studies, base line survey and capacity building activities concerning with Sustainable Agriculture, Agribusiness and Rural Development issues.



Professor Jayashankar Telangana State Agriculture University (PJTSAU) named in honour and memory of professor jayashankar . The University was established as per the Telangana Govt's G.O. Ms No.7, Agricultural and Cooperation (Agri III) Department, Govt. of Telangana dated 31-07-2014 adapting the ANGRAU Act 1963 as "The ANGRAU Act of 1963 (Telangana Adaptation) order, 2014". Education, Extension and Research are the mandate of University. After bifurcation, the PJTSAU has five constituent colleges with three of those devoted to faculty of Agriculture, one to faculty of Agricultural Engineering and Technology and one to faculty of Home Science. In addition, there are nine polytechnics (seven in Agriculture, one each in Seed Science and agricultural Engineering). There are 16 Agricultural research stations, including three Regional Agricultural Research stations, Nine District Agricultural Advisory and Transfer of Technology centres (DAATTCs), six Krishi Vigyan Kendras (KVKs), one each of Extension Education Institute (EEI), Agricultural Information and Communication Centre (AI&CC), Agricultural Technology Information Centre (ATIC, Electronic Media Wing and Farmers call Centre spread across the state with scientific ,supporting and administrative staff, apart from a good contingent of labour force.

It caters to the needs of an enterprising farming community of Telangana, which is endowed with abundant natural resources, diverse soil and agro-climatic conditions suitable for varied cropping systems and has the potential to become the 'Seed bowl of India'.