







Stakeholders Meeting on

Sustainability of Agricultural Extension Platform for South Asia (AEPSA)

Kathmandu, Nepal; 6-7 June 2025

Proceedings and Recommendations

















Trust for Advancement of Agricultural Sciences (TAAS)

GOAL

Harnessing the potential of agricultural sciences for the welfare of people of India

MISSION

Promoting growth and advancement of agriculture through science based policy advocacy, public awareness and effective research and development partnerships

OBJECTIVES

- To act as a Think Tank to deliberate on key issues relating to agricultural research and innovation for development (ARI4D) and to influence policy decisions.
- To organize workshops, conferences, brainstorming sessions, seminars, policy dialogues and special lectures on emerging issues and new developments in agricultural sciences.
- To disseminate knowledge among stakeholders through publication of proceedings, strategy papers, policy briefs and success stories.
- To confer awards on the scientists and farmers of Indian and foreign origin for their outstanding contributions.
- To facilitate scientific interaction and partnerships of non-resident Indian agricultural scientists with Indian scientists.

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Trust for Advancement of Agricultural Sciences

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Abbreviations and Acronyms

| | evelopment Bank t Director General |
|-----------------|--|
| | |
| AEPSA Agricult | ural Extension Platform for South Asia |
| AFU Agricult | ure and Forestry University |
| AHD Animal | Husbandry & Dairy |
| AI Artificia | l Intelligence |
| AKCs Agricult | ural Knowledge Centres |
| AMB Agricult | ural Product Marketing Bureau, Nepal |
| AMUL Anand I | Milk Union Limited |
| ARYA Attraction | ng and Retaining Youth in Agriculture |
| ATARIs Agricult | ural Technology Application Research Institutes |
| ATCs Agricult | ural Training Centres |
| ATIC Agricult | ural Technology Information Centre |
| ATMA Agricult | ural Technology Management Agency |
| BAIF Bharatiy | va Agro-Industries Foundation |
| BARC Banglad | esh Agricultural Research Council |
| BAS Banglad | esh Agricultural Society |
| BCAC Block/C | luster Action Plans |
| BAEF Banglad | esh Agro Entrepreneur Welfare Foundation |
| BAEN Banglad | esh Agriculture Extension Network |
| BRAC Banglad | esh Rural Advancement Committee |
| BTT Block Te | echnology Team |
| C-AEPs Country | Agricultural Extension Profiles |
| CB Capacity | Building |
| CBOs Commu | nity-Based Organizations |
| CFC Commo | n Facilities Center |
| CIGs Commo | dity Interest Groups |
| CGIAR Consulta | ative Group on International Agricultural Research |

| CLPM Cross Learning Possibilities Matrix CIP International Potato Center CRPs Country Resource Persons CSR Corporate Social Responsibility DAE Department of Agricultural Extension DAATTCS District Agricultural Advisory and Technology Transfer Centers DARE Department of Agricultural Research and Education DBT Direct Benefit Transfer DDG Deputy Director General DG Director General DLS Department of Livestock Services DNP Dynamic Nutrient Provider DOAFW Department of Agriculture & Farmers Welfare DOE Directorate of Extension DKT Direct Knowledge Transfer EEIs Extension Education Institutes ESPs Extension Service Providers FAC Farmers Advisory Committee FAO Food and Agricultural Organization of the United Nations FBS Farmers' Business School FCRA Foreign Contribution Regulation Act FFS Farmer First |
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| CRPs Country Resource Persons CSR Corporate Social Responsibility DAE Department of Agricultural Extension DAATTCS District Agricultural Advisory and Technology Transfer Centers DARE Department of Agricultural Research and Education DBT Direct Benefit Transfer DDG Deputy Director General DG Director General DLS Department of Livestock Services DNP Dynamic Nutrient Provider DOAFW Department of Agriculture & Farmers Welfare DOE Directorate of Extension DKT Direct Knowledge Transfer EEIs Extension Education Institutes ESPs Extension Service Providers FAC Farmers Advisory Committee FAO Food and Agricultural Organization of the United Nations FBS Farmers' Business School FCRA Foreign Contribution Regulation Act FFS Farmers Field School |
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| FF Farmer First |
| |
| FS Farm School |
| FIAC Farmer's Information and Advisory Centre |
| FIG Farmers Interest Group |
| FO Farmer Organization |
| FPC Farmers' Producer Company |
| FPO Farmers' Producer Organization |
| FTC Farmers' Training Centre |
| GBPUAT Govind Ballabh Pant University of Agriculture & Technology |
| GI Geographical Indication |
| GDP Gross Domestic Product |

| GoI | Government of India | |
|---------|---|--|
| GSO | Grass Roots Outlet Service | |
| GST | Goods and Services Tax | |
| HRD | Human Resource Development | |
| IAAP | Intensive Agricultural Area Program | |
| IADP | Intensive Agricultural District Program | |
| IARI | Indian Agricultural Research Institute | |
| ICAR | Indian Council of Agricultural Research | |
| ICRAF | International Centre for Research in Agroforestry | |
| ICARDA | International Center for Agricultural Research in the Dry Areas | |
| ICRISAT | International Crops Research Institute for the Semi-Arid Tropics | |
| ICT | Information Communication Technology | |
| IFAD | International Fund for Agricultural Development | |
| IFSC | Indian Financial System Code | |
| INR | Indian Rupee | |
| IFPRI | International Food Policy Research Institute | |
| ILRI | International Livestock Research Institute | |
| IPRS | In-Pond Raceway System | |
| IRRI | International Rice Research Institute | |
| ISSCA | ICRISAT Center of Excellence for South-South Cooperation in Agriculture | |
| IT | Information Technology | |
| JICA | Japan International Cooperation Agency | |
| KALIA | Krushak Assistance for Livelihood and Income Augmentation | |
| KCC | Kisan Call Centres | |
| KSHMATA | Knowledge Systems and Homestead Agriculture Management in Tribal Areas | |
| KVK | Krishi Vigyan Kendra | |
| MANAGE | National Institute of Agricultural Extension Management | |
| MAHYCO | Maharashtra Hybrid Seeds Company | |
| MD | Managing Director | |
| MGMG | Mera Gaon Mera Gaurav | |
| MoALD | Ministry of Agriculture and Livestock Development | |
| MoA&FW | Ministry of Agriculture and Farmers' Welfare | |
| | | |

| MoLMAC | Ministry of Land Management and Agriculture and Cooperation, Nepal | |
|--------|--|--|
| MoU | Memorandum of Understanding | |
| MSU | Michigan State University | |
| NABARD | National Bank for Agriculture and Rural Development | |
| NDUAT | Narendra Deva University of Agriculture & Technology | |
| NAEP | National Agricultural Extension Project | |
| NAFED | National Agricultural Cooperative Marketing Federation of India Limited | |
| NARI | Nutri Sensitive Agricultural Resources and Innovations | |
| NARC | National Agricultural Research Centre | |
| NARC | National Agricultural Research Council | |
| NARS | National Agriculture Research System | |
| NATP | National Agricultural Technology Project | |
| NES | National Extension Service | |
| NFAC | Nepal Farmers Advisory Council | |
| NFDB | National Fisheries Development Board | |
| NGOs | Non-Government Organizations | |
| NICRA | National Initiative for Climate Resilient Agriculture | |
| NITI | National Institution for Transforming India | |
| NLM | National Livestock Mission | |
| NMAET | National Mission on Agricultural Extension and Technology | |
| NRM | Natural Resource Management | |
| NR | Nepalese Rupee | |
| NTAE | New Technologies for Agriculture Extension | |
| OFSSI | On- Farm Small- Scale Infrastructure | |
| PAN | Permanent Account Number | |
| PARC | Pakistan Agricultural Research Council | |
| PAU | Punjab Agricultural University | |
| PMKSY | Pradhan Mantri Krishi Sinchayee Yojana | |
| POPs | Persistent Organic Pollutants | |
| PPPs | Public Private Partnerships | |
| PPT | Power Point Presentation | |
| PRDIS | Participatory Rural Development Initiative Society | |

| RAFTAR | Remunerative Approaches for Agriculture and Allied Sector Rejuvenation | | |
|-------------------------|--|--|--|
| RAS | Re-circulatory Aquaculture System | | |
| R&D | Research and Development | | |
| R&E | Research and Extension | | |
| RIOs | Research Institution Outlets | | |
| SAMETIS | State Agricultural Management & Extension Training Institutes | | |
| SARATHI | System of Agri-Information Resources Auto-transmission and Technology Hub Interface | | |
| SAU | State Agricultural University | | |
| SHG | Self-Help Group | | |
| SREPs | Support to Training and Employment Program for Women | | |
| SRT | Saguna Regenerative Rice Technique | | |
| TAAS | Trust for Advancement of Agricultural Sciences | | |
| TANVASU | Tamil Nadu Veterinary and Animal Sciences University | | |
| Texas A&M University | Texas Agricultural and Mechanical University | | |
| TV | Television | | |
| T&V | Training and Visit | | |
| UN | United Nations | | |
| UNDP | United Nations Development Program | | |
| USA | United States of America | | |
| USAID | United States Agency for International Development | | |
| USD | United State Doller | | |
| VATICA | Value Addition and Technology Incubation Centres in Agriculture | | |
| VOs | Voluntary Organizations | | |



Stakeholders Meeting on

Sustainability of Agricultural Extension Platform for South Asia (AEPSA)

BACKGROUND

Agricultural extension is a cornerstone of sustainable agriculture and food systems transformation for enhanced food security and economic growth. The agricultural extension services, both public and private, play an important role in technology transfer and knowledge dissemination to the farmers and other stakeholders. Further, the production systems' performance in agriculture and allied sectors directly depends on the efficiency of extension services.

The agricultural extension models evolved over a period of time in South Asian countries broadly include: (i) research institutions demonstrating the technologies in their area of jurisdiction providing informed knowledge and technical backstopping, (ii) development departments and commodity boards carrying innovations and package of practices forward through field extension agents, (iii) private sector interventions playing an important role in augmenting extension services, (iv) farmers, farmer organizations and Non-Governmental Organizations (NGOs) promoting and adopting their innovative extension approaches, and (v) media-print, electronic, social and internet platforms playing significant role in strengthening extension services.

Series of international consultations had taken place in the recent past in Nepal (2018), Sri Lanka (2019), India (2022) and Bangladesh (2023) for better understanding, reforming and enhancing extension services in the region. Followed by this, a meeting was held in New Delhi on 8 March, 2024 under the chairmanship of Dr RS Paroda, Chairman, Trust for Advancement of Agricultural Sciences (TAAS). Senior representatives from South Asian countries, Indian Agricultural Research Institute (IARI), National Institute of Agricultural Extension Management (MANAGE) and Michigan State University (MSU) participated. Accordingly, it was resolved to establish a neutral Agricultural Extension Platform for South Asia (AEPSA) region for sharing experiences, best practices, information on innovative extension approaches and cross

learning through successful models and successful case studies around agricultural and food systems.

On the initiative of the Trust for Advancement of Agricultural Sciences (TAAS) well supported by Michigan State University (USA), AEPSA is now operational as a program of TAAS. A number of preparatory activities have been undertaken which include: identification of the country resource persons, constituting an Advisory Committee, development of the country extension profiles, printing of brochure reflecting the goals, objectives, functional modalities and a core team in place laid a strong foundation to move forward.

In order to have an in-depth discussion on the progress already made, future activities, ownership and sustainability of AEPSA, a "Stakeholders Meeting on Sustainability of Agricultural Extension for South Asia (AEPSA)" was organized by the Trust for Advancement of Agricultural Sciences (TAAS) in collaboration with Michigan State University (MSU), Michigan, USA and Nepalese Farmers Advisory Council (NFAC) at the Hotel Bhadgaon, Barahisthan, Bhaktapur, Kathmandu, Nepal on 6 - 7 June, 2025. The program schedule is given in Annexure I. The meeting was attended by 60 participants (Annexure II) representing various stakeholder groups and senior government officials from Bhutan (1), India (8), Pakistan (1), Sri Lanka (1) and International Agencies (3). The host country, Nepal was represented by 44 participants including Hon'ble Minister of Agriculture and Livestock Development, senior Secretaries, Directors, government officials, entrepreneurs, and progressive farmers, etc. Young agri-entrepreneurs (3) from Bangladesh, and a senior representative of Michigan State University, USA (1) and senior representatives of UN Food and Agriculture Organization (FAO) (2) also attended this meeting.

INAUGURAL SESSION

The Inaugural Session was chaired by Padma Bhushan awardee Dr RS Paroda, Chairman, TAAS and AEPSA Advisory Committee and Former Secretary Department of Agricultural Research and Education (DARE) & Director General, Indian Council of Agricultural Research (ICAR). Mr. Ram Nath Adhikari, Hon'ble Minister of Agriculture and Livestock Development of Nepal was the Chief Guest. The Guests of Honour during Inaugural Session included Dr Govinda Prasad Sharma, Secretary, Ministry of Agriculture and Livestock Development, Govt. of Nepal, Mr Sanjay Agarwal, ADG, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) & Former Secretary Agriculture, Government of India; Dr Daniel Gustafson, Special Representative of the Director General, Food and Agriculture Organization (FAO); and Dr Karim Maredia, Director, International Agriculture Programs, Michigan State University (MSU), USA; Dr YK Karki, while welcoming the participants, highlighted about the specialties of Nepalese agriculture and extension systems and also briefly

introduced AEPSA, its vision, mission, and partner countries. Dr Karki drew the attention of the audience towards the effects of climate change and soil degradation on food security and urged for an urgent attention for innovation and reforms in extension systems. Further, he suggested to take due advantage of the opportunities in the region, existing population resources in the South Asia region, and advocated promotion of innovations in agricultural extension system for overcoming the challenges, such as disaster risks, depleting soil and water resources, fertilizer shortage, etc. He strongly advocated for strengthening and use of AEPSA platform to improve the effectiveness of extension systems through knowledge sharing and cross learning.

Dr VV Sadamate, Chief Coordinator, AEPSA, while setting the context highlighted the major challenges faced currently by the extension systems in the region. He gave a brief account of different extension models prevailing in various countries across the globe and operational constraints in their performance. Dr Sadamate also presented a chronological account of earlier consultations leading to resolve issues related to the establishment of AEPSA during the Consultative Meeting held on 8 March, 2024 in New Delhi which was attended by the major promoters like TAAS, IARI, MSU, MANAGE, Department of Agriculture and Farmers' Welfare (DoAFW), ICAR, etc. He further highlighted on the uniqueness of AEPSA including its vision, mission, objectives, activities, composition of Advisory Committee of AEPSA and phasing the coverage of partner countries. He also informed about the progress made so far and proposed road-map for future activities. Dr Sadamate profusely thanked Dr Paroda, Chairman, TAAS for all the support, guidance and encouragement for launching and hosting of AEPSA initially for two years. He also mentioned about the initial financial support provided by Dr Karim Maredia, Director, International Agriculture Programs at MSU, and M/s Mahyco Company and M/s Rasi Seeds Company.

Mr Ken Simizu, FAO Representative for Nepal and Bhutan, in his observations, explained the diverse challenges of agricultural development in the region and highlighted the vulnerability to climate change. He further mentioned about the benefits of exchanging best practices in the region to drive agricultural growth for mutual benefits and the platform like AEPSA could play crucial role in driving and enhancing extension efforts innovatively in the region.

Dr Karim Maredia, Professor and Director of International Agriculture Programs, MSU, East Lansing, USA indicated that though MSU is working in 88 countries, Nepal and South Asia region is special for them. In Nepal, MSU is partnering with Agriculture and Forestry University (AFU), National Agriculture Research Council (NARC), and Department of Livestock Services (DLS). He also appreciated the efforts of Dr RS Paroda in envisioning and operationalizing AEPSA and indicated that MSU was proud to be its knowledge partner and assured their continued encouragement and support for its full-scale growth in near future and promoting its linkages with various international platforms.

Dr Daniel Gustafson, Special Representative of Director General of UN-FAO in his intervention highlighted the role of youth in implementing high-tech farming and adopting innovative methods of extension services and suggested to encourage increased engagement of youth for sustainable growth of agriculture and allied sector in the region. He observed that many extension innovations are existing and emerging in South Asian countries. In particular, he suggested the use of different ways of supporting farmers and entrepreneurs through innovations, Information and Communication Technology (ICT), NGOs, and public-private partnerships (PPPs). He highlighted that because of climate change (temperature rise – evapo-transpiration), now, the crops require 6 per cent more water than before and hence, the extension services should focus on resource conserving technologies.

Mr Ram Nath Adhikari, Hon'ble Minister of Agriculture and Livestock Development, Government of Nepal inaugurated the AEPSA website. The Hon'ble Minister, in his inaugural address, appreciated the efforts of the Department of Agriculture of Nepal and NFAC in promoting innovative extension services to Nepalese farmers and expressed the need for motivating and attracting youth in agriculture and allied activities. He further emphasized on the need for adequate availability of critical inputs like fertilizer and good quality seeds. The Hon'ble Minister observed that due attention of the development functionaries and extension systems/institutions is needed to address the current challenges like land fragmentation, insufficient irrigation facilities, marketing issues, non-judicious use of pesticides in crops and antibiotics in animals, wildlife encroachment, climate change, and high cost of production. He suggested to adopt new approaches for extension services like e-extension, digitization of agriculture, extended support for post-harvest value addition and adequate market information. He further added that the agri-start-up programs in South Asia are contributing in promoting young entrepreneurs. While assuring full support of the Government of Nepal to this unique initiative of AEPSA and its activities, he desired AEPSA to bring in and promote collaborations amongst various stakeholders in the partner countries.

Mr Sanjay Agarwal, Former Secretary Agriculture, Government of India and currently ADG, ICRISAT gave a brief background of their upcoming initiative "ICRISAT Centre of Excellence for South-South Cooperation in Agriculture (ISSCA)". The proposed initiative would focus on leading agricultural transformation across the global South through inclusive and sustainable innovations, partnerships and empowered communities. He also expressed his keenness for partnership between ISSCA and AEPSA platform in reforming the extension systems by promoting innovative extension approaches.

Mr Md. Ahsan Ullah, General Secretary, Bangladesh Agro-entrepreneur Welfare Foundation appreciated the establishment of AEPSA and desired it to drive extension partnerships and innovations in South Asia for mutual benefits of partner countries.

He further underlined the need for promoting youth in agriculture through joint programs and activities.

Dr Govinda Prasad Sharma, Secretary, Ministry of Agriculture and Livestock Development, Government of Nepal, observed that similarity of agrarian challenges, small farm holdings, floods and landslides, climate change vulnerability, diversity in the farming systems, etc. prevailed in the South Asian countries and desired that the institutions like AEPSA should bring in networks and partnerships for addressing these pressing challenges and for benefiting farming communities in the region. He hoped that AEPSA can facilitate farmers' access to the front-line technologies by pooling and sharing knowledge, experiences through national and international exchange and dialogues. He assured Government of Nepal's commitment to work proactively in partnership mode with AEPSA.

Dr RS Paroda, Chairman, TAAS and AEPSA Advisory Committee and Former Secretary, DARE and DG, ICAR, India in his address observed that across South Asian countries, there has been a shift from green revolution initiatives to an era of self-sufficiency in food and nutritional security, which has been possible due to cutting edge technologies, production support, partnership arrangements and supportive policy environment. Still there are challenges in the area of sustainability, diversification, climate change, market support, processing and value chain management, high value agriculture, regenerative production systems, wherein, innovative extension services could play a crucial role in addressing these challenges on a consortium and partnership mode. Dr Paroda appreciated the establishment of AEPSA as an innovative regional and neutral platform to source the knowledge, facilitate exchange of experiences, access right knowledge in time, foster collaborations and partnerships for the ultimate benefit of farmers in the region.

Further, Dr Paroda desired scouting success stories across the production systems in the partner countries and replicating and scaling them for benefits to the farmers on wider scale. He also suggested AEPSA collaboration with regional and global extension networks to build its domain expertise for supplementing existing extension processes and promoting new pathways. He underlined the approaches like crosslearning of the impactful innovations and success stories and effective networking of extension service providers, entrepreneurs, FPOs and farmers. Dr Paroda also impressed upon motivating and attracting youth in agriculture and promoting them as entrepreneurs as well as extension service providers. He was of the view that knowledge capture on extension processes and its dissemination should move faster with ICT interventions and digital platforms with due interventions by AEPSA. He wished that joint efforts and actions of all the stakeholders would facilitate carrying forward the recommendations and resolves emanated from this important regional forum. These efforts would need strong financial and capacity back-up to AEPSA. Accordingly, it should augment its funding through membership drives in the partner countries and seek collaboration and support from international agencies.

Dr RK Tripathi, extended most sincere thanks on behalf of AEPSA to the Hon'ble Minister Agriculture and Livestock Development, Government of Nepal for gracing the occasion and assuring all possible support to AEPSA. He recorded his grateful thanks to Dr RS Paroda for envisioning the AEPSA and providing the essential initial back-up to this platform and giving it a firm foundation. He profusely thanked Dr VV Sadamate, Chief Coordinator for putting all the efforts and to Mr Sanjay Agrawal for his kind presence and hoped for the productive partnership with ISSCA. He expressed sincere thanks to Dr Karim Maredia, MSU, USA and Dr Gustafson, Special Representative of DG, FAO for their participation and urged for their continued encouragement and support to AEPSA platform. Dr Tripathi expressed his sincere gratitude to Dr GP Sharma, Mr RP Mishra, Mr Prakash Kumar Sanjel, Dr Jay Mukunda Khanal and Dr Hari Bahadur KC for their gracious presence and purposeful interventions. Dr Tripathi recorded a high appreciation for the outstanding contribution made by the local host, Dr YK Karki and his dedicated team. He extended sincere thanks to the country representatives, government nominees (Dr RR Burman, Dr RN Padaria, Dr NV Kumbhare, Dr BB Rai, Mr Basnayake and Dr Md Azam Khan) and senior representatives of international organizations for their effective participation. He expressed appreciation for the support extended by all the service providers including the logistics team of Hotel Bhadgaon, and the Media. Last but not the least, the efforts of back home team of TAAS led by Dr Bhag Mal and ably assisted by Ms Simmi Dogra were profusely appreciated.

SESSION I: REVIEW OF COUNTRY AGRICULTURAL EXTENSION PROFILES (C-AEPs)

The Session was Co-Chaired by **Dr RR Burman**, ADG (Agricultural Extension), ICAR, India and **Mr Jay Mukunda Khanal**, Former Secretary, Government of Nepal. Dr Mahendra Khanal, Agri-Business Specialist, Kathmandu, Nepal Dr Birendra Bir Basnyat, Extension Expert, Kathmandu, Nepal and Mr Durga Bohara, Finance Expert, acted as rapporteurs.

Since **Dr Md Hamidur Rahman**, Former Director General (Agriculture) and CRP Bangladesh was not able to join the stakeholders meeting, his presentation was made by **Dr RK Tripathi**, team member of AEPSA, New Delhi. He focused on basic details of farming, extension schemes and programs in Bangladesh, extension network in public/private sectors, available expertise at various levels, extension models in operation, etc. It was mentioned that the extension services in Bangladesh are primarily driven by the schemes like community-based agriculture extension services, high value crop production, integrated farm management, climate resilience programs, special scheme offered by the credit institutions, etc. The extension network in the public sector has been spread at the federal, regional, district, sub-district, block and field level. Further, the Bangladesh Agricultural Extension Network (BEAN), Bangladesh

Agro-Entrepreneur Welfare Foundation (BAEF) and Bangladesh Agricultural Society (BAS) are active in extension network. The farmer organizations (FOs), the NGO -Bangladesh Rural Advancement Committee (BRAC), Gramin Bank as well as farm cooperatives were found to be supplementing the extension efforts. He added that the extension models operating in Bangladesh included Training and Visit (T&V) system, Integrated Commodity Production Program, Agricultural Information Communication, etc. Further, he added that extension for farm women, farm youth, mass media, ICT application, etc. are being implemented. Regarding innovation and success stories in extension, he mentioned that the following schemes, namely, women led group extension, farmer's business school, whole family approach, use of innovation of ICT, etc. are being promoted. While dealing with scope for cross learning, he pointed out the cross-learning possibilities in the areas like digital extension, capacity building and training, innovative extension mechanism, promoting multistakeholder platform, Krishi bioscope (YouTube), etc. For extension collaboration in Bangladesh, the suggested activities to be taken up include advance training program in extension, convergence and coordination, use of AI and IT platforms, promotion of PPPs, the strengthening market linkages, etc. A few important indicative areas were also suggested like policy reform in extension, flexi funding, new HRD techniques in extension, convergence of extension efforts, promoting social media, IT platform and empowered farmer groups.

Mr BB Rai representing the Department of Agriculture, Royal Government of Bhutan, made a compressive presentation on agricultural extension profile. He mentioned that mainly subsistence farming is practiced in Bhutan around rice, maize, wheat and potato crops, engaging 43.5 per cent populations using traditional methods. While explaining extension system in Bhutan, Mr Rai informed that the Department of Agriculture was formally instituted in 1982 and reformed in 1990 covering 20 districts (Dzongkhag) and 205 sub-districts (Gewogs). The research support is provided by the regional agricultural research and development centres. The extension services at the grassroots level mainly provide technical information to the farmers, promote best practices, grant input subsidies and mobilize farming community for agriculture and livestock operation, he added. Further, Mr Rai indicated that the agriculture department is focusing on promotion of organic farming, adaption of new varieties, agricultural infrastructure building and promoting a most noble initiative of planting one million fruit trees. As regards private sector initiatives, Mr Rai cited good number of NGOs contributing to agriculture and rural development, namely, Bhutan Foundation, Tarayana Foundation, Loden Foundation, Horticulture Association, and Bhutan Association of Women Entrepreneurs. Organized farmer groups/cooperatives are also coming up at the block levels, he added.

Regarding extension model, Mr BB Rai informed that Farm and Livestock extension model focused on community based participatory approach which has been successful in improving productivity of crops and animals. The next model works on

T&V system with model village approach. He opined that approximately 90 per cent extension efforts are centred around crops and livestock-based farming. He further added that the extension models are constrained by the limitations like resources, geographical challenges, coordination issues and sustainability of the models. The farm women and youth are supported in taking-up small agri-business activities in the urban and peri-urban areas. They are provided with soft loan assistance, marketing linkages and technology support. Use of ICT has been improving in the community-based farming systems. Regarding scope for cross learning on innovation and success stories, Mr Rai suggested exchange of expert, sharing of extension experiences, promoting partnerships amongst the member countries, sharing ICT models, exchange of learning from NGOs and Cooperatives, exchange of farmers, sharing information on AEPSA website, recognizing and awarding best extension workers in the region, etc.

Dr RN Padaria, Country Resource Person, India and Joint Director Extension IARI, New Delhi, India presented a comprehensive coverage of C-AEP India. He underlined that 83per cent holdings are small and marginal and net rain-fed area accounted for 63.09 million ha out of 141.01 net cropped area. Dr Padaria presented growth of extension services chronologically, indicating major reforms from 1974-75 onwards with introduction of training and visit system and establishment of Krishi Vigyan Kendras (KVKs). Continuing further, Dr Padaria mentioned federal extension programs, operated by the Department of Agriculture and Farmers Welfare and Department of Agriculture Research and Education. He specifically mentioned that the Agricultural Technology Management Agency (ATMA) program has covered all the districts in the country for promoting reforms in field extension whereas the Extension Division of DARE has 731 KVKs for technology demonstration and frontline extension. He underlined the extension operations by the state governments and supportive program of related ministry and department. He briefly touched upon extension service providers in public and private sectors at various levels. Outreach programs of CGIAR Institutions were also referred. As regards manpower in extension, he indicated about the engagement of approximately 1.2 lakh extension personnel in public sector, 1.5-2.00 lakh in private sector and approximately 1.0 lakh in NGO/FO/ SHG sectors. He further gave details of extension institutions at federal, regional and district levels supporting extension services. Specific mention was also made about the institutions like MANAGE, EEIs, SAMETIs, ATARIs, SAUs, etc. Private sector and NGO/Cooperative sector extension program and extension activities operating at various levels were also referred to. He also briefed on various extension models in operation and highlighted the emerging ones like agri-start-ups, farmer aggregates, ICT and Internet platforms, etc. Regarding proposal to have next annual meeting of AEPSA in Bhutan, a representative from Bhutan suggested to take it up with Secretary, Agriculture, Royal Government of Bhutan

Dr Padaria further, indicated major constraints in extension systems, namely, policy support, funding, operational, linkages and convergence and extension inadequacies

in the socially and economically backward regions. On the front-line extension for farm women and farm youth, he drew attention to ongoing programs supported by the centre and the states. He also highlighted the importance of print, electronic, mass media, social media, traditional and internet networks for agricultural extension and underlined the need for proper content development, review, delivery, and impact assessment. He mentioned about the availability of various applications for agricultural extension services (websites, portals, YouTube channels, e-Chaupal, Kisan call centre, digital agriculture mission, Kisan Sarthi, etc.). He specially mentioned about the outreach programs promoted by state agricultural universities, contract farming models, FPOs and FPCs, farmer field schools, agri-entrepreneurs and startups and PPPs, high-tech and precision agriculture, marketing innovations and AI applications for agricultural services. Success stories brought out by TAAS, IARI, ICAR, MANAGE, etc. were also mentioned by him. Regarding cross learning of extension innovations with partner countries, he highlighted various opportunities for India like experience sharing of KVK and ATMA models, private sector initiatives, climate resilient agriculture through NICRA, replication of successful cooperatives like AMUL, application of ICT and digital tools, extension for commercial crops, extension in allied areas, etc. He also emphasized on future extension interventions and collaborations with partner countries in the areas of agri-start-ups, entrepreneurship, market-led and business-oriented extension approaches etc. Finally, Dr Padaria thanked Dr Paroda, Chairman of AEPSA Advisory Committee who is guiding force for agricultural research and development in India, for giving this unique opportunity and assured all possible support in making AEPSA mission a great success.

Dr Karim Maredia from MSU, USA, while appreciating comprehensive presentation by Dr Padaria, observed as follows:

- Need for focused extension strategies to address the technical back-up and support services required by small, medium and progressive farmers.
- Convergence and coordination of multi-agency extension efforts at cutting edge level. The existing mechanism of ATMA-KVK linkage at the district level and below, there is a defined delineation of responsibilities.
- Need for selective evaluation of the impact of Farmer Field Schools on the effectiveness of extension services.

Dr YK Karki, Country Resource Person, and Former Secretary Ministry of Agriculture and Livestock Development, Government of Nepal and Chairman of NFAC gave a detailed presentation on the agriculture extension profile of Nepal. He highlighted that majority of the farmers belonged to small to medium size of holding (between 0.5–2.0 ha). He also mentioned about the federal and provincial schemes promoting agricultural extension strategies and farmer participation. Further, grants and subsidies are provided by the department to disseminate technology to farmers and

other stakeholders. Dr Karki added that there are federal, provincial and districts level extension networks dealing with identified programs/interventions. The district level extension service providers include agriculture knowledge centers, veterinary hospitals, which were in the form of agriculture development office, and livestock services office in the past. These efforts are supplemented through farmer groups and commoditybased organizations. He observed that private sector extension services are operating at various levels notably seed and fertilizer companies at the federal level, private agri business firms, cooperatives at the provincial levels, NGOs, CBOs at the local level and veterinary clinics at the district and local levels. He further observed that good number of international institutions are implementing their outreach programs at various levels and in partnership with local institutions/agencies. The international research centers and institutions like, IRRI, CIMMYT, IFPRI, ICARDA, ILRI, CIP, ICRAF, etc. are active in Nepal. He provided details of extension expertise at various levels, their approximate numbers and roles/responsibilities and also cited good number of private sector extension service providers operating at various levels. Information on extension institutions of both public and private sectors at the federal, provincial and district level with their functional details were provided. Further, several companies and corporate, NGOs, FPOs in agriculture and allied sectors, and farm cooperatives are also operating effectively in Nepal.

Farm research setup and its backup to extension was detailed mentioning NARC at the federal level, agricultural research station at the provincial level and Krishi Gyan Kendras (Agriculture Knowledge Centers) at the district level. The agriculture universities work with Krishi Gyan Kendras and NGOs/private sector to promote adoptions of technologies. Farm extension models in operation in private sector include agro input dealers model, contract farming model, agri-business incubator model, ICT based extension model and private advisory and consultancy services. He also cited in brief the performance and constraints of these extension interventions. Specific details of programs on extension for farm youth and farm women and their implementation by the federal, provincial and district/local agencies were provided by Dr Karki. He also highlighted examples of women entrepreneur support and youth agro start-ups grant programs.

Further, Dr Karki presented a detailed account on use of print media, fairs and exhibitions, radio, television, community radio, digital and ICT based media, etc. and also gave details of effectiveness and challenges in use of media in different agroclimatic zones. The section on innovation and success stories and scope for cross-learning was very significant part of the presentation. He cited sector-wise impacting innovations and replicable success stories spread across public sector, private sector and NGOs. Regarding cross-learning possibilities within and with other partner countries, he cited best practices and their give and take with other countries which include examples of Krishi Vigyan Kendras (India), Farmer, Field Schools (Bangladesh), Organic Farming (Bhutan), and Agro Eco-logical practices (Sri Lanka), etc.

Dr Karki suggested the areas of future extension interventions and collaborations in areas such as policy interventions, innovative programs, flexi-funding, convergence models, innovative HRD practices, PPPs in extension, augmenting extension services in allied areas, seeking private sector best practices, partnerships and pilots with CGIAR and other international institutions, partnerships with extension players in other countries, ICT applications in various forms, use of social media and farmer empowered models including farmer to farmer and farmer cooperatives extension.

Dr VV Sadamate appreciated the comprehensive presentation by Dr Karki about the Country Agricultural Extension Profile of Nepal and observed that there appeared to be a strong possibility of cross-learning and collaboration between Agriculture Knowledge Centres (AKCs) of Nepal and Krishi Vigyan Kendras (KVKs) of India, a significant front-line extension model.

Dr Md Azam Khan, Director General, National Agricultural Research Centre (NARC), of Pakistan Agricultural Research Council (PARC), Islamabad, Pakistan, in his presentation indicated several extension approaches evolved over a period of time like: Village Cooperative Movement, Village Agricultural and Industrial Development Program, Integrated Rural Development Program, Training and Visit System, etc. Further, he informed that good number of extension methods are deployed for transfer of technology to farmers. These include travelling seminars (field visits of scientists) campaigns, involvement of fresh agri-graduates in extension, field demonstrations, pre-service and in-service training of the field functionaries, etc.

Dr Khan reported that the input support services are also strengthened to backup extension efforts through plant clinics, subsidies on seeds and fertilizers, biological control, etc. Recently, Pakistan has launched Extension Services-2 for facilitation through modernized extension method wherein focused efforts are made to provide location specific advisories through established call centres, integration with market information and linkages with irrigation and meteorological services. Digitized village maps, providing soil health card, tier-III compliant data, capacity building of field extension agents, promotion of ICTs in extension, etc, were also highlighted by Dr Khan.

Dr Karim Maredia, complimented Dr Khan for his focused presentation with the following observations:

- The concept of travelling seminars implemented by Pakistan is worth replicating, wherein, farmer-scientist interface is promoted.
- The paid internship of fresh agriculture graduates for one year is also noted as an instrument for exposure and motivation of youth for involvement in agriculture and related enterprises.

Mr BMAP Basanayake, Additional Director Extension, represented the Government of Sri Lanka. Dr Chandana Javawardena, Country Resource Person, Sri Lanka could not attend the meeting because of his overseas teaching assignment. The presentation on extension profile developed by Dr Chandana Jayawardena, was presented by Mr Basanayake with some additions and improvements. He observed that 6.57 million population is involved in farming in Sri Lanka and mentioned the following extension schemes which are operated by the federal government: training and education, demonstrations, information support, participatory programs, ICT applications and advisory services. Similar interventions are being made at the provincial levels. Further, he highlighted private sector extension programs like extension through input support companies, NGOs, corporates, etc. He also indicated sector specific programs with extension components in it like crops, horticulture, animal husbandry and dairying, farm credit, agricultural marketing, farm mechanization, etc. In the public sector, various departments are involved in providing related extension services like: department of agriculture, department of export agriculture, Sri Lanka Mahawely Authority, Sri Lanka Hadabima Authority, rubber development department, coconut cultivation board, sugarcane department, department of animal production and health, department of agrarian development, national institute of post-harvest management, etc. He added that private sector extension is being supplemented through companies in agriculture supply chain like seed producers, fertilizer distributors, agro-chemical companies and machinery dealers, etc. The public sector institutions have been collaborating with CGIAR centres and other international institutes. The key institutions in these areas are tea research institute, rubber research institute, animal production and health department wherein international collaboration are prominently observed. He also provided the details of extension manpower at various levels and elaborated the efforts of NGOs, FOs, CBOs, FPCs, PPPs, organic farming groups in the sectors of tea, rubber, agri-business and market networks giving specific examples. It was evident that FOs/Cooperatives have been playing significant role in supplementing extension efforts. As regards farm research set up and it's back up to extension, he mentioned outreach programs of research institutions, farm universities, commodity research organizations, veterinary research institutions and spice research organizations. He further added that regional and district level research centres provided extension backup by way of technology demonstration, capacity building, information support, awareness campaigns, promotion of ICT application, etc. He further informed that the extension models in operation are promoted on T&V system with required improvement in it depending upon the content and clientele.

As regards to performance and constraint in public sector extension, Mr Basanayake also highlighted major constraints like manpower shortage, heavy workload, inadequate research and extension linkages and funding problems. Further, series of private sector interventions in supplementing extension efforts were provided which included agrientrepreneurs, agri-start-ups, PPPs, credit- market support services, etc. A number of

federal and provincial programs focused on farm youth (including women) included customized training, production support, income generating activities, credit-market facilitation, etc. He specifically cited an example of promotion of young farmer clubs. Use of print mass and ICT applications were presented giving details of web portals, social media details, TV channels, community call centres (1920), web casting, telecasting, etc.

Mr Basanayake enlisted series of extension innovations, success stories, and their replication and scaling-up possibilities. He specifically cited examples like success stories on plantation crops, tea small holding development societies, smallholder agri businesses, Sri Lanka women cooperatives, organic farmer association, Kurunegala organic farmers cooperatives, Coconut milk producers' union, Hayleys agriculture services private limited, etc. Finally, he indicated areas for cross-learning and collaboration with partner countries with focus on areas like innovative extension pilots, replication of KVK (India), new technologies for agriculture extension program (NTAE-USA), innovative ICT applications, partnership with FAO, JICA, integrating experiences of successful NGOs, FPOs, Cooperatives, PPPs and accessing external program funding for innovative extension pilots.

Dr RR Burman, in his remarks as Co-Chair observed that impacting extension innovations and emerging models in the partner countries may be documented, studied and collaborative possibilities worked out for mutual benefits. **Mr Jay Mukunda Khanal**, Co-Chair remarked that farm youth and farm women linked extension strategies should be designed at the cutting-edge level and supportive services mobilized to encourage their participation in implementation.

SESSION II: CROSS LEARNING AND LINKAGE PERSPECTIVES

The Session II was Co-chaired by Dr **Daniel Gustafson**, Special Representative of DG, FAO and **Mr Prakash Kumar Sanjel**, Director General, Agriculture, Nepal. **Dr Mahindra Khanal**, Agri-Business Specialist, Kathmandu, Nepal, Dr Birendra Bir Basnyat, Extension Expert, Kathmandu, Nepal and Mr Durga Bohara, Finance Expert, acted as rapporteurs.

Dr Karim Maredia, in his presentation on "Linkage Perspectives of Michigan State University (MSU) Extension Programs with those of the AEPSA partner countries", gave a brief account of MSU extension system. Further, he informed that the MSU was established in 1855 and is a public land-grant university with three-fold mission of research, teaching, and extension. The university provides extension services covering 83 counties in the State of Michigan, divided into 14 regions and has more than 600 extension specialists and educations helping the farmers and local communities to improve their lives by bringing the vast knowledge resources of MSU directly to the

individuals, communities and businesses. MSU Extension programs are being operated through four major institutes namely: (i) agriculture and agribusiness, (ii) community, food and environment, (iii) children and youth, and (iv) health and nutrition. The MSU College of Agriculture and Natural Resources has research linkages with 88 countries across the globe, he added. Dr Maredia also mentioned that the financial support for MSU Extension comes from diverse sources from federal, state, and private grants, county investments and university's general fund.

Dr Maredia mentioned that MSU has collaboration with MANAGE, Hyderabad, India and has organized joint workshops and exchange programs annually since 2018. The MSU has established MANAGE-MSU centre in 2024 for training of extension functionaries from Asia and Africa regions. He added that the MSU was one of the lead partners to initiate AEPSA in collaboration with TAAS, MANAGE and IARI on 8 March, 2024. He acknowledged the contribution of Dr RS Paroda in promoting AEPSA as a unique regional platform for sharing information, innovations, success stories and replication thereof in the partner countries. He also mentioned that MSU would continue to work proactively in South Asia through AEPSA serving as a knowledge partner and assured sharing experiences and linkage resources for mutual benefits on a long-term partnership basis. He desired AEPSA to explore linkages with regional and international platforms for technical and funding support and wished better perspective to AEPSA in near future to serve the farmers and local communities in the region bringing in innovations and reforms in extension systems.

Dr RR Burman, ADG (Agricultural Extension), ICAR, made a detailed presentation on the "Innovations in Extension Approaches by ICAR". He briefly indicated preindependence and post-independence extension approaches emerged in the country. He added that there are four major extension systems in operation: (i) frontline extension system (ICAR/SAU/KVK), (ii) field extension system (federal & state governments), (iii) extension through input industries, non-governmental organizations (NGOs) and (iv) extension through rural development programs (central & state government). While elaborating on growth of KVKs, he added that presently there are 731 KVKs in the country and briefly mentioned the impact of KVK system and its linkages with other organization. He presented comparative agricultural extension scenario between India, China, Brazil, Israel and Vietnam and observed that a pluralistic extension approach is in operation in India that includes public, private, NGOs, universities, ICT based knowledge dissemination, and use of social media. He further indicated the challenges faced by the frontline extension system, focus on partnership based institutional outreach programs (IARI VOs partnership, IARI-Post Office Linkage Extension Model), need for feedback/big data management and analytics, extension for climate resilient agriculture, promotion of custom hiring centres, use of digital information system and social media platforms. He underlined key challenges faced by the extension services like lack of trained manpower, lack of resources, inadequate convergence and coordination among extension agencies and need for timely delivery of customized advisories and lack of farmer participatory research. Dr Burman emphasized on result framework approach for measuring impact, outcomes and outputs and plan for mobilising resources/inputs for desired output, outcome and impact. He further stressed on systematic single window solution for farmers and urged for strong convergence mechanisms of extension efforts at the cutting age level, especially at the block/cluster level wherein KVK can play an important role in collaboration with other partners. For the way forward, he proposed enhanced role-playing fields for KVKs like centre of excellence, district hub for extension advisory, integrated service delivery and feedback loop catalyst. While concluding his presentation Dr Burman assured all possible support to AEPSA to achieve its expected goals in the South Asia region.

Dr NV Kumbhare made an in-depth analysis of the success stories brought out by TAAS. The success stories by the outstanding farmers in agri and allied areas were analysed in terms of objectives, coverage, impacts, replicability, etc. Lessons from these success stories were found to be having an advantage of cross learning possibilities in AEPSA partner countries. Salient features of his analysis based on success stories are given below:

- Re-generative Technique and Agro-tourism A Success Story of Mr Chandrashekhar Hari Bhadsavle Saguna Regenerative Technique (SRT) is a technology developed by Mr Chandrashekhar Bhadsavle (a food scientist turned farmer) is a direct seeded rice growing technique doing planting without deep ploughing and puddling. Dr Kumbhare mentioned that one can save 50 per cent water and almost 40 per cent cost of cultivation by adopting SRT. The adoption of SRT which conserves the biodiversity, is on rise in Maharashtra. In addition to rice, he has been growing multiple crops and rearing livestock and fisheries in his degraded land turned, Saguna Bagh- tourism venture located in Neral, Karjat Maharashtra, India.
- Biofertilizers and Biopesticides for Enhancing Agricultural Production A Success Story of Dr Basavaraj Girennavar Dr Basavaraj Girennavar, a PhD from Texas A&M University in USA, established Criyagen Agriculture and Biotech Pvt. Ltd. in Doddaballapur, Bengaluru, India as an incubation centre in 2008 with the support of University of Agricultural Sciences, Dharwad, Karnataka, India. Dynamic Nutrient Provider (DNP), which is a combination of biofertilizer and growth boosters is the first product of Criyagen. It was indicated by Dr Kumbhare that the demand for DNP was going so high that Criyagen had to produce 22,000 tons in 2018/19. Besides DNP, the company produces several other organic and bio-fertilizers and bio-pesticides (altogether 50 products) and sells in the market. Out of these, 3 products are patented so far. Criyagen produces fertilizers and pesticides in solid, liquid, granular, tablets, and capsule forms. The company has also developed machinery and

equipment for soil, water, and plant tissue analysis and has been providing services to the farmers.

- Resilience in Dairy Farming A Success Story of Ms. Nikki Pilania Chaudhary To cater the needs of a modern and hygienic dairy farm, Ms Nikki Pilania Chaudhary and her husband Mr Gaurav Chaudhary established in 2014 'Mango Dairies', a modern dairy farm in Pilibhit area of Uttar Pradesh, India. Dr Kumbhare highlighted that the farm is currently producing 300 400 liters of milk per day from a herd of 20–30 cows (majority of them are HF crossbreeds). The farm's focus is on breeding, nutrition, and cow comfort, which are considered three pillars of efficient raw milk production. He mentioned that management was the most important aspect of this farm. It gives Ms Nikki Pilania national and international exposure, makes easy marketing of milk and other dairy products, and facilitates developing the farm as a Centre of Excellence.
- Navara Rice A Success Story of Mr P Narayanan Unny Navara rice is a local land race native to Palghat region of Kerala, India. Milled Navara rice is deep red in colour having several nutritional and medicinal benefits. Mr P Narayan Unny purified the seeds of Navara rice, which was on the verge of extinction, and cultivated it in 8 acres of his 18 acres 'Navara Eco–Farm'. The entire farm was certified organic for India, European Union, and USA in 2007. This rice has also received geographic indication (GI) tag. The net profit per acre was calculated INR 9,925 and low, but because of its medicinal value it is creating awareness among farmers in India and abroad as well attracting tourists and recognizing Mr Unny as a promising farmer.
- A Women Entrepreneur's Journey from Adversity to Prosperity A Success Story of Ms Saneha Sharma The transformation of Saneha Sharma from a shy village girl of Mandi district, Himachal Pradesh, India to a confident entrepreneur and community leader is an inspiration to all rural women living in the similar contexts. After getting several relevant training and exposures from the KVK Mandi, she adopted integrated farming of crops, dairies, vegetable nurseries, and oyster mushroom at 0.48 ha of her farm and produced value added agricultural products to raise her income. As a master trainer, she transfers her knowledge and skills to several women of her areas and contributes turning them to agriculture entrepreneurs. Dr Kumbhare emphasized that in the existing situation of feminization of agriculture, developing entrepreneurship among women as in case of Ms Saneha will be helpful to improve agricultural income and ultimately the livelihoods of rural people.

Fish Farming in North India - A Success Story of Mr. Sultan Singh - Dr Kumbhare in his presentation mentioned that the involvement of Mr Sultan Singh in fish farming dates back to 1983 when he leased in a small pond in Karnal of Haryana, India, from which he could make a sale of INR 1,62,000 in 18 months against the investment of INR 28,500. In the course of growing his fish business, he added carp breeding; shrimp farming; pangas production; recirculatory aquaculture system (RAS); local fish species; ornamental fish; and in-pond raceway system (IPRS) to create suitable environment for freshwater fish, like trout, mahasheer, and salmon; and brackish water fish, like prawns, sea bass, milk fish and cobia species were promoted by Mr Singh. In addition, he established India's first freshwater processing plant, fish retail chain with brand name fish bite, and quality control laboratory for testing fish products. Dairy animals and horses were raised, and aquaponics vegetables and fruit crops were grown in his farm. While appreciating the efforts of Mr Sultan Singh, Dr Kumbhare mentioned that in order to sustain his annual profit from fish farming, he has taken the risk of introducing several new ventures and worked hard all the year round. This farm is visited by more than 750 graduate and post graduate students every year to learn practical aspects of fish farming.

Dr Daniel Gustafson, Co-Chair, in his remarks mentioned that MSU-MANAGE collaborative network is a successful model which can be replicated. Research-Extension Linkages model of India has been moving on a strong and successful convergence mode throwing the scope for cross learning. Innovations outside normal research-extension processes as in the case of SRT in Saguna Bagh agri-tourism initiative need to be kept open for public- private collaboration.

Mr Prakash Kumar Sanjel, in his remarks as Co-Chair observed that education system should have a mandate for extension support to farmers with possibility of University- University collaboration may be explored. The model of Agriculture Knowledge Centre (AKC) implemented in Nepal has great potential for its application and replication in partner countries. Farmer call centre integration with the agriculture knowledge centres can also be a successful and replicable model relevant for all the partner countries in the south Asia region.

SESSION III: STRENGTHENING AND SUSTAINABILITY OF AEPSA: WAY FORWARD

This Session was Co-Chaired by **Dr Karim Maredia**, Director, International Agriculture Programs at MSU, USA and **Mr Hari Bahadur KC**, Joint Secretary, Planning Division, MoALD, Nepal. Dr Mahindra Khanal, Agri-Business Specialist, Kathmandu, Dr

Birendra Bir Basnyat, Extension Expert, Kathmandu and Mr. Durga Bohara, Finance Expert from Nepal acted as rapporteurs.

Dr RR Burman presented the draft of Kathmandu Resolution (Annex III) for participants' feedback and suggestions. He also requested the participants for providing feedback on the draft brochure of AEPSA for further improvements, especially the membership categories and fee structure. For strengthening and sustainability of AEPSA, the following salient points emerged:

- AEPSA initiative is neutral in nature and hence the professional associations, government organizations, NGOs, private corporates and companies, and international agencies, etc., need to be encouraged to join as members and facilitate resource mobilization for its effective regional operation and extension services.
- Participants from different countries were fully supportive to make AEPSA
 an appropriate and sustainable regional platform to share innovations and
 learnings for bringing in innovations and reforms in the extension systems
 in South Asia.
- As a result of an intensive discussion, it was agreed to revise the membership
 categories and rationalized the fee structure and the membership contribution
 to be paid in USD. It was also agreed that the contribution of the farmers,
 research scholars, and students needs to be reduced to a reasonable and
 affordable levels.
- The regional government organizations, international agencies, corporates, NGOs, professional societies, etc. should be informed about the revised fee structure and be requested to become members for wider stakeholder participation in AEPSA.
- The agreed categories of memberships and fee structure is provided in the table below. It was also agreed to revise the brochure to this effect (Annexure VI). Accordingly, the membership form was also revised (Annexure VII).

| S.No. | Name of the Membership Category | Annual | Life Time |
|-------|---|--------|-----------|
| 1. | Government Organization (as Member Countries) | 5000 | |
| 2. | International Institutions/Organizations | 2500 | |
| 3. | Agricultural Institutions/Universities | 1000 | |
| 4. | Professional Societies | 200 | 2,500 |
| 5. | International NGOs | 1000 | 10,000 |
| 6. | National NGOs/Cooperative | 100 | 2,500 |
| 7. | Founding/Knowledge Partner | | 1,000 |
| 8. | Multi-National (Private Company) Members | | 10,000 |
| 9. | National (Private Company) Members | | 5000 |
| 10. | Individual Members | 100 | 1000 |
| 11. | Students | 50 | |
| 12. | Farmers | 25 | 500 |

^{*}being revised further, for approval by the Advisory Committee

SESSION IV: CONCLUDING SESSION

The Concluding Session was Co-Chaired by **Dr RS Paroda**, Chairman, TAAS and Chairman Advisory Committee, AEPSA and **Dr Yogendra Kumar Karki**, Chairman, NFAC, Nepal. **Mr Rajendra Prasad Mishra**, Secretary, Ministry of Forests and Environment, Government of Nepal, was the Chief Guest in this session. Dr Mahendra Khanal, Agri-Business Specialist, Kathmandu, Dr Birendra Bir Basnyat, Extension Expert, Kathmandu and Mr Durga Bohara, Finance Expert, NFAC acted as rapporteurs.

Dr RK Tripathi, Coordinator ICT & Networking, AEPSA presented the draft recommendations based on the following salient points emerged in different technical sessions and major interventions by the participants:

- Emergence of AEPSA as neutral agricultural extension platform for South Asia region and need for promoting linkages with other regional and international networks.
- Follow-up on the Kathmandu Resolution with the partner countries and other stakeholders.
- Follow-up on country agricultural extension profiles (C-AEPs), bringing out cross learning possibilities.
- Greater operational networking and collaborations between the countries on exchange of operational experiences in extension planning, implementation

and evaluation. Collaborative arrangements and exchange of experiences were proposed in the areas of training and capacity strengthening of institutions, knowledge networks, extension functionaries, farmers, and farmer organizations. A strong appeal emerged for active AEPSA website, initiation of AEPSA newsletter and promotion of E-Publications on relevant topics.

- Financial sustainability of AEPSA was also strongly debated and recommended to augment AEPSA resources to play its effective role as regional catalyst in promoting innovative extension services.
- Capacity building of CRPs and AEPSA Core Team members was also noted indicating better opportunities through international exposures and study tours.
- Development of concrete action plan for 2025-26 also emphasized.
- Finally, periodic monitoring of AEPSA activities was highlighted as one of the important activities.

Dr RS Paroda appreciated the quick capture of important issues by Dr RK Tripathi and suggested to team members of AEPSA to prepare and disseminate the proceedings and recommendations as early as possible.

Subsequently, the membership certificates were distributed by the Chief Guest in presence of **Dr RS Paroda** and **Dr Yogendra Karki** to the members who have joined AEPSA as new members. Also, a letter of appreciation and souvenir were distributed to the Co-Chairs, speakers, contributors and organizing team members for their appreciable contribution and support.

In his address, the Hon'ble Chief Guest **Dr Rajendra Prasad Mishra**, Secretary, Ministry of Forests and Environment, Government of Nepal, emphasized the need of a regional platform like AEPSA to share innovations and recent developments in extension systems for capacity strengthening of extension workers and farmers. Dr Mishra further suggested developing AEPSA as a neutral and formal platform.

Session Co-Chair **Dr RS Paroda** observed that legal, institutional, and financial aspects are important for sustainability and the team AEPSA will be focusing on these aspects in near future. He desired that the important recommendations should be followed-up, impacting innovations replicated and cross learning possibilities examined and promoted. Accordingly, AEPSA should develop annual action plan and strengthen capacity of AEPSA and augmenting the resources for its long-term sustainability and fulfilling regional expectations. Dr YK Karki, Co-Chair, appreciated the efforts of team AEPSA and assured team Nepal's strong support in its promotion and sustainability.

Other dignitaries, namely, **Dr Karim Maredia**, **Dr Daniel Gustafson**, **Mr Sanjay Agarwal** also appreciated the team AEPSA for its present efforts and its future pathways.

Finally, **Dr Bimal Kumar Nirmal**, MD, NFAC, Kathmandu Nepal, proposed vote of thanks to all those who contributed formally and informally for the successful organization of this important regional platform.

A field visit to Dairy Extension Innovation site promoted by the Nepal Farmers' Advisory Council was also organized in the afternoon (Annexure VII)

RECOMMENDATIONS

Strengthening and Sustainability

- 1. It was agreed that the partner countries and the interested national and international stakeholders need to consider supporting AEPSA, being a neutral regional platform, to benefit from its intended goals and objectives.
- 2. Concerted efforts be now made to contact the agricultural extension societies, state chapters, forums, associations, etc. from the partner countries to become members of AEPSA. Also, partnerships be established with other related regional and international platforms through suitable memoranda of understanding (MoU).
- 3. The objectives of Kathmandu Resolution signed by all the stakeholders be now addressed jointly in a consultative mode.
- 4. The country resource persons (CRPs) in consultation with the Government representatives from the partner countries need to urgently complete the cross-learning possibilities matrix (CLPM) in the format provided by the AEPSA (Annexure IV). It needs to be improved further based on the suggestions made in the Kathmandu meeting and be shared with the AEPSA Secretariat as soon as possible.
- 5. Agricultural extension innovations, success stories, best extension practices, successful models, proven partnerships, farmer empowerment experiences, etc. promoted by the partner countries as reflected in the C-AEPs, be systematically documented and posted on the AEPSA website, and be shared with the stakeholders and all those engaged in agricultural extension related activities.
- 6. AEPSA must consider bringing out thematic policy papers on the regional challenges and share widely with the partner countries agricultural extension systems. Also, it needs to organize dialogues on extension innovation related breakthroughs, in collaboration with regional and international partners.

Networking

- 7. AEPSA needs to consider promoting suitable cross learning opportunities on training and capacity building in the partner countries. For example, networking and exchange of experiences of Agriculture Knowledge Centers (AKCs) of Nepal, Agriculture Knowledge Centers (AKCs) of Nepal and the Krishi Vigyan Kendras (KVKs) of India. The block / sub-district level extension operations could also be studied and sound principles of it exchanged/adopted by the partner countries like Block Technology Teams (BTTs) in India.
- 8. Indian extension experiences towards reforms and innovations in the last decade bringing in convergence, empowerment, system integration, digital agriculture, PPPs, Agri-Startups, and market integration, etc. be shared with all members of AEPSA.
- 9. AEPSA needs to make concerted efforts on promoting focused intervention like motivating/attracting farm youth (including women) in agriculture and allied areas, improving access of farm women to extension and supportive services, research-extension linkages at various levels, and farmer led empowerment model, etc.

Knowledge Sharing

- 10. Concerted efforts are needed to strengthen AEPSA Website in its contents, coverage, and quality, enabling its visibility in the region and globally. The website should be attractive, highly informative and user friendly.
- 11. AEPSA needs to bring out periodic publications / e-publications on extension innovations, success stories, emerging trends in extension delivery, innovative extension approaches, digital extension services, impact assessment reports, etc. by collating information from the partner countries.
- 12. There is a need to bring out a periodic AEPSA Newsletter for knowledge sharing among the partner countries. Initially, it could be started as an e-Newsletter and later be published as hard copy depending on the response and resources available.

Financial Sustainability

13. Intensive membership drive be launched urgently in all partner countries for augmentation of resources in different categories. Regional responsibility needs strong funding back-up for study visits, dialogues, innovative initiatives, etc. Special efforts need to be made by the CRPs and AEPSA for seeking financial assistance from the respective governments and all national/international agencies involved in agricultural extension related activities.

14. Efforts be also made to approach the corporate sector to provide financial support under CSR provisions.

Capacity Building

15. CRPs and AEPSA core team members need to be exposed to the advances in extension service delivery mechanisms across the continents through need-based training/study visits, for which support from international agencies like FAO, CGIAR institutions, ADB, MSU, World Bank, etc. be sought.

Way Forward

- 16. Long-term and short-term action plans of AEPSA need to be developed systematically with focus on the follow-up on the recommendations emerged from the stakeholders meeting in Nepal, organizing country specific joint dialogues and expert consultations on the crucial issues, promoting collaborations and partnerships with other regional and international platforms, capacity building and networking, consolidating innovations and replication of success stories, and initiating formulation of country agricultural extension profiles (C-AEPs) in the format prescribed (Annexure V) for the proposed second phase countries (Afghanistan, Maldives and Pakistan)
- 17. The M&E capacities of AEPSA need to be strengthened by way of: (i) quarterly and half yearly online meetings and (ii) organizing annual review meetings in partner countries willing to host such meetings. Further, a periodic review needs to be carried out for sourcing available information on extension innovations and reforms, exploring linkage options, capacity building and networking, and strengthening functional capacities of AEPSA.
- 18. Urgent steps need to be taken for the registration of AEPSA, as a Society by developing the bylaws and guidelines, getting a permanent office space and opening its own bank account for effective and efficient functioning.

Stakeholders Meeting on Sustainability of Agricultural Extension Platform for South Asia (AEPSA)

Kathmandu, Nepal; 6-7 June 2025

PROGRAM

Day 1: 6 JUNE, 2025

| 10.30-11.00 | Registration & Welcome Tea/Coffee | | |
|-------------|---|---|--|
| 11.00–12.33 | Inaugural Session | | |
| 11.00–11.05 | National Anthem | Supported by Sabin Shrestha | |
| 11.05–11.10 | Welcome Speech | Yogendra Kumar Karki, Chairman NFAC | |
| 11.10–11.16 | Opening of Program with Lighting the lamp | Hon. Minister Ram Nath Adhikari, Minister of Agriculture and Livestock Development, Govt. of Nepal | |
| 11.16–11.25 | Setting the Context | VV Sadamate, Chief Coordinator, AEPSA | |
| 11.31–11.37 | Address by the Guest of Honour | Karim Maredia, Director, International Progs, MSU, USA | |
| 11.37–11.43 | Address by the Guest of Honour | Daniel Gustafson, Adviser to DG, FAO | |
| 11.43–11.49 | Address by the Guest of Honour | Sanjay Agarwal, ADG, ICRISAT & Former Secretary Agriculture, GOI | |
| 11.49–11.55 | Address by the Guest of Honour | Govinda Prasad Sharma, Secretary, Ministry of Agriculture and Livestock Development, Govt. of Nepal | |
| 11.55–12.08 | Address by the Chairman | RS Paroda, Chairman, TAAS & AEPSA Advisory Committee | |
| 12.08–12.28 | Inaugural Address by the Chief Guest | Hon. Minister Ram Nath Adhikari, Minister of Agriculture and Livestock Development, Govt. of Nepal | |
| | Token of Love distribution | | |
| 12.28–12.33 | Vote of Thanks | R K Tripathi | |
| 12.35–13.30 | Lunch | | |

| 13.30–16.30 | Ses | sion I: Review of Cou | ntry Agricultural Extension Profiles (C-AEPs) | | | | |
|----------------------------|--------------------------------|--|---|--|--|--|--|
| | Co-Chairs: | Jay Mukunda Khanal Former Secretary, Govt. of Nepal RR Burman ADG Extension ICAR, India | | | | | |
| | Rapporteurs | orteurs: Mahendra Khanal, Agri-Business Specialist, Kathmandu Birendra Bir Basnyat, Extension Expert, Kathmandu Durga Bohara, Finance Expert, NFAC | | | | | |
| | Presentation | of C-AEPs (Systems, In | novations/Success Stories) | | | | |
| 13.30–14.00 | Bangladesh | | Md. Ahsan Ullah | | | | |
| 14.00–14.30 | Bhutan | | BB Rai | | | | |
| 14.30-15.00 | India | | RN Padaria | | | | |
| 15.00-15.30 | Nepal | | Yogendra Karki | | | | |
| | Pakistan | | Muhammad Azam Khan | | | | |
| 15.30-16.00 | Sri Lanka | | Ajith Priyantha Basnayake | | | | |
| 16.00–16.20 | Open Discuss | sion | | | | | |
| 16.20–16.30 | Concluding R | emarks by Co-Chairs | | | | | |
| 16.30–17.00 | Tea/Coffee | | | | | | |
| 17.00–18.30 | | Session II: Cross | Learning and Linkage Perspectives | | | | |
| | Co-Chairs: | Daniel Gustafson Advisor to DG FAO Prakash Kumar Sanj | el | | | | |
| | | DG Agriculture, Nepal | | | | | |
| | Rapporteurs | | gri-Business Specialist, Kathmandu t, Extension Expert, Kathmandu ce Expert, NFAC | | | | |
| 17.00–17.15 | | ograms of MSU, pectives with AEPSA tries | Karim Maredia | | | | |
| 17.15–17.30 | Innovations in Approaches b | | RR Burman | | | | |
| 17.30–17.45 | Cross Learnin Success Stori | ngs from TAAS ies | NV Kumbhare | | | | |
| 47 45 40 45 | Open Discuss | sion | | | | | |
| 17.45–18.15 | 0 00 2 | | | | | | |
| 17.45–18.15 18.15–18.30 | · | emarks by Co-Chairs | | | | | |

Day 2: 7 JUNE, 2025

| 09.00-11.00 | Ses | sion III: Strengthening | g and Sustainability of AEPSA: Way Forward | | | | |
|-------------|------------------------------|---|--|--|--|--|--|
| 11.00 | Co-Chairs: | Co-Chairs: Karim Maredia, Director, International Programs, MSU KC Hari Bahadur, Joint Secretary, Planning Division, MoALD, Nepal | | | | | |
| | Rapporteurs: | Mahendra Khanal, Agri-Business Specialist, Kathmandu Birendra Bir Basnyat, Extension Expert, Kathmandu Durga Bohara, Finance Expert, NFAC | | | | | |
| 09.00-09.30 | Strengthening AEPSA | and Sustainability of | Interventions by Government Representatives. | | | | |
| 09.30–09.45 | Way Forward - Resolution | - Kathmandu | RR Burman | | | | |
| 09.45-10.30 | Responses & E | Endorsement | Participants | | | | |
| 10.30-11.00 | Concluding Re | marks by Co-Chairs | | | | | |
| | Token of Love Chairs | distribution of Co- | Distributed By: | | | | |
| 11.00–11.30 | Tea /Coffee | | | | | | |
| 11.30–12.30 | | Sessio | n IV: Concluding Session | | | | |
| | Co-Chair: Rapporteurs: | Yogendra Kumar Kai Mahendra Khanal, Ag | gri-Business Specialist, Kathmandu t, Extension Expert, Kathmandu | | | | |
| | Specific Recor | nmendations and DU | RK Tripathi | | | | |
| | Presentation of Certificates | f Membership | RS Paroda | | | | |
| | Brief Commen | ts | Yogendra Kumar Karki | | | | |
| | Brief Commen | ts | Karim Maredia | | | | |
| | Concluding Re | marks by Chief | Rajendra Prasad Mishra | | | | |
| | Guest & Co-Ch | nair | Yogendra Kumar Karki RS Paroda | | | | |
| | Token of Love | distribution | Distributed By: Chief Guest & Co-Chairs | | | | |
| | Vote of Thanks | | Bimal Nirmal | | | | |
| 13.00–18.00 | | otional), New Neba Lagankhel, Lalitpur | NB Shrestha | | | | |
| | Extension Inno by NFAC | vations Promoted | BL Shrestha | | | | |

Annexure II

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AGRICULTURAL EXTENSION PLATFORM FOR SOUTH ASIA (AEPSA) KATHMANDU RESOLUTION

We the stakeholders of Agricultural Extension Platform for South Asia (AEPSA), participating in a review and consultative meeting in Kathmandu, Nepal from 6-7'h June,2025 do hereby strongly resolve and support this unique initiative for partnership, knowledge sharing and cross learning relating to scaling of innovations in agricultural extension in the countries of South Asia. Also, we are appreciative of facilitation role of Trust for Advancement of Agricultural Sciences (TAAS) and Michigan State University (MSU) in establishing AEPSA, as a neutral platform, and additional funding support of Maharashtra Hybrid Seeds Company (Mahyco) and Rasi Seeds Private Limited to move forward.

We recognize varying levels of extension programs and their capacities as well as uniqueness of these in the region which can jointly be harnessed for mutual gains. Having participated in AEPSA deliberations in Kathmandu, we feel quite confident that joining AEPSA initiative shall benefit extension academia, practitioners and professionals from Public-Private-NGO sectors from South Asia and those international networks/programs that have similar goals and objectives.

The participants, therefore, resolve to join hands to work closely as partners and strengthen AEPSA to address the following:

- Sourcing available information on extension innovations and reforms in South Asia and explore cross learning possibilities through success stories and innovative initiatives
- Exploring the linkage options within the South Asia region and with other regional, international extension networks and some similar platforms.
- Capacity building and networking of AEPSA partners and stakeholders
- Strengthening functional capacities of AEPSA through membership, knowledge partnership and funding support.

We the (i) country resource persons, (ii) Government representatives and (iii) AEPSA members agree to build an effective and sustainable regional initiative called as AEPSA.

Signed on this day, 7th June, 2025 at Kathmandu Nepal by the following*

Country Resource Persons / Country Representatives

Bangladesh

*1. Dr Hamidur Rahman, Former DG, Department of Agriculture & CRP



Bhutan

- *2. Ms Hema Devi Nirola, CEO, Druk Horticulture Pvt Ltd & CRP
- 3. Mr BB Rai, Sr. Agri Officer, DOA, MOAL, Royal Govt. of Bhutan



India

4. Dr RN Padaria, JD Extension, IARI, New Delhi & CRP



5. Dr RR Burman, ADG (Extension), ICAR, New Delhi



Nepal

6. Dr Yogendra Kumar Karki, Chairman, NFAC & CRP

Quarti

*7. Dr Hari Bahadur KC, Joint Secretary, Planning Division, MOALD



Pakistan

8. Dr Azam Khan, Director General, NARC



Sri Lanka

- 9. Mr BMAP Basnayake, Additional Director, Extension & Training Center
- *10. Dr Chandana Jayawardena, University of Peradeniya & CRP



Members of the Advisory Committee (Not Covered above)

11. Dr Karim Maredia, Director, MSU

Karim M

*12. Dr Bhag Mal, Secretary

Bherul

*13. Dr Chandra Shekara, DG, CIRDAP

& herrora

14. Dr VV Sadamate, Chief Coordinator, AEPSA

1.7 /e

15. Dr RS Paroda, Chairman, TAAS & Chairman, AEPSA Advisory Committee

Tawar

Other Members/ Stakeholders/ Knowledge Partners

16. Mr Jaya Mukund Khanal, Former Secretary, GON

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- 17. Mr Sanjay Agarwal, ADG, ICRISAT
- 18. Dr Daniel Gustafson, Advisor to DG, FAO, Rome

19. Dr Bimal Kumar Nirmal, MD, NFAC

Q Awar.

20. Dr RK Tripathi, Coordinator, AEPSA

Namlehace

21. Dr NV Kumbhare, Principal Scientist, IARI, New Delhi

Served

*22. Prof. SV Reddy, President and Executive Director, PRDIS, Hyderabad

 $^{{}^*\}mathrm{A}$ few supporters signed post facto

TEMPLATE FOR CROSS LEARNING POSSIBILITIES MATRIX (CLPM)

| Name of the Partner Country |
|--|
| Name of the Country Resource Person (CRP) with Contact Details: |
| |
| |
| |
| Name of the Government Representative (GR) with Contact Details: |
| |
| |
| |

Important guidelines for filling up the CLMP Format

- i. Major Thematic Areas/Components Emerged through C-AEP Analysis are listed in Column 2
- ii. The template has been prepared taking India as the case for comparative analysis for working out collaboration possibilities between partner countries. The Impacting Extension Innovations/Success Stories in respect of India are given in Column 3.
- iii. Each partner country CRP/ GO Rep shall attempt to fill up requisite updates in the respective country column listing the Impacting Extension Innovations/Success Stories of their country against each thematic areas (listed in column 2) and share it with CRPs/GRs in the other partner countries under intimation to AEPSA Secretariat (positively by the end of October, 25).
- iv. Based on the exchange / feedback, each country (CRP and GO Rep) will jointly identify the specific areas for collaboration/piloting possibilities between partner countries (list in Column 8 and share with AEPSA Sectt by November. 25).
- v. Based on emerging major/specific areas for collaboration/piloting possibilities between partner countries, the AEPSA Secretariat will take it forward for programmatic and supportive interventions through national / international facilitation (by the end of December, 25 onwards).
- vi. This critical exercise was to be initiated at Kathmandu, Nepal, but could not be taken up due to time constraints. Now It is a part of the proceedings required to address the stipulations in Kathmandu Resolution, hence adhere to the time lines prescribed.

| S. No (1) | Major Thematic Areas/ Components | Impacting Extension In | Major Collaboration/ Piloting Possibilities Between Partner | | | | |
|--------------|---|--|---|---------------|--------------|------------------|------------------|
| | Emerged In C-AEP Analysis (2) | India (3) | Bangladesh (4) | Bhutan (5) | Nepal (6) | Sri Lanka (7) | Countries (8) |
| 1 | Innovative Extension Models in Operations | Pluralistic Extension Approach Private & NGOs Innovations Focused Extension Interventions through Input Companies & Corporates Farmer-driven & Farmer to Farmer Extension Success Stories broadly cover: Enhanced Income, Precision Agriculture, Input use efficiency, Enterprise Diversifications, Organised FOs & FPCs, etc. | | | | | |
| 2 | Training & Capacity Building Arrangements | Well developed Training & CB arrangement at the National, Regional, State, District & Block level. Successful examples include MANAGE, EEIs, SAMETIS, ATARIS, KVKS, BTTs, in the Public Sector. Private Sector has Its own merit in Innovative HRD Applications. Training and Capacity Building programs for farmers/farm women/farm youths by various agencies. Skilling farmers, field functionaries and other stakeholders. | | | | | |
| 3 | Digital Ag. Extension -Media & ICT Application | Intensive use of Print, Electronic, Mass, Social & Internet Platforms in Extension. Successful Models & Stories include KCC, e-Chaupal, Kisan Sarthi & number of Websites & Web portals. Common Service Centres (CSCs) of IT Ministry Information Dissemination through Media, Farm publications, Exhibitions, campaign, Field days, etc. | | | | | |

| S. No (1) | Major Thematic Areas/ Components | Impacting Extension In | Major Collaboration/ Piloting Possibilities Between Partner | | | | |
|--------------|--|--|---|---------------|--------------|------------------|------------------|
| | Emerged In C-AEP Analysis (2) | India (3) | Bangladesh (4) | Bhutan (5) | Nepal (6) | Sri Lanka (7) | Countries (8) |
| 4 | Research & Extension Linkages | R-E Linkage Mechanisms Include National/Regional Kharif & Rabi Campaigns, State and Zonal Conferences, District/Block level Linkages between KVK/ATMA/BTT Successful R&E Linkages Include ATMA management committee, KVK Scientific Advisory Committee & and block-level formation in various States. SAUs & ICAR Institute Promote targeted Outreach Programs. Example - Partnership of IARI with Voluntary Agencies. | | | | | |
| 5 | Private Sector & NGO Backup | Farm Input Companies, Farm Corporates, Farm Cooperatives are coming up fast in supporting the Extension Network at various levels. Similarly, NGOs of various sizes & capacities supplement Extension Efforts. Examples of Success Stories are: ITC, Dhanuka, Bayer, Reliance, NAFED, MAHYCO, Rasi Seed, etc. Further, credit Institutions, Banks, Insurance Companies, etc are lending support to extension services. | | | | | |
| 6 | Convergence & Coordination | Various Mechanisms are emerging in the area of augmenting R&E convergence at various levels-Strategic Arrangements. Notably, these include Convergence models like, - SREPs & Block Extension Plans - Backstopping of Field level Research Set-up by extension system through Technology Development and Assessment, Developing POPs based on research inputs, | | | | | |

| Emerged in C-AEP Analysis (2) 6 Convergence & Coordination (Contd.) - Front-line extension support by State Agriculture/ Horticulture/ Veterinary Universities and ICAR institutes with focus on technology validation and demonstration of technology through outreach windows like adopted villages, blocks & innovative Extension Model of Research Institution Outlets (RIOs) facilitating Cross learning: - Krishi Gyan Kendras of SAUs (Haryana Agriculture University, Hissar - District Agricultural Advisory and Technology Transfer Centres: Punjab Agricultural University (PAU) - District- level Agricultural Advisory service Centres: Punjab Agricultural University (PAU) - District- level Agricultural Agronomists-SAU Maharashtra - District- level Livestock Extension Centres of Tamil Nadu Veterinary and Animal Sciences University (TANVASU) - KVKs as an Outreach program of SAUs/ICAR/NGOs - Agricultural Technology Information Centres (ATICs) hosted by SAUs - Community Radio Stations run by | S. No (1) | Major Thematic Areas/ Components | Impacting Extension Innovations/Success Stories | | | Major Collaboration/ Piloting Possibilities Between Partner | |
|---|--------------|--|--|--|--|---|--|
| & Coordination (Contd.) State Agriculture/ Horticulture/ Veterinary Universities and ICAR institutes with focus on technology validation and demonstration of technology through outreach windows like adopted villages, blocks & innovative system of 731 KVKs. Innovative Extension Model of Research Institution Outlets (RIOs) facilitating Cross learning: Krishi Gyan Kendras of SAUs (Haryana Agriculture University, Hissar District Agricultural Advisory and Technology Transfer Centres (DATTCs) Farm Advisory Service Centres: Punjab Agricultural University (PAU) District-level Agricultural Agronomists-SAU Maharashtra District-level Livestock Extension Centres of Tamil Nadu Veterinary and Animal Sciences University (TANVASU) KVKs as an Outreach program of SAUs/ICAR/NGOS Agricultural Technology Information Centres (ATICs) hosted by SAUs | | C-AEP Analysis | | | | | |
| SAUs like GBPUAT, NDUAT, etc. - Convergence of extension efforts through Block Extension Plan and District Extension Plans. - Scientific Advisory Committee of KVKs. - Pooling and sharing of extension resources in a gap-filling mode. | 6 | & Coordination | State Agriculture/ Horticulture/ Veterinary Universities and ICAR institutes with focus on technology validation and demonstration of technology through outreach windows like adopted villages, blocks & innovative system of 731 KVKs. Innovative Extension Model of Research Institution Outlets (RIOs) facilitating Cross learning: Krishi Gyan Kendras of SAUs (Haryana Agriculture University, Hissar District Agricultural Advisory and Technology Transfer Centres (DAATTCs) Farm Advisory Service Centres: Punjab Agricultural University (PAU) District-level Agricultural Agronomists-SAU Maharashtra District-level Livestock Extension Centres of Tamil Nadu Veterinary and Animal Sciences University (TANVASU) KVKs as an Outreach program of SAUs/ICAR/NGOs Agricultural Technology Information Centres (ATICs) hosted by SAUs Community Radio Stations run by SAUs like GBPUAT, NDUAT, etc. Convergence of extension efforts through Block Extension Plan and District Extension Plans. Scientific Advisory Committee of KVKs. Pooling and sharing of extension | | | | |

| S. No (1) | Major Thematic Areas/ Components | Impacting Extension Innovations/Success Stories | | | | Major Collaboration/ Piloting Possibilities Between Partner | |
|-----------|---|---|-------------------|---------------|--------------|---|------------------|
| | Emerged In C-AEP Analysis (2) | India (3) | Bangladesh (4) | Bhutan (5) | Nepal (6) | Sri Lanka (7) | Countries (8) |
| 7 | Extension in Allied Sectors | Commodity Boards: (Tea Board, Coffee Board, Spices Board, Coconut Board, Fisheries Board, etc.) operate their extension efforts providing extension, production and market/ export promotion support, etc. Besides crops, the extension services have impacted allied sectoral activities too, covering horticulture, animal husbandry, dairy, fishery, poultry, farm mechanization, homestead farming etc. Extension strategies – Experiences on Commercial crops and Exports Extension for AHD, Small Ruminants and Poultry Sectors Integrating extension needs of allied sectors and disadvantaged areas/ groups | | | | | |
| 8 | Extension for Hi-tech, Speciality Agriculture, Processing &Value Addition and Export Oriented Agriculture | Extension strategies – Experiences on Commercial crops and Exports Seed and Planting Material Extension promoted by the private sector Promoting agri-start-ups, entrepreneurships, business incubation, value chain and market-led extension interventions. | | | | | |
| 9 | Block/Cluster level Extension Delivery | Block Extension Plans Block Technology Teams (BTTs) Empowering farmers- FOs & FPCs, Farmer's Advisory Committees (FACs), Cooperatives, etc., to promote farmer-to-farmer and group approach to extension delivery. Involving farm youth and women through focused extension strategies with institutional support through different projects. Promoting and strengthening cutting-edge level delivery mechanisms (ATMA/KVK, BTT, FAC, FF, FFS, FS) | | | | | |

| S. No (1) | Major Thematic Areas/ Components | Impacting Extension In | Major Collaboration/ Piloting Possibilities Between Partner | | | | |
|--------------|--|---|---|---------------|--------------|------------------|------------------|
| | Emerged In C-AEP Analysis (2) | India (3) | Bangladesh (4) | Bhutan (5) | Nepal (6) | Sri Lanka (7) | Countries (8) |
| 10 | Extension for Farm Women & Farm Youth | Promoting agri-start-ups, entrepreneurship, business incubation, value chain and market-led extension interventions. Involving farm youth and women through focused extension strategies with institutional support (ARYA, RAFTAR, VATIKA, NARI, KSHAMTA etc.). | | | | | |
| 11 | Extension for Disadvantaged Areas/Groups | Integrating extension needs of allied sectors and disadvantaged areas/ groups | | | | | |
| 12 | Farmer Empowerment | Farmer Groups/Organizations/ Cooperatives are increasingly being recognized as essential institutions for mobilizing farmer participation. Farmer aggregates and private initiatives facilitating farmer-to- farmer and Group learning: Farmer Producer Organizations (FPOs) / FPCs Self-Help Groups (SHGs) Non-Government Organizations (NGOs) Innovations in Private Sector Agri-Startups Agri-Entrepreneurs Agri-Intrepreneurs Agri-Drones Scope for cross learning of some key innovations that other partners can adopt: Rythu Bandhu (Telangana) Rythu Bharosa Kendras (Andhra Pradesh) KALIA Scheme (Odisha) Mukhyamantri Krishi Ashirwad Yojana (Jharkhand) Krushi Bhagya (Karnataka) Per Drop More Crop (PMKSY) | | | | | |

Format – The Country Agricultural Extension Profile (C-AEP)

| NAME OF THE COUNTRY | |
|---|--|
| Name of the Resource Person/Contact Details | |

| O No | BROSH E/BARAMETER | DESPONSE IN DDIE |
|-------|--|-------------------|
| S. No | PROFILE/PARAMETER | RESPONSE IN BRIEF |
| 1. | Basic Details of Farming | |
| 1.1 | Cultivated Area (Million Ha) | |
| 1.2 | Farming Population (million) | |
| 2. | Agriultual Extension Inventory – Schemes & Programs | |
| 2.1 | Brief details of Extension Schemes and Programs | |
| | - Federal Schemes | |
| | - Provincial Schemes | |
| | Other Extension Schemes | |
| 2.2 | Other Sector Specific Extension Programs/ Schemes | |
| | - Crops Sector | |
| | - Horticulture Sector | |
| | Animal Husbandry and Dairying Sector | |
| | - Fisheries | |
| | Other Farm Enterprises (Mushroom, Beekeeping, Sericulture, etc.) | |
| | - Farm Credit | |
| | Agricultural Marketing | |
| | Agricultural Infrastructure (Post-harvest processing and management) | |
| | Agricultural Mechanization | |
| 2.3 | Extension Network – In Public Sector | |
| | Brief Extension Network/Formation in the sectors indicated | |
| | Inventory of Pubic Extension Services Providers at the Federal/ Provincial and District/Block levels | |

| S. No | PROFILE/PARAMETER | RESPONSE IN BRIEF |
|-------|--|-------------------|
| 2.4 | Extension Network- In Private Sector - Brief Extension Networks in the sectors indicated - Inventory of Private Extension Services Providers at the Federal/ Provincial and District/Block levels | |
| 2.5 | Extension Network of CGIAR and Other International Institutions - Their extension services in particular in various domains | |
| 2.6 | Extension Manpower - Extension manpower at various levels – Public Sector - Extension manpower at various levels – Private Sector - Others | |
| 2.7 | Extension Institutions – Public Sector - Extension Institutions / Organizations at the Federal (e.g. DOE – India, MANAGE – India)/ Regional (e.g. EEI – India) Provincial (e.g. SAMETI – India, Directorate of Agriculture - India)/District (e.g. ATMA – India) /Block levels and their Extension Programs/operations | |
| 2.8 | Extension Institutions – Private Sector – Extension Institutions / Organizations at the Federal /Provincial /District/ Block level/ field level | |
| 2.9 | NGOs in Agril Extension - Brief details of NGO efforts in extension at the Federal / Provincial levels - Brief details of NGO efforts in extension at the District/block/field levels | |

| S. No | PROFILE/PARAMETER | RESPONSE IN BRIEF |
|-------|---|-------------------|
| 2.10 | Farmer Organizations in Extension Brief details of Farmer Organization (SHGs, FIGs, CIGs, Farmer Federations, Farmer Producer Organizations, Farmer Producer Companies, CBOs, etc.) | |
| | Efforts in delivery of extension services at the Federal / Provincial/ District/Field levels | |
| | Successful models of Farmer empowerment through commodity/other aggregated groups | |
| 2.11 | Farm Cooperatives | |
| | Brief details of Farm Cooperatives at Federal / Provincial/ District/Village level | |
| | Efforts in delivery of extension services at the Federal / Provincial/ District/Field levels | |
| 3. | Farm Research Set Up & Their Back Up to Extension | |
| 3.1 | Details of Federal Research Institutes and their extension operations | |
| 3.2 | Regional (e.g. ATARI-India) /District (e.g. KVK – India) level set up and their programs | |
| 3.3 | Provincial Agricultural Universities/ Institutes and the details of their extension operations | |
| 3.4 | Linkages of Provincial Agricultural Universities to the extension programs | |
| 3.5 | HRD interventions operated by the Provincial Agricultural Universities | |
| 4. | Extension Models in Operation | |
| 4.1 | Public Sector | |
| | Details of Farm Extension Models, performance, constraints, etc. | |

| S. No | PROFILE/PARAMETER | RESPONSE IN BRIEF |
|-----------|--|-------------------|
| 4.2 4.2.1 | Private Sector - Details of Farm Extension Models, performance, constraints, etc. Private Sector Extension Interventions / Programs - Brief details for agri extension programs focused on (i) Farm entrepreneurs, (ii) Start-ups, (iii) Partnerships and (iv) Promoted by the private sector at various levels | |
| 5. | Extension for Farm Women and Farm Youth | |
| 5.1 | Brief details for agri extension programs for farm women and farm youth funded by the Centre | |
| 5.2 | Brief details for agri extension programs for farm women and farm youth funded by the Provincial agencies | |
| 5.3 | Brief details for agri extension programs for farm women and farm youth funded by Other sources | |
| 6. | Media Support to Agri Extension Extent of use of print media, fairs and exhibitions, radio and television (public and private), community radio Efforts made in developing and delivering contents, treatment and impact assessment. | |
| 7. | ICT Application Innovations in Extension Through Public and Private Sector | |
| 7.1 | Major ICT Application initiatives in agriculture & allied sector like Websites and Portals, Emails, Video Texts, You tube channels, Phone in Program, Community Call Centres, Video Conferencing/ Webcasting, Mobile apps, etc. | |
| 7.2 | Use of social media in extension (Facebook, WhatsApp, Instagram, Twitter, Pinterest, LinkedIn, etc.) | |
| 7.3 | List of important web links of Extension Service Providers at different levels | |

| S. No | PROFILE/PARAMETER | RESPONSE IN BRIEF |
|-------|---|-------------------|
| 8. | Listing of Innovations/Success Stories and Scope for Cross Learning | |
| 8.1 | Listing of extension innovations across sectors and various levels with perceptible impact. | |
| 8.2 | Listing of Success Stories across the sectors | |
| 8.3 | Scope for cross learning on Extension innovations with other Provincial agencies | |
| 8.4 | Scope for cross learning on Extension innovations with other Partner Countries | |
| 9. | Lessons For Future Extension Interventions And Collaborations | |
| | Specific Areas identified for strengthening farm extension services through innovative pilots / scalable success stories. | |
| | - Policy interventions | |
| | Innovative Programs | |
| | – Flexi Funding | |
| | Convergence of Extn Efforts | |
| | - New HRD Interventions | |
| | - PPPs in Extension | |
| | Extension in allied areas | |
| | Extension through private sector | |
| | Partnerships with CGIAR and other International Institutions institutes | |
| | - Partnership with other countries | |
| | Strengthening ICT applications in Extension services across the sectors and at various levels | |
| | Application of Social Media in Extension Services | |
| | Interventions through credible NGOs, Farmer Empowered Groups, Farm Cooperatives, etc. | |
| | - Funding possibilities | |
| | (i) Current arrangements (ii) Future possibilities Capture and Integrate innovations listed | |

Revised AEPSA Brochure

AEPSA Advisory Committee

Dr Rabindra Padaria

Dr Chandana Jayawardena Country Resource Person President, Sri Lanka Agricultural Extension Association

Dr VV Sadamate

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Dr Hamidur Rahman Country Resource Person President, Bangladesh Agricultural Extension Network & Former Director General, Ministry of Agriculture, Bangladesh, Dhaka hamidur2552@gmal.com

Ms Hema Devi Nirola

Dr Bhag Mal

Supporters

Rasi Seeds манусо Rasi Enclave, Green Fields, 737 C, Puliyakulam Road Coimbatore-641045, Tamil Nadu, India

AEPSA Membership Categories

| S.No. | Name of the Membership Category | Membership Fee (US\$)* | | |
|-------|--|------------------------|-----------|--|
| | | Annual | Life Time | |
| 1. | Government Organizations (as Member Countries) | 5000 | - | |
| 2. | International Institutions/Organizations | 2500 | - | |
| 3. | Agricultural Institutions/Universities | 1000 | - | |
| 4. | Professional Societies | 200 | 2500 | |
| 5. | International NGOs | 1000 | 10000 | |
| 6. | National NGOs/Cooperative | 100 | 2500 | |
| 7. | Founding/Knowledge Partner | - | 1000 | |
| 8. | Multi-National (Private COmpany) Members | - | 10000 | |
| 9. | National (Private Company) Members | - | 5000 | |
| 10. | Individual Members | 100 | 1000 | |
| 11. | Students | 50 | - | |
| 12. | Farmers | 25 | 500 | |

Annual Fee/ One Time Contribution/ Donation may be made through the Annual Fee! One Time Contribution Donation may be made through the Cheque? Cash Money Transfer to the (i) Trust for Advancement of Agricultural Sciences (TASA) Account No. 90293140000343, Branch Pyras Campus, New Delhi, Bank: (SCANARA BANK), IFSC Coder: CMRB0019029, (ii) The overseas contributions may use: Trust for Advancement of Agricultural Sciences (TASS), ECRA Account Not: 40046408124, Bink: State Bank of India, FCRA Cell, 58, New Delhi Main Branch, 11, Sansad Marg, New Delhi-110001.

Dr VV Sadamate

Chief Coordinator (AEPSA), TAAS, Avenue II, IARI, New Delhi - 110012, India

Knowledge Partners











Agricultural Extension Platform for South Asia (AEPSA) – recognizes varying levels of extension capacities and their uniqueness in the region. It alims at augmenting the extension services by way of (i) sourcing innovations/success stories, cross-learning, joint dialogues, testing/ scaling pilots, etc. and (ii) integrating the outcomes in networking and







AEPSA-An Introduction

Why AEPSA?

The "National Dialogue on Innovations in Agricultural Extension: A way Forward" organised by Trust for Advancement of Agricultural Sciences(TAAS) in collaboration with Indian Council of Agricultural Research (ICAR), National Institute of Agricultural Extension Management Research (ICAR), National Institute of Agricultural Extension Management (MANAGE) and Michigan State Inviewsity (MSU), USA, during 8-9 April 2022 which was attended by senior representatives from Bangladesh, India, Nepal and Sri Lanks. The dislogue focused on much-needed innovations and reforms for strengthening extension services/frontline extension programs/systems and transforming them to respond to the emerging challenges in the micro- and macro-agro-ecologies.

This was followed by an international conference on "Sustainable Development Goals (SDGs) and Agricultural Extension Strategies" Development Goals (SDIss) and Agricultural Extension Strategies' organized at Dhad uring 3-4 February 2023, attended by senior attension representatives from India, Bangladesh and Sri Lanka and representatives of other international stakeholders. How conference strongly impressed upon the need for cross-learning, and experience sharing on extension innovations and enforms between the South Asian Countries. It proposed the establishment of a "Network of Agricultural Extension Professionals".

Driven by the above deliberations and with a view to operationalize the recommendations thereon, a Consultative Meeting was held on 8 March 2024 at Indian Agricultural Research Institute (IARI), New Delhi, India wherein the parities resolved to establish an "Agricultural Extension Platform for South Asia (AEPSA)".

Sustainable growth of farm sector through enhanced knowledge Mission

Promoting cross-learning of agricultural extension innovations for mutual gains. Objectives

- To study the agricultural extension delivery systems/models and capture
- To enhance knowledge based extension delivery across food-chains.
- To promote best agricultural extension practices across the region for mutual advantage.
- To strengthen partnerships at national, regional and international levels in a consortium mode.

AEPSA Activities

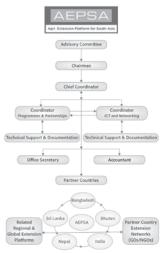
- Documenting the emerging agricultural extension innovations and models in South Asia.
- Promoting cross-learning through strategic partnerships among the stakeholders (both public and private).
- Facilitating exchange of experts, extension professionals and successful
- Organizing country-specific, regional and international conferences/ workshops/dialogues around innovative extension approaches.
- Undertaking the need based pilot programs and case studies.

AEPSA: A Unique Platform to Address:

- Systematically developed Country Agri Extension Profiles (C-AEPs).
- · Knowledge generation and dissemination through innovative
- Sharing impactful innovations and success stories across sectors.
- Effective networking of extension service providers, entrepreneurs FPOs and farmers.



Agricultural Extension Platform for South Asia



Revised Membership Form

AGRICULTURAL EXTENSION PLATFORM FOR SOUTH ASIA (AEPSA)

A Program of Trust for Advancement of Agricultural Sciences (TAAS)

Avenue II, Pusa Campus, New Delhi Phone: +91-11-25843243; +91-8130111237 • Email: taasiari@gmail.com

Membership Form*

| S.No. | Membership Cat | egory | Tick as Applicable | | |
|-------------------------|---|----------------------------------|--------------------|-------|--|
| 1. | Government Orga | inizations (as Member Countries) | | | |
| 2. | International Institutions/ Organizations | | | | |
| 3. | Agricultural Institutions/ Universities | | | | |
| 4. | Professional Societies | | | | |
| 5. | International NGOs | | | | |
| 6. | National NGOs / Cooperative | | | | |
| 7. | Founding / Knowle | unding / Knowledge Partner | | | |
| 8. | Multi-National (Private Company) Members | | | | |
| 9. | National (Private | | | | |
| 10. | Individual Membe | rs | | | |
| 11. | Student | | | | |
| 12. | Farmer | | | | |
| Name & Designation | | | | Photo | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Organization | | | | | |
| Address | | | | | |
| | | | | | |
| Contact Number : Office | | | | | |
| : Mobile | | | | | |
| Email id | | | | | |
| Payment as per Invoice | | o By Cheque | | | |
| attached | | o By Bank Transfer | | | |
| PAN Number | | | | | |
| GST Number | | | _ | | |
| Signature and Date | | | | | |
| with Official Seal | | | | | |
| | | | | | |

^{*}being revised further

Field Visit Note

Shree Nawa Prabhat Dairy

Our Journey

Our journey is deeply rooted in a passion for providing wholesome dairy products to our community. Established in 2000 AD, we embarked on a mission to blend innovation with tradition, ensuring that every product that carries our name reflects our commitment to excellence.

Commitment to Quality

Quality is the cornerstone of our existence. From the farm to your table, we uphold the highest standards in every step of the dairy production process. Our commitment to quality is not just a promise; it's a way of life embedded in our values, practices, and the trust we build with our customers.

Innovation and Tradition

We believe in the harmonious fusion of innovation and tradition. While we constantly strive to bring new and exciting products to the market, we also cherish the time-honored practices that have been passed down through generations. This balance allows us to evolve with the times while preserving the authentic flavors and qualities that define our dairy offerings.

Our Products

We are exploring a world of dairy goodness with our diverse range of products. From fresh milk to artisanal cheeses, each item is crafted with care and precision. Our products are more than just nourishment; they reflect the love and dedication we pour into every batch.

The popular products are given below-

- Paneer Prabhat Fresh
- Prabhat Standard Milk
- Prabhat Fresh Cream
- · Prabhat Mozzarella Cheese
- Prabhat Fresh Khuwa
- Prabhat Butter
- · Prabhat Ghee
- Prabhat Nauni
- Prabhat Yoghurt







PHOTO GALLERY





























Recent TAAS Publications

- 1. Bioprime: An Enterprise Providing Innovative Solutions for Sustainable Agriculture by Dr Renuka Diwan A Success Story, June 2025.
- 2. Umiam Declaration on Managing Agrobiodiversity in North-Eastern India adopted in the National Conference on Managing Agrobiodiversity in North-Eastern India from Biodiversity to Bio-wealth, June 2025.
- 3. National Symposium on Hybrid Technology for Enhancing Crop Productivity (NSHT)—Proceeding and Recommendations, April 2025.
- 4. Strategy for Harnessing Hybrid Technology for Enhanced Crop Productivity Policy Brief, 8 March 2025.
- 5. Public-Private Partnership in Agriculture: A Way Forward Policy Brief, September 2024.
- 6. A Woman Entrepreneur's Journey from Adversity to Prosperity—A Success Story by Saneha Sharma, August 2024.
- 7. Strategy for India to Become a Global Wheat Player Policy Brief, May 2024.
- 8 Consultative Meeting for Agricultural Extension Platform for South Asia (AEPSA)—Proceeding and Recommendations, April 2024.
- 9. Saguna Regenerative Technique and Agro-tourism—A Success Story by Chandrashekhar Hari Bhadsavle, March 2024.
- 10. Stakeholders Dialogue on Enhancing Fertilizer Use Efficiency for Sustainable Soil Health Proceeding and Recommendations, February 2024.
- 11. Rationalizing Fertilizer Use for Managing Ecological Sustainability and Subsidy Strategy Paper by Dr JC Katyal, December, 2023.
- 12. Enhancing Fertilizer Use Efficiency for Sustainable Soil Health—Policy Brief, November, 2023.
- 13. Strengthening National Agricultural Education System A Road Map, 30 October, 2023.
- 14. Navara Rice A Success Story by P Narayanan Unny, July 2023.
- 15. Policy and R&D Interventions to Increase Cotton Production and Industrial Growth Policy Brief, March 2023.
- 16. National Dialogue on Harnessing the Potential of Floriculture in India—Proceedings & Recommendations, 16-17 February, 2023.

- 17. Youth as Advisory Agents, Input Providers and Entrepreneurs Article by Dr RS Paroda, September, 2021.
- 18. Brainstorming Session on Regenerative Agriculture for Soil Health, Food and Environmental Security—Proceedings and Recommendations, 26 August, 2021.
- 19. Stakeholders Dialogue on Enabling Policies for Harnessing the Potential of Genome Editing in Crop Improvement—Proceedings and Recommendatioons, 17 March, 2021.
- 20. Harnessing Genome Editing for Crop Improvement—An Urgency: Policy Brief, May, 2021.
- 21. Accelerating Science-Led Growth in Agriculture: Two Decades of TAAS, May, 2021.
- 22. A Road Map on Stakeholders Dialogue on Strategies for Safe and Sustainable Weed Management, January, 2021.
- 23. Fish Farming in North India—A Success Story by Dr. Sultan Singh, December, 2020.
- 24. A Road Map on Stakeholders Dialogue on Current Challenges and Way Forward for Pesticide Management, September, 2020.
- 25. A Road Map on Stakeholders Dialogue on Way Forward for the Indian Seed Sector, Jenu, 2020.
- 26. Biofertilizers and Biopesticides for Enhancing Agricultural Production A Success Story by Dr Basavaraj Girennavar, June, 2020.
- 27. A Road Map on Policy Framework for Increasing Private Sector Investments in Agriculture and Enhancing Global Competitiveness of Indian Farmers, December, 2019.
- 28. Crop Biotechnology for Ensuring Food and Nutritional Security Strategy Paper by Dr JL Karihaloo and Dr RS Paroda, December, 2019.
- 29. A Road Map on Efficient Land Use and Integrated Livestock Development, November, 2019.
- 30. National Dialogue on Land Use for Integrated Livestock Development Proceedings and Recommendations, 1-2 November, 2019.
- 31. Horticulture for Food and Nutritional Security Strategy Paper by Drs KL Chadha and VB Patel, October, 2019.
- 32. Urgency for Scaling Agricultural Innovations to Meet Sustainable Development Goals (SDGs)—Strategy Paper by Dr RS Paroda, April, 2019.







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