Regional Training on Appropriate Scale Mechanisation for Conservation Agriculture

May 06 - 09, 2019 Cambodia











Siem Reap, May 06



Policy issues on sustainable agricultural mechanisation



Understanding the mechanisation for conservation agriculture



Bos Khnor, Kampong Cham, May 07 – 08



Introduction to CA and linkages to climate resilience



Appropriate-scale mechanisation and Conservation Agriculture



Field demonstration – Appropriate-scale mechanisation



Field demonstration – Impact of appropriate-scale mechanisation



Case studies on service providers (Cambodia/Bangladesh)

Siem Reap, May 09



Role of gender in appropriate-scale mechanisation



Demand assessment of future trainings

The objectives of the training are:

- Understand the mechanisation aspects for conservation agriculture.
- Understand the importance of market systems analysis and the engagement with the private sector.
 - Understand the policy issues favoring appropriate-scale mechanisation for conservation agriculture.
- Identify needs for future training that can be offered by Conservation Agriculture Services Centre (CASC), Cambodia.

41 participants: 29 international participants, 12 participants from Cambodia Representatives from government and private sector

Trainer Profiles



Anshuman VARMA is the Programme Officer at the Centre for Sustainable Agricultural Mechanisation (CSAM) of United Nations ESCAP, based in Beijing, China where he is coordinating the Centre's programmes for sustainable agricultural mechanisation and related policy advisory services. He joined the United Nations in 2009 and before moving to China, he served in Indonesia and South Korea in the areas of sustainable agriculture and Information and Communication Technology (ICT) for Development.



Florent TIVET (Ph.D.) is an agronomist from CIRAD, French Agricultural Research Centre for Development, and an expert in agro-ecology, conservation agriculture, cropping system design, soil fertility management and assessment, appropriate-scale mechanisation, preservation of genetic banks, and seed production. He has been working for more than 12 years in South-East Asia and is currently providing support to the Conservation Agriculture Service Center (CASC) of the Cambodia of the Department of Agricultural Land Resources Management (DALRM), General Directorate of Agriculture (GDA).



HIN Lyhour is the Head of Department of Agricultural Machinery and a researcher in the field of agricultural mechanisation at the Royal University of Agriculture (RUA). Currently, he is conducting research in testing the small and license-free Oggun tractor, USDA crimper and Morrison seeder for conservation agriculture, specifically for small farms.

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Hoa TRAN QUOC is an agronomist from CIRAD. He spent 8 years in Lao PDR and 9 years in the Caribbean (French West Indies) with extensive expertise on agro-ecological engineering for annual and perennial crops, cover crops and Conservation Agriculture. He is also experienced in development of methods to support innovation processes, capacity building, farmers-services providers' organisation & coordination, development of appropriate-scale mechanisation for small-scale farms. He is currently back in Lao PDR as Chief Technical Advisor.



HOK Lyda (Ph.D.) is a soil health specialist from the Royal University of Agriculture (RUA). He has experience in conservation agriculture focusing on soil organic matter and soil fertility management. Currently, he is the Director of the Centre of Excellence on Sustainable Agricultural Intensification and Nutrition (CE SAIN) at RUA.



LENG Vira is an agronomist with over 10 years of experience in the field of conservation agriculture, cropping systems design and evaluation. He has been working for the Conservation Agriculture Service Center (CASC) of the Cambodian Department of Agricultural Land Resources Management (DALRM) since 2007. His area of expertise is in designing master plans for CA-based research programs, adaptive research for climate change mitigation, appropriate-scale mechanisation, and agrobiodiversity management.



LI Hongwen (Ph.D.), Professor, Changjiang Scholar, China Agricultural University; Taishan Scholar, Shandong University of Technology; Head of CTRC, MOA, P.R.C; Chairman of Conservation Tillage Expert Group, MOA, P.R.C; Chairman of Mechanical Soil Cultivation Professional Group, MOA, P.R.C; Chairman of Agriculture Mechanization and Equipment Committee of China Society of Agricultural Engineering; Leader of MOE (Ministry of Education) and MOA Innovative Research Team "Conservation Tillage Technology and Equipment". He has started conservation tillage research since 1992. He and his team have received 4 national awards for scientific and technological progress. He has published more than 200 papers and has more than 100 patents, all on conservation tillage.

ML Jat is a Principal Scientist/Systems Agronomist at the International Maize and Wheat Improvement Centre (CIMMYT). He has devoted two decades to intensively work on basic and applied science in agronomy, soil and environment to promote CA based sustainable intensification in smallholder systems of Asia. His research on CA has provided scientifically sound basis and directions for promoting sustainable intensification through policy changes and led to impact at scale in smallholder systems of South Asia. A fellow of National Academy of Agricultural Sciences (NAAS), he has several prestigious awards and recognitions to his credit.

Manuel REYES (Ph.D.) is a research professor at the USAID Feed the Future Innovation Lab for Collaborative Research on Sustainable Intensification, Kansas State University, USA. He has a Ph.D. in Agricultural Engineering. Reyes has more than 32 years of experience working with water quality modeling, and natural resources management. In Cambodia, his efforts have focused on working with the Royal University of Agriculture (RUA) and the University of Battambang to enhance human and institutional capacity to conduct research and training of scholars and youth. His key motivation is to improve food and nutrition security and the quality of life, especially in poor communities.

NGIN Kosal is an Irrigation Engineer with over 25 years of experience in the field. He has worked on projects such as Stung Chinit Irrigation, Krang Ponley Dam Project and Kamping Pouy Reservoir. For the past 2 years, he has been working with the Department of Agriculture Engineering (DAEng) of the General Directorate of Agriculture (GDA), Ministry Agriculture Forestry and Fisheries (MAFF) and is responsible for improvement of mechanisation in the agriculture sector. Currently, he is the Director of DAEng.

PHEAP Sambo is a lecturer at the faculty of Agronomy, Royal University of Agriculture (RUA), specializing in soil fertility analysis, preparing set of tools to implement soil functions assessment in the field and in the laboratory. He has been working in collaboration with GDA-CASC since 2010, mostly on conservation agriculture.

Pierre VERNET is consultant on agro-ecology and works with CIRAD, on socio-economic impact assessment of no-till sowing technology on rainfed cropping systems in North Western Cambodia.

Rajiv PRADHAN has over 28 years of experience working in both private and development sectors. He has wide experience particularly in SME/private sector development and enabling environment areas. He specializes in strategic management; designing projects; building teams to implement projects; deal making with the private sector; business modelling; and, providing innovative scaling/expansion methods in various market segments.

SENG Vang (Ph.D.) presently is the Director of Department of Agricultural Land Resources Management (DALRM) of the General Directorate of Agriculture (GDA) of the Ministry of Agriculture Forestry and Fisheries (MAFF). He obtained his Ph.D. in soil science. He has over 25-years of experience on soil research, land management and crop nutrition, pre and post-harvest handling of agricultural crops, crop protection, and rural livelihood assessment and technology adoption by farmers. He is a widely published author and co-authored on research themes such as agriculture and water, crop diversification, land resources, plant nutrition, and rice production systems under climate change impacts, which include a strong focus on the Cambodian farming systems.

Timothy KRUPNIK has over 18 years of experience in the agricultural research for development in South Asia and Sub-Saharan Africa. He leads a portfolio of projects which deliver evidencebased knowledge and activities to improve the sustainability and resilience of smallholder farming systems. His efforts in South Asia has been on scaling-out farmers' access to appropriate-scale mechanisation through applied research, local service provision, and public-private partnerships to encourage sustained machinery supply through strongly functioning value chains.

















Organising Team

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