



## CAPSA-MARDI Regional Training Workshop on Transfer of Agricultural Technology with Specific Focus on "Application of ICT for Resilient Agriculture"

18 - 20 July

Putrajaya, Malaysia

### Background

The 2030 Agenda for Sustainable Development, adopted by 193 United Nations Member States in September 2015, and its framework of 17 Sustainable Development Goals (SDGs) are the results of a three-year global dialogue. Through extensive stakeholder engagement processes, this dialogue connected people in remote villages with the United Nations General Assembly in New York.

Asian and Pacific governments have responded, moving from adoption of the 2030 Agenda and the SDGs to their implementation at the national level much faster than was the case with the Millennium Development Goals. Some countries have taken steps to integrate the SDGs into existing national development plans, policies and legislation, while many other governments are establishing or strengthening coordination bodies or mapping institutional responsibilities.

Among the 17 Sustainable Development Goals (SDGs) is the Goal #2 "End hunger, achieve food security and improved nutrition and promote sustainable agriculture." Despite significant progress in the reduction of hunger and malnutrition, improvements vary across countries and disproportionately affect the nutritional status, food security and livelihoods of vulnerable groups. Beyond its function to maintain sufficient food supply, agriculture also holds the key to support economic, social and environmental fundamentals to underpin our sustainable society, and thus has critical implications to efforts to achieve other goals, such as water, energy, employments, equity, terrestrial ecosystems and climate change.

One of the key strategies to meet such challenges is to accelerate technological innovation and facilitate the transfer of useful technologies across the agricultural sector in Asia and the Pacific. Potentials are enormous that national agricultural research centres, individually and collectively, could take lead roles in the identification, dissemination, adaptation and adoption of technologies, **in such areas as for ensuring sustainable food production systems and implementing resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality**, as defined by SDG Target 2.4. Policies, programmes and initiatives to enable, support and accelerate such innovations are emerging and being implemented by relevant ministries in countries in Asia and the Pacific.

## **Objectives of the training workshop**

Against the above background, this present workshop is organized with aim to support government efforts to achieve sustainable agriculture, food security and inclusive rural development, by strengthening the capacities of national agricultural research and development communities to accelerate technological innovation and to facilitate the transfer of relevant agricultural technologies within the above-mentioned scope, primarily through exchanging knowledge and experiences. Based on preliminary consultations, a special focus is set for application of information and communication technologies for enhancing the resilience of agricultural production to emerging impacts of climate change and intensifying natural disasters.

## **Target audience**

The training workshop is primarily targeted at mid- to senior-level personnel in the Ministry of Agriculture and national agricultural research and development bodies in selected Asia-Pacific developing countries, who are engaged in programmes to promote technological innovation and the transfer of agricultural technologies. The programme will aim to address the theme of technology innovation and transfer at both the technical and policy levels.

## **Organization**

The training workshop will be conducted for three days from 18 to 20 July 2017 and co-organized by the Malaysian Agricultural Research and Development Institute (MARDI) and the Centre for Alleviation of Poverty through Sustainable Agriculture (CAPSA-UNESCAP), so that the programmes are developed jointly. As MARDI will provide all domestic costs for the workshop, including accommodation, meals, local transportation and meeting facilities for the officially-nominated participants, CAPSA takes responsibility to finance round-trip air ticket, daily subsistence allowance and terminal expenses for sponsored participants and resource persons based on applicable rules.

Additionally, this CAPSA-MARDI training workshop will be preceded by one-day technical workshop on Distributional Effects of Disasters and Climate Change on Food Security in ASEAN, which is organized by the Economic Research Institute for ASEAN and East Asia (ERIA). Concept note attached as Annex. All participants of CAPSA-MARDI training workshop are cordially invited to join the ERIA technical workshop on 17 July 2017, while participants and experts attending the ERIA technical workshop will also participate and contribute to the CAPSA-MARDI workshop. For the sponsored participants for the both meeting, the travel/accommodation supports will be provided for the combined period.

## **Programme**

The training workshop will promote knowledge-sharing among participants and interaction with regional experts and resource persons, including those invited to CAPSA-MARDI training workshop and ERIA technical workshop. The programme is formulated in order to facilitate such exchanges and maximize the synergy effects, through;

- (i) Technical presentations by regional experts and resource persons
- (ii) Country report presentations by government-nominated participants
- (iii) Interactive discussion involving all participants, experts and resource persons
- (iv) Small group discussion on specific themes and presentations
- (v) One-day field visit to be organized by MARDI

## **Pre-course requirements**

In an effort to promote knowledge-sharing among participants, government-nominated participants are requested to present a country report. The country reports are to be compiled in power point presentation (no more than 15 slides) and to be presented in 20 minutes, covering the following contents:

- (1) Technological innovation in agricultural research and development
  - Trend of technological innovation in agricultural research and development for ensuring sustainable food production systems and implementing resilient agricultural practices, which may cover areas such as:
    - For increasing productivity and production
    - For strengthening capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters
    - For helping maintain ecosystems, and
    - For progressively improving land and soil quality
  - National policies, programmes and initiatives to support such innovation
  - Major success stories
  
- (2) Application of ICT in agriculture
  - Ongoing practices, needs and gaps
  - Major R&D activities, programmes and initiatives in the relevant fields
  
- (3) Technology transfer to help building sustainable and resilient agriculture
  - Ongoing north-south, south-south and national-level activities for supporting technology transfer and dissemination
  - Major success stories (as provider and recipient)

The participants are requested to submit their presentation to CAPSA and MARDI no later than **7 July 2017**.

### **For further information, please contact:**

CAPSA-ESCAP

Jl. Merdeka 145, Bogor 16111, INDONESIA

Tel: +62 251 834-3277, 835 6813; Fax: +62 251 833 6290; Email: [capsa@un.org](mailto:capsa@un.org)

Economic and Social Science Research Centre

Malaysian Agricultural Research and Development Institute

MARDI Headquarters

Persiaran MARDI UPM, 43400 Serdang, Selangor, MALAYSIA

Tel: +603 89536360; Mobile: +60167850895; Fax: +603 89536370

## Tentative workshop programme

**CAPSA-MARDI Regional Training Workshop on Transfer of Agricultural Technology**  
with Specific Focus on "Application of ICT for Resilient Agriculture"  
18-20 July 2017, Putrajaya, Malaysia

Date	Programme
<b>16 July 2017</b> Sunday	Arrival of participants/delegates
	Check-in accommodation
<b>17 July 2017</b> Monday	<b>ERIA Technical Workshop on Distributional Effects of Disasters and Climate Change on Food Security in ASEAN</b> (see separate concept note annexed)
<b>18 July 2017</b> Tuesday	<b>CAPSA-MARDI Regional Training Workshop on Transfer of Agricultural Technology with Specific Focus on Application of ICT for Resilient Agriculture</b>
	<b>Morning session</b>
	○ Registration
	○ Opening remarks (Representative of host country/CAPSA)
	○ Keynote address – Role of technology transfer in agriculture for achieving Sustainable Development Goals <i>(Representative of Malaysia scientific and research community – to be nominated by MARDI)</i>
	○ Presentation 1 – Technological innovation for enhancing agricultural resilience to natural disasters and climate change <i>(Mr. Masakazu Ichimura, UN Centre for Alleviation of Poverty through Sustainable Agriculture = CAPSA)</i>
	○ Presentation 2 – Application of ICT for resilient agriculture <i>(Mr. Sanghun Lee, Korea Agency of Education, Promotion and Information Service in Food, Agriculture, Forestry and Fisheries = EPIS)</i>
	○ Presentation 3 – Regional cooperation on application of ICT for promoting food security and resilience to disasters and climate change <i>(Dr. Venkatachalam Anbumozhi, Economic Research Institute for ASEAN and East Asia = ERIA)</i>
	<b>Evening session</b>
	○ Interactive discussion with keynote and other presenters, to be joined by regional experts and all participants
○ Presentation "Country Report"	
<b>19 July 2017</b> Wednesday	<b>Morning session</b>
	○ Presentation "Country Report"
	○ Group discussion on specific topics, such as: <ul style="list-style-type: none"> <li>▪ Identification of success stories in agricultural technology innovation and transfer/defining success factors/challenges, opportunities and enabling conditions</li> <li>▪ Identification of future promising areas for technological innovation and transfer, in particular, in the application of ICT</li> <li>▪ Proposal for future regional mechanisms/programme to facilitate international cooperation in agricultural technology innovation/transfer</li> </ul>
	<b>Evening session</b>
	○ Group presentation and adopting recommendations
○ Presentation of certificate and Closing	
<b>20 July 2017</b> Thursday	Field visit
<b>21 July 2017</b> Friday	Departure

*Technical workshop on:*  
**Distributional Effects of Disasters on Food Security in ASEAN**

**17 July 2017**

*Venue: Putrajaya*

Food security is increasingly compromised by the growing frequency of disaster events. Asia itself has incurred more than USD45 billion of economic loss in the last decade alone. Disasters also pushed food prices to above the incomes of many low-income households. In ASEAN context, one aspect of disasters that has been studied with less detail is related to agricultural production system and its economic and social impacts. This may be due to the intrinsic complexity that characterized long term disaster predictions as well as assumptions on food security; or the wide variety of structural and non-structural measures evolved for adapting to climate induced disasters such as flooding, drought etc. There is a considerable discussion about whether the current levels of investment in agriculture and technology will be able to develop a resilient food production systems to the levels needed to feed a growing population. Liberalization of trade is believed to help manage some of the risks, but no regret adaptation measures are needed to develop a more resilient food value chains.

The main objectives of this study and the technical workshop are: (i) to understand the distributional effects of disasters and climate change and the related challenges to food security; (ii) analyse the required actions taken by policy makers to address these risks; (iii) share experiences on adjustment of key planning instruments on crop, livestock and fisheries sectors; (iv) exchange experiences on successful adaptation measures across the key vulnerable areas; and (v) undertake the cost-benefit analysis and identify the necessary structural and non-structural measures that could contribute to enhancing the disaster resilience in ASEAN.

### Agenda

<b>08.30 – 09.00</b>	<b>Registration</b>
09.00 – 09.15	Opening Session <ul style="list-style-type: none"> <li>▪ Welcome remarks</li> <li>▪ Objectives of the workshop, outcomes and expectations</li> </ul>
<b>Session 1</b>	<b>Estimation of the overall damage and losses on food production and distribution systems due to disasters and climate change</b>
09.15 – 09.50	A regional assessment of economic losses and damages due to natural disasters <i>Yumi Shiomi, Asian Disaster Reduction Center and Takahiro Ono, Mitsubishi Insurance</i> <i>Discussant: TBD</i>
09.50 – 10.25	ASEAN food security under the +2°C to +4°C climate change scenarios <i>Srivatsan Vijayaraghavan, National University of Singapore</i> <i>Discussant: TBD</i>
10.25 – 11.00	Effects of disasters on intra-ASEAN trade of agricultural products <i>John Kuwornu, Asian Institute of Technology</i> <i>Discussant: TBD</i>

<b>11.00 – 11.20</b>	<b>Coffee break</b>
11.20 – 11.55	Effects of disasters and climate change on fisheries sector and their implications on ASEAN food security <i>Thayalan Gopal, University of Malaya</i> <i>Discussant: TBD</i>
11.55 – 12.30	Effects of disasters and climate change on livestock sector and their implications on ASEAN food security <i>Hyeon T Kim, Gyeongsang National University</i> <i>Discussant: TBD</i>
<b>12.30 – 13.30</b>	<b>Lunch break</b>
<b>Session 2</b>	<b>Identification and assessment of strategies for resilience and food security</b>
13.30 – 14.05	Successful adaptation measures for inland and coastal food security <i>Budi Indra Setiawan, IPB and Yamaji Eiji, UT</i> <i>Discussant: TBD</i>
14.05 – 14.40	Disasters and food security in cities: adaptation options for ASEAN <i>Jacob Kumaresan, World Health Organization</i> <i>Discussant: TBD</i>
14.40 – 15.15	Distributional effects and change of risk management strategies: cost effective regimes in Europe and implications for ASEAN <i>Meinhard Breiling, Austria</i> <i>Discussant: TBD</i>
<b>15.15 – 15.30</b>	<b>Coffee break</b>
<b>Session 3</b>	<b>Necessary conditions for developing the Adaptation Road Maps</b>
15.30 – 16.05	Ensuring food and nutritional security in the face of disasters and climate change: what are the adaptation solutions? <i>Vangimalla Reddy, United States Department of Agriculture</i> <i>Discussant: TBD</i>
16.05 – 16.40	Adaptive solutions: what is the role of financial institutions and insurance industry? <i>Tomonori Sudo, Ritsumeikan Asia Pacific University</i> <i>Discussant: TBD</i>
16.40 – 17.15	Mainstreaming the resilience into SDGs and agricultural trade pacts: why and how? <i>Mathias Helble, Asian Development Bank Institute</i> <i>Discussant: TBD</i>
<b>Wrap up</b>	<b>Looking forward</b>
17.15 – 17.30	<ul style="list-style-type: none"> <li>▪ Outcomes of the papers and key messages</li> <li>▪ Open discussion, country follow up, and publication plans</li> <li>▪ Closing Remarks</li> </ul>

*Note: Presentation: 20 minutes; Discussant comments: 5 minutes; Open discussion: 5 minutes; Response from the presenter: 5 minutes*