



Workshop on Technology Transfer for Sustainable Agriculture

28 April - 2 May 2014, Bogor, Indonesia

Organized by
Indonesian Center for Agricultural Socio Economic and Policy Studies
Indonesian Center for Agricultural Technology Assessment and Development
AVRDC – The World Vegetable Center
&
Centre for Alleviation of Poverty through Sustainable Agriculture

Background

One of the key challenges facing mankind today is how to meet the increasing demand for food resulting from a rising population, higher incomes levels, and changes in dietary patterns¹. It has been predicted that food production will need to increase by 60-70% by 2050 in order to feed everyone. For developing countries, it is also projected that 80% of the required increase would be from intensification of crop production, particularly higher yields and cropping intensity, and only 20% from increase in arable land² which is constrained by competing land use requirements for urbanization and industrialization. Adding to this challenge is the imperative need for ensuring sustainability of production systems and of adapting to the impacts of climate change which pose a threat to maintaining even existing levels of crop yields.

In Indonesia, agriculture accounts for over 40% of total employment but only around 15% of the GDP. This implies relatively low or stagnating levels of productivity in agriculture as compared to other sectors. In many instances, a significant and 'economically exploitable yield gap' exists at the farm level. Further challenges include conversion of agricultural land for non-agricultural uses leading to pressure on existing cultivated areas, and the need for greater climate resilience.

Technology transfer is critical to addressing all these challenges and for sustainably enhancing incomes of the farming community. The identification, dissemination, adaptation and adoption of appropriate technologies can help farmers bridge the yield gap and/or increase cropping intensity to achieve production growth. Smallholder farmers comprise a large chunk of the farming community in developing countries but often lack the resources to use modern technologies, making technology transfer for them especially important. The gender sensitivity of alternative technology options is yet another key consideration. Moreover, capacity building of relevant national stakeholders is required for ensuring the

¹ <http://ccafs.cgiar.org/bigfacts/global-food-demand/>

² FAO, How to Feed the World in 2050 (2009),
http://www.fao.org/fileadmin/templates/wsfs/docs/expert_paper/How_to_Feed_the_World_in_2050.pdf

effectiveness and success of technology transfer initiatives.

International cooperation can play an important role in promoting technology transfer in Indonesia, particularly in terms of mobilizing additional resources, enabling access to innovative and sustainable agricultural technologies, and facilitating knowledge sharing and capacity building.

Objectives of the training workshop

The objective of the workshop is to support government efforts to promote food security by strengthening national capacities for transfer of agricultural technologies that are sustainable, productivity enhancing, suitable for resource poor farmers, and gender sensitive. The training will address the theme of technology transfer at both the technical and policy levels.

Target audience

The training is primarily aimed at mid- to senior-level personnel in the Ministry of Agriculture and related government agencies working in the area of agricultural extension. A good working knowledge of English is required of all participants.

Organization

The workshop will be organized jointly by the Centre for Alleviation of Poverty through Sustainable Agriculture (CAPSA-UNESCAP), the Indonesian Center for Agricultural Socio Economic and Policy Studies (ICASEPS) and the Indonesian Center for Agricultural Technology Assessment and Development (ICATAD) of the Indonesian Agency for Agricultural Research and Development (IAARD), Ministry of Agriculture, and AVRDC – The World Vegetable Center, from 16-20 June, 2014.

CAPSA is coordinating implementation of a European Union funded project titled 'Network for Knowledge Transfer on Sustainable Agricultural Technologies and Improved Market Linkages in South and Southeast Asia' (SATNET Asia), while AVRDC – The World Vegetable Center is leading the capacity building activities of the project in Southeast Asia. This workshop will be organized as part of the SATNET Asia initiative enabling it to leverage synergies with the wider network.

Moreover, as 2014 marks the 40th anniversary of IAARD, this workshop will showcase the continued strengthening of international cooperation efforts of the Government of Indonesia in the field of sustainable agriculture, poverty alleviation and food security.

Training staff

Professional staff working in international organizations, senior academics and practitioners will serve as resource persons for the workshop.

Course delivery method

The training sessions will comprise of lectures, case studies, discussions and group work. Participants are expected to make group presentations in selected sessions. A field visit will also be organized to facilitate better absorption of the course content. The total duration of the event will be 5 days.

Course content

Technology Transfer for Sustainable Agriculture

Module	Topics	Time allocation (hours)
	<ul style="list-style-type: none"> Opening session: Formal opening and introduction of the course 	02
1. Sustainable agriculture technologies	<ul style="list-style-type: none"> The concept of sustainable agriculture Measuring resource-use and environmental impact of agriculture Indicators of sustainable agricultural technologies 	04
2. Basic concepts and key approaches in agricultural technology transfer	<ul style="list-style-type: none"> Technology transfer and diffusion concept Link between technology transfer and sustainable livelihoods Pathways for technology transfer and diffusion Key approaches in agricultural technology transfer 	08
3. Technology transfer in specific priority areas ³	<ul style="list-style-type: none"> Sustainable agricultural practices GM crops and Hybrid seeds Agriculture machinery Food processing industries 	04
4. Techniques for assessing the adoption and diffusion of agricultural technologies	<ul style="list-style-type: none"> Technology categories and market characteristics Methods for analyzing adoption and diffusion patterns Guide for survey design Applications 	08
5 Overcoming barriers to the transfer and diffusion of technologies	<ul style="list-style-type: none"> Identification of barriers (including research-practice gap) Measures to overcome barriers Introduction to Indonesian Self-sustainable Tropical Agricultural Research Alliance (ISTARA) Role of public-private partnerships 	04
	<ul style="list-style-type: none"> Closing session: Evaluation, reflections and certificates 	02
	<ul style="list-style-type: none"> Field visit 	1 day

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³ Proposed based on findings from KIKPI workshop held in Jakarta in May 2013 and subject to further discussion.