PROJECT NOTIFICATION

PN Issue Date	27 March 2019
Project Code	19-AG-10-GE-WSP-B
Title	Workshop on Smart Farming Models
Timing and Duration	4–8 November 2019 (five days)
Venue	Bangkok, Thailand
Implementing Organization	Thailand Productivity Institute (FTPI)
Number of Overseas Participants	Up to 18 qualified participants from Bangladesh, Cambodia, Republic of China, Fiji, India, Indonesia, IR Iran, Japan, Republic of Korea, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Sri Lanka, and Vietnam
Number of Local Participants	Up to six qualified participants
Closing Date for Nominations	25 July 2019

1. Objectives

The primary objective of this project is for participants to adopt/promote successful smart farming (SF) models in their countries. The other objectives are to:

a. Share the APO Agricultural Transformation Framework (APO-ATF) and explore opportunities for the adoption of the APO-ATF by member countries;
b. Enhance participants' understanding of SF and applications of digital technologies in farming operations, as well as promote applicable technologies for SF development;
c. Assess the key trends impacting science, technology, and innovation in SF; and
d. Formulate strategic action plans for participants to adopt/promote successful SF models in their countries.

2. Background

Agriculture faces enormous challenges to feed around 10 billion by 2050. That will require the production of additional food with limited arable land, shrinking water resources for agriculture, shortages of farm labor, and aging farming communities. The adoption of smart agriculture (SA) principles and practices could help increase agricultural productivity and promote sustainable development.

SA is the use of new, advanced technologies within the agrifood system to promote sustainable productivity by allowing farmers and other stakeholders to make more informed, appropriate decisions. Technologies like big data, digital technologies, and analytics are important components of SA and SF; the two terms are used interchangeably in this document. SF equipment makes operations easier and more convenient, especially for the youth, elderly, and women. SF can minimize natural resource degradation and carbon footprints and can also address extreme weather conditions, climate change, and other serious threats. The use of smart technology also gives rural farmers and SMEs access to the latest information on agrifood markets, enhancing their profitability. The adoption of SA/SF can contribute to overall sustainable rural development.

In APO member countries, farmers are using smart technologies and devices like automated moisture sensors, drones, and smart irrigation. Other examples include terrain contour mapping, self-driving and GPS-enabled tractors, big data, cloud computing, the Internet of Things (IoT), and robotics to produce food more conveniently and sustainably. APO member countries are, however, at different stages of SF research, development, and adoption. The adoption/promotion of SA/SF will require addressing issues of Internet connectivity at farm level in rural areas, connecting ground-based sensors with the iCloud, collection and analysis of huge amounts of data, development of cheaper IoT devices and sensors, and policy support for small farmers, among others.

In view of the above, the APO decided to spearhead agricultural transformation in member countries and has recently launched the APO-ATF. One of the objectives of this workshop is walk through the APO-ATF and explore opportunities for its adoption by member countries.

3. Scope and Methodology

The workshop will consist of themed presentations, sharing of country experiences, group exercises, and field/company visits.

The tentative program outline of the workshop is given below:

Date/Time	Activity
Sun., 3 November 2019	Arrival of participants in Bangkok
Mon., 4 November 2019	Opening session and registration Technical Session: Global trends and applications of smart farming Presentation 1: Key concepts, global trends, and the future of smart farming Presentation 2: Smart agricultural transformation for APO member countries

	Presentation 3: Precision agriculture technologies in farm production Presentation 4: Future food production systems Presentation 5: Smart water systems and implications for reducing carbon footprints and restoring ecosystems
Tues., 5 November 2019	Technical Session: Smart farming and its applications Presentation 6: Agricultural mechanization and field robots Presentation 7: Smart agricultural solutions to problems facing small farmers Presentation 8. Controlled-environment agricultural technologies Technical Session: Sharing of country experiences on smart farming models
Wed., 6 November 2019	Field/site visits
Thurs., 7 November 2019	Technical Session: Adoption of the APO-ATF by member countries: Challenges and opportunities Presentation 9: APO-ATF Presentation 10: Challenges and opportunities in APO-ATF adoption by member countries Presentation 11: Which member countries are willing to formulate national ATFs and how can the APO assist them? Group breakout session
Fri., 8 November 2019	Presentation of group workshop output Program evaluation by participants, resource persons, and implementing organizations Formulation of follow-up action plans by individual participants Closing session
Sat., 9 November 2019	Departure of participants

4. Qualifications of Candidates

The participants are expected to possess the following qualifications.

Present Position	Government officials, policymakers, executives of farmers' associations, senior academics, and senior consultants in charge of promoting advanced farm mechanization focusing on applications of smart digital technologies in farming operations.
Experience	At least three years of experience in the position described above.
Education	University degree or equivalent qualification from a recognized university/institution.
Language	All proceedings of the project are conducted in English, and participants are frequently required to make oral and written presentations. They must therefore be proficient in spoken and written English. Those who are not proficient in English will not be accepted.
Health	Physically and mentally fit to attend an intensive project requiring participants to complete a number of individual and group activities and strenuous fieldwork. It is therefore recommended that member countries do not nominate candidates likely to suffer from physical and mental stress.
Age	Candidates who fit the above profile are typically between 30 and 50 years of age.
Attendance	Participants are required to attend the entire program.

5. Requirements

The participants are required to undertake preparatory work such as writing country papers prior to departure for the project venue.

All participants are required to prepare and submit action plans to the APO and to share them with their NPOs within 10 working days after attending the project. The participants are also required to submit postproject follow-up reports six months after project completion to document the achievement of outcome(s) of the project. The NPOs will monitor the follow-up actions and report submission by participants.

The Guidelines for Project Preparatory Work will be provided in the project circular, and the Postproject Activity Guidelines are given in Attachment 1.

5-1. Repeat Participants (who attended previous APO projects and are applying for another)
a.   In the Candidate's Biodata form (application form), candidates are required to provide details of follow-up actions taken after attending a previous APO project(s) and outcomes (benefits) of those activities.
b.   Candidates are also required to state in the Candidate's Biodata form whether they submitted a report on their follow-up actions.

5-2. All Participants
a.   In the Candidate's Biodata form, candidates are required to list their expectations from the project and planned postproject actions/activities. This is a tentative list which participants are free to revise or replace after attending the project (as in item b below).
b.   All participants are required to develop and submit final follow-up action plans within 10 working days of project completion in the format to be provided by the APO Secretariat later.
c.   All participants are required to submit reports on the follow-up actions taken within six months (or a period specified for a particular project) of project completion.
d.   The reports on follow-up actions are separate from the trip reports participants usually submit to their organizations/NPOs immediately after returning from project venues. The report format will be provided before project completion.

6. Financial Arrangements

6-1. Airfare
The APO will bear the cost of round-trip economy-class international airfare between the international airport nearest to the participants' place of work and Bangkok, Thailand.

Participants should note that the arrangements for the purchase of air tickets should follow the "Guide on Purchases of Air Tickets for APO Participants," which will be sent to the selected participants and is also available on the APO website and from APO Liaison Officers in member countries.

6-2. Insurance Coverage
Participants' insurance premiums: All participants should be fully insured against accident and illness (including hospitalization and death) for a principal sum equivalent to USD10,000.00 for the entire duration of the project and travel and must submit to the APO Secretariat a copy of the comprehensive travel insurance certificate before participation. Such insurance should be valid in the host country. This insurance requirement is in addition to existing government insurance coverage in some member countries. Neither the APO nor the implementing organization will be responsible for any eventuality arising from accident, illness, acts of war, force majeure, or any unexpected events beyond human control such as those related to natural disasters.

6-3. Cost Sharing
Subject to the conditions stated in the Financial Arrangements section, the following table shows the cost-sharing arrangements between the APO, host country, and participants or participating countries.

Cost item	Cost to be borne by		
	Participants or participating countries	Host country	APO
Round-trip economy-class international airfare (refer to paragraph Airfare for conditions)	No	No	Yes
Participating Country Expenses (PCEs)	NA	NA	NA
Hotel accommodation in Bangkok	No	Yes	No
Per diem allowance in Bangkok	No	Yes	No
Transportation costs to and from hotel and airport in Bangkok	No	Yes	No
Insurance coverage in Thailand (refer to paragraph Insurance Coverage)	Yes	No	No
Any expenses related to visa fees and airport taxes	Yes	No	No
All expenses incurred by participants for any reason including but not limited to: a. Stopovers b. Extension of stay c. Early arrival or late departure d. Flight cancellation	Yes	No	No
Any cancellation charges for expenses such as airfare and accommodations incurred by the APO or host country after issuance of Letters of Acceptance	Yes	No	No
Assignment costs of international resource persons	NA	No	Yes
Assignment costs of local resource persons	NA	Yes	No
All local implementation costs including but not limited to: a. Meeting rooms b. Documentation c. Preparatory costs	NA	Yes	No
Notes:			

7. Actions by Member Countries

a. Each participating country is requested to nominate three or more candidates in the order of preference. Please ensure that candidates nominated meet the qualifications specified under the section Qualifications of Candidates above.

b. No form of self-nomination will be accepted. All nominations must be endorsed and submitted by an APO Director, Alternative Director, Liaison Officer, or their designated officer.

c. Please note that nomination of a candidate does not necessarily guarantee that he/she will be selected. Selection is at the discretion of the selection committee of the APO Secretariat. A basic criterion for selection is the homogeneity of the participants in terms of qualifications and work experience. Nonselection therefore does not mean that the candidates concerned are not competent enough. Sometimes candidates are not selected because they are overqualified for a project.

d. Each nomination should be accompanied by the necessary documents. A nomination lacking any of these documents may not be considered: two copies of the candidate's biodata on the APO biodata form together with a passport-sized photograph. The biodata form can be downloaded from the APO website (www.apo-tokyo.org). We encourage submitting the biodata form to the APO Secretariat in electronic form as an attachment to a cover e-mail message from the APO Director, Alternate Director, or Liaison Officer. The nomination documents should be sent to the Department

in charge of this project.

e.   The APO Medical and Insurance Declaration/Certification Form. Every candidate must complete and submit a copy of the APO Medical and Insurance Declaration/Certification Form with his/her biodata at the time of nomination. Please note that self-declaration is sufficient for candidates without any of health conditions or illnesses listed on the reverse side of the medical form. However, for all others, medical certification by a licensed physician on the reverse side of the medical form is required.

f.   Necessary documents are to be submitted electronically. In that case, there is no need to send a hard copy by postal mail. However, if the documents are submitted by fax, member countries are requested to mail the originals of the documents to the APO Secretariat as well. If a digital photograph of a nominee is not attached to the electronic biodata form, a hard-copy photograph should be sent to the APO Secretariat by postal mail. Please give the candidate's name and the project code on the reverse side of the photograph.

g.   Member countries are requested to adhere to the nomination deadline given on page 1. The APO Secretariat may not consider late nominations as they have in the past resulted in considerable difficulties to the implementing organization in its preparatory work for the project.

h.   For member countries where nominations are required to be approved by higher government authorities and require a longer time, APO Liaison Officers/NPOs are urged to send the names of nominees on or before the deadline, indicating that government approval will follow.

i.   If a selected participant becomes unable to attend, he/she should inform the APO Liaison Officer/NPO in his/her country immediately and give the reason for withdrawal. The NPO concerned is requested to transmit that information to the APO Secretariat and the host country promptly.

j.   NPOs are requested to inform the selected participants that they are not to bring family members or to engage in any private business activities during the entire duration of the project.

k.   Each selected participant should be instructed to arrive at the venue one day before the start of the official project. Also, he/she is expected to return home upon completion of the official project because he/she is visiting the host country for the specific purpose of attending this APO project.

l.   NPOs should inform participants that they must attend the entire program of the project.

m. NPOs should assist the APO and/or host country in collecting amounts corresponding to cancellation charges arising from withdrawal or no-show of a participant.

8. Actions by the APO Secretariat

a.   Under normal circumstances, candidates who are selected will be informed of their acceptance at least four weeks prior to the start of the project.

b.   If some candidates fail to qualify or be unable to participate after selection, or if some member countries fail to nominate any candidate, their slots may be filled by alternates from the same or another member country on a merit basis.

9. Project Preparation

The participants are required to prepare a short paper prior to departure for the project venue. In preparing the paper, they are expected to follow the "Guidelines for the Preparation of Country Papers" to be provided later.

10. Postproject Actions

All participants are required to prepare action plans and share the plans with their NPOs. The APO also requests participants to submit progress reports six months after completion of the project. In

addition, participants taking part in training-of-trainers courses must also submit a report summarizing a training project that they conducted following the action plans to the APO and NPOs within six months after project completion.

11. Evaluation of Participants

If the conduct/attendance/performance of a participant is not satisfactory, these will be reported to the APO director concerned.

12. Guide for Participants

Other conditions for participation are given in the *APO Guide for Participants*, which is available from APO Liaison Officers/NPOs in member countries and on the APO website (www.apo-tokyo.org).

13. Dress Code

Participants are required to wear business attire during the project. Other instructions will be provided in the circular for participants.

(Signed)
Dr. Santhi Kanoktanaporn
Secretary-General

POSTPROJECT ACTIVITY GUIDELINES

The follow-up actions by participants after project attendance determine the extent of multiplier effects (outcomes) of APO projects in member countries. The APO has therefore established an interdepartmental Participant Selection Committee to ensure selection of the most appropriate candidates. A key consideration is whether individuals are in a position, have the ability, and are willing to undertake follow-up actions after project attendance.

Each participant is required to undertake follow-up actions after attending an APO project based on his/her learning from it and report on those activities to the NPO of his/her country and the APO Secretariat, following the guidelines below:

Examples of Follow-up Activities
The examples below are suggestions and are not meant to limit participants' choices of follow-up actions:

a. An official report on project attendance to participants' organizations, or NPOs, or both;
b. Newspaper/magazine articles based on learning from the project;
c. Application of knowledge, skills, techniques, or technologies for improving job performance and/or organizational capacity;
d. Delivering a presentation or lecture on the project topic;
e. Conducting a workshop/seminar/conference/forum on the project topic;
f. Improving training/teaching/extension materials related to the project topic; and
g. Sharing project findings with colleagues, professional groups, or others.