



PROJECT NOTIFICATION ADDENDUM

28 September 2018

- 1. Project Code** 18-AG-15-GE-DLN-B
- 2. Title** e-Learning Course on Waste Management in Agribusiness
- 3. Addendum No.** 1
- 4. Reference** APO Project Notification 18-AG-15-GE-DLN-B dated 23 May 2018
- 5. Details** The implementing organization for Vietnam is updated. Item No. 5 in APO Project Notification is therefore changed as follows:

a. Item No. 5 “Implementing Organizations”:

- Session 1
- Bangladesh: National Productivity Organisation
 - India: National Productivity Council
 - IR Iran: National Iranian Productivity Organization
 - Nepal: National Productivity and Economic Development Centre
 - Pakistan: National Productivity Organization
 - Sri Lanka: National Productivity Secretariat
- Session 2
- Cambodia: National Productivity Centre of Cambodia
 - Fiji: National Training & Productivity Centre
 - Mongolia: Mongolian Productivity Organization
 - Philippines: Development Academy of the Philippines
 - Vietnam: Directorate for Standards, Metrology and Quality**

Unless otherwise modified by the APO in writing, the other provisions of the Project Notification dated 23 May 2018 pertaining to this e-learning course will remain valid.

Dr. Santhi Kanoktanaporn
Secretary-General



PROJECT NOTIFICATION

23 May 2018

1. **Project Code** 18-AG-15-GE-DLN-B
2. **Title** e-Learning Course on Waste Management in Agribusiness
3. **Timing and Duration** Session 1: 27–30 November 2018 (four days)
Session 2: 11–14 December 2018 (four days)
4. **Venues** Session 1: Bangladesh, India, IR Iran, Nepal, Pakistan, Sri Lanka
Session 2: Cambodia, Fiji, Mongolia, Philippines, Vietnam

5. **Implementing Organizations**

APO Secretariat and the following NPOs:

- Session 1
Bangladesh: National Productivity Organisation
India: National Productivity Council
IR Iran: National Iranian Productivity Organization
Nepal: National Productivity and Economic Development Centre
Pakistan: National Productivity Organization
Sri Lanka: National Productivity Secretariat
- Session 2
Cambodia: National Productivity Centre of Cambodia
Fiji: National Training & Productivity Centre
Mongolia: Mongolian Productivity Organization
Philippines: Development Academy of the Philippines
Vietnam: Vietnam National Productivity Institute

(Note: To maximize project benefits, the local venue [city and/or videoconferencing center] may change depending on the level of interest, participant type, and suitability of the venue as advised by the NPO.)

6. **Number of Participants** At least 20 qualified participants from each participating country
7. **Closing Date for Nominations** Session 1: 3 September 2018
Session 2: 17 September 2018

8. **Objectives**

- a. To enhance participants' understanding of the recent trends and innovative approaches in agricultural waste management (AWM);
- b. To build participants' knowledge of innovative AWM and creative problem-solving techniques including development of value-added products from agricultural and food waste to increase benefits for agribusiness enterprises; and

Asian Productivity Organization

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- c. To encourage better AWM practices by raising awareness of sustainable production and consumption in agribusiness.

9. Background

Agricultural waste refers to nonproduct outputs with economic value less than the cost of commercialization throughout the value chain such as in production, collection, processing, storage, transportation, and marketing. Waste is generated in different processes and operations along the agrifood supply chain. Today, such waste is estimated to account for 30% of worldwide agricultural production.

Farm waste includes materials from crop growing such as unusable biomass, harvest residues, and harvest waste (herbs, grains, roots, tubers, stubble). Waste from livestock farming such as grass, litter, or feed as well as slurry and dung not used for farmyard manure is also counted as agricultural waste. Some farm waste may affect the environmental performance of operations. For example, the inappropriate use of chemicals contaminates air and pollutes water bodies and land resources. Intensive livestock farming practices cause water pollution by nitrates and through eutrophication; and air pollution, particularly ammonia and greenhouse gas emissions. Those practices also adversely affect the quality of living environments in rural areas.

Beyond the farm level, food-processing operations in the postharvest stage are another area that produces huge amounts of agricultural waste. For example, in storage facilities considerable quantities of food are lost due to insect pests and disease. Qualitatively, nutritional and caloric value is decreased due to inappropriate control of temperature and humidity. During transportation and display on supermarket shelves, improper packaging causes food damage and reductions in price.

There is an urgent need to manage agrifood waste by practicing the 3R (reduce, reuse, and recycle) strategy. Turning waste into profitable products is critical in improving the productivity of agribusiness. According to the UN Food and Agriculture Organization, 10.7% of the world population is still suffering from hunger and chronic undernourishment. In this regard, the development and application of AWM are continuing concerns for policymakers and business leaders in agriculture. Despite the shared urgency and importance of AWM, policy incentives are lacking and only a limited number of businesses companies are involved in good AWM practices.

10. Modality of Implementation

This course is offered using the APO's own videoconferencing (VC) platform. Appropriate VC centers in participating countries will be used for this purpose. Professional experts will conduct the training course, which will be implemented in two sessions as described above. Each participating country team will make VC presentations to share their experience in waste management in agribusiness, which will be moderated by a local coordinator. At end of the session, a written examination will be conducted to test participants' learning from the course. Performance in the examination will be one of the criteria for the selection of participants for subsequent follow-up projects relating to the subject.

11. Scope and Methodology

This distance-learning course will consist of a combination of VC and offline sessions such as online lectures, online discussions, and online presentations of country case studies as well as offline group exercises, field/company visits, and written examination.

The tentative program is given below:

Date	Activity
Day 1 27 Nov/11 Dec	Opening session through VC Presentation of resource papers through VC Module 1: Introduction to waste management in agribusiness <ul style="list-style-type: none">• Presentation 1: Understanding concepts, characterization, and generation of agriculture and food waste• Presentation 2: Current status and trends in AWM at the farm and postharvest stages• Presentation 3: Challenges in waste recovery and foreseeable business opportunities in the agriculture industry Offline group exercise/individual assignments
Day 2 28 Nov/12 Dec	Presentation of resource papers through VC Module 2: Strategies for agribusiness waste management <ul style="list-style-type: none">• Presentation 1: Technological methods to maximize waste reuse and recycling to exploit resources across agribusiness value chains• Presentation 2: Incorporating AWM as a plausible business model• Presentation 3: Exploring methodologies, tools, and techniques for transforming agriculture and food waste into useful resources Module 3: Institutional actions for promoting AWM <ul style="list-style-type: none">• Presentation 1: Government initiatives and legal schemes to promote implementation of AWM• Presentation 2: Successful case studies of establishing AWM as a common practice in the public and private sectors Offline group exercise/individual assignments
Day 3 29 Nov/13 Dec	Field/company visits Offline group exercise
Day 4 30 Nov/14 Dec	Presentation of group exercise output by countries through VC Summing-up and closing sessions through VC Offline written examination

12. Qualifications of Candidates

The participants are expected to possess the following qualifications:

Present Position	Officials of national and local governments engaged in waste management in agribusiness; CEOs, business leaders, and managers of private-sector agribusinesses who want to develop AWM; and professional consultants and academics involved in agriculture and food waste management.
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. Proficiency in spoken and written English is essential.
Age	Candidates who meet the qualifications above are generally between 25 and 45 years of age.
APO Certificate	Participants are required to attend the entire program.

13. Financial Arrangements

To be borne by the APO

- a. All assignment costs for resource speakers to prepare presentation materials and deliver presentations.
- b. Rental and other charges of VC centers in participating countries, resource persons' countries, and the APO Secretariat.
- c. Honorarium for a local coordinator in each participating country.
- d. Transportation costs for field visits.

To be borne by participating countries

- a. Any other local implementation costs not covered by the APO.

14. Actions by Participating Member Countries

- a. The NPO of each participating country is requested to nominate more than 20 participants and submit a list in the format to be provided by the Secretariat later. Please adhere to the nomination deadlines specified under section 7 of this document and ensure that candidates nominated meet the qualifications prescribed under section 12.
- b. Each NPO will identify an appropriate local coordinator. The coordinator will moderate all technical sessions and group exercises/individual assignments in consultation with the NPO and chief resource person identified by the APO. The group exercises will include experience sharing, views of participants on waste management in agribusiness, and

review of online sessions. The coordinator will also make all necessary arrangements with the local VC centers prior to the commencement of the training course to ensure that the facility is ready for the training sessions.



Dr. Santhi Kanoktanaporn
Secretary-General

