



ASIAN PRODUCTIVITY ORGANIZATION

PROJECT NOTIFICATION

23 July 2014

1. **Project Code** 14-AG-12-GE-WSP-B
2. **Title** Workshop on Emerging Food Manufacturing Technologies for SMEs
3. **Timing and Duration** 24–27 November 2014 (four days)
4. **Venue** Singapore
5. **Implementing Organization** SPRING Singapore
"1 Fusionopolis Walk, #01-02 South Tower, Solaris, Singapore 138628"
Phone: 65-6279-3690
Fax: 65-6659-0645
e-Mail: Rajeshpal_Singh@spring.gov.sg
6. **Number of Overseas Participants** Up to 18 qualified participants from Bangladesh, Cambodia, Fiji, Lao PDR, India, Indonesia, IR Iran, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, and Vietnam.

However, other member countries with special interest in this project may nominate candidates upon consultation with the APO Secretariat.
7. **Number of Local Participants** Up to six qualified participants
8. **Closing Date for Nominations** 26 September 2014
9. **Objectives**
 - a. To enhance participants' understanding of modern food manufacturing technologies (FMTs) and their role in enhancing productivity of food processing and adding value to foods;
 - b. To share successful examples of applications/utilization of novel FMTs in the food manufacturing industry; and
 - c. To identify issues and challenges in utilizing new innovative FMTs by food manufacturing industry SMEs, as well as solutions to address them.

10. Background

The global food manufacturing industry covers the production and sale of food. This comprises a wide array of activities like production, packaging, distribution, and retail. It is one of the major contributors to the growth of many economies.

Driven by consumer demand for fresh, high-quality, healthy products that are free from chemical preservatives and are safe, as well as intense global competition, the food

manufacturing industry is under increasing pressure to adopt new method and technologies for the production of innovative, cost-effective food products. Product innovations may involve value addition to an existing product; reformulation of the ingredients to add new flavor, texture, and shape; or extension of the product range for multiple uses to meet the requirements of consumers and capture new markets. Some innovative products deliver functional, nutritional, economic, and sustainable benefits to customers; improve food quality and safety; or offer more convenience.

Innovations in FMTs reduce costs, use less material, reduce waste and environmental impact, and/or lower energy consumption. In today's challenging economic times, food manufacturing companies, especially SMEs in developing Asian countries, should continue to invest in innovation to diversify their products and expand sales in both domestic and export markets. The main impediments to the adoption of FMTs are a lack of awareness of the technologies, insufficient skilled personnel, paucity of financial resources, and insufficient regulation and policy support.

11. Scope and Methodology

The tentative topics to be covered are:

- a. New generation of processing technologies: Innovative solutions to improve the safety, quality, and functionality of foods;
- b. High-pressure processing and other pressure-assisted technologies for food-processing operations;
- c. Conventional and emerging drying technologies;
- d. Principles and applications of superheated steam;
- e. Ultraviolet and pulsed-light processing for food, beverages and ingredients;
- f. Principles and applications of microwave heating, pulse electric field, and ozone technologies; and
- g. Principles and applications of freeze-drying.

The workshop will consist of thematic presentations, sharing of country experiences, and visit to a food resource centre for demonstrations of selected FMTs in operation.

The tentative program is given below:

Date/Time	Activity
Sun., 23 November 2014	Arrival of participants in Singapore
Mon., 24 November (AM)	Opening session
(PM)	Presentation of thematic presentations by resource persons Sharing of country experiences by participants
Tues., 25 November (AM)	Presentation of thematic presentations by resource persons
(PM)	Sharing of country experiences by participants
Wed., 26 November (AM)	Presentation of thematic presentations by resource persons Sharing of country experiences by participants
(PM)	Visit to a food resource center and demonstrations of selected food manufacturing technologies
Thurs., 27 November	Sharing of country experiences by participants Group Discussions Program evaluation by participants, resource persons, and implementing organization Summing-up session Closing session

Fri., 28 November

Departure of participants

12. Qualifications of Candidates

The participants are expected to possess the following qualifications:

Present Position	Food factory managers, food processing engineers, government officers, academics, and consultants in charge of upgrading food manufacturing processes in their companies/organizations.
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 35 and 50 years of age.
APO Certificate	Participants are required to attend the entire program to receive the APO certificate of attendance.

13. Financial Arrangements

To be borne by participants or participating countries

- a. Participants' insurance premiums: All participants should be fully insured against accident and illness (including hospitalization and death) for a principal sum equivalent to US\$10,000.00 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. If any participant is unable to insure himself/herself as stipulated above, he/she should secure this insurance in the host country at the commencement of the project and pay the premium himself/herself, if necessary, from the per diem allowance provided. Neither the APO nor the implementing organizations will be responsible for any eventuality arising from accident or illness.
- b. All expenses related to visa fees and airport taxes.
- c. Any expenses incurred by participants for stopovers on the way to and from the project venue as well as for extra stay at the project venue before and/or after the official project period because of early arrival or late departure, for example, due to either limited available flights or any other reason.

To be borne by the host country

- a. Per diem allowances and hotel accommodation for up to 18 overseas participants for up to five days at the rate to be specified later.
- b. All local implementation costs.

To be borne by the APO

- a. All assignment costs of overseas resource persons.
- b. Round-trip economy-class international airfare by the most direct route between the international airport nearest to the participants' place of work and Singapore. As far as practicable, all participants should purchase discount tickets. Please 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. It is also available on the APO website and from APO Liaison Officers in member countries.

14. 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 section 12 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 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 Agriculture Department, APO Secretariat (e-mail: agr@apo-tokyo.org, fax: 81-3-5840-5324).
- 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, the 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 informed 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 workshop.
- l. NPOs should inform participants that they must attend all four days of the project to qualify for the certificate of attendance.

15. 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.

16. Project Preparation

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

17. Post-project Actions

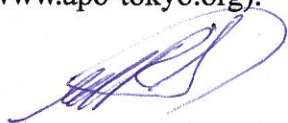
All participants are required to prepare action plans and share the plans with their NPOs. APO will also request participants to submit progress reports six months after completion of the workshop.

18. Evaluation of Participants

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

19. 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).



Mari Amano
Secretary-General

14-AG-12-GE-WSP-B

**Workshop on Emerging Food Manufacturing Technologies for SMEs
24–27 November 2014, Singapore**

Guidelines for Preparation of Country Papers

Each selected participant is required to submit a paper keeping in mind the scope and objectives of the workshop and topical outline provided below. The paper may be written in the personal capacity of the participant but must be substantiated and should reflect an accurate account of the current status of the “Emerging Food Manufacturing Technologies (FMTs) for SMEs.” It must be supported by statistical data/information wherever appropriate.

The paper should be typewritten, single-spaced, on standard A4-size paper, and be between 5 and 7 pages in length, excluding tables/figures. A soft copy of the paper should reach the APO and SPRING Singapore no later than 31 October 2014.

Participants are encouraged to provide in their papers as much relevant, useful information as possible but they must avoid including unnecessary general information on agriculture as well as the profile of their country.

Participants are also required to prepare a summary of their papers not exceeding 300 words. It should contain only the salient points of the paper. The summary will be used to prepare the highlights of the workshop.

The following topical outline is suggested as a guide. It is not meant to restrict the preparation of the paper but rather to encourage the inclusion of other equally relevant information to make it more substantial and meaningful.

Tentative Topical Outline

1. What is the current status of the food manufacturing industry in your country, e.g., main food manufacturing/processing industries and their contribution to the national economy absolute value-in US\$ and percentage contribution to GDP and national food exports. Please mention the contribution of SMEs to the national food manufacturing industry of your country.
2. List FMTs, e.g., conventional technologies; nonthermal technologies of high-pressure processing, pulsed electric field processing PEF, and/or alternative novel techniques such as dense phase carbon dioxide, ozone, ultrasonics, cool plasma, and infrared technologies, antimicrobials, novel food packaging technologies, oxygen-depleted storage techniques, that are commonly employed in food manufacturing industry in your country. Please provide a separate list of FMTs employed in small-, medium-, and large-sized food processors.
3. What are the main issues and impediments in the application of innovative FMTs in the food industry of your country, in particular, SMEs?
4. Briefly describe measures governments and the private sector should undertake for scaling up applications of novel FMTs in the food industry in your country. Your response

can be based on the past experience of the food industry of your country, as well as your personal experience and insights.

5. What are your expectations from this workshop in terms of acquiring knowledge and skills?
6. Give a list of references/bibliography to acknowledge the sources of information/data utilized in the preparation of the paper.