



PROJECT NOTIFICATION

Ref. No.:19-AG-31-GE/SPP-OSM-A-PN2100013-003

| | |
|---------------------------------------|---|
| Date of Issue | 30 March 2021 |
| Project Code | 19-AG-31-GE/SPP-OSM-A |
| Title | Multicountry Observational Study Mission on Modern Farm Machinery |
| Timing and Duration | 15–17 June 2021 (three days) |
| Hosting Country(ies) | APO Secretariat |
| Modality | Digital Multicountry |
| Implementing Organization(s) | APO Secretariat |
| Participating Country(ies) | All Member Countries |
| Overseas Participants | 38 |
| Local Participants | Not Applicable |
| Qualifications of Participants | Policymakers, government officials, farmers, farm machinery SMEs, academics, and consultants working on agricultural machinery and mechanized farming |
| Nomination of Participants | All nominations must be submitted through National Productivity Organizations of member countries |
| Closing Date for Nominations | 7 May 2021: This closing date is for the replacement of selected candidates, when applicable. Participants were selected before the project was rescheduled and changed into a virtual session. This new selection allows changes in the participants' list if necessary. |

Notes: This PN supersedes the PN issued on 18 October 2019 due to a change in implementation modality from face-to-face to virtual sessions.

1. Objectives

- a. Introduce modern farm machinery being used in Japan such as automated tractors, power-assisted equipment, drones, and other devices.
- b. Discuss experiences in the adoption of modern farming equipment in member countries for higher productivity and sustainability.
- c. Enhance the productivity and competitiveness of agriculture in member countries.

2. Background

Machinery is indispensable for modern farming. As human labor has moved from agriculture to other industries, agricultural workers have been replaced with farm machinery. Most farmers use small four-wheeled tractors for plowing instead of the draft animals and wheeled plows of the past, robotic chemical sprayers instead of hand sprayers, and combine harvesters instead of people and draft animals to carry out threshing. Such equipment reduces the time needed for farm management and enables scaling up of operations, thus increasing agricultural productivity.

Recently, modern technologies such as the Internet of Things (IoT), sensors, and global positioning systems (GPS) have contributed to the development of more efficient farm equipment. For example, Japanese farm machinery companies developed robotic tractors with self-driving functions guided by GPS which have been on the market since 2017. Those tractors make plowing more effective and reduce farmers' labor. Using sensors, the tractors identify obstacles such as pedestrians and automatically stop in front of them. Another example is power-assisted equipment and suits using motion sensors. Power-assisted equipment helps transport heavy loads, making farming feasible for women and the elderly. In these ways, modern farm machinery has made agriculture more productive and sustainable.

This project is being organized to expose participants to applications of modern farm machinery in Japan and help them understand how those applications result in more effective farm management and higher agricultural productivity. A special focus of this project will be farm machinery utilizing smart technologies such as the IoT, sensors, and GPS. Therefore, this project is expected to promote smart agriculture transformation in member countries, which is one of the key result areas in the new APO Vision 2025. Participants in the study mission will virtually visit fields plowed by robotic tractors and farmers utilizing power-assisted suits, among others.

3. Scope, Methodology, and Certificate of Attendance

The duration of each day's sessions will be around three hours comprising presentations by experts, group discussions, and other relevant learning methods. The indicative topics of the presentations are:

Day 1:

- Automated Self-driving Vehicles.
- Sensor Technology.

Day 2:

- Power-assisted Devices.
- Drone Applications.

Day 3:

- Farm Robots.

The detailed program and list of speakers will be provided two weeks prior to the sessions with announcement of the names of the selected participants.

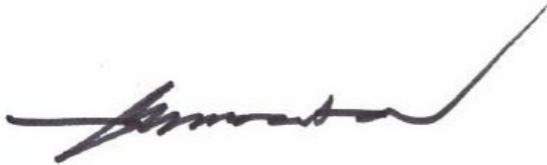
The participants are required to attend all sessions. This full participation is a prerequisite for receiving the APO certificate of attendance.

4. Financial Arrangements

The APO will meet the assignment costs for overseas and local resource persons, and for virtual site visits, either broadcast live or recorded as applicable.

5. Implementation Procedures

Please refer to the implementation procedures for APO digital multicountry projects circulated with this document.

A handwritten signature in black ink, appearing to read 'Mochtan', with a long, sweeping flourish extending upwards and to the right.

Dr. AKP Mochtan
Secretary-General