

# राष्ट्रीय उत्पादकता परिषद्

(वाणिज्य एवं उद्योग मंत्रालय, भारत सरकार के अन्तर्गत)  
उत्पादकता भवन, 5-6, इंस्टीट्यूशनल एरिया,  
लोदी रोड, नई दिल्ली - 110 003



National Productivity Council

## NATIONAL PRODUCTIVITY COUNCIL

(Under Ministry of Commerce & Industry, Govt. of India)

Utpadakta Bhavan, 5-6, Institutional Area,  
Lodi Road, New Delhi - 110 003

No. 31205/21

Dt. 06-04-2021

Sub: 19-AG-31-GE/SPP-OSM-A: Multicountry Observational Study Mission on Modern Farm Machinery (DMC), Digital Multicountry (DMC). (Visit <https://www.npcindia.gov.in/NPC/User/InternationalServices> for detailed Project Notification.

Dear Sir,

We invite your kind attention to NPC <https://www.npcindia.gov.in/NPC/User/InternationalServices> with regard to above Asian Productivity Organization (APO) project. The project notification and the APO bio data form are available on the above mentioned page and the same are also attached herewith. The duly filled in **single copy** of Performa enclosed (in excel form only) of the suitable officers for participation as per the para (**Qualifications for Participants**) of the project notification may kindly be forwarded to reach us latest by **30<sup>th</sup> April 2021**. In this regard, the following points may be noted.

- **Fees and Charges**

The Participation fees (NON-REFUNDABLE) of **Rs. 500/-** for MSME Sector, Trade Unions and NGO's and **Rs. 1000/-** for others is payable along with the nomination form for each participant.

The requisite amount can be paid through a demand draft/cheque/ECS drawn in favour of National Productivity Council, New Delhi. In the regard, the bank account of NPC details is attached herewith. Kindly e-mail the details of the ECS/RTGS/NEFT payment made, **mentioning the name of applicant in remarks**, to [mayank.verma@npcindia.gov.in](mailto:mayank.verma@npcindia.gov.in), [isg@npcindia.gov.in](mailto:isg@npcindia.gov.in), [rk.rawat@npcindia.gov.in](mailto:rk.rawat@npcindia.gov.in) Please note, in the absence of application fee, the nomination will not be considered.

- **Nomination Procedure**

**All nominations should be routed through proper channel and as per the attached APO bio data form.** The nominations received after the last date will not be considered. It is the responsibility of the candidates to complete all the official formalities required by their organizations/department for participating in the program.

It is requested to send nominations by e-mail to [mayank.verma@npcindia.gov.in](mailto:mayank.verma@npcindia.gov.in), [isg@npcindia.gov.in](mailto:isg@npcindia.gov.in), [rk.rawat@npcindia.gov.in](mailto:rk.rawat@npcindia.gov.in) (application in prescribed excel format) and one hard copy by post along with the covering letter of the competent authority on company's letter head. All information pertaining to nominations will be treated as confidential and classified. The nominated officers may be invited as a faculty in programs on the relevant subject/s, organized by NPC.

We look forward to receiving of nominations from your esteemed organization.

Thanking you,

Yours faithfully,

(K.D. Bhardwaj)  
Director & Head (Int'l Serv.)  
for Director General  
e-mail: [isg@npcindia.gov.in](mailto:isg@npcindia.gov.in)



## PROJECT NOTIFICATION

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

<b>Date of Issue</b>	30 March 2021
<b>Project Code</b>	19-AG-31-GE/SPP-OSM-A
<b>Title</b>	Multicountry Observational Study Mission on Modern Farm Machinery
<b>Timing and Duration</b>	15–17 June 2021 (three days)
<b>Hosting Country(ies)</b>	APO Secretariat
<b>Modality</b>	Digital Multicountry
<b>Implementing Organization(s)</b>	APO Secretariat
<b>Participating Country(ies)</b>	All Member Countries
<b>Overseas Participants</b>	38
<b>Local Participants</b>	Not Applicable
<b>Qualifications of Participants</b>	Policymakers, government officials, farmers, farm machinery SMEs, academics, and consultants working on agricultural machinery and mechanized farming
<b>Nomination of Participants</b>	All nominations must be submitted through National Productivity Organizations of member countries
<b>Closing Date for Nominations</b>	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.

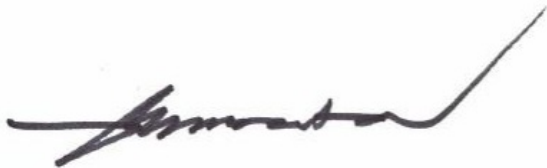
The participants are required to attend all sessions. This full participation is a prerequisite for receiving the APO certificate of attendance.

#### **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 dark ink, appearing to read 'Dr. AKP Mochtan', with a long, sweeping horizontal stroke and a sharp upward curve at the end.

Dr. AKP Mochtan  
Secretary-General