International Online Training Programme on

AGRICULTURAL ENGINEERING TECHNOLOGIES FOR ENHANCING PRODUCTIVITY AND PROFITABILITY IN AGRICULTURE SECTOR

10-21 January 2022

AFRICAN-ASIAN RURAL DEVELOPMENT ORGANIZATION (AARDO)
INTRODUCTION

Engineering interventions are essential in today’s agriculture to ensure timeliness of farm operations, precise and judicious use of inputs, drudgery reduction, handling, storage, value addition to farm produce, and conversion of surplus biomass into bio-fuels and other value added products. Changing climatic pattern and shortage of farm workers will require mechanization approach in agriculture to ensure farm operations in limited available time, and to safeguard farmers from vagaries of uncertain climatic conditions. Mechanization in developed world has helped in achieving precision in metering and placement of inputs for better crop stand, better response to inputs and increased productivity. The total farm power availability has direct correlation with productivity of farms.

The farmers in developing countries have limited access to the latest equipment and technology. This results in high production cost and difficulty in competing in international market for sale of surplus produce. There are wide technology gaps in meeting the needs of various cropping systems and regions. To achieve higher production levels, the quality of operations like seedbed preparation, sowing, application of fertilizer, chemicals and irrigation water, weeding, harvesting and threshing will have to be improved by using precision and efficient equipment. A well laid out programme on effective agricultural mechanization, utilization of crop residues and processing of agro-produces will help in increasing farmers income, employment generation, and environmental sustainability in developing countries.

Considering the importance of the subject, AARDO in collaboration with the Central Institute of Agricultural Engineering (CIAE), is organizing this specialized online training programme on “Agricultural Engineering Technologies for Enhancing Productivity and Profitability in Agricultural Sector”, during 06-17 December 2021 exclusively for AARDO member countries.

OBJECTIVES

The broad objective of the training programme is to share innovative agricultural engineering technologies developed by CIAE and other organizations for up-skilling and sensitization of the participants on the following:

⇒ Innovative Agricultural Engineering technologies suitable for African and Asian Countries.
⇒ Selection, operation and testing of farm equipment/ machineries
Equipment and technologies for processing, value-addition and storage of agro-produces

Renewable energy technologies

Ergonomics, safety and gender issues in agricultural machinery

Government strategies for enhancing the agricultural mechanization through support and schemes

**COURSE CONTENTS**

**Agricultural Mechanization and Precision Agriculture**–
- Land-preparation
- Seeding & planting
- Interculture & plant protection
- Irrigation and drainage
- Harvesting and threshing

**Post-Harvest Mechanization**
- Primary and secondary processing
- Value addition and by-product utilization
- Storage and packaging

**On-farm Energy Management and Production**
- Solar energy
- Bio-mass based energy

**Agricultural Mechanization Strategies**
- Government support and schemes
- Economics and Marketing

**PROGRAMME METHODOLOGY**

The programme will be highly participatory and interactive and will ensure maximum involvement of the participants. Important modules related to Agricultural Engineering Technologies for Enhancing Productivity and Profitability in Agriculture Sector will be presented through lecture cum discussions, case study and brain storming. Relevant audio and video clips will be visioned and discussed besides power points presentations.

**MEDIUM OF COMMUNICATION**

The medium of communication is English only. The participants are expected to have a good working knowledge of English.
TARGET AUDIENCE

The training programme will be attended by experts, senior officials and individuals working in the relevant field in AARDO member countries. Resource persons from the host Institute (CIAE) and other institutions having rich experiences on the subject will be invited to share their experiences and expertise with the participants.

ESSENTIAL QUALIFICATIONS

- Bachelor Degree in Agricultural Engineering/Sciences/or its equivalent with a considerable working experience in planning and executing programmes related to subject of the training;
- Must be subject specialist and related to the programme;
- Must be conversant with ICT and willing to undertake online training course.

HOW TO APPLY

Log on to the link http://aardo.org/formDD.php

Fill up the details and submit.

Applicants are required to sign their applications and send them along with the recommendation letter of the Nodal Ministry of AARDO/Centre of Excellence to our email: researchdivision_aardo2013@yahoo.com

SELECTION OF PARTICIPANTS

The participants will be selected by AARDO and CIAE. Thereafter, selected participants will be provided with login ID and password to access the programme.

CERTIFICATE

E-Certificate authenticated with signature of H.E. Secretary-General, AARDO and CIAE authorities will be provided after the successful completion of the training programme

WHATSAPP COMMUNICATION

WhatsApp communication will be established among the participants, host institute (CIAE) and AARDO for faster communication and information sharing.
ICAR - Central Institute of Agricultural Engineering, a premier agricultural engineering institution in India, is devoted to promote mechanization of different facets of agriculture to enhance agricultural productivity, reduce drudgery of agricultural workers, minimise post-harvest losses, produce value added quality products and create employment opportunities in the rural sector. The institute is mandated to carry out research on agricultural mechanization, post-harvest processing of agricultural commodities, efficient water utilization for agriculture and energy management in agriculture. Human resource development and capacity building through outreach and training programs, and commercialization and utilization of agricultural engineering technologies are the other important areas addressed by the institute. Stakeholders of the institute are spread across globe, especially among the nations supporting small farm agriculture through limited resources. Over more than four decades of its existence, ICAR-CIAE has developed many technologies highly relevant to marginal, small and medium land holdings.

IMPORTANT NOTES

- Application without recommendation of the AARDO’s Nodal Ministry/ Center of Excellence in participant’s country will not be considered.
- Application, duly completed, must reach the AARDO Secretariat on or before the closing date, **19 December 2021**.
- Due to limitation of number of participants, only selected candidates would be intimated through the Nodal Ministry and AARDO’s Centres of Excellence.
- Selected candidates will be required to actively attend all the live sessions of e-training programme to be eligible to obtain e-certificates.

CONTACT

H.E. Dr. Manoj NardeoSingh, Secretary General, AARDO

Attention: Dr. Khushnood Ali
Head, Research Division & Programme Coordinator,
African Asian Rural Development Organisation (AARDO)
New Delhi, India
Tel.: 0091-11-26677783/24 100475
Mobile: 0091-9818289159
Email: researchdivision_aardo2013@yahoo.com