



## PROJECT NOTIFICATION

Ref. No.: 22-CP-36-GE-DLN-A-PN2200071-001

<b>Date of Issue</b>	29 June 2022
<b>Project Code</b>	22-CP-36-GE-DLN-A
<b>Title</b>	APO e-Course on Hydroponic Farming
<b>Launch Date</b>	1 September 2022
<b>Hosting Country(ies)</b>	APO Secretariat
<b>Modality</b>	Digital Learning
<b>Implementing Organization(s)</b>	APO Secretariat
<b>Participating Country(ies)</b>	Open
<b>Overseas Participants</b>	Not Applicable
<b>Local Participants</b>	Not Applicable
<b>Qualifications of Participants</b>	Open
<b>Nomination of Participants</b>	Not Applicable
<b>Closing Date for Nominations</b>	Not Applicable

## 1. Objectives

- a. Introduce the fundamentals of hydroponic farming.
- b. Introduce applications of hydroponic techniques through a pilot project.
- c. Demonstrate ways to improve produce yields and quality to increase sustainability and profitability compared with conventional growing methods.

## 2. Background

With growing populations, global warming, and deterioration of soil quality, the challenges relating to dwindling food and water resources must be addressed urgently to ensure food security. One of the solutions is to adopt new technologies in agriculture to ensure food security.

Hydroponic techniques, which grow crops without soil, are receiving increasing attention today. Hydroponic agriculture is especially relevant in the present context when urban farming is no longer an option but an imperative. However, public and private interventions are needed to equip small farmers with the knowledge and skills necessary to grow high-quality, nutritious crops free from harmful chemical pesticides.

This APO e-course will cover the fundamentals of soilless/hydroponic cultivation through five learning modules focusing on practical understanding of the techniques and their applications, including starting small hydroponic projects. Those projects are expected to create multiplier effects through replication of successful models, the creation of urban farming cooperatives, and sales of hydroponically grown produce to city dwellers.

## 3. Modality of Implementation

- a. The course is offered through the APO e-learning platform: <https://www.apo-elearning.org>
- b. Participants should register on this portal and create their own accounts.
- c. Certificates of completion will be provided for those who satisfactorily complete all the modules of the course, including quizzes and a final examination.

## 4. Scope and Methodology

The course will comprise five modules:

Introduction

Module 1:

Introduction of hydroponic farming and types of growing systems

Module 2:

Growth media standards and quality and seeding methodologies

Module 3:

Biotic and abiotic factors and their effects

Module 4:

Pest and disease management, integrated pest management, and irrigation management

Module 5:

Tasks involved in a growing operation and the importance of hygiene management

Self-assessment quizzes and a final examination

## **Methodology**

Module study, additional study material for participants, quizzes for self-assessment, and a final examination.

## **5. Requirements**

- a. Have necessary devices and software comprising a computer/smartphone, updated browser, microphone, and speaker or headphones.
- b. Access to internet connections.
- c. Completion of all the modules, quizzes, and final examination.
- d. The APO e-certificate will be given to participants who score a minimum of 70% on the final examination.

## **6. Financial Arrangements**

The APO will meet the assignment costs for resource persons to develop the course modules including quizzes and a final examination.

## **7. Actions by APO Members**

- a. Promote the course nationwide.
- b. Provide the link to the APO e-learning platform on NPOs' websites and social network services.

## **8. Actions by the APO Secretariat**

- a. Identify and assign the resource person(s) to develop the course.
- b. Announce course commencement on the APO website and social network services.



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Secretary-General