



وزارة الزراعة

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تدريب /

2025/7 / 15

الرقم

التاريخ

الموافق

مساعد الامين العام .....

مدير مديرية .....

مدير وحدة .....

أرفق طياً صورة عن كتاب هيئة الطاقة الذرية رقم 3499/3/5 تاريخ 2025/7/6 والمتعلق بورشة العمل التدريبية التي ستعقد عن بعد خلال الفترة الواقعة 3-2025/11/7 حول :-

" تعزيز التكيف مع تغيير المناخ ومقاومة الامراض في انظمة زراعة المحاصيل المعمرة الاستوائية"

أرجو تزويدي بأسماء مرشحكم الراغبين بالمشاركة بتعبئة الطلب الكترونياً من خلال موقع الوزارة الرسمي وبموعد اقصاه 2025/8/31 ، ممن تنطبق عليهم الشروط الواردة بالكتاب المرفق حرفياً.

مؤكداً على ضرورة الایعاز لمرشحكم بتعبئة نموذج معلومات الایفاد حسب الأصول، علماً بأنه لن ينظر في أي ترشيح يرد من غير النموذج أو مخالف للشروط أو بعد التاريخ المحدد ، وفي حال عدم وجود مرشحين يرجى الرد خطياً وفي موعده. واقبلوا احترامي

وزير الزراعة

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وإدارة الموارد البشرية  
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Food and Agriculture  
Organization of the  
United Nations



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*Atoms for Peace and Development*

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The Secretariats of the Food and Agriculture Organization of the United Nations (FAO) and the International Atomic Energy Agency (IAEA) (hereinafter referred to as the "Sponsoring Organizations") present their compliments to the Sponsoring Organizations' member countries and have the honour to draw their attention to the Virtual Training Workshop on Enhancing Climate Change Adaptation and Disease Resilience in Tropical Perennial Cropping Systems (hereinafter referred to as "event") to be held virtually via Microsoft Teams from 3 to 7 November 2025.

The purpose of the event is to raise awareness and enhance capabilities in the use of nuclear and complementary techniques to enhance climate change adaptation and disease resilience in tropical perennial cropping systems.

The attached Information Sheet provides further details of the event.

The event will be held in English.

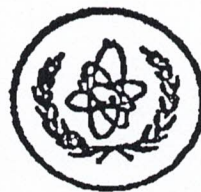
Sponsoring Organizations' member countries are invited to designate four participants for this event. Member countries are strongly encouraged to identify women participants.

Designations should be submitted to the IAEA via the InTouch+ platform (<https://intouchplus.iaea.org>) through the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) not later than 15 September 2025, as indicated in the enclosed Information Sheet.

The Scientific Secretary of the event will liaise with the participants directly concerning further arrangements, as appropriate, once the official designations have been received.

The Sponsoring Organizations take no responsibility for, and the provider of the virtual meeting services has represented and warranted that the Services shall not contain, and that no end user shall receive from the software used to hold the virtual meeting, any virus, worm, trap door, back door, timer, clock, counter or other limiting routine, instruction or design, or other malicious, illicit or similar unrequested code, including surveillance software or routines which may, or is designed to, permit access by any person, or on its own, to erase, or otherwise harm or modify any data or any system, server, facility or other infrastructure of any end user (collectively, a "Disabling Code").

The Secretariats of the Sponsoring Organizations avail themselves of this opportunity to renew to the Sponsoring Organizations' member countries the assurances of their highest consideration.



2025-06-25

Enclosure: Information Sheet



# **Virtual Training Workshop on Enhancing Climate Change Adaptation and Disease Resilience in Tropical Perennial Cropping Systems**

**Seibersdorf, Austria  
via Microsoft Teams**

**3 - 7 November 2025**

**Ref. No.: EVT2405089**

## **Information Sheet**

### **Introduction**

Climate change significantly affects tropical perennial crops — such as banana, plantain, cassava, and coffee — by intensifying water scarcity, exposing crops to temperature extremes, reducing yield stability, and increasing the prevalence of pests and diseases.

In response, the IAEA promotes research and development (R&D) using nuclear science and applications to support the development and deployment of innovative strategies that enhance the resilience of these crops to drought and pathogen pressures driven by climate change. These approaches aim to ensure food security, protect farmer livelihoods, and promote the efficient use of natural resources, particularly water.

This virtual training course focuses on the application of nuclear and complementary techniques to address the growing challenges posed by climate change to tropical perennial crops. Participants will gain insights into tools and methodologies for assessing and improving drought tolerance and disease resilience.



## **Objectives**

The main objective of this training course is to enhance awareness and strengthen technical capacities in the use of nuclear and complementary technologies for improving drought tolerance and disease resilience in tropical perennial crops. Specific goals include:

- Introducing advanced isotope and nuclear techniques for crop and crop management improvement under climate stress.
- Demonstrating how these technologies can support Member States in addressing climate-related agricultural challenges.
- Promoting integration of these techniques into national R&D programmes targeting banana, plantain, cassava, and coffee.

## **Target Audience**

IAEA Member States who are involved in enhancing climate change adaptation and disease resilience in tropical perennial cropping systems are eligible to apply for the training course.

## **Working Language**

English.

## **Expected Outputs**

By the end of the course, participants are expected to:

- Demonstrate a solid understanding of isotope, nuclear, and complementary techniques used to improve the productivity and resilience of tropical perennial crops.
- Apply basic to intermediate knowledge of nuclear techniques to real-world challenges in water use efficiency, genetics, and disease management.
- Integrate advanced R&D methodologies to improve the quality and impact of scientific investigations related to climate-resilient agriculture.

## Structure

The training programme will comprise three modules: (1) Introduction to Climate Challenges for Tropical Perennial Crops, (2) Isotopic Techniques to Monitor and Enhance Drought Tolerance, (3) Mutation Breeding Innovations for Crop Disease Resilience.

The training will employ live and recorded lectures, video presentations of laboratory procedures and 'live' online question and answer sessions. Selected applications will be presented to provide the participants with basic to intermediate knowledge of techniques.

## Topics

### **Module 1: Introduction to Climate Challenges for Tropical Perennial Crops**

- Overview of climate change impacts on key crops.
- Implications for food security and farmer livelihoods.

### **Module 2: Isotopic Techniques to Monitor and Enhance Drought Tolerance**

- Soil and water management for improved water use efficiency.
- Application of isotope techniques to assess and improve drought resilience.
- Key considerations in experimental design for assessing drought tolerance using isotopic and related techniques.

### **Module 3: Mutation Breeding Innovations for Crop Disease Resilience**

- Mutation breeding and other R&D strategies for enhancing crop resistance to pests and diseases.
- Enabling technologies for enhancing efficiency of mutation breeding in clonal and perennial crops.
- Development of climate-ready crops using next-generation tools and adaptive agricultural approaches.
- Plant health applications to counter trans boundary plant pests and pathogens.

## Participation and Registration

This training course will be open for remote access from 3 to 7 November 2025 using the virtual platform Microsoft Teams. All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to participate.

Each country is entitled to nominate up to four candidates in line with the requirements described in the Participants Qualification and Experience.

**Participants' Qualifications and Experience:** Countries are invited to nominate candidates in the fields of expertise below for the consideration of the Joint FAO/IAEA Centre's selection committee. (Please note: A total of maximum four candidates per country can be nominated, with only two candidates per field of expertise).



### **Field of Expertise 1 – Soil and water management and resource use efficiency**

Eligible candidates are scientists and technicians with a background in soil science, agricultural water management or any related discipline and experience in mitigation of climate change impacts on tropical perennial crops.

### **Field of Expertise 2 – Plant breeding and associated biotechnologies**

Researchers working on genetic innovations including plant breeding and protection, tissue culture techniques, functional genomics, and allied disciplines in the field of tropical perennial crops.

#### **Registration through the InTouch+ platform:**

In order to be designated by an IAEA Member State or invited organization, participants are requested to submit their application via the InTouch+ platform (<https://intouchplus.iaea.org>) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by 15 September 2025, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):
  - Persons with an existing NUCLEUS account can sign in with their username and password;
  - Persons without an existing NUCLEUS account can register [here](#).
2. Once signed in, prospective participants can use the InTouch+ platform to:
  - Complete or update their personal details under 'Basic Profile' and upload the relevant supporting documents;
  - Search for the relevant event (EVT2405089) under the 'My Eligible Events' tab;
  - Select the Member State or invited organization they want to represent from the drop-down menu entitled 'Designating Authority' (if an invited organization is not listed, please contact [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org));
  - Based on the data input, the InTouch+ platform will automatically generate Participation Form (Form A).
  - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated Form A, will be transmitted automatically to the required authority for approval. If approved, the application, together with the Form A, will automatically be sent to the IAEA through the online platform.

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org).

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and technical matters. Candidates who successfully complete the virtual training course will receive a certificate.

No registration fee is charged to participants.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

## **IAEA Contacts**

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries and correspondence on other matters related to the event to the Administrative Secretary.