IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Basic Training Course on Ocean Acidification

Hosted by the
Government of Jamaica

through the
University of the West Indies (UWI)

Kingston, Jamaica

16–20 March 2026

Ref. No.: EVT2405355

Information Sheet

Introduction

Ocean acidification is a global environmental stressor that threatens marine life and the livelihoods of coastal communities. Ocean acidification is caused by increasing atmospheric carbon dioxide being absorbed by the ocean, resulting in changes in seawater carbonate chemistry, including a drop in pH. Due to global concerns about its consequences, ocean acidification is included in international policies such as Target 3 of UN Sustainable Development Goal (SDG) 14 and Target 8 of the Global Biodiversity Framework (GBF).

The IAEA's Ocean Acidification International Coordination Centre (OA-ICC) supports IAEA Member States to minimize and adapt to OA and report towards SDG 14.3 and the GBF, with a strong focus on building capacity to study ocean acidification and related stressors and promoting international collaboration and coordination.

Caribbean Small Island Developing States (SIDS) are particularly vulnerable to ocean acidification due to their reliance on the ocean for food, income, and recreation. This **Basic Training Course on Ocean Acidification** will provide scientists from Caribbean SIDS with foundational knowledge on conducting ocean acidification monitoring and designing purposeful experiments to understand the impacts of ocean acidification on key marine organisms in the Caribbean region. By the end of the course, participants will have a better understanding of the challenges and complexities presented by ocean acidification and the critical role we all play in addressing this issue and developing solutions.

This course is a cooperative effort between the University of the West Indies (UWI) as the local organizer and the IAEA Ocean Acidification International Coordination Centre (OA-ICC).

Objectives

The course aims to empower Caribbean SIDS to monitor ocean acidification and its effects on key marine species, informing both SDG 14.3 and Target 8 of the Global Biodiversity Framework, and to explore local solutions to increase the resilience to ocean acidification in the region.

It will cover various topics, including theoretical aspects and best practices for the measurement of seawater carbonate chemistry, how to evaluate the impacts of ocean acidification on marine species and ecosystems, and potential solutions for minimizing its effects, including possible local adaptation measures. Guidance on how to report towards Sustainable Development Goal 14.3 and its indicator 14.3.1 on ocean acidification will be provided.

The course will be taught by experts in the field of ocean acidification, who will provide lectures, interactive discussions, and hands-on activities to ensure that participants gain a comprehensive understanding of the topic. The course will also provide opportunities for participants to network with peers and engage with the broader ocean acidification community. Local aquaculture managers will be invited to a special session to discuss potential local adaptation measures to counter the effects of ocean acidification in the Caribbean.

Target Audience

The course is intended for scientists from the Caribbean who are entering the ocean acidification field. It is open to 10 to 12 trainees from the following countries: Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago.

Priority will be given to early-career scientists with experience in marine sciences. Scientific publications in related fields will be valued.

Working Language

English

Expected Outputs

The initiative is expected to achieve several outcomes, including:

1. Improved monitoring and research capabilities among local communities and researchers to better understand the impacts of ocean acidification on marine life, ecosystems, and human livelihoods.

2. Improved understanding about how to contribute data on ocean acidification to Target 3 of the Sustainable Development Goal 14 and its indicator 14.3.1.

3. Increased engagement of scientists in the Caribbean hub of the Global Ocean Acidification Observing Network (GOA-ON).

4. Tools to design a local and regional strategy to identify scientific priorities to minimize and address the impact of ocean acidification, informing local and regional measures to increase resilience to ocean acidification.

5. Opportunities for local communities and resource managers to co-create policies and practices to minimize and address ocean acidification impacts.

Structure

The training will include plenary lectures and hands-on experiments in smaller groups (the level will depend on the existing knowledge and background of the selected participants). Subjects to be covered include:

- Theoretical aspects of ocean acidification from chemistry to biology;
- The characterization of the seawater carbonate chemistry including preparation of TRIS buffer;
- Calibration of pH electrodes;
- Measurement of total alkalinity;
- Use of software packages to calculate CO_2 system parameters;
- Key aspects of ocean acidification experimental design, such as manipulation of seawater chemistry, selection of relevant scenarios, etc;
- Biological perturbation approaches, including simplified methodologies;
- Lab- and field-based methods for measuring organism responses to seawater chemistry changes, including nuclear and isotopic techniques.
- Introduction to the OA-ICC resources (news stream, bibliographic database and data portal)
- Guidelines on reporting towards Sustainable Development Goal 14.3.1.

Participation and Registration

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 attend.

In order to be designated by an IAEA Member State, participants are requested to send the **Participation Form (Form A)** to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **30 January 2026**. Participants who are members of an organization invited to attend are requested to send the **Participation Form (Form A)** through their organization to the IAEA by the above deadline.

Selected participants will be informed in due course on the procedures to be followed with regards to administrative and financial matters.

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. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made using the **Grant Application Form (Form C)**, which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **30 January 2026**.

Venue

The event will be held at the University of the West Indies (UWI), in Kingston, Jamaica. A field trip to the marine field station in Discovery Bay is planned.

Additional Information

Participants who have been designated by the relevant authorities of an IAEA Member State and have been selected by the IAEA will be informed by **9 February 2026**.

Participants should make their own arrangements for transportation, passports, visas, and vaccinations. The closest airport is Norman Manley International Airport (KIN).

Additional Requirements

The participants should have a university degree in marine chemistry, biology, oceanography or a related scientific field, and should be currently involved in or planning to study ocean acidification. Scientific publications in related fields will be valued.

Selection will be based on merit and interest. Applications should include:

* A motivation letter with a short description of the candidate's research interests and how the course would benefit the applicant's current or future research (max one A4 page).

* CV with publication list.

IAEA Contacts

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

IAEA
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Form A
EVT2405355

Participation Form

Basic Training Course on Ocean Acidification

Kingston, Jamaica

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To be completed by the participant and sent to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA) either by email to: Official.Mail@iaea.org or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretary L.Hansson@iaea.org and to the Administrative Secretary C.Galdino@iaea.org.

Deadline for receipt by IAEA through official channels: 30 January 2026

Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms
Institution:		
Full address:		
Tel. (Fax):		
Email:		
Nationality:	Representing following Member State/non-Member State/entity or invited organization:	

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. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate.

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Form C
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Grant Application Form

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Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms:
Mailing address:	Tel.:	
	Fax:	
	Email:	
Date of birth (yy/mm/dd):	Nationality:	

1. Education (post-secondary):

Name and place of institution	Field of study	Diploma or Degree	Years attended from	to

2. Recent employment record (starting with your present post):

Name and place of employer/ organization	Title of your position	Type of work	Years worked from	to

3. Description of work performed over the last three years:

4. Institute's/Member State's programme in field of event:

Date: **Signature of applicant: _____**

Date: **Name, signature and stamp of Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority _____**