WESTPAC Training Course on HAB Mitigation and Management
Kashiwa, Japan, 31 October – 4 November 2017

ANNOUNCEMENT

1. Introduction

The WESTPAC region encompasses diverse coastal ecosystems, as represented by coral reefs, mangrove forests, seagrass beds, and even deep basin over 4000-m deep. These diverse environments harbor the unique and extremely high biodiversity of the region in the world. These ecosystems supply important marine resources to the people living in the region. However, the region is under serious threat of environmental degradation due to the ever-increasing human impacts. Therefore, it is becoming imperative to conduct sustainability science dealing with the interactions between natural and social systems, and with how those interactions affect the challenge of sustainability. The Atmosphere and Ocean Research Institute (AORI), the University of Tokyo endeavors to advance sustainability science by creating a dynamic bridge between knowledge and action.

In response to the IOC Capacity Development Strategy (2016–2021), it is essential to establish a Regional Training and Research Center (RTRC) for oceanography and sustainability science in Japan, to promote human resource development and technology transfer for young researchers within the WESTPAC region. Therefore, a feasibility study is being conducted on the launching of a RTRC with a focus on “Sustainability Science” which Japan proposed to UNESCO and was highlighted at the UNESCO Medium Term Strategy or Programme and Budget. The Training Course on Harmful Algal Blooms Mitigation and Management is developed on a trial basis with a view to exploring a sustainable way of hosting a RTRC at AORI in the future.

This activity is supported by Ministry of Education, Culture, Sports, Science and Technology (MEXT) through the subsidy for UNESCO activities concerning developing countries.

2. Objective and Scope of the Training Course

This training course is designed to develop mitigation and management strategies against harmful consequences caused by proliferation of marine phytoplankton. Red Tide, discoloration of seawater by massive bloom of phytoplankton, sometimes causes fish mortality and economic losses. Toxic Plankton Bloom is often associated with toxin contamination in seafood, closure of shellfish harvest, and human poisoning. In order to reduce these impacts, monitoring of plankton occurrence and toxins in seafood is essential, and improvement of environmental condition such as reduction of eutrophication and elimination of oxygen-depleted water should be considered for mitigation of red
tides. For prevention of poisoning by natural toxins, wise control of seafood marketing and enhancing public awareness are important. The training covers various topics on Harmful Algal Blooms (HABs), including scientific facts, trials and practices conducted in WESTPAC member states to reduce harmful consequences, and potential management options to save people and society from seafood poisoning.

3. **Expected Outcomes**

The trainees are expected to improve their knowledge and understanding of HABs, both on its scientific aspects and also various actions and practices to mitigate their negative consequences. The trainees also obtain information of WESTPAC and its efforts on HABs and TMO (Toxic Marine Organisms), in tandem with efforts at global level such as IOC GlobalHAB project. Knowledge and experience gained during the training course are expected to be used when trainees are engaged in developing their HABs mitigation and management plans. In a long run the experience will contribute to develop sustainable utilization plan of coastal areas through developing aquaculture with keeping sound environment.

4. **Date and Venue**

The training course will be held from Tuesday 31 October 2017 to Saturday 4 November 2017 at the Atmosphere and Ocean Research Institute of the University of Tokyo (http://www.aori.u-tokyo.ac.jp/english/index.html) in Kashiwa, Chiba, Japan.

5. **Lecturers**

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<tr>
<th>Lecturer</th>
<th>Position and Affiliation</th>
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<tr>
<td>Dr. Mitsuo Uematsu</td>
<td>Professor, Atmosphere and Ocean Research Institute, The University of Tokyo, Japan</td>
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<tr>
<td>Dr. Mitsunori Iwataki</td>
<td>Associate Professor, Asian Natural Environmental Science Center, The University of Tokyo, WESTPAC Principal Investigator for Harmful Algal Blooms</td>
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<tr>
<td>Dr. Dao Viet Ha</td>
<td>Vice Director, Institute of Oceanography, Vietnamese Academy of Science and Technology, WESTPAC Principal Investigator for Marine Toxic Organisms</td>
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<td>Dr. Yasuwo Fukuyo</td>
<td>Guest professor, Institute of Ocean Research and Development, Tokai University, Japan</td>
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<tr>
<td>Dr. Kazumi Wakita</td>
<td>Associate Professor, School of Marine Science and Technology, Tokai University, Japan</td>
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6. **Tentative Program**

**Day 1 (Tuesday 31 October 2017)**

- Opening Ceremony
- Lecture 1: Scope of the training course
- Lecture 2: Facts of red tides and their harmfulness
- Lecture 3: Mitigation to reduce impacts of red tides

**Day 2 (Wednesday 01 November 2017)**

- Lecture 4: Facts of toxic plankton blooms and their harmfulness
- Lecture 5: Management to reduce harmful consequence of toxic plankton
Lecture 6: Case study 1 – Experience in Japan
Lecture 7: Case study 2 – Experience in the Philippines

Day 3 (Thursday 02 November 2017)
Explanation of subjects for group discussion
Excursion

Day 4 (Friday 03 November 2017)
Group discussion
Preparation of presentation of group discussion results for plenary

Day 5 (Saturday 04 November 2017)
Presentation by group
Plenary discussion
Closing ceremony

7. Working Language
The training course will be conducted in English.

8. Trainees and Financial Assistance
About 10 trainees will be selected mainly from WESTPAC member states with priority given to those young scientists and junior technical staff who have experience in studying marine phytoplankton and natural bio-toxins, or who have experience in mitigation and management of harmful consequences by marine plankton and their toxins. The selection will be made based on information described in the Application Form (Annex 2) by a selection committee.

Subject to application, selected trainees will be provided with full or partial financial support with generous contribution of AORI. Some additional seats will be available for self-funded applicants.

9. Deadline of Application
The filled-in application form (Annex 2) shall be sent to Dr. Mitsunori Iwataki with a copy to Ms Nachapa Saransuth at the following addresses no later than 13 August 2017. All applicants will be informed for the final selection result no later than 25 August 2017. Self-funded applicants from Japan will be also selected and informed at the same day as above.

10. Visa
Selected trainees travelling to Japan probably need to apply for entry visa to Japan in accordance with relevant laws and regulations. Please check the visa requirements with the Japanese Embassy/Consulate in your country and apply for it as soon as possible. The local secretariat (Dr. Mitsunori Iwataki) will be glad to provide you any assistance upon your request.

11. Contacting Information
Dr. Mitsunori Iwataki
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Ms. Nachapa Saransuth
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