

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

INFORMATION DOCUMENT

MAIN DEVELOPMENTS AND ACHIEVEMENTS OF THE IOC SUB-COMMISSION FOR THE WESTERN PACIFIC (WESTPAC) OVER THE PRESENT MEDIUM TERM 2008–2013

<u>Summary</u>: This document provides a summary of the main developments and achievements of WESTPAC since it initiated a strategic process in 2007 to revitalize the Sub-Commission. With a series of strategic planning and effective measures, a number of regionally-specific projects/programs have been developed, coordinated and implemented over the present medium term 2008–2013 in alignment with IOC High-Level Objectives around three key themes: (1) understanding ocean processes in the Indo-Pacific region; (2) ensuring marine biodiversity, food safety and security; and (3) maintaining ocean health.

WESTPAC will intensify its efforts, over next medium term even beyond, in the development of country-specific programmes within the well-established regional collaborative framework, and the establishment of partnership/cooperation with relevant conventions, international programmes and other IOC Regional Subsidiary Bodies, and the engagement of more, and more capable international experts into WESTPAC programmes. However, reinforcing the WESTPAC Office will be the key to achieving the above given its pivotal role in the development, and implementation of WESTPAC strategies and programmes.

Introduction

The IOC Sub-Commission for the Western Pacific (WESTPAC) was established in 1989 with its main task to develop and co-ordinate required regional marine scientific research programmes, ocean observations and services based on priority interests of the Member States in the Western Pacific and adjacent regions, and to implement the programmes and activities of the IOC in the regional context.

Since 1994, WESTPAC has had its secretariat (referred to as "WESTPAC Secretariat" or "WESTPAC Office") in Bangkok, Thailand through an Agreement between UNESCO and the Government of the Kingdom of Thailand on the establishment of the IOC Regional Secretariat for WESTPAC. Although WESTPAC emphasized the need for 3 professionals to run the office, it has not been made possible except for the short period of 1997-1998.

For quite a long time, WESTPAC had not been working at an acceptable level, mainly due to a dramatic reduction in staff and funds. Many Member States expressed strong concerns over the decreasing visibility of WESTPAC in the region. Hence, a difficult strategic process was initiated in 2007 by the WESTPAC Office with great support from all Member States to undertake stakeholder consultations to revitalize WESTPAC, establish a WESTPAC framework and collaborative process, develop region-specific programs, foster partnerships with other regional programmes, and regain the confidence of the Members States in the future of WESTPAC.

Main developments and Achievements

WESTPAC has been greatly improved over recent years as a result of the implementation of the WESTPAC revitalization strategy and effective measures with its present strengths reflected in:

- a systematic framework and collaborative process, "WESTPAC Strategy and Programme Structure" for coordinating the efforts of Member States through the development, establishment, implementation and completion of regionally-specific country driven programs/projects;
- an advisory mechanism "WESTPAC Advisory Group" in operation to provide scientific and technical advice on the development, planning and implementation of WESTPAC activities:
- a complementary implementing mechanism "WESTPAC Working Group" in place to ensure the timely response of WESTPAC to marine-related emerging regional and international issues;
- a self driven and sustainable capacity building initiative "IOC Regional Network of Training and Research Centers on Marine Science" under implementation to enhance national and regional capacities by utilizing the current and exploring potential capacity in the region.

With those strategic planning and collaborative processes, a number of regionally-specific projects/programs have been developed, coordinated and implemented in alignment with IOC High-Level Objectives, in the key areas of ocean processes and climate, marine biodiversity and food security, and health of ocean ecosystems, which mainly include:

- the triennial WESTPAC International Scientific Symposium. evolving as one of the largest regional multi-disciplinary platforms for marine scientists to advance their scientific knowledge, catalyze international and cross-disciplinary collaboration towards the improvement in management practices and decision-making processes for the sustainable development of ocean and coastal resources;
- two regional ocean observing systems: North East Asian Region-Global Ocean Observing System (NEAR-GOOS) and South East Asian-Global Ocean Observing

System (SEAGOOS) with its two pilot projects, Monsoon Onset Monitoring and its Social & Ecosystem Impacts (MOMSEI) and Ocean Forecast Demonstration System (OFDS);

- various marine scientific projects/programs to address regional issues on: Harmful Algae Blooms; Toxic Marine Organisms; Marine Alien Species; Coral Reef Restoration and DNA Taxonomy; Ocean Remote Sensing; South China Sea Fluvial Sediments and its Environment Changes; and Air-sea Interaction in the Kuroshio Extension and its Climate Impact; as well as four Working Groups, respectively on Asian Dust and its Impact on Ocean Ecosystem in the Western Pacific; World Ocean Assessment; Harmful Jellyfishes; and Marine Renewable Energy Technology;
- the "IOC Regional Network of Training and Research Centres on Marine Science" with one IOC Regional Training and Research Centre on Ocean Dynamics and Climate (ODC) in operation in the First Institute of Oceanography, State Oceanic Administration of China, and several others under development.

Extrabudgetary support, either in kind or in cash, from Member States has been dramatically increased. As shown in Programme and Budget May 2010–May 2012, adopted by the Sub-Commission (Rec. SC-WESTPAC-VIII.4), the required funding totalled US\$ 3.601 million, including US\$ 0.37 Million from IOC regular source (including the sole professional staff at P4 level) and US\$ 3.231 million from IOC extrabudgetary sources. Thus each US dollar from IOC regular source has been leveraging 8.7 US dollars from extrabudgetary sources, either in-cash or in-kind, for WESTPAC.

In term of the WESTPAC Work Programme and Budget for May 2012–May 2014 (Rec. SC-WESTPAC-IX.4) at a total value of US\$ 4.261 million, only USD 30 K has been secured from IOC Regular Budget for the period of 2012–2013 due to the recent financial crisis experienced by UNESCO and IOC. In this sense, it can be foreseen that all activities of the Sub-Commission from May 2012–May 2014 have to be carried out via extrabudgetary support from Member States, either in-cash or in-kind.

The Sub-Commission noted the increased commitments from the Member States and resources made available by them in support of WESTPAC activities. Acknowledgement and appreciation are given to the Government of Thailand for the provision of office space and facilities for the WESTPAC Office, and the secondment of additional full-time administrative assistants to the WESTPAC Office; the Government of Republic of Korea for hosting the 8th WESTPAC International Scientific Symposium in Busan, March 2011 and the 9th Session of WESTPAC in May 2012; and all other Member States, in particular, China, Japan, Indonesia, Malaysia, Thailand, Vietnam for their continued in-cash and in-kind contributions, such as secondments, provision of research vessels and facilities, and hosting of WESTPAC workshops, and training courses in support of WESTPAC activities.

It is estimated that a total number of **1965** participants including **572** female scientists, have taken part in WESTPAC activities over the period of March 2010-March 2013, including **1** WESTPAC International Scientific Symposium (including **12** sessions and **8** workshops), **33** regional workshops/meetings, **15** trainings/summer schools, and **6** joint cruises.

The list of WESTPAC activities (March 2010- March 2013) has been annexed to this report.

Challenges and way forward

In a more prospective approach many efforts still need to be made in strengthening the systematic and multidisciplinary approach to WESTPAC programme development, and enhancing the presence of IOC and its WESTPAC at country level with a view to addressing the requirements of relevant conventions, international initiatives.

To this end, WESTPAC will intensify its efforts, over next medium term and beyond, in the development of country-specific programmes within the well-established regional collaborative framework, and the establishment of partnership/cooperation with relevant conventions, international programmes and other IOC Regional Subsidiary Bodies, and the engagement of more capable international experts into WESTPAC programmes.

Despite tremendous support having been sought from Member States of the region in the implementation of WESTPAC Programmes, there still exists big potential for IOC/UNESCO and its WESTPAC to further explore over next medium term even beyond, in consideration of the ever-increasing importance many countries in this region have been attaching to marine science, observations, services and capacity building.

In order to keep the present momentum and make greater achievements of WESTPAC in the near future, it is strongly suggested that the WESTPAC Office be reinforced by upgrading the level of the Head of Office given the pivotal role he has been playing over the present medium term 2008–2013, and/or seconding capable experts to the WESTPAC Office to mitigate the understaffing situation given the unprecedented workload of the Office to deliver a rapidly growing range of WESTPAC activities.

Annex: Non exhaustive list of WESTPAC activities (March 2010–March 2013)

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Annex I: Non exhaustive list of WESTPAC activities (March 2010–March 2013)

Summary: Over the period of March 2010-March 2013, WESTPAC has organized and coordinated 1 WESTPAC International Scientific Symposium (including 12 sessions and 8 current workshops), 33 regional workshops/meetings, 15 trainings/summer schools, and 6 joint cruises with a total number of 1,965 participants, including 572 female scientists.

No.	Activities/meetings	Venue	Type of activity	No. of participants (Female)
1	IOC/WESTPAC Preparatory Meeting for the 8th IOC/WESTPAC International Scientific Symposium	Bangkok, Thailand 25-26 March 2010	Regional workshop	4 (1)
2	IOC/WESTPAC Editing Group Meeting for the Regional Status on the Marine Non-indigenous Species	Bangkok, Thailand 28-29 March 2010	Regional workshop	4 (1)
3	Thirteenth Session of IOC/WESTPAC NEAR-GOOS Coordinating Committee (WESTPAC-NEARGOOS-XIII)	Vladivostok, Russia 8-10 April 2010	Regional workshop	12 (4)
4	First IOC/WESTPAC Advisory Group Meeting	Bali, Indonesia 9 May 2010	Regional workshop	9 (1)
5	Eighth Session of the IOC Sub-Commission for the Western Pacific (WESTPAC-VIII)	Bali, Indonesia 10-13 May 2010	Regional workshop	96 (16)
6	IOC/WESTPAC Training Course on "Impact of Sedimentary Dynamics and Biogeochemistry on Coral Reefs" (WESTPAC-CorReCAP-T.I)	Koh Samui, Thailand 15-18 June 2010	Training	26 (7)
7	Second IOC/WESTPAC Workshop on the Coral Reef under Climate and Anthropogenic Perturbations (WESTPAC-CorReCAP-II)	Phuket, Thailand 22-24 June 2010	Regional workshop	16 (2)
8	First IOC/WESTPAC Summer School of SEAGOOS Pilot Project on Monsoon Onset Monitoring and its Social & Ecosystem Impacts (WESTPAC/SEAGOOS-MOMSEI Summer School–I)	Qingdao, China 25-30 July 2010	Training	18 (7)
9	IOC/WESTPAC Training Workshop on Rapid Assessment Survey of Marine Biodiversity and Non-Indigenous Species in the Western Pacific Region (WESTPAC-RAS-I)	Bangkok, Thailand 20-21 September 2010	Training	17 (7)
10	IOC/WESTPAC Workshop on its SEAGOOS Pilot Project on Ocean Forecasting Demonstration (WESTPAC/SEAGOOS-OFD-I)	Phuket, Thailand 30 Septermber-1 October 2010	Regional workshop	11 (1)
11	Third IOC/WESTPAC Workshop on the Fluvial Sediment Supply to the South China Sea (WESTPAC-FluSed-III)	Manila, Philippines 17-18 November 2010	Regional workshop	12 (5)
12	IOC/WESTPAC Joint Cruise on the Response of Marine Hazards to Climate Change (WESTPAC-ROSE-MaHaZ)	Typhoon Generation Area 22 October -25 November 2010	Joint cruise	33 (5)
13	IOC/WESTPAC-1 st MOMSEI Joint Cruise (WESTPAC/SEAGOOS-MOMSEI-C.I)	Andaman Sea 22-28 November 2010	Joint cruise	20 (6)
14	IOC/WESTPAC Training Workshop on Rapid Assessment Survey of	Bangkok, Thailand	Training	25 (14)

No.	Activities/meetings	Venue	Type of activity	No. of participants (Female)
	Marine Biodiversity and Non-Indigenous Species in the Western Pacific Region (WESTPAC-RAS-II)	6-9 December 2010		
15	IOC/WESTPAC Workshop on "Enhance the Awareness on Toxic Marine Organisms" (WESTPAC-TMO-I)	Nha Trang, Vietnam 13-15 December 2010	Regional workshop	19 (7)
16	IOC/WESTPAC International Scientific Steering Committee Meeting of the 8th IOC/WESTPAC International Scientific Symposium	Ansan, Republic of Korea 19-20 December 2010	Regional workshop	18 (6)
17	Fourth IOC/WESTPAC Expert Workshop on the Pilot Project of SEAGOOS on the Monsoon Onset Monitoring and its Social and Ecosystem Impacts (WESTPAC/SEAGOOS-MOMSEI-IV)	Melaka, Malaysia 27-29 December 2010	Regional workshop	23 (7)
Tota	l participants in 2010: 363, including 97 females			
18	IOC/WESTPAC-2 nd MOMSEI Joint Cruise (WESTPAC/SEAGOOS-MOMSEI-C.2)	Andaman Sea 11-17 March 2011	Joint cruise	20 (8)
19	IOC/WESTPAC Training Course on Taxonomy and Ecology of Diatom Pseudo-nitzschia	Sarawak, Malaysia 20-23 March 2011	Training	29(18)
20	Eighth IOC/WESTPAC International Scientific Symposium "Ocean Climate and Marine Ecosystems" in the Western Pacific (WESTPAC-Symposium-VIII)	Busan, Republic of Korea 28-31 March 2011	International Symposium	497 (162)
21	IOC/WESTPAC Workshop on Coastal Marine Biodiversity and Conservation	Busan, Republic of Korea 28-31 March 2011	Regional workshop	Included into #20
22	Third IOC/WESTPAC Workshop on the Coral Reef under Climate and Anthropogenic Perturbations (WESTPAC-CorReCAP-III)	Busan, Republic of Korea 28-31 March 2011	Regional workshop	Included into #20
23	IOC/WESTPAC Working Group Workshop on the Asian Dusts and its Impact on Ocean Ecosystems (WESTPAC WG-ADOES)	Busan, Republic of Korea 28-31 March 2011	Regional workshop	Included into #20
24	IOC/WESTPAC Workshop on NEARGOOS	Busan, Republic of Korea 29-30 March 2011	Regional workshop	Included into #20
25	Third IOC/WESTPAC Scientific Workshop on Response of Marine Hazards to Climate Change (WESTPAC-ROSE-MaHaz-III)	Busan, Republic of Korea 29-31 March 2011	Regional workshop	Included into #20
26	IOC/WESTPAC Workshop on Future Direction of Harmful Algae Bloom Study and Research in WESTPAC (WESTPAC-HAB)	Busan, Republic of Korea 30 March 2011	Regional workshop	Included into #20
27	IOC/WESTPAC Workshop on "Remote Sensing for Coastal Habitat Mapping" (WESTPAC-ORSP-I)	Busan, Republic of Korea 30-31 March 2011	Regional workshop	Included into #20
28	IOC/WESTPAC- 3 rd MOMSEI Joint Cruise (WESTPAC/SEAGOOS-MOMSEI-C.3)	Eastern Equatorial Indian Ocean 19 April-13 May 2011	Joint cruise	22 (2)
29	Second IOC/WESTPAC Training Course on "Water Quality and its Impact on Coral Reefs" (WESTPAC-CorReCAP-T.II)	Sanya, China 8-11 June 2011	Training	44 (17)
30	Official Inauguration of the IOC Regional Training and Reseach Center on	Qingdao, China	Regional workshop	120 (30)

No.	Activities/meetings	Venue	Type of activity	No. of participants (Female)
	Ocean Dynamics and Climate	9 June 2011		
31	IOC/WESTPAC Training Course on Ocean Models	Qingdao, China 10-16 June 2011	Training	86 (26)
32	IOC/WESTPAC-PICES Joint Training Workshop on Rapid Assessment Survey Methodologies for Detecting Marine Non-Indigenous Species (WESTPAC-RAS-III)	Phuket, Thailand 19–21 July 2011	Training	25 (8)
33	Second IOC/WESTPAC Summer School of SEAGOOS Pilot Project on Monsoon Onset Monitoring and its Social & Ecosystem Impacts (WESTPAC/SEAGOOS-MOMSEI Summer School–II)	Phuket,Thailand 15-19 August 2011	Training	26 (10)
34	Fourteenth Session of IOC/WESTPAC Coordinating Committee for NEAR-GOOS (WESTPAC-NEARGOOS-XIV)	Tianjin, China 8-9 September 2011	Regional workshop	18 (6)
35	Fifth IOC/WESTPAC Expert Workshop on the Pilot Project of SEAGOOS on the Monsoon Onset Monitoring and its Social and Ecosystem Impacts (WESTPAC/SEAGOOS-MOMSEI-V)	Yogyakarta, Indonesia 28-30 September 2011	Regional workshop	33 (6)
36	NOWPAP/PICES/WESTPAC Joint Training Course on Remote Sensing Data Analysis	Vladivostok, Russia 8-12 October 2011	Training	32 (14)
37	Second IOC/WESTPAC Workshop on "Toxic Marine Organisms" (WESTPAC-TMO-II)	Nha Trang, Vietnam 4-6 November 2011	Regional workshop	21 (3)
38	IOC/WESTPAC Workshop on "Remote Sensing for Coastal Habitat Mapping" (WESTPAC-ORSP-II)	Johor, Malaysia 28-30 November 2011	Regional workshop	15 (6)
39	Second IOC/WESTPAC Workshop on its SEAGOOS Pilot Project on Ocean Forecasting Demonstration (WESTPAC/SEAGOOS-OFD-II)	Qingdao, China 14 December 2011	Regional workshop	8 (1)
40	Fourth IOC/WESTPAC International Workshop on the Fluvial Sediment Supply to the South China Sea (WESTPAC-FluSed-IV)	Bangkok, Thailand 14–16 December 2011	Regional workshop	21 (8)
Tota	I participants in 2011: 1017, including 325 females			
41	IOC/WESTPAC Workshop on "Status on the Marine Renewable Energy Technology Development in the Western Pacific"	Melaka, Malaysia 16-18 February 2012	Regional workshop	42 (6)
42	IOC/WESTPAC-HAB Steering Group Meeting (HAB-SG)	Nha Trang, Vietnam 15-17 March 2012	Regional workshop	12 (5)
43	IOC/WESTPAC Training Course on "Toxic Marine Organisms and Harmful Algal Bloom"	Nha Trang, Vietnam 19-22 March 2012	Training	15 (6)
44	IOC/WESTPAC- 4th MOMSEI Joint Cruise (WESTPAC/SEAGOOS-MOMSEI-C.4)	Eastern Equatorial Indian Ocean 26 April-14 May 2012	Joint cruise	34(4)
45	Second IOC/WESTPAC Advisory Group Meeting	Busan, Republic of Korea	Regional workshop	7 (1)

No.	Activities/meetings	Venue	Type of activity	No. of participants (Female)
		8 May 2012		
46	Ninth Intergovernmental Session of the IOC Sub-Commission for the Western Pacific (WESTPAC-IX)	Busan, Republic of Korea 8-12 May 2012	Regional meeting	63 (14)
47	IOC/WESTPAC Training Course on Ocean Dynamics	Qingdao, China 16-22 July 2012	Training	75 (22)
48	IOC/WESTPAC SEAGOOS Workshop on Ocean Forecasting Demonstration System	Qingdao, China 23 July 2012	Regional workshop	23 (4)
49	IOC/WESTPAC Workshop on the Development of RORP (Theme 1 & 2)	Qingdao, China 24 July 2012	Regional workshop	12 (2)
50	Third IOC/WESTPAC Summer School of SEAGOOS Pilot Project on Monsoon Onset Monitoring and its Social & Ecosystem Impacts (WESTPAC/SEAGOOS-MOMSEI Summer School–III)	Qingdao, China 6-10 August 2012	Training	31 (10)
51	Sixth IOC/WESTPAC Expert Workshop on the Pilot Project of SEAGOOS on the Monsoon Onset Monitoring and its Social and Ecosystem Impacts (WESTPAC/SEAGOOS-MOMSEI-VI)	Yangon, Myanmar 10-12 September 2012	Regional workshop	29 (8)
52	Regional Scientific and Technical Capacity Building Workshop on the Regular Process of the World Ocean Assessment	Bangkok, Thailand 17–19 September 2012	Training	55 (14)
53	Enlarged Session of IOC/WESTPAC Officers	Bangkok, Thailand 20 September 2012	Regional workshop	10 (2)
54	IOC/WESTPAC Workshop on Coral Reef Restoration Techniques in the Western Pacific Region	Bangkok, Thailand 21-23 September 2012	Regional workshop	43 (9)
55	IOC/WESTPAC-ICG/PTWS Training Workshop on Tsunami Models and Risk Assessment	Beijing, China 24-27 September 2012	Training	13 (1)
56	IOC/WESTPAC-HAB Workshop on "Future Activity of HAB Research in the WESTPAC Region"	Changwon, Republic of Korea 30 October 2012	Regional workshop	10 (3)
57	Fifth IOC/WESTPAC International Workshop on the Fluvial Sediment Supply to the South China Sea (WESTPAC-FluSed-V)	Bandung, Indonesia 13-16 November 2012	Regional workshop	21(8)
58	IOC/WESTPAC-5th MOMSEI Joint Cruise (WESTPAC/SEAGOOS-MOMSEI-C.5)	Andaman Sea 15-18 November 2012	Joint cruise	21 (9)
Tota	l participants in 2012: 516, including 128 females			
59	Fourth IOC/WESTPAC Technical Workshop on SEAGOOS Ocean Forecasting System (WESTPAC/SEAGOOS-OFS-IV)	Jakarta, Indonesia 5-6 March 2013	Regional workshop	14 (2)
60	3rd IOC/WESTPAC-TMO and Singapore HAB Joint Workshop	Singapore 6-10 March 2013	Regional workshop	29 (9)
61	IOC/WESTPAC Proposal Development Workshop on the Japanese Funds-in-Trust (JFiT) for UNESCO	Bangkok, Thailand 16 March 2013	Regional workshop	6 (2)

No.	Activities/meetings	Venue	Type of activity	No. of participants (Female)		
62	WESTPAC Advisory Group Meeting 2013	Bangkok, Thailand 27-29 March 2013	Regional workshop	20 (9)		
Total participants in 2013 as of March 2013: 69, including 22 females						
	Grand Total participants (March 2010- March 2013): 1,965, including 572 female scientists					