

## A Daily Report of the World Ocean Conference

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### WOC2009 HIGHLIGHTS: MONDAY, 11 MAY 2009

ON MONDAY, 11 MAY 2009, PARTICIPANTS REPRESENTING GOVERNMENTS, INTER-GOVERNMENTAL AND NON-GOVERNMENTAL ORGANIZATIONS CONVENED IN MANADO, INDONESIA FOR THE 2009 WORLD OCEAN CONFERENCE (WOC2009). IN THE MORNING, PARTICIPANTS ATTENDED THE SENIOR OFFICIALS' MEETING OF THE WORLD OCEAN CONFERENCE, INCLUDING WELCOMING REMARKS BY THE GOVERNOR OF NORTH SULAWESI AND A KEYNOTE SPEECH BY THE INDONESIAN MINISTER OF MARINE AFFAIRS AND FISHERIES. THIS WAS FOLLOWED BY THEMATIC SESSIONS ON: OCEAN OBSERVATIONS AND ANALYSIS; THE IMPACTS OF CLIMATE CHANGE ON COASTAL COMMUNITIES; AND PREPAREDNESS AND IMPROVING RESILIENCE OF COASTAL COMMUNITIES TO ADAPT TO CLIMATE CHANGE. IN THE AFTERNOON, PARTICIPANTS MET IN A CLOSED SESSION TO DISCUSS THE DRAFT MANADO OCEAN DECLARATION, FOLLOWED BY AN EVENING RECEPTION HOSTED BY INDONESIA'S MINISTER OF MARINE AFFAIRS AND FISHERIES.



Indonesian Maritime Affairs and Fisheries Minister Freddy Numberi opens WOC2009

incumbent upon the world's decision makers to develop environmentally sound policies for integrated coastal management in support of long term sustainable use of marine resources. He called for: increased research on the impacts of climate change on the marine environment; assessment of the adaptation needs of coastal communities; and financial resources for the implementation of action plans. He highlighted the potential for the Coral Triangle Initiative (CTI) to build stronger political will among countries within this region. He concluded by officially opening WOC2009.

### OPENING SESSION

Sinyo Harry Sarundajang, Governor of North Sulawesi, Indonesia, welcomed participants to the World Ocean Conference and provided an overview of the challenges and opportunities in marine resource management within his province. He highlighted that his province has achieved harmony among a high level of cultural and ethnic diversity. He noted that the region is endowed with a wealth of marine resources, including some of the world's most diverse coral reef systems, but lamented that these resources are in decline.

Freddy Numberi, Minister of Marine Affairs and Fisheries, Indonesia, described the impacts of climate change on the marine environment, and said that it is

### SENIOR OFFICIALS MEETING

Ambassador Eddy Pratomo, Indonesia, opened the Senior Officials Meeting and declared the Government of Indonesia's commitment to establishing the World Oceans Declaration as a major outcome of WOC2009. The provisional agenda (WOC/SOM/1/1.1) was then adopted without amendment.

## THEME 1: OCEAN OBSERVATION AND ANALYSIS

Sarwono Kusumaatmadja, former Minister for the Environment, Indonesia, moderated the panel on ocean observation and analysis.

Richard Spinrad, National Oceanic and Atmospheric Administration (NOAA), US, called for a commitment to collaborative science to assess, predict, mitigate against, and adapt to the implications of climate and the changing ocean. He acknowledged the unequivocal finding of the Intergovernmental Panel on Climate Change (IPCC) that the earth is warming and cited recent developments that give cause for concern, including findings by NOAA that indicate that if atmospheric carbon dioxide levels rise above 600ppm the impacts of sea level rise will be unavoidable and irreversible. He also highlighted temporal and spatial changes in the migration of marine species in select marine protected areas in the US, and urged countries to contribute to the US initiative to establish a global ocean monitoring system.

Gabriele Goettsche-Wanli, UN Division for Ocean Affairs and the Law of the Sea (DOALOS), presented on the role of the UN system in coordinating the activities of its bodies on climate change, including the Gateway to the UN System's Work on Climate Change initiative. She emphasized the importance of the UN Convention on the Law of the Sea (UNCLOS) as the legal framework for the regulation of activities at sea and explained the fundamental role of oceans in regulating the climate

system. She noted the rapid increase in anthropogenic carbon dioxide emissions in previous years, resulting in impacts such as, *inter alia*: increased ocean temperatures; changes in marine ecosystems, including reduction of biodiversity and production; melting of polar ice caps, resulting in sea-level rise; ocean acidification; and



Gabriele Goettsche-Wanli, UN Division for Ocean Affairs and the Law of the Sea

coral bleaching. She also stressed the adverse impacts of sea level rise on coastal and fisheries communities, especially small island developing states.

## THEME 2: IMPACTS OF CLIMATE CHANGE ON COASTAL COMMUNITIES

Moderator Kusumaatmadja introduced the panel, noting the need for the scientific community to inform how policy makers can address climate change issues in the context of coastal communities.

Moses Murihungirire, Ministry of Fisheries and Resources Management, Namibia, discussed the dynamics of biotic and abiotic components of the Northern Benguela Current System. He stressed the importance of understanding such processes, noting that Namibia is a coastal state with large developed wetlands. He said that studies have recorded: seasonal shifts in wind pressure systems; more pronounced sea surface temperature anomalies; declines in fish stocks;



Richard Spinrad, National Oceanic and Atmospheric Administration

and more frequent harmful algal blooms over the final decades of the 20th century. He indicated that questions remain as to whether or how much these observations



Moses Murihungirire, Director for Resource Management, Ministry of Fisheries and Marine Resources, Namibia

can be attributed to climate change. Murihungirire said that our understanding of the cause and effect of abiotic parameters such as wind and oceanic temperature along the Namibian coastline is improving and informing the prioritization of further research. Noting that the marine environment is an international discipline, he called for the assistance of other countries to improve their understanding of the relationship between scientific observations in Namibia and the impacts of climate change.

Gabriella Bianchi, the Food and Agriculture Organization of the UN (FAO), presented on the implications of climate change for fisheries and aquaculture. She noted the aquaculture sector is growing rapidly, particularly in the Asia-Pacific region, and highlighted that fish are one of the world's most traded commodities. She discussed the physical implications of climate change for fisheries, including reduction of nutrient availability, increased ocean acidification, and increased primary productivity in higher latitudes. She called for the development of strategies to reduce the vulnerability of coastal communities to the effects of climate change, and said that adaption requires a cross-sectoral approach and adequate policy, legal and implementation frameworks. She emphasized that global ocean governance needs to be strengthened and highlighted the advantages of an ecosystem-based approach to fisheries management.

### THEME 3: PREPAREDNESS AND IMPROVING RESILIENCE OF COASTAL COMMUNITIES TO ADAPT TO CLIMATE CHANGE

In the afternoon, delegates participated in an event moderated by Ambassador Budi Bowoleksono, Indonesia. Masnellyarti Hilman, Deputy Minister, Indonesian Ministry for the Environment, presented on Indonesia's preparedness for climate-related hazards. She provided numerous statistics indicating a consistent increase in hazards and related consequences, including: the disappearance of 24 islands between 2005 and 2007; the 14-fold increase in the economic cost of hazards since the 1950s; and the 50% increase in mortality over the same timeframe. She acknowledged global information systems and risk assessment frameworks as useful risk assessment tools to inform policy. Hilman stressed that although local scale projects are more expensive, they provide data with greater detail and accuracy. She welcomed the results of research to date, but hoped that additional funds will be forthcoming to support local government initiatives that feed into central government adaptation programs. In response to a question on mitigation, she highlighted Indonesia's programmes to promote healthier oceans, such as, *inter-*



Queline Alder  
Masnellyarti Hilman, Deputy Minister for Nature Conservation Enhancement and Environmental Degradation Control, Indonesia

*alia: protection of oceans from land-based sources of pollution; community involvement on the protection of mangroves; and the CTI. She also underscored the need to integrate adaptation measures with poverty eradication. On education, she emphasized Indonesia's initiatives in providing information on adaptation measures to local governments, communities and schools.*

Jacqueline Alder, Coordinator of the Marine and Coastal Environment Branch, UN Environment Programme (UNEP), presented on UNEP's work on climate change and adaptation projects. She highlighted UNEP's strategy on climate change, such as: mitigation projects to promote low carbon societies; communication



Jacqueline Alder, UN Environment Programme, Marine and Coastal Environment Branch

and public awareness; enhancement of scientific understanding of climate change; and adaptation projects, including capacity building in developing states. She underscored UNEP's mandate on climate change and oceans, especially through the Regional Seas Programme and the Global Plan of Action for the Protection of the Marine Environment from Land-Based

Activities. She also noted the importance of building resilient marine ecosystems and social networks through the implementation of ecosystem-based management to mitigate impacts of climate change. On adaptation to climate change, she emphasized UNEP's projects including, *inter alia*: identification of sea level rise buffer zones, and the development of adaptive spatial marine planning. She also underscored the importance of mobilizing and managing knowledge for adaptation policy and planning through: knowledge-based planning; adaptive knowledge-based management; and development of technology for adaptation. In response to a question on states' participation in UNEP's programmes on climate change, she urged states to become members of the Regional Seas Programme.

Participants also discussed the vulnerability of developing countries to climate change impacts and the need to eradicate poverty.

## AROUND WOC

Throughout the day, a number of events were held around Manado in conjunction with WOC2009, including: a Global Ocean Policy Day pre-meeting, an introductory training session held by Google on how to use Google Earth and Oceans for resource managers, community leaders and students; and a seminar by the Asian Development Bank on Coastal Management in the Asia-Pacific.



The plenary during the opening session