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IHA World Congress Bulletin

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World Congress on Advancing Sustainable Hydropower 2013

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IHA WORLD CONGRESS HIGHLIGHTS: WEDNESDAY, 22 MAY 2013

The opening session of the International Hydropower Association (IHA) World Congress convened on Wednesday, 22 May, in Kuching, Malaysia. Participants engaged in two plenary sessions, a high-level panel discussing directions for hydropower and a session on water and energy policies. Two parallel focus sessions took place, one on regional interconnections, and another on addressing the question of whether sustainability is constraining economic development.

A special lecture during lunch discussed Sarawak's Murum Project. Side events in the afternoon were held in parallel to a meeting of Sustainability Partners, and covered: greenhouse gas (GHG) and freshwater reservoirs; net GHG emissions; and introduction to the Hydropower Sustainability Assessment Protocol. In the evening a reception took place at the Old Courthouse in Kuching.



IHA President Refaat Abdel-Malek (left) and Chief Minister of Sarawak Pehin Sri Haji Abdul Taib bin Mahmud (center) during the Official Opening of the IHA World Congress 2013, hosted by the Government of Sarawak

HIGH-LEVEL PANEL: DIRECTIONS FOR HYDROPOWER

Richard Taylor, IHA Executive Director, welcomed delegates and described the long journey since the last Congress held in Foz do Iguacu, Brazil, in June 2011.

Refaat Abdel-Malek, IHA President, moderated the session. He stressed that the Congress represents a sharing of views between many stakeholders involved in sustainable hydropower and encouraged debate, urging delegates to participate actively.

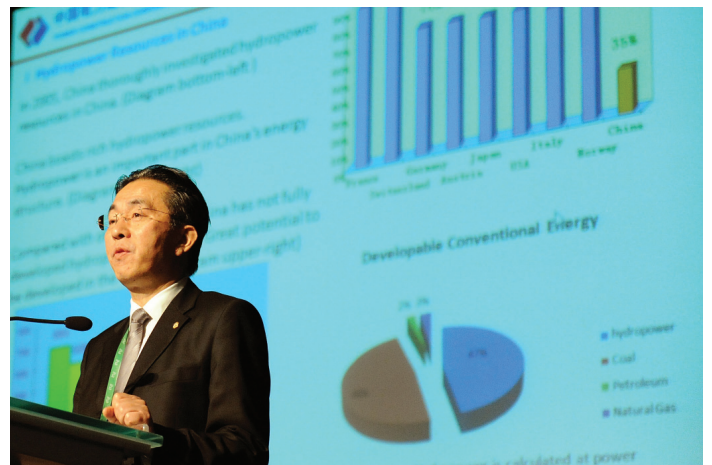
Yan Zhiyong, Vice President, China Society for Hydropower Engineering (CSHE), outlined the expansion of the hydropower sector in China, introducing the targets and the roadmap for hydropower development included in the Chinese Twelfth

Five Year Plan. He emphasized that by 2020 the total installed hydropower capacity in China will reach 420 gigawatts, including pumped storage. He also highlighted three issues important to hydropower development: ecological and environmental impacts, noting more effort is needed for accurate and comprehensive analyses; resettlement of populations in a people-centered manner; and measures for ensuring project safety, especially during events such as earthquakes and floods.

Arthur Mynett, UN Educational, Scientific and Cultural Organization Institute for Water Education (UNESCO-IHE) stressed the importance of a strong knowledge base to advance the field of water management and noted the work UNESCO-IHE undertakes in this regard. He highlighted that 70% of the



Refaat Abdel-Malek, IHA President



Yan Zhiyong, Vice President, CSHE

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A view of the dais during the opening high-level panel on directions for hydropower. L-R: Torstein Sjøtveit, CEO, SEB; Tan Sri Datuk Amar Haji Mohamad Morshidi bin Abdul Ghani, State Secretary, Sarawak, Malaysia; Jean-Michel Devernay, World Bank; Arthur Mynett, UNESCO-IHE; and Yan Zhiyong, Vice President, CSHE.

world's fresh water is used for agriculture and suggested that meeting this demand will be a challenge in the context of population growth and climate change.

Jean-Michel Devernay, World Bank, provided a chronological overview of the World Bank Group's approach to hydropower and set out five areas for continued progress, namely: strengthening integrated planning; giving more attention to long-term sustainability and work on extending the life of dams; ensuring connections between hydropower and the larger development agenda; becoming more creative when designing models to leverage significant financial resources; and fostering regional collaboration. He concluded by stating that the World Bank Group's ambition is to "help clients do the right projects, and do the projects right."

Tan Sri Datuk Amar Haji Mohamad Morshidi bin Abdul Ghani, State Secretary, Sarawak, Malaysia, emphasized that hydropower projects in Sarawak State are a primary strategy for growth, highlighting the Sarawak Corridor of Renewable Energy (SCORE) programme as a highly viable and successful case, attracting investments and creating skilled and semi-skilled jobs. He also noted that continuous efforts are needed to draw lessons learned from various hydropower projects to ensure community engagement and create employment for people directly affected.

Stating that energy is the only proven path to growth and prosperity globally, Torstein Sjøtveit, CEO, Sarawak Energy Berhad (SEB), introduced a global perspective on sustainability and identified measures to resolve challenges in the SCORE programme, such as mitigating social costs for affected local communities and rehabilitation. He concluded by welcoming suggestions on how to improve hydropower projects.

Peter Kallang, Save Rivers, took the floor at the end of the session to state that he was barred from a workshop organized before the Congress in association with IHA and demanded that the construction of dams be stopped due to their adverse social and environmental impacts.

IS SUSTAINABILITY CONSTRAINING ECONOMIC DEVELOPMENT?

John Dore, Australian Agency for International Development, moderated the session. Emmanuel Boulet, Inter-American Development Bank, noted that these questions were discussed at the UN Conference on Sustainable Development (UNCSD or Rio+20) meeting in 2012 and are encapsulated in the concept of the green economy. He suggested that "welfare" is more important than growth and asked how the hydropower sector can contribute to inclusive green growth.

Eugenio Barrios, WWF Mexico, explained that while previous governments' approaches to water management did not focus on environmental sustainability, that trend is changing. He explained how a new policy in Mexico sets high standards for 200 important river basins that are located in common property lands, while lesser standards are required in other areas.

Arun Sen, CEO, Lanco International, suggested that sustainability of hydropower has long been discussed but that it is still easier to assess the sustainability of thermal-technologies than of hydropower. He explained that hydropower presents a unique challenge because the impacts of present decisions take years to become evident.

Viraphonh Viravong, Vice Minister of Mines and Energy, Lao PDR, argued that in some cases long-term sustainability and short-term economic development must be traded against each other. He called for improved assessment tools to assist project proponents in ensuring sustainability.

Cecilia Tortajada, President, Third World Centre for Water Management, acknowledged that hydropower is becoming seen as a clean energy, rather than as a problematic form of energy production.



A view of the dais during the session on “Is sustainability constraining economic development?” L-R: Emmanuel Boulet, IDB; Joerg Hartmann, Independent Consultant; Viraphonh Viravong, Vice-Minister of Mines and Energy, Lao PDR; Cecelia Tortajada, President, Third World Centre for Water Management; Arun Sen, CEO, Lanco International; and Eugenio Barrios, WWF Mexico

Joerg Hartmann, Independent Consultant, suggested the best indicator of project sustainability is the level of associated conflict, especially in balancing local, national and international priorities. He argued that the debate about how to measure sustainability is over, due to the work already invested in the concept's development.

The discussion focused on a number of issues, including: the cost-benefits of hydropower versus thermal-technologies; the trend towards mixed-use projects; the challenge of defining and measuring sustainability; institutional reforms required to achieve sustainability; the need for biodiversity offsets to be paid for by the sector; the cost of social and environmental costs within the lifetime of a project; the fact that resettlement of communities takes much longer than is currently allocated in projects and that resettlement should not be seen as “benefit sharing”; the need for more dialogue between communities, companies and governments to define sustainability at the local level; and who should have the final say in whether a project goes ahead.

REGIONAL INTERCONNECTIONS: MAKING IT WORK AND MAXIMIZING VALUE

Moderator Raghuvver Sharma, Chief Investment Officer, International Finance Corporation (IFC), contextualized the discussion by saying that hydropower development is about and beyond economic benefits, emphasizing that regional cooperation opens up opportunities especially for landlocked countries.



L-R: Anthony Jude, ADB; Jean-Michel Devernay, World Bank; and Tracy Lane, IHA

Tracy Lane, IHA, highlighted discussions from the pre-session workshop on hydropower and regional development, which took place Monday, 20 May 2013. She said hydropower can be a key component of development, noting that the support of government, especially coordination among different government entities, is critical to ensuring strong investment frameworks. She also highlighted that the development of hydropower projects should not come at the expense of local populations.

Jean-Michel Devernay, World Bank, said connecting hydropower resources to the market and bringing market to the resource is a concept requiring more in-depth thinking and analysis to achieve potential benefits. He emphasized the importance of political will, noting the complexity of multi-country collaboration and regional hydropower development. He said institutional arrangements are necessary to ensure the integrity of multi-country collaboration.

Isaac Kirk Koffi, CEO, Volta River Authority, described the challenges faced by hydropower projects undertaken between Bhutan and India, and between the US and Canada, underscoring that economic and policy frameworks, and strategic partnerships with the private sector are catalytic elements in facilitating hydropower development at the regional scale.

Noting regional energy demand trends, Anthony Jude, Asian Development Bank (ADB), identified energy deficits and energy security as drivers for regional interconnection. He said inter-border agencies and regional coordinating centers are necessary to help build capacity and facilitate hydropower development.

Sameer Kumar Singh, IFC, introduced various regional experiences on river basin-level planning. He suggested that the mandate of current institutional mechanisms should be expanded from single rivers to encompass entire river basins.

Simon Krohn, Mekong River Commission, stressed the importance of country relationships and political climates, and the participation of stakeholders to support dialogue in hydropower development.

In the ensuing discussion, participants and panelists considered the financial risks, incentives for investment and policy support, standardization of guidelines for inter-country collaboration on hydropower projects, mitigation of local impacts at the project level and regional dialogue.



Plenary Session on Water and Energy Policies. L-R: Xavier Ursat, EDF; Jeremy Bird, Director General, IWMI; James Dalton, IUCN; Zhou Shichun, Hydrochina Corporation; and Øivind Johansen, Ministry of Petroleum and Energy, Norway

WATER AND ENERGY POLICIES

Simon D'Ujanga, Minister for Energy, Uganda, moderated the session, reminding delegates that many rivers are transboundary. He referenced the Nile Basin Initiative as an example of riparian states collaborating towards regional water management.

Yamfwa Mukanga, Minister of Mines, Energy and Water Development, Zambia, underscored that over 90% of energy in Zambia is generated by hydropower, but that the output still falls short of national demand. He said his Ministry is exploring how to develop integrated approaches to energy and water. He stressed Zambia needs to attract foreign investment into the national hydropower industry to boost the country's energy production.

Øivind Johansen, Ministry of Petroleum and Energy, Norway, explained that almost 100% of Norway's energy needs are met by hydropower. He noted Norway develops hydropower master plans, which promote cooperation between the power and water sectors.

Zhou Shichun, Hydrochina Corporation, explained that hydropower is the most important renewable energy source in China, but noted the potential is unevenly distributed across the country. He emphasized the importance of including a range of goals within hydropower strategies, such as flood control, GHG emissions reduction and socioeconomic development.

James Dalton, IUCN, stressed that water management is about delivering "water in a certain quality, at a certain time, in a certain place." He suggested that the IHA increase its role in informing better water policy for a sustainable global economy. He said stakeholder dialogues are required to develop policy recommendations.



Moderator Simon D'Ujanga, Minister for Energy, Uganda

Jeremy Bird, Director General, International Water Management Institute, called for: policy coherence; upstream planning; and innovation at the project level, particularly from irrigation specialists.

Xavier Ursat, Electricité de France (EDF), underscored the important policy reforms required to implement the recommendations made by other speakers in the session. He underscored development of common indicators between the water and energy sectors to enhance dialogue between the two.

The ensuing discussion centered on: water quality; geopolitics; and resettlement. On water quality, participants recognized the critical needs to protect and conserve water catchment area and to develop common language between water and energy sectors, some also stated the need to broaden the discussion on only hydro-water to better water resource management. On geopolitics, panelists noted the complex interactions in regional and inter-country activities, and some noted dialogue is the most effective way to reduce conflict between countries, and upstream and downstream stakeholders. On resettlement, some suggested treating resettlement as a development opportunity and to improve the livelihoods of affected people.

SIDE EVENTS

GHG AND FRESHWATER RESERVOIRS - WHAT IS

THE STATE OF THE ART: Moderator Tracy Lane, IHA, introduced an UNESCO/IHA research project on developing measurement guidance and modeling tools to assess GHG emissions from reservoirs and mitigation guidance for vulnerable sites. Chen Shiun, SEB, Alain Tremblay, Hydro-Québec, Emmanuel Branche, EDF, and Andrew Scanlon, Hydro Tasmania, presented case studies. Tormod Schei, Statkraft AS, compared the UNESCO/IHA approach with the International Energy Agency Hydropower Implementation Agreement and suggested aligning the processes.

INTRODUCTION TO THE HYDROPOWER SUSTAINABILITY ASSESSMENT PROTOCOL: Doug Smith, IHA, Simon Howard, IHA, and Donal O'Leary, Transparency International, presented on various aspects of the Hydropower Assessment Sustainability Protocol ("the Protocol"). Panelists described the Protocol as a framework for assessing the sustainability of hydropower projects, which is a consistent, globally applicable methodology that has over 20 clearly defined sustainability topics. It emerged from a multi-stakeholder process and is governed by a multi-stakeholder council. Participants then engaged with a case study to explore the utility of the Protocol.