UNITED NATIONS SYMPOSIUM ON HYDROPOWER AND SUSTAINABLE DEVELOPMENT

Beijing International Convention Centre

27-29 OCTOBER, 2004, BEIJING, CHINA

Co-organized by: National Development and Reform Commission, China United Nations Department of Economic and Social Affairs World Bank

Programme

October 27 (Wednesday)

08:00- 09:00 - Registration

09:00-10:00 Opening Session

- Session Co-Chairs: Mr. Kui-Nang Mak, Chief, Energy and Transport Branch, Division for Sustainable Development, UNDESA Mr. Xu Dingming, Director-General, Department of Energy, NDRC, China Mr. David Dollar, Country Director for China, World Bank
 - Address
 Mr. Zhang Guobao, the Vice-Chairman, National Development and Reform
 Commission, China
 - Address Mr. <u>Kui-Nang Mak</u>, Chief, Energy and Transport Branch Division for Sustainable Development, UNDESA
 - Address Mr. David Dollar, Country Director for China, World Bank
 - Video Show Hydropower and Sustainable Development in China

10:00-12:30 Plenary Session 1: Strategic Importance of Hydropower for Sustainable Development

Session Co-Chairs: Mr. Kui-Nang Mak, Chief, Energy and Transport Branch, UNDESA Mr. Wang Jun, Deputy Director General, Department of Energy, NDRC, China Mr. Jamal Saghir, Director, Energy and Water Department, World Bank

10:00-10:20

Keynote address: The sustainability imperative – Hydropower as a renewable energy source

Hon. Peter Rae, Director, International Hydropower Association (paper)

10:20-10:40

Keynote address: Hydropower and Sustainable Development in China

 Mr. Lu Youmei, Academician, Chinese Academy of Engineering, Chairman of Chinese National Committee on Large Dams (paper)

10:40-11:00 Coffee Break

11:00-11:20

Keynote address: Key Issues and principles for hydropower and sustainable development

 Hon Daudi Migereko, M.P., Minister of State for Energy and Mineral Development, Kampala, Uganda (presentation)

11:20-11:40

Keynote address: Scientifically Exploiting Hydropower Resource to Promote the Sustainable Utilization of Water Resources and the Sustainable Development of Economy and Society

Mr. Suo Lisheng, Vice Minister of the Ministry of Water Resources, China (paper)

11:40-12:00

Keynote address: Hydropower and development – an international perspective

Mr. John Briscoe, Senior Water Advisor, World Bank

12:00-12:20

Presentation: Current State and Countermeasures of Hydropower Environmental Protection in China

• Mr. Zhu Xingxiang, Director General, Department of Environmental Evaluation, State Environment Protection Administration, China

12:20-12:30 Questions and answers

12:30-14:00 - Lunch

Lunchtime address:

- 1. **Keynote address:** Three Gorges Project and Sustainable Development of Yangtze River Basin
 - Mr. Lin Chuxue, Vice President, China Yangtze Three Gorges Project Development Corporation
- 2. **Keynote address** by Dr. Bernard Zoba, Commissioner for Infrastructure and Energy, Commission of the African Union (AU)

14:00-18:30 Plenary Session 2: Hydropower and sustainable development – the way forward

Session Co-Chairs: Mr. Jia Jinsheng, Vice President, China Institute of Water Resources and

Hydropower Research (IWHR)

Mr. Richard Taylor, Executive Director, International Hydropower Association Representative of UN organization or participating developing country

14:00-14:20

Presentations: Future of China's Hydropower: Speeding up development and sustainable development

 Mr. He Gong, Vice President, Chinese Society for Hydroelectric Engineering, President of China Huadian Corporation

14:20-14:40

Presentation: Hydropower and sustainable development – Overview on best practices and the way forward

• Mr. Jean-Etienne Klimpt, Consultant, World Bank (presentation)

14:40-15:00

Presentation: Sustainable hydropower guidelines, compliance standards and certification

• Andrew Scanlon, Environment Manager, Hydro Tasmania, Australia (paper)

15:00-15:20

Presentation: The role and prospects for hydropower development in Africa

• Mr. Michel Claude Lokolo, Deputy Director, Ministry of Energy, Yaounde, Cameroon

15:20-15:40

Presentations: The way forward for hydropower development: Perspectives from India

 Mr. Yogendra Prasad, Chairman and Managing Director, National Hydroelectric Power Corporation, New Dehli, India (presentation)

15:40-16:00

Presentation: Perspectives and Strategies for hydropower development in Brazil Mr. Francisco Gomide, Brazil (former Minister of Mines and Energy) (presentation)

16:00-16:20- Coffee Break

16:20-16:40

Presentation: Hydropower and Sustainable Development in Nujiang River Basin

• Mr. He Liuzhong, Vice Chief Executive, Nujiang Li Su Nationality Autonomous Region, Yunnan Province, China

16:40-17:00

Presentation: Hydropower in the Russian Federation: Development and prospects

 Mr. Viacheslav Y. Sinyugin, Board Member, Joint Stock Company "Unified Energy System of Russia (RAO UES), Moscow, Russian Federation (presentation)

17:00-17:20

Presentation: Key challenges for the future: Financing dams and sustainable development
 Mr. Alberto Calcagno, UNEP/DPP, Nairobi (presentation)

17:20-17:50 Questions and answers

17:50-18:50 Concluding summary on Plenary Session 2

Session Co-chairs invite brief statements (5 minutes each) from the floor :

- 4 statements from representatives of developing countries (Armenia, Colombia, Nepal, Zambia)
- 2 statements from representatives of NGOs (1 from China, 1 visiting delegate)
- 1 statement by representative from the private sector
- 2 statements from representatives of international organizations and agencies

Session Co-chairs summarize discussions under Plenary Session 2

19:20-21:20 Welcome Reception hosted by NDRC, China

Chaired by Mr. Shi Lishan, Director, Hydropower Division, Department of Energy, NDRC, China

Toast by a representatives from the Government, World Bank and UNDESA

October 28 (Thursday)

09:00-18:00 Parallel Sessions 3: Social, environmental and technical aspects of hydropower development

09:00-12:30 Three Parallel Sessions

12:30-14:00 - Lunch Lunchtime Keynote Address:

• Keynote speech: Promoting Man and Water Coexist Peacefully, Developing Ecotypic Water Management: A Discussion of Water Park Construction and Management Mr. Qiao Shishan, Deputy Director General, Office of the Appraisement Committee of Water Park, Ministry of Water Resources

14:00-18:00 Three Parallel Sessions (continued)

18:30-20:30 Banquet hosted by the organization committee

Parallel Session 3A: Social aspects of hydropower development

Session Co-Chairs: Mr. Yang Dingyuan, Advisor, International Cooperation and Exchange Centre of Economy and Technology, Ministry of Water Resources, China Ms. Wu Junhui, Sector Manager, Energy and Mining, East Asia and Pacific Region, World Bank Mr. Tumensogt Tsevegmid, Member of the Board of Regulators, Mongolia Energy Regulatory Authority

Session Rapporteur: Mr. Liu Hongpeng, United Nations Economic Commission for Asia and Pacific (UNESCAP)

09:00- 09:20

Presentation: Social impacts and social risks in Hydropower Programmes: Pre-emptive planning and counter-risk measures

• Mr. Michael Cernea, Research Professor of Anthropology, George Washington University, Washington D.C., USA (paper) (presentation)

09:20- 09:40

Presentation: Perspectives and experiences: Hydropower development and resettlement (China)

• Yan Zhiyong, Vice President, China Hydropower Engineering Consulting Group Corporation

09:40- 09:55

Presentation: Analysis on Social Impact in Water conservancy and Hydropower Development

• Mr. Shi Guoqing, Director, Resettlement Study Center, China

09.55-10.10

Presentation: Perspectives and experiences: Hydropower development and resettlement (Ghana)

 Mr. E. A. K. Kalitsi, Kalitsi & Associates, Accra, (former CEO and Board Chairman of the Volta River Authority) Ghana (paper)

10:10-10:25

Presentation: Concepts and methods of benefit sharing, integrated development planning and sustainable development

• Mr. Barry Trembath, Lead Power Engineer, East Asia and Pacific Region, World Bank

10:25-10:40

Presentation: Concepts and methods of benefit sharing: experiences from Brazil

• Mr. Francisco Gomide (presentation)

10.40-10.55 Questions and answers

October 28 (Thursday)

10:55-11:10 Coffee Break

11:10-11:25

Presentation: Salto Caxias hydroelectric power plant consultation process and public participation: A real tool for sustainable development (Brazil)

Mr. Antonio Fonseca Dos Santos, Environmental Director, Brascan Brazil, Brasilia (paper)

11:25-11:40

Presentation: Guidelines on public involvement in infrastructure development projects participation

 Mr. Liu Hongpeng, Economic Affairs Officer, UN Economic and Social Commission for Asia and the Pacific (ESCAP), Energy Resources Section, Bangkok, Thailand (presentation)

11:40-12:00

Presentation: Xiaolangdi Multipurpose Dam and Sustainable Development of Regional Social Economy

 15 minutes presentation by Mr. Cao Yingchao, Chief Economist, Xiaolangdi Multipurpose Project Bureau, China,
 5 minutes comments by Mr. Zhang Chechua, World Bank

5 minutes comments by Mr. Zhang Chaohua, World Bank

12:00-12:25 Questions and answers

Parallel Session 3A: Social aspects of hydropower development (continued)

14:00-14:15

Presentation: Building on partnerships with aboriginal communities

 Ms. Karin Seelos, Senior Advisor on Strategic Environmental Issues, Hydro-Québec; Canada (paper)

14:15-14:30

Presentation: Private Participation in Small Hydropower Development in China —Comparison with International Communities

 Mr. Zhao Jianda, Senior Engineer, Small Hydropower Research Center of Asian and Pacific Area, China

14:30-14.45

Presentation: Key dam issues and policy development in the SADC region: public participation

 Ms. Anne Schuster, Advisor, German Technical Cooperation Agency (GTZ), and Mr. Kenneth M. Msibi, Water Policy and Strategy Expert, Water Division, Directorate of Infrastructure and Services, Southern African Development Community (SADC) Secretariat

14:45-15:00

Presentation: Hydroelectric Exploitations on the Upper Reach of the Yellow River in Gansu Province and Regional Economic Developments

• Mr. Li Wenzhi, Adviser, Gansu Provincial Government, China

15:00-15:15

Presentation: NGO presentation

• Mr. Yu Xiaogang, Green Watershed, China

15:15-15:30

Presentation: Prediction of health hazards in tropical reservoirs and evaluation of low-cost methods for disease prevention

• Mr. William Jobin, Environmental and Public Health Engineer, and Director, Blue Nile Associates, Colorado, United States

15:30-16.00 Questions and answers

16:00-16:15 Coffee Break

16:15-16:30

Presentation: NGO participation in dam development decision-making

Representative from Chinese Society for Hydroelectric Engineering

16:30-16:45

Presentation: NGO participation in dam development decision-making

Representative from Chinese Hydraulic Engineering Society

16:45-17:00 Questions and answers

17:00-18:00 Concluding summary on Parallel Session 3A (Social Issues)

Session Co-chairs invite brief statements (5 minutes each) from the floor :

- 2 statements from representatives of host country:
 - Mr. Wen Fubo, Academician, Chinese Academy of Engineering; Mr. Gu Zhaoqi, Professor, Qinghua University
- 4 statements from representatives of developing countries (Ethiopia, Indonesia, Peru, Thailand);
- 2 statements from representatives of NGOs (1 from China, 1 visiting delegate)
- 1 statement by representative from the private sector
- 2 statements from representatives of international organizations and agencies

Session Co-chairs summarize discussions under Plenary Session 3 A

Parallel Session 3B: Environmental assessment and planning

- Session Co-Chairs: Representative from the host country Mr. Peter Leonard, Senior Environment Advisor, Hydro-Québec-Production, Ms. Ute Collier, Global Freshwater Programme, WWF International
- Session rapporteur: Mark Radka, United Nations Environment Programme (UNEP), Paris

09:00- 09:20

Presentation: Effective environmental impact assessment: Best practices, methods and processes

 Mr. Peter Leonard, Senior Environment Advisor, Hydro-Québec-Production, (former Chair, International Association for Impact Assessment) (presentation)

09:20- 09:40

Presentation: Sustainable hydropower – Information and communication on good practices

 Dr. Helen Locher, Environmental Programmes Manager, Hydro Tasmania, Australia (paper) (presentation)

09:40- 09:55

Presentation: Effective environmental assessment: best practice in the planning cycle. Comprehensive options assessment

Mr. Alberto Calcagno, Manager, UNEP/DDP, Nairobi, Kenya (presentation)

0955-10:10

Presentation: Hydropower and the environment: Towards better decision making

Ms. Ute Collier, Global Freshwater Programme, WWF International (paper)

10:10-10:25

Presentation: Construction and Environment Protection of Guangzhou Pumped Storage Power Station (GPSPS)

 Mr. Luo Shaoji, Academician, Chinese Academy of Engineering Mr. Liu Guogang, Director, Guangzhou Pumped Storage Power Station

10:25-10:40

Presentation: *Mitigation of environmental impacts: IUCN projects and perspectives*

 Mr. Ger Bergkamp, Coordinator, Water and Nature Initiative, International Union for Conservation of Nature (IUCN), Gland, Switzerland (<u>presentation</u>)

10.40-10.55 Questions and answers

10:55-11:10 Coffee Break

11:10-11:25

Presentation: Three Gorges Project and the Environment

 Mr. Zheng Shouren, Academician, Chinese Academy of Engineering Mr. Liu Yuanxin, Senior Engineer, Three Gorges Project Construction Commission, China

11:25-11:40

Presentation: The issue of greenhouse gases from hydroelectric reservoirs: From boreal to tropical regions

• Mr. Alain Tremblay, Hydro-Québec, Canada (paper) (presentation)

11:40-11:55

Presentation: An overview of the environmental management of the Bakun hydroelectric project in Sarawak, Malaysia

• Mr. Ten Wuan Ping, Environmental Specialist, Sarawak Hydro Sdn Bhd (SHSB), Malaysia

11.55-12.25 Questions and answers

12:30-14:00 - Lunch Lunchtime Keynote Address:

Parallel Session 3B: Environmental assessment and planning (continued)

14:00 - 14:15

Presentation: Environmental issues and management for hydropower peaking operations

 Dr. Helen Locher, Environmental Programmes Manager, Hydro Tasmania, Australia (paper) (presentation)

14:15 - 14:30

Presentation: Ecological Compensations for Damed Rivers

• Mr. Dong Zheren, Professor, Chairman of China, Global Water Partnership

14:30 - 14.45

Presentation: Hydropower and sustainable development: A matter of ethical, social and environmental considerations

 Mr. Urban Norstedt, Director of Dam Safety, Vattenfall, Sweden, and former Chairman ICOLD Committee on Strategy

14:45 - 15:00

Presentation: Full evaluation on the social, ecological and environmental functions of hydro power generation

• Mr. Zhang Baoting, Secretary-General, China Hydropower Engineering Society

15:00 - 15:15

Presentation: Improving sediment handling in the Himalayas

 Mr. Pratik Man Singh Pradhan, Advisor/General Manager, Nepal Hydropower Association / Hydro Lab Pvt. Ltd., Kathmandu, Nepal (<u>paper</u>)

15:15 - 15:30

Presentation: Lao Hydropower Potential and Policy in the Greater Mekong Subregion Context

Mr. Davong Phonekeo, Manager, Electricité du Laos, Vientiane, Lao PDR (paper)

15:30 - 15:45

Presentation: Environmental compacts of hydropower and sustainable development

• Mr. Gu Hongbin, Chinese Hydropower Engineeering Consulting Group Corporation

15.45 - 16.00 Questions and answers

16:00-16:15 Coffee Break

16:15-16:30

Presentation: Perspectives for development of Hydropower, Mongolia

Mr. Togooch Ganbold, Fuel and Energy Agency, Government

16:30-16:45

Presentation: Considerations on the integrated watershed management in Western China

• Mr. Huang Guangcheng, Yunnan Academy of Social Science (tbc)

16:45-17:00 Questions and answers

17:00-18:00 Concluding summary on Parallel Session 3B (Environmental Issues)

Session Co-chairs invite brief statements (5 minutes each) from the floor :

- 2 statements from representatives of host country:
 - Mr. Cao Chusheng, Academician, Chinese Academy of Engineering Mr. Li Qingbin, Professor, Qinghua University
- 4 statements from representatives of developing countries (Cambodia, Kyrgyzstan, Paraguay, Rep. of Korea)
- 2 statements from representatives of NGOs (1 from China, 1 visiting delegate)
- 1 statement by representative of private sector

• 2 statements from representatives of international organizations and agencies Session Co-chairs summarize discussions under Plenary Session 3 B

Parallel Session 3C: <u>Environment-friendly technologies and policies: Experiences and</u> perspectives for hydropower development in developing countries

Session Co-Chairs: Mr. Weng Lida, President, Changjiang Water Resources Bureau Mr. Mithat Rende, Head of Department, Water Resources and Transboundary Waters, Ministry of Foreign Affairs, Ankara, Turkey Mr. Sonam Tshering, Director-General, Department of Energy, Kingdom of Bhutan

Session rapporteur: Mr. Pancrace Niyimbona, Energy Affairs Office, United Nations Economic Commission for Africa (UNECA)

09:00- 09.20

Presentation: A framework for policy and decision making on dam and hydro plant rehabilitation

• Mr. Laurent Bellet, Mr. Jean-Michel Devernay, Eléctricité de France (et.al) (paper)

09:20- 09:40

Presentation: Sustainability drivers for hydropower design and operation

• Mr. Richard Taylor, International Hydropower Association

09:40- 09:55

Presentation: Commissioning, licensing, dam monitoring and dam safety in China

• Mr. Liu Ning, Chief Engineer, Ministry of Water Resources, China

09:55-10:10

Presentation: Scope and options for refurbishing existing facilities

Mr. Michael Liu, Vice President, Shanghai Hydro Equipment Company (SHEC) (presentation)

10:10-10:25

Presentation: Key Technological Issues in Constructing an Ecology and Environment-friendly Hydropower Project Development System

Mr. Gao Jizhang, President, China Institute of Water Resources and Hydropower Research

10:25-10:40

Presentation: Establishing a scientific development philosophy and Innovating hydro construction techniques to realize a harmonious development of resources exploitation and ecoenvironment protection

Mr. Guo Jiantang, President, SINO Hydro Corporation

10:40-10:55 Questions and Answers

10:55-11:10 - Coffee Break

11:10-11:25

Presentation: Seismic Safety for Hydropower Engineering in China

• Mr. Chen Houqun, Chinese Academy of Engineering

11:25-11:40

Presentation: Integration of Water and Wind Energy

• Mr. Mark Kelleher, Hydro Tasmania, Australia (paper)

11:40-11:55

Presentation: Momentum and Vitality for Social Sustainable Development From Existing Hydropower Dams

• Mr. Wang Yan, Deputy Director-General, Center for Dam Safety

11:55-12:10

Presentation: To Build or to Remove Dams

• Representative from China on behalf of Mr. Pan Jiazheng, Academician, Chinese Academy of Engineering, Chinese Academy of Science

12:10-12:25 Questions and answers

October 28 (Thursday)

12:30-14:00 - Lunch Lunchtime Keynote Address:

Parallel Session 3C: Environment-friendly technologies and policies: Experiences and perspectives for hydropower development in developing countries (continued)

14:00-14:15

Presentation: Hydropower dams and fluvial morphological impacts: An African perspective

 Mr. Gerrit Basson, Professor & Head, Water Division, Dept. of Civil Engineering, University of Stellenbosch, South Africa, Chairman of the ICOLD Committee on Reservoir Sedimentation (paper)

14:15-14:30

Presentation: Sediment management and reservoir operations in China

• Mr. Han Qiwei, Academician, Chinese Academy of Engineering

14:30-14:45

Presentation: Environmental Protection in Hydropower Planning and Hydroelectric Project Designing of China

• Mr. Zhou Jianping. Chief Engineer, China Hydropower Engineering Consulting Group Corporation

14:45-15:00

Presentation: Latest perspectives on dam safety

To be announced

15:00-15:15

Presentation: Multi-purpose projects: Profile and experiences of the Xiaolangdi project

• Mr. Wang Xianru, Professor, Yellow River Resources Commission

15:15-15:30

Presentation: Development of hydropower, regional development and international cooperation

 Mr. Mithat Rende, Head of Department, Water Resources and Transboundary Waters, Ministry of Foreign Affairs, Ankara, Turkey

15:30-15:45

Presentation: Regional and international cooperation on the development of hydropower: Shared river basins in Africa

- Mr. Pancrace Niyimbona, Energy Affairs Officer, United Nations Economic Commission for Africa (UN ECA), Addis Ababa, Ethiopia
- 15.45-16.00 Questions and answers
- 16:00-16:15 Coffee Break

16:15-16:30

Presentation: Development of hydropower in Democratic People's Republic of Korea

• Mr. Kim Tok Gil, Senior Expert for Sustainable Development, Ministry of Foreign Affairs, and Mr. Kim Kyong Su, Senior Officer, Department of Hydropower, Ministry of Electricity and Coal Mines;

16:30-17:00 Questions and answers

17:00-18:00 Concluding summary on Parallel Session 3C (Technical and Policy Issues)

Session Co-chairs invite brief statements (5 minutes each) from the floor :

- 2 statements by representatives from host country:
 - Mr. Qing Changgeng, Professor, Kunming Design Institute
 - Mr. Sha Yiqiang, Chinese Electric Industry Association
- 4 statements by representatives from developing countries (Argentina, Bhutan, Viet Nam)
- 2 statements by representatives of NGOs (1 from China, 1 visiting delegate)
- 1 statement by representative from the private sector
- 2 statements by representatives from international organizations and agencies

Session Co-chairs summarize discussions under Plenary Session 3 C

October 29 (Friday)

08:30-11:35 Plenary Session 4: Hydro development: Investment challenges and opportunities

Session Co-Chairs: Mr. Barry Trembath, Lead Power Engineer, East Asia & Pacific Region, World Bank,

Mr. Yuan De, Department Manager, China Power Investment Corporation, Mr. Ralph Wahnschafft, Energy and Transport Branch, Division fro Sustainable Development, UNDESA

08:30-08:50

Presentation: A fresh prospects for financing hydropower in developing countries

Mr. Chris Head, Consulting Engineer, United Kingdom (paper)

08:50- 09:20

Presentation: Development of Hydropower in East Asia: Current and future World Bank activities

- Part 1: Overall Plans, Mr. Jamal Saghir, Director, Energy and Water Department (presentation)
- Part 2: East Asia and Pacific activities, Ms. Wu Junhui, Director, East Asia (presentation)

09:20- 09:35

Presentation: A developer's perspective on hydropower

Mr. Jean-Michel Devernay, Deputy Managing Director, Eléctricité de France (et.al)

09:35-09:50

Presentation: Hydroelectric Exploitation and Sustainable Development of the Yanlong River

Mr. Chen Yunhua, President, Ertan Hydropower Development Corporation Ltd.

09:50-10:05

Presentation: Persist with the Scientific Exploitation of Hydropower to Realize the Sustainable Development of Daduhe Valley

Mr. Chen Fei, Deputy General Manager, China Guodian Corporation

10:05-10:20

Presentation: Creating a favourable environment for hydro investment

• Mr. Bernard Tardieu, Chairman and CEO, Coyne et Bellier, France

10:20-10:35 Coffee Break

10:35-10:50

Presentation: The role of the consultant in achieving sustainable outcomes

• Mr. Refaat Abdel-Malek, Vice-Chairman, MWH Global, USA

10:50-11:05

Presentation: Regulatory and contractual issues relating to hydro investment

• Mr. Garvin Warnock, Managing Director, Monitor (International) Ltd., Edinburgh, UK (paper)

11.05-11.35 Questions and answers

11:35-12:30 - Closing Session

Session Co-Chairs: Mr. Kui-Nang Mak, Division for Sustainable Development DESA

- Mr. Wang Jun, Deputy Director-General, Dept. of Energy Bureau, NDRC, China
 - Mr. Jamal Saghir, Director, Water and Energy Department, World Bank
- Session rapporteurs of parallel sessions A, B, and C on social, environmental and technical issues report to the plenary with summary of discussions.
- Presentation and adoption of Beijing Declaration on Hydropower and Sustainable Development
- Closing statements