

Fourth International Conference on Water Resources and Renewable Energy Development in Asia Conference and Exhibition

Shangri-La Hotel, Chiang Mai, Thailand ~ 26 and 27 March 2012

organized and hosted by THE INTERNATIONAL JOURNAL ON HYDROPOWER & DAMS

Following three successful events, which took place in Bangkok, Thailand (2006), Danang, Vietnam (2008), and Kuching, Malaysia (2010), our biennial regional conference is returning to Thailand, to the historic northern city of Chiang Mai. Located in the famous Golden Triangle, the culturally rich university town of Chiang Mai offers delegates the chance to visit projects in northern Thailand, and in the neighbouring Lao PDR and Myanmar, where major hydro projects are under way.

There will also be the opportunity to explore fascinating local night markets and ancient temples, to visit elephant sanctuaries, or to take part on night safaris.

With a fast growing economy and a large agricultural sector, energy and water supply continue to be important issues in the Kingdom. The Kwai Noi project (with a 75 m-high CFRD and a 80 m-high earth core rockfill dam) was recently completed to provide irrigation waters to the area. More than 4500 MW of hydro capacity is installed around the country with a further 500 MW planned. Mini hydro schemes are being installed at some major dams built principally for irrigation and flood control.

In addition to the country's own schemes, Thailand is also an important market for the hydro production of neighbouring countries, with cross-border schemes now proposed or completed in Lao PDR, Vietnam, Cambodia and Myanmar. By importing capacity, Thailand is playing a major role in the socio-economic development of its neighbours.

The Conference is being planned in collaboration with the Electricity Generating Authority of Thailand. Speakers will represent the major water and energy utilities of the Asia and Pacific regions, as well as financiers, environmental specialists, and international experts on all aspects of dams and renewable energy. Delegations from about 50 countries attend these Asian events, to discuss all aspects of water resources development of particular relevance to the Asian region.

Supporting Organizations:













PROGRAMME FORMAT

ASIA 2012 will include presentations and discussions on the opportunities, development targets, accomplishments and challenges of countries in the Asia Pacific region. Topics are listed on the next page, and abstracts are now invited for consideration by our organizing team and International Steering Committee (see Call for Papers).

Many sessions will begin with keynote addresses: eminent world experts from the public and private sectors will share their views on key topics of relevance to the region.

Workshops and Roundtable events will provide an opportunity for some specialized topics to be explored in greater depth than would be possible in a traditional conference session.

This year, one of the post-conference tours will contain a Workshop session, at the Nam Theun 2 scheme in Laos, focusing on environmental and social aspects.

WATER RESOURCES AND HYDRO DEVELOPMENT IN ASIA

The Asian continent has an installed capacity of 362 000 MW with a further 136 500 MW under construction, making this the most active region in the world for hydro development and water resources development. Countries such as China, India, Vietnam, Pakistan, Bhutan, Lao PDR and the Russian Federation have large programmes under way, and many others such as Nepal, Myanmar and Indonesia have major potential and substantial development plans.



WHY CHIANG MAI?

Chiang Mai is a city ideally positioned to showcase the significant hydro and water resource developments of Thailand and neighbouring countries. Bordering Myanmar to the west, Cambodia to the east, and Lao PDR - the so-called battery of Southeast Asia - to the north, Thailand offers water resource professionals a gateway to the region's fast moving developments. Chiang Mai is the capital city of northern Thailand

and the second largest city in the country. Located approximately 700 km north of Bangkok, Chiang Mai is on the Ping river and is surrounded by the highest mountains in the country. As well as the two-day technical conference, an international exhibition of the world's leading companies, and optional study tours to Laos and Myanmar, delegates will have the opportunity to enjoy the cultural, historic and gastronomic delights of the region.

CONFERENCE VENUE

The five-star Shangri-La luxury hotel, with 281 rooms and suites, is located in a garden setting on Chang Klan Road, which is within easy walking distance of the city's famous Night Bazaar and boutiques. The hotel is just a 10-minute drive from Chiang Mai International Airport which has direct flights to Bangkok, Kuala Lumpur, Singapore, Seoul, Manila, Hong Kong, Taipei and many other domestic and international destinations.

ACCOMMODATION

Rooms have been blocked at favourable rates for ASIA 2012 participants at the five-star Shangri-La Hotel, the conference venue. ASIA 2012 participants will be entitled to favourable rates at a number of 3, 4 and 5 star category hotels just a few minutes walk from the conference and exhibition venue.

SOCIAL PROGRAMME

The Welcome Reception, in an informal setting with cocktails and an oriental buffet is being arranged for the first evening and will provide an opportunity to make new contacts and renew past acquaintances. The conference dinner will be in sumptuous surroundings, reflecting the culture of the hill tribes of northern Thailand.

CALL FOR PAPERS

Papers are invited on the following, or related themes. See submission of abstracts.

PLANNING AND DEVELOPMENT

- Potential for renewable energy development
- Review of plans and progress in South and East Asia
- The value of integrated regional development
- International and cross-border cooperation •
- Appropriate project planning and benefit sharing •
- Ensuring sustainability and maximizing benefits
- Innovative solutions in design and construction

HYDROLOGY AND FLOOD MANAGEMENT

- Hydrology: flood mitigation and management
- Implications of climate change
- Water infrastructure and flood discharge works (innovation. efficiency, safety and economy)

ENVIRONMENTAL AND SOCIAL ASPECTS

- Impact assessment: methodology and experience
- Mitigation measures for environmental and social impacts
- Greenhouse gas emissions from reservoirs
- Facilitating communications with project affected people
- Capacity building and training

FINANCE, ECONOMICS AND COMMERCIAL ASPECTS

- Securing project finance for water and energy infrastructure
- Carbon credits, carbon trading and income diversification
- Power trading and purchase agreements
- Legal and contractual issues

TECHNOLOGY: HYDRO AND OTHER RENEWABLES

- Emerging developments in renewable energy
- Technology: towards safe and economic schemes
- Hydro machinery for challenging conditions
- R&D for renewable energy equipment
- Marine energy: global potential and case studies
- Hydro in synergy with other renewable energy sources
- Grid operation: national and integrated regional systems
- Maintenance, refurbishment and upgrading
- Optimizing operation of powerplants
- Renewable energy and smart grid systems
- Pumped storage: technology, role in the grid and benefits
- Low cost solutions for rural electrification

CIVIL WORKS

- Site planning for safety and efficiency
- Remote sites and extreme climates (hot and cold)
- Construction management
- Materials for dams: past experience and future developments
- Selecting appropriate construction equipment
- Sedimentation management: planning and design approaches

SAFETY

- Approaches to complex geology and design for seismic areas
- Learning from accidents and failures
- Upgrading of civil works and powerplants to enhance safety
- · Health and safety of the workforce on site



INTERNATIONAL STEERING COMMITTEE INCLUDES:

S. Alam, Consultant, France Dr E. Bellendir, Director, VNIIG, Russian Federation Dr Chen Shiun, Sarawak Energy Bhd, Malaysia Boonin Chuenchavalit, EGAT (Bhumibol HPP), Thailand E. Baardsen, Asian Development Bank Prof Luis Berga, UPC, Spain Dao Trong Tu, Director of Operations Division. MRC, Laos Do Doc Quan, MOI, Vietnam Dr Alan Dredge, Colenco, Switzerland Dr Malcolm Dunstan, Director, MD&A, UK M. Fauzi, Ministry of Public Utilities, Malaysia Brian Forbes, GHD Pty Ltd, Australia M. François, R&D Director, Alstom Power Hydro, France M. Gopalakrishnan, Secretary General, ICID, India J.H. Gummer, Director, Hydro Consult Pty Ltd, Australia

C.R. Head, Consultant, UK Dr Jia Jinsheng, President of ICOLD, China D. Kenneally, SMEC, Australia Dr Harald Kreuzer, Consultant, Switzerland Prof R. Lafitte, EPFL, Switzerland Dr Peter Lee, Consultant, UK F. Lempérière, Director, Hydro Co-op, France B. Leyland, Consultant, New Zealand Lin Chuxue, China Three Gorges Project Corp, China Dr Chandra Madramootoo, President, ICID Toyoto Matsuoka, TEPCO, Japan U Myo Myint, Vice Minister of Electric Power, Myanmar Kanchit Ngamsanroaj, EGAT (Bhumibol HPP), Thailand Mohd Nazri Bin Shahruddin, Tenaga Nasional Bhd, Malaysia Orathai Ongrattana, Dept of Water Resources, Thailand

Ir Zulkifle Osman, Sarawak Hidro Sdn Bhd, Malaysia A. Palmieri, Lead Dam Specialist, World Bank Prof Pham Hong Giang, MARD and VNCOLD, Vietnam J. Plummer, Senior Financial Analyst, World Bank Abdul Razak Bin Abdul Majid, Tenaga Nasional Bhd, Malaysia Chhewang Rinzin, Druk Green Power Corp Ltd, Bhutan Dr A. Scuero, Carpi, Italy

Dr V. Semenkov, Consultant, Russian Federation N.R. Shrestha, Nepal Hydropower Association, Nepal Dr S. Sparkes, Multiconsult, Norway/Laos Dr Sompop Sucharit, Royal Irrigation District, Thailand Kitti Tancharoen, Assistant Governor, EGAT, Thailand C.V.J. Varma, President, Council of Power Utilities, India Prof D.A. Williams, CEO, British Hydropower Association, UK Prof Dr Xia Jun, President, IWRA

SUBMISSION OF ABSTRACTS

Abstracts of up to 800 words, in English, are now invited on the themes listed or related topics. Please mail, fax or email abstracts (in <u>Word</u> format, not PDF) to the address below. A short CV of each author should be included.

The abstract should summarize precisely the scope and content of the proposed paper. No artwork or detailed bibliography is required at this stage. In the case of any project to be described, please mention its current status or date of completion. If the abstract is sent by email, please incorporate the author's name in the file name.

Please note: abstracts should only be submitted if the author would be able to attend the conference (or send a representative).

Please obtain any necessary clearance, and check your availability to attend, before submitting the abstract.

If the paper is accepted, you will be asked to sign a form confirming willingness to attend; it is <u>essential</u> that we receive this undertaking before allocating time for an oral presentation.

The deadline for receipt of abstracts is <u>30 June 2011</u>.

Authors will be notified in September 2011 about whether or not their paper has been accepted for presentation, or for publication in the Proceedings. Those with papers accepted should then confirm attendance. Abstracts will be reviewed by two or more experts on our International Steering Committee, and you may be asked to modify some aspects of your proposed paper. As this review process takes some time, we urge you to submit abstracts promptly (if possible well before the final deadline).

Full papers will be required by <u>31 December 2011</u>; format guidelines will be sent to all authors whose papers are accepted. A hard copy and an electronic file of each final paper will be required.

Full details of the technical and social programmes, and more information about the excursions, accommodation and registration fees, will be published in the Final Bulletin, which will be distributed in November 2011.

HYDROPOWER & DAMS

Meanwhile, information about ASIA 2012 will be updated regularly in the Journal *Hydropower & Dams*, by email, and on our website:

(www.hydropower-dams.com).

If you do not receive regular copies of the Journal and would like to subscribe now, please contact our Subscriptions Manager, Maria Flintan (email: subs@hydropower-dams.com) or tick the appropriate box on the form below. Subscribers to *Hydropower & Dams* will be eligible for reduced registration fees.

ASIA 2012 - Water Resources and Renewable Energy Development in Asia - IV

Chiang Mai, Thailand ~ 26 and 27 March 2012

- I am interested in attending the Conference and Exhibition as a delegate. Please send further details.
- 🔲 I attach an abstract for consideration. If it is accepted, I or my representative will attend the conference to present the paper.
- My organization may wish to participate in the Exhibition. Please send further details.
- I am interested in sponsorship opportunities (coffee breaks, etc). Please send details.
- I would like to subscribe to *The International Journal on Hydropower & Dams*. (When registering later as a delegate I wish to take advantage of the reduced registration fees for subscribers).

| Name: | Position/Dept: |
|-----------------------|-------------------|
| Organization: | |
| Address: | |
| Country: | Email: |
| Fax: (+ int. code) | Tel: (+int. code) |
| Proposed paper topic: | |

CONTACT DETAILS

Mrs Margaret Bourke, Conference Project Manager Aqua ~ Media International Ltd, PO Box 285, Wallington, Surrey SM6 6AN, UK. Tel: +44 20 8773 7244 ~ Fax: + 44 20 8773 7255 ~ Email: mb@hydropower-dams.com

STUDY TOURS

Three post-Conference study tours are being planned to follow ASIA 2012. Provisional details are set out below, but these may be subject to slight changes. Full details will be announced in our next update, when all details of logistics have been finalized.

TOUR A - LAOS (with optional stay in Bangkok)

Three-day technical tour: Nam Theun 2 and Theun Hinboun Extension, Laos; Option to spend extra 1 or 2 days in Bangkok

Delegates will travel by air from Chiang Mai to Nakom Phanom, in northeastern Thailand, via Bangkok. On arrival, a river crossing will be made to the township of Thakek, on the Lao side of the Mekong. The evening meal will be beside the Mekong river.

On the following day, an early morning drive through spectacular cliff-face scenery will take participants to the newly completed Nam Theun 2 visitor centre. Here project staff will provide background information to the project, and an inter-active Workshop session will be held. Later, there will be a short drive up the escarpment leading to the plateau town of Nakai, the largest of 14 resettlement villages. Delegates will be able to visit the intake structures and some of the many successful livelihood development projects. The drive will continue past the dam site and beyond the reservoir to the town of Lak Xao for dinner and an overnight stay.

The tour will continue on the next morning to the Theun Hinboun extension project, for a tour of the scheme that will include a resettlement village, the dam site, headworks, weirs and the irrigation system. Following the project tour, the group will travel on by coach to the Lao capital Vientiane, where there will be opportunity to visit some of the craft shops or temples before a late evening flight to Bangkok, for an overnight stay.

Those with time to stay on in Bangkok can enjoy a day of relaxation and sightseeing, including a city tour to see the magnificent temples, world-class restaurants, and famous shopping markets. An optional second overnight stay can be arranged.

TOUR B - MYANMAR

Four days: RCC dams in Myanmar; Lake Inle; Option to continue to Bagan

The group will fly from Chiang Mai to Yangon, and after a brief tour to see the main sites of interest, will travel on by road to the city of Naw Pi Taw. In the afternoon there will be a visit to the famous gemstone museum, followed by dinner and an overnight stay. On the second day the tour will continue to the site of the Upper Paung Laung RCC dam and hydro project, under construction deep in the jungle. En route, the coach will pass by the existing Paung Laung embankment dam and reservoir. Upper Paung Laung will be nearing completion by the time of the trip. The group will return in the late afternoon to Naw Pi Taw for a second overnight stay.

The next day participants will continue by coach to Mandalay, with a stop en route for refreshments. Lunch will be a barbecue at a viewing point overlooking the Yeywa RCC dam. Dinner and overnight stay in the picturesque town of Mandalay.

On the final full day of the tour, the group will continue by road from Mandalay to He Ho, for a visit to the scenic Lake Inle. This freshwater lake, in the Shan hills, is the country's second largest, and is famous for its floating islands and leg-rowing Inthas (see central photo, on the right). The surrounding area is renowned for its weaving industry. A Farewell Dinner and overnight stay will be at a resort by the lake.

The group will return after breakfast to Yangon. For those wishing to stay on in Myanmar, optional touristic trips can be arranged, for example to see the stunning ancient city of Bagan with its hundreds of stupas and temples.

TOUR C - THAILAND

Two days: Mini hydro at a multipurpose scheme; resort and sightseeing

Delegates will travel to the Mae Ngat plant, about one hour from Chiang Mai, which has been built on the river outlet of a medium-sized irrigation storage dam. Releases are made for dry season irrigation demands only. Therefore, the flow variation (1 to 26 m³/s) and gross head variations (16 to 50 m) are substantial. The station is equipped with two 4500 kW vertical Kaplan units. Two 100 kW micro hydro plants were installed last year at the release channel as a micro hydro demonstration scheme. An overnight stay and day at leisure at a luxuryclass resort, with a sightseeing trip, is being planned for the second day. The group will pass through scenic areas in Mae Rim and Samoeng Districts, on the return to Chiang Mai.











TECHNICAL EXHIBITION

A major Technical Exhibition will take place alongside the ASIA 2012 Conference, at which international consultants, developers, contractors and suppliers will showcase their expertise in the fields of water infrastructure, hydropower equipment, monitoring systems, planning software, powerplant components and many other things. The leading professional associations in the field of water and energy will also display information.

Exhibition space is generally sold in units of 6 m² (with some larger and smaller units available this year) and includes panelling, a table, two chairs, spotlights, flooring and a company name sign. The price for one stand (6 m²) is US\$3200. Lunch and refreshments will be served each day in the Exhibition Halls, to ensure that international participants have plenty of time to visit the exhibitors.

Various opportunities will also be available to sponsor or co-sponsor social activities, such as apéritifs, lunches, receptions and coffee breaks. This can be a pleasant and memorable way of bringing your organization to the attention of the international participants.

To receive further details of the exhibition and/or sponsorship opportunities, please contact our Sales Team: Mr Gaël Bozec, Mr Lukas Port or Mrs Maria Loredo ~ Tel: + 44 20 8773 7250/7251/7252 • Email: sales@hydropower-dams.com





ASIA 2012 - Technical Exhibition

Shangri-La Hotel, Chiang Mai, Thailand ~ 26 and 27 March 2012

Booking form

Please complete this form and return it to Aqua Media International, PO Box 285, Wallington, Surrey, SM6 6AN, UK • Contact: Gaël Bozec, Sales & Marketing Manager Fax: +44 208 773 7255 • Email:sales@hydropower-dams.com

Basic stand 6 m² (3 m long by 2 m wide) Price US\$3000

- carpet surface
- frame with white panelling suitable for mounting posters (1 m wide x 2.4 m high)
- one table (with table cloth) and two meeting chairs
- name sign, in black text
- two spotlights per stand, including electricity supply
- wastepaper basket

The stand booking will also include one free registration for the conference (normally priced at around US\$1000)

Exhibition stand(s) booked Stand No: Size (in m²):

Price to pay/invoice (US\$3200 × number of stands):

| Company: | |
|-----------------|------|
| Contact name: | |
| Postal address: | |
| | |
| Tel: | Fax: |
| Email address: | |
| Website: | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Signature ____