

**Consultation on MRCs Hydropower Programme
25-26 September 2008**



*Sustainability assessment :
an industry approach*

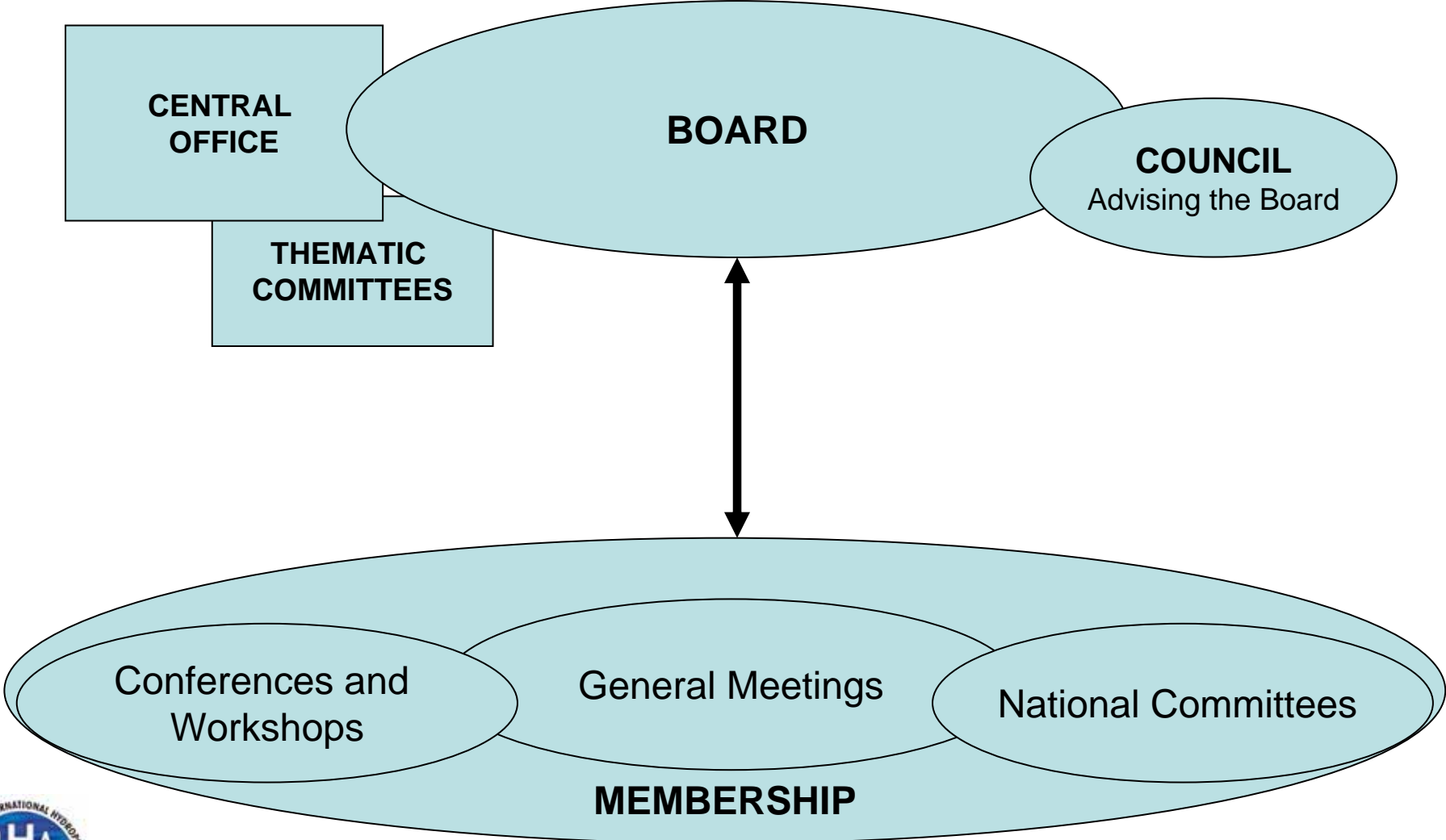
*Jean-Michel Devernay
Vice President
International Hydropower Association*

International Hydropower Association (IHA)

- Non-governmental mutual association of organizations and professionals working or studying in the hydropower sector.
- Founded in 1995, under the auspices of UNESCO, to advance knowledge on all aspects of hydropower and to promote good practice.
- **Mission: Advancing Sustainable Hydropower**
- **Vision:** Advancing hydropower's role in meeting the world's water and energy needs by:
 - Championing continuous improvement and sustainable practices
 - Building consensus through strong partnerships with other stakeholders
 - Driving initiatives to increase the contribution of the renewables sector, especially hydropower.



IHA Governance framework





IHA Board Members

President: Dr R. **Abdel-Malek** Exec. Director: Mr R.M. **Taylor**

Vice Presidents: Mr K.R.F. **Adams**, Mr J-M. **Devernay**, Mr R. **Gill**,
Dr J.L. **Karmacharya**, Dr T. **Moss**, Dr H.P. **Schiffer**

Board Members: Mr B. **Bjarnason**, Mr A.O. **Cardoso**, Mr P. **Cochet**,
Mr S.K. **Garg**, Mr J.U. **Haaheim**, Mr I. **Phiri**, Mr **Lin Chuxue**, Mr Y. **Prasad**,
Hon. P. **Rae**, Ms N. **Sood**, Mr V. **Sinyugin**, Ms M. **Truchon**



IHA Membership

18 Sponsors...



...and 99 Corporate Members

in more than **60 countries**

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IHA Work Programmes

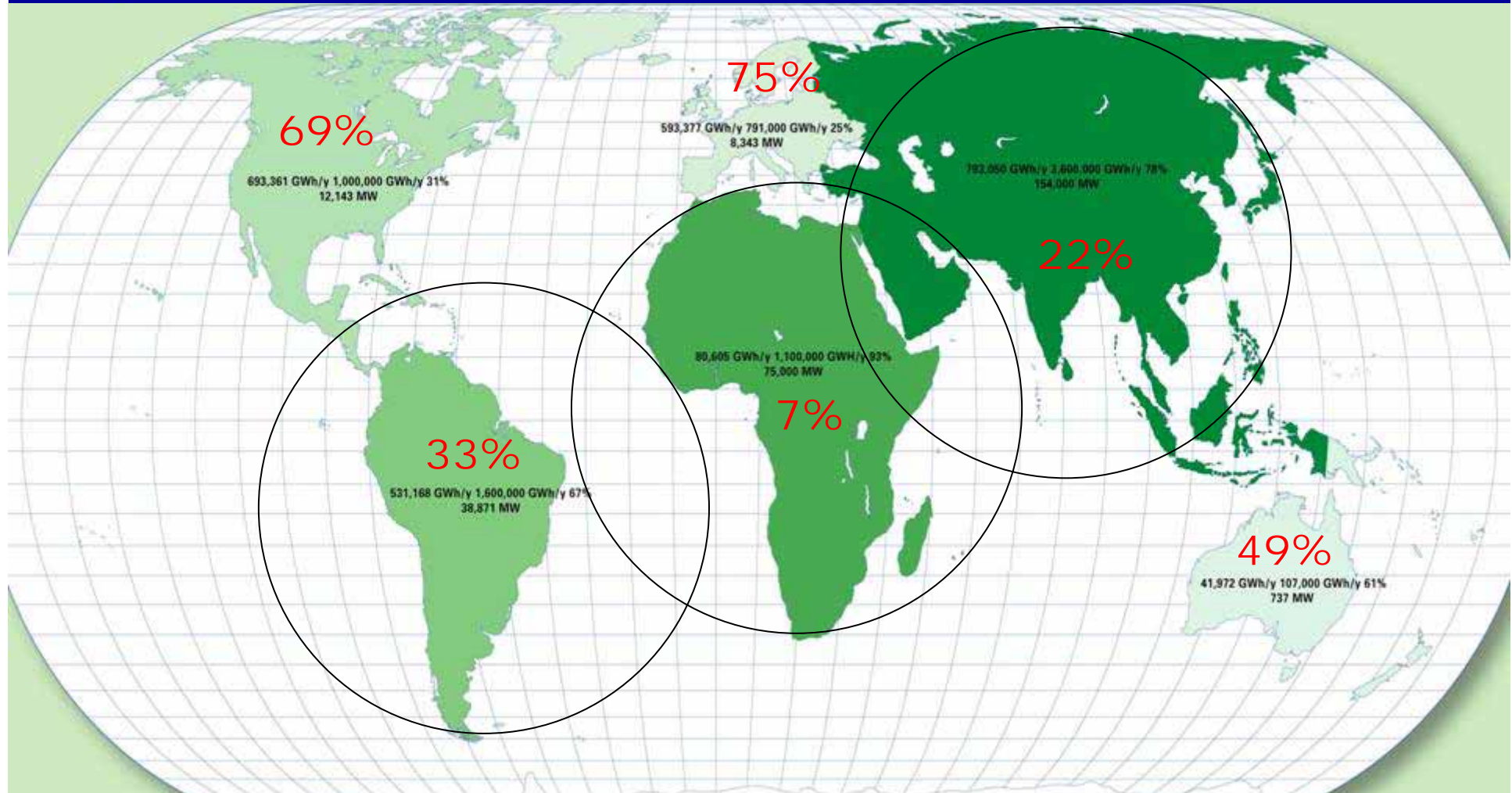
1 . Water, Energy & Climate Change

2 . Hydropower Sustainability

3 . Hydropower Financing

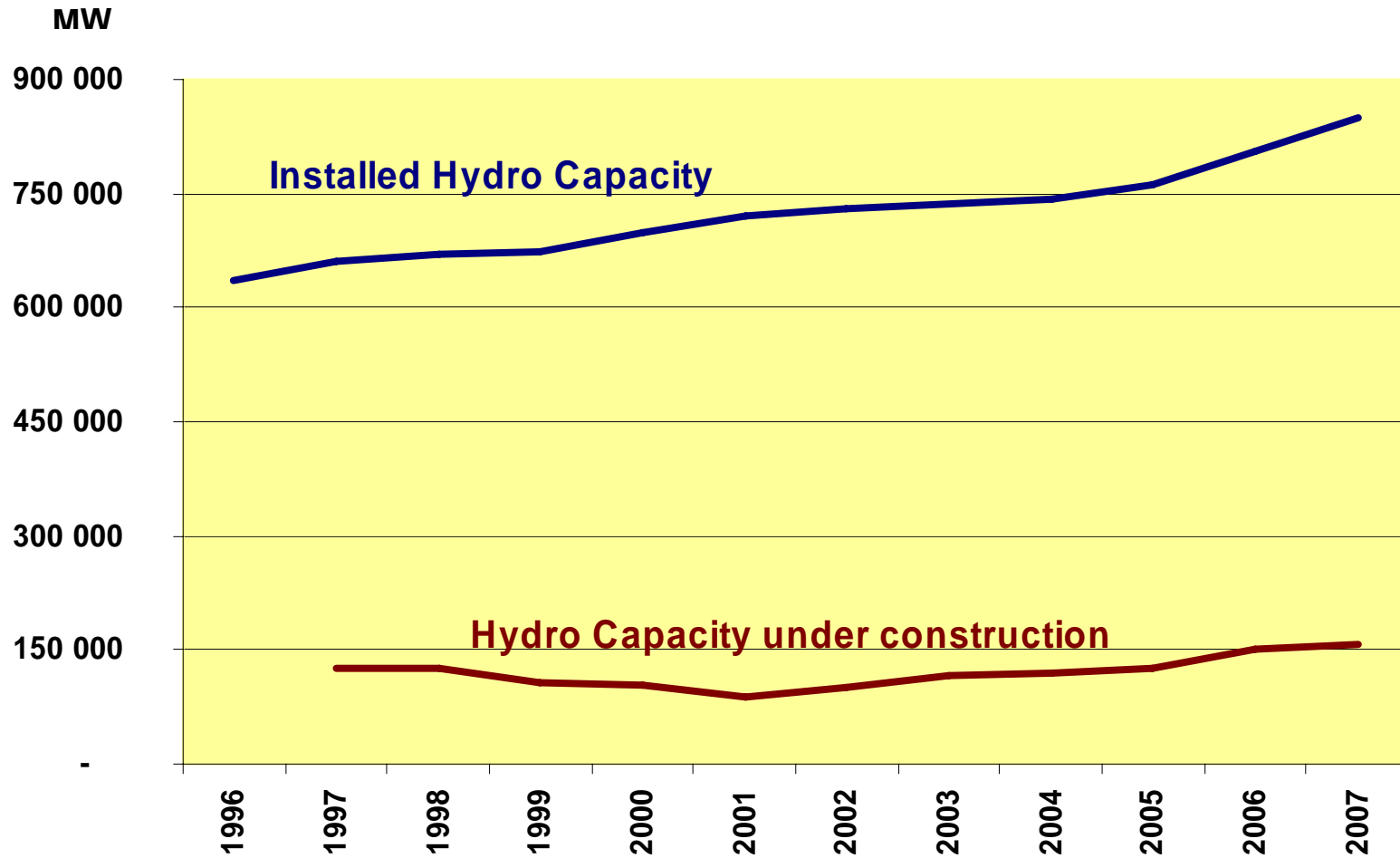


World's realistic potential developed: 33 %
Current hydro production: 2740 TWh/y
Realistic potential production: >8000 TWh/y



Current hydro generation: Africa = 80 Asia = 800 Australasia = 43
Europe = 570 N/C America = 700 S America = 550 (TWh/year)

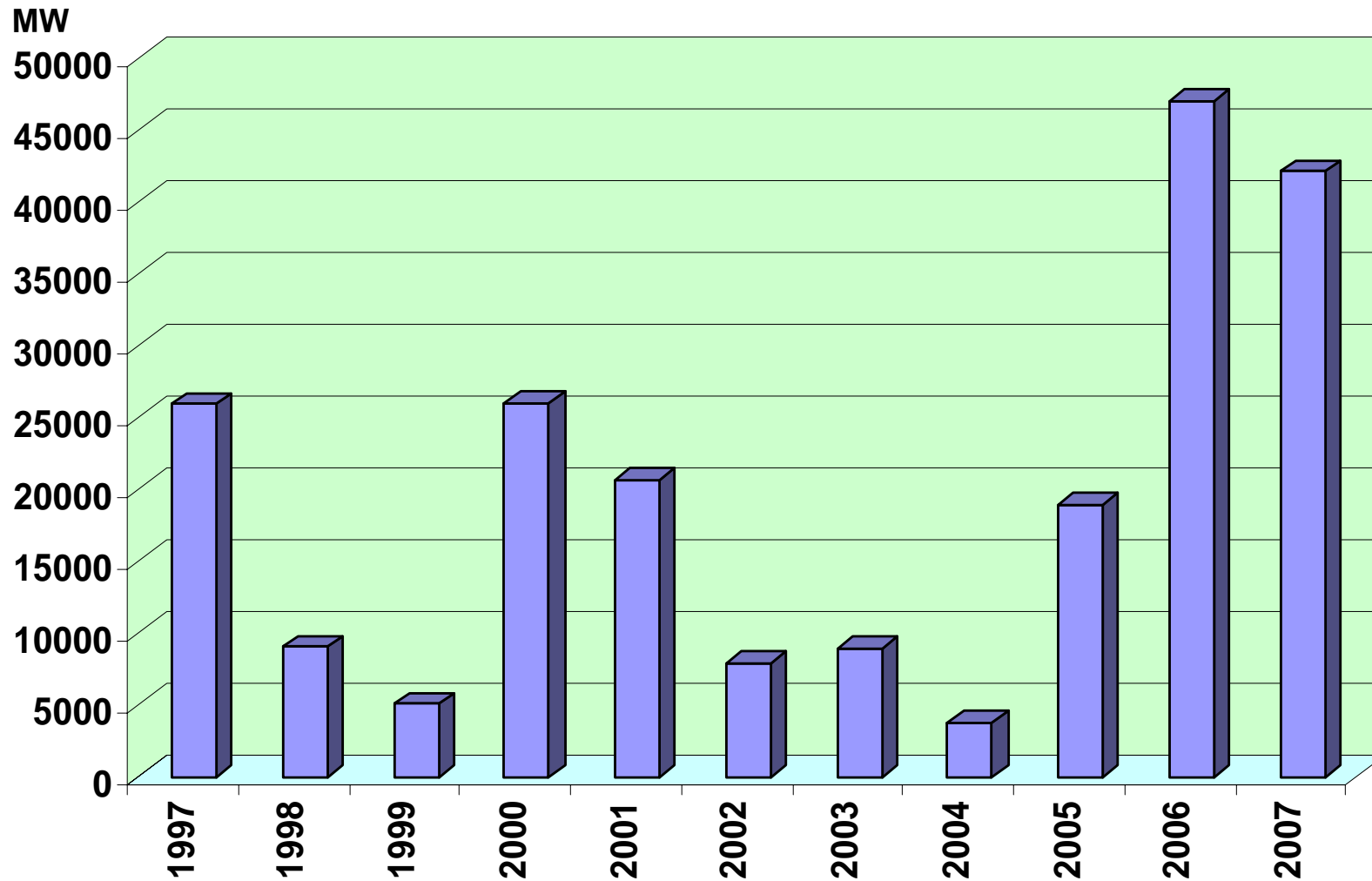
Worldwide Hydropower Trends



Source : Hydropower & Dams yearbook



Worldwide yearly additional hydro capacity (MW)



Source : Hydropower & Dams yearbook



Why is the Industry interested in sustainability ?

1 . Corporate social & environmental responsibility

2 . Risk reduction

3 . Financing



What's the IHA's approach to sustainability ?

- 1 . Strive to transform risks into opportunities**
- 2 . Be proactive and pragmatic**
- 3 . Work with others**



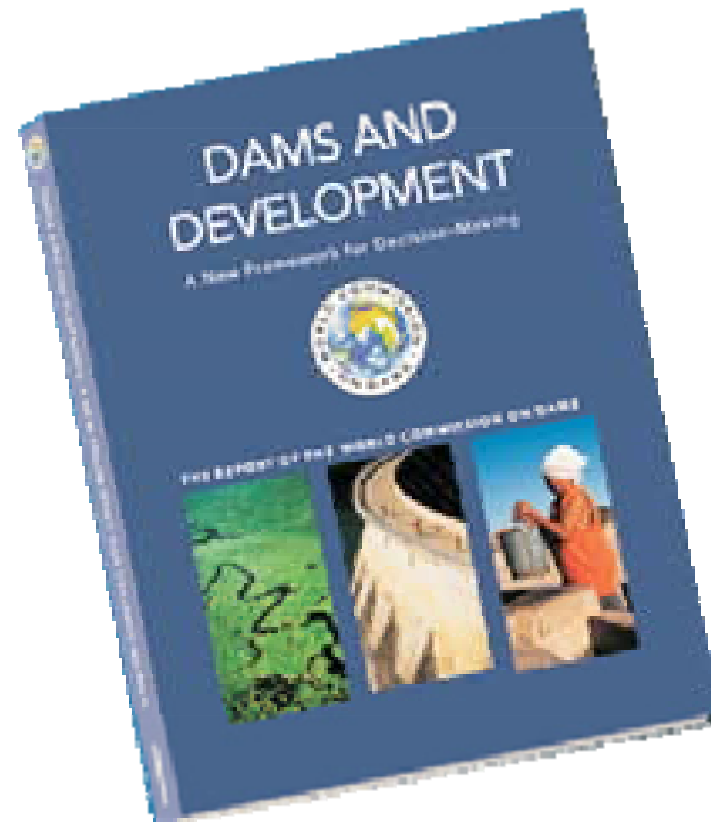
The common ground for the post-WCD dialogue

Core Values

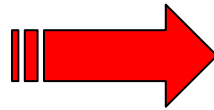
- Equity
- Efficiency
- Participatory decision-making
- Sustainability
- Accountability

Strategic Priorities

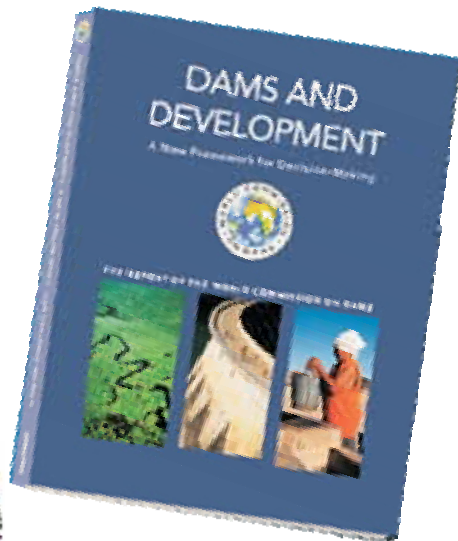
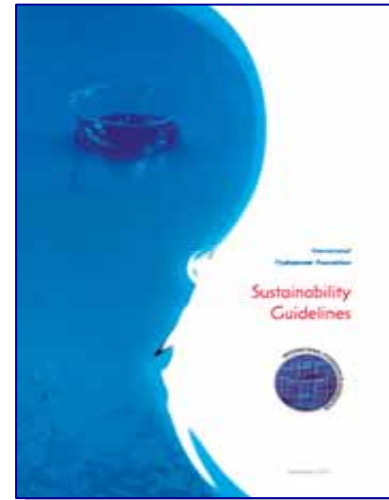
- Gaining public acceptance
- Comprehensive options assessment,
- Addressing existing dams,
- Sustaining rivers and livelihoods,
- Recognizing entitlements and sharing benefits,
- Ensuring compliance,
- Sharing rivers for peace, development and security



A much needed initiative from the Hydropower sector



IHA Sustainability Guidelines



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The IHA GUIDELINES

- Were elaborated through a consultative process (WB, WWF, ...)
- Are widely recognized by
 - United Nations (UNESCO, UNEP, ...)
 - OECD
 - Lenders
 - Governments
 - NGOs such as WWF, OXFAM,...
- Provide a framework for good practices, consistent with the WCD core values and strategic priorities
- Cover the 3 pillars of sustainable Development
- Concern all actors of Sustainable Development (governments, industry, civil society, consumers,..) and their collective responsibility
- Provide a pragmatic and rigorous tool, which can really be used by all actors of hydro projects



A practical tool : the Sustainability Assessment Protocol

- **Volume A : New Energy projects**
- **Volume B : Assessing New Hydro Projects**
- **Volume C : Assessing Operating Hydropower Facilities**

For each volume :

- **Revue of 20 key aspects of sustainability**
- **Scoring of each aspect (0 à 5) based on Objective Evidence**



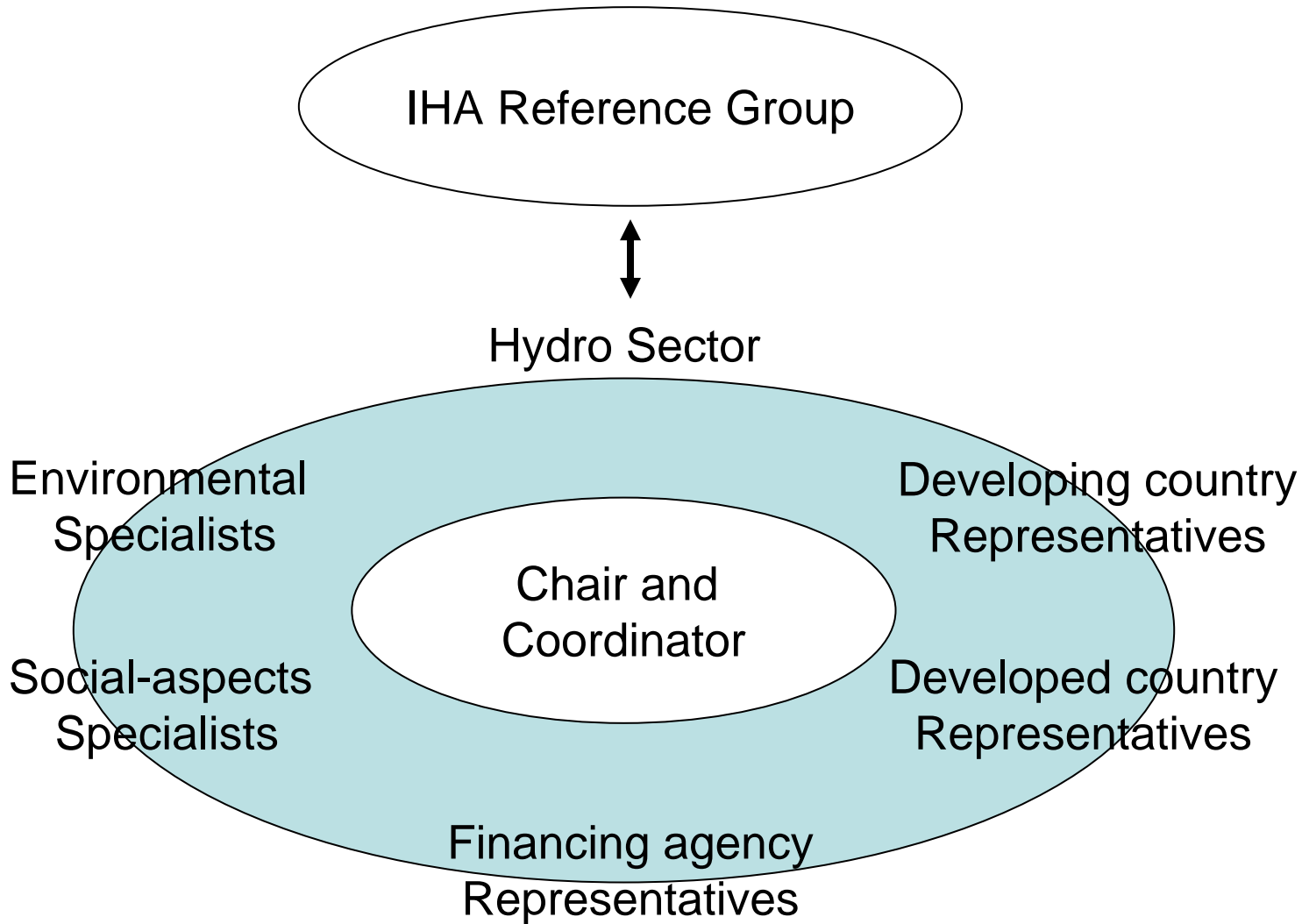
Sustainability Assessment Protocol – Training Workshops

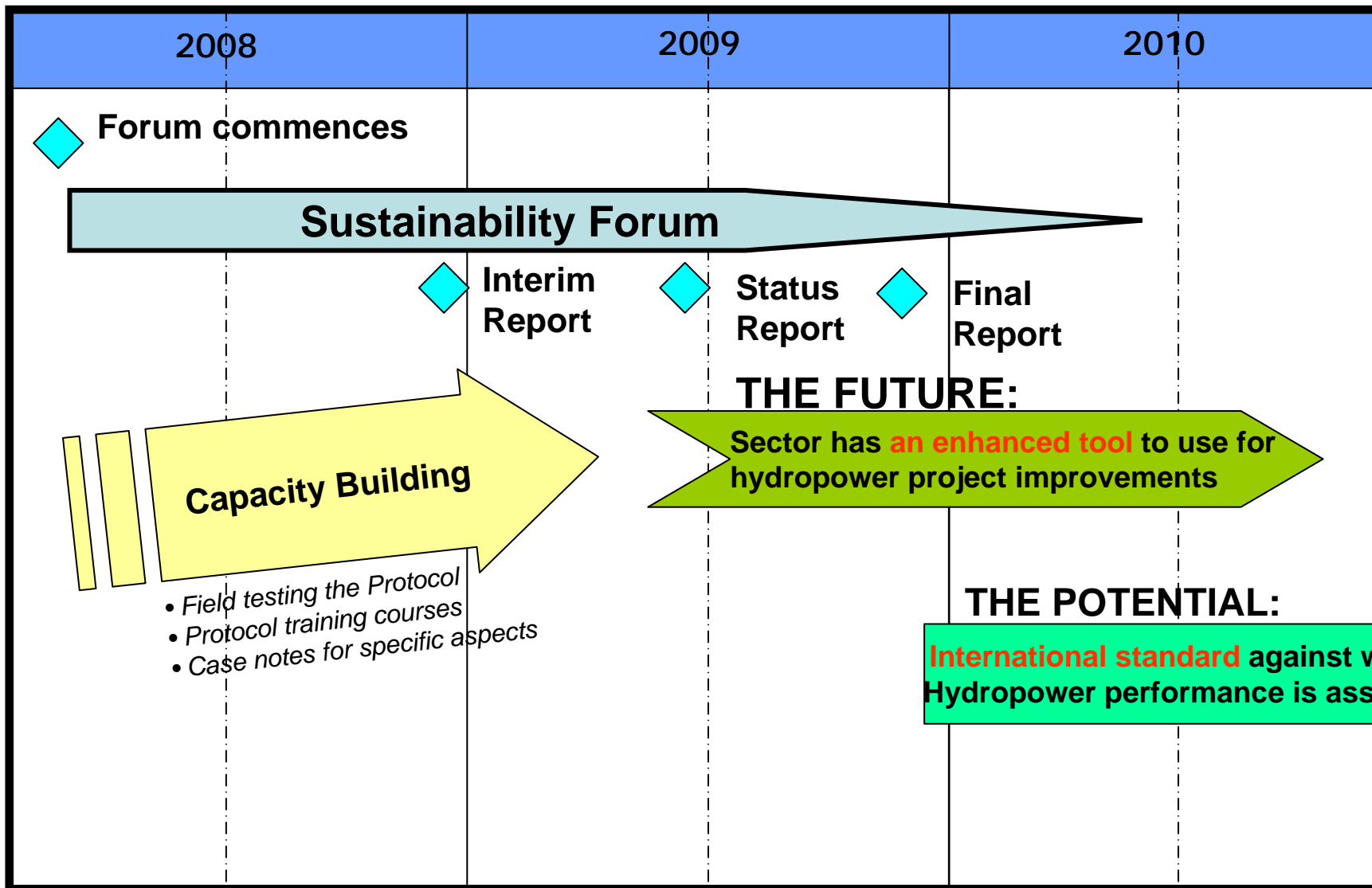
Antalya (May 2007); Chattanooga (July 2007); Winnipeg (March 2008),
Chicago (July 2008), Iguassu (October 2008), ...



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Hydropower Sustainability Assessment Forum





Members of the Hydropower Sustainability Assessment Forum

- **Developing Countries**

- Dr Yu Xuezhong, **Institute of Water Resources and Hydropower Research, PR China**
- Mr Israel Phiri, Manager PPI, **Ministry of Energy and Water Development, Zambia**

- **Developed Countries**

- Mr Hans Olav Ibrenk, Project Manger Environment, **Norad, Norway**
- Prof Gudni A Johannesson, Director General, **National Energy Authority, Iceland**

- **Environmental Aspects**

- Mr David Harrison, Senior Advisor, Global Freshwater Team, **The Nature Conservancy**
- Dr Joerg Hartmann, Lead, Dams Initiative, **WWF**



Members of the Hydropower Sustainability Assessment Forum

- **Social Aspects**

- Mr Michael Simon, Lead, Development Banks/NRM, **Oxfam**
- Dr Donal O’Leary, Water Sector Specialist, **Transparency International**

- **Economic (Financing) Aspects**

- Ms Courtney Lowrance, Environmental Specialist, **Equator Principles Financial Institutions Group**
- Ms Daryl Fields, Senior Water Resources Specialist, **World Bank** (observer)

- **Hydro Sector**

- Dr Refaat Abdel-Malek, President, International Hydropower Association (IHA)
- Mr Andrew Scanlon, Coordinating Author, IHA Sustainability Assessment Protocol



IHA Protocol Reference Group

Role of the Reference Group:

- bring industry experience to the Forum
- make sure that proposed changes are practical and reasonable
- act as a sounding board for the proposals discussed in the Forum

First meeting: July 14th 2008, Sacramento

Composition of Reference Group:

- **DNV**
- **EdF**
- **EON**
- **Eskom**
- **HEA**
- **Hydrofocus**
- **Hydro Tasmania**
- **Hydro Quebec**
- **Itaipu**
- **Landsvirkjun**
- **Manitoba Hydro**
- **MWH**
- **NVE**
- **SN Power**
- **Statkraft**
- **Suez**
- **Three Gorges Corporation**
- **... open to further members**

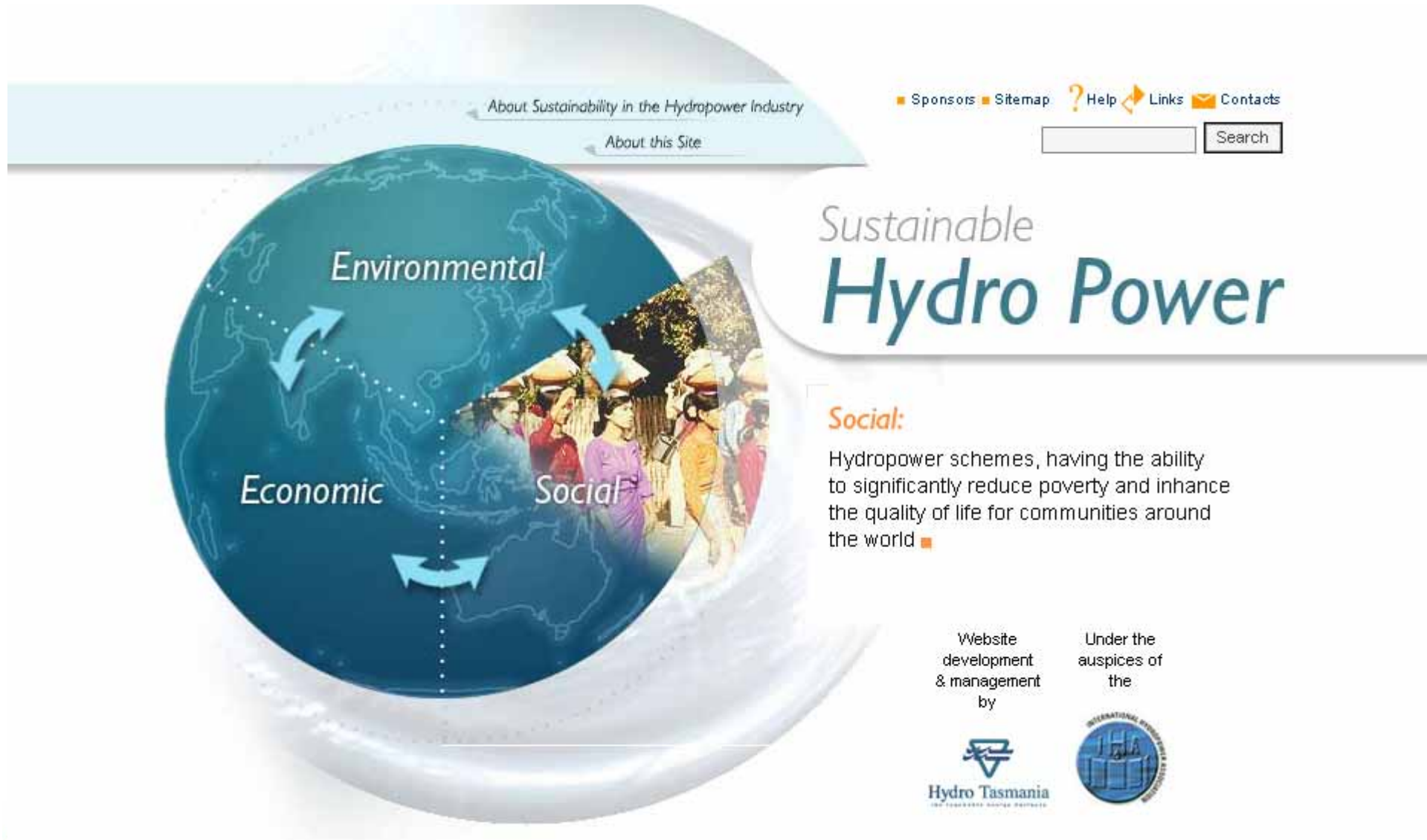




Acknowledging Good Practice



Sustainable Hydropower Website



The image shows a mockup of a website for Sustainable Hydropower. The main visual is a globe with three pillars: Environmental, Economic, and Social, connected by blue arrows in a circular flow. The globe is set against a background of a dam and a group of people. The website layout includes a navigation bar with links for 'About Sustainability in the Hydropower Industry', 'About this Site', 'Sponsors', 'Sitemap', 'Help', 'Links', and 'Contacts'. A search bar is located on the right. The title 'Sustainable Hydro Power' is prominently displayed. A 'Social:' section describes the impact of hydropower schemes. At the bottom, there are logos for 'Hydro Tasmania' and the 'International Association of Hydro Electric Engineers (IAHE)'. The IAHA logo is also present in the bottom left corner.

About Sustainability in the Hydropower Industry

About this Site

Sponsors Sitemap ? Help Links Contacts

Search

Sustainable Hydro Power


Social:
Hydropower schemes, having the ability to significantly reduce poverty and enhance the quality of life for communities around the world ■

Website development & management by

Under the auspices of the

Hydro Tasmania

INTERNATIONAL ASSOCIATION OF HYDRO-ELECTRIC ENGINEERS



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IHA Sustainability Guidelines



Sustainability Assessment Protocol

**UNESCO/IHA
Excellence Award**

**Sustainable Hydro
Website**

**Sustainability
Standard ?**

IHA Congress on Advancing Sustainable Hydropower

22-26 June 2009 Reykjavik, Iceland



(Partners from IHA Congress 2007)

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Thank you for your attention!

www.hydropower.org

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