4th WORLD WATER FORUM
Session FT1.21 - Ensuring dams are a platform for growth and development

A developing country perspective

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Environmental Licensing of Dams

Lack of Control
- Bad Dams
- Good Dams

Desirable Control
- Bad Dams
- Good Dams

Excessive Control
- Bad Dams
- Good Dams

Unsustainable Development

Sustainable Development

NO Development
Most of the infrastructure in developed countries were implemented in the past, without any tight environmental/social control.

Some infrastructure are bad and we should learn from the errors.

Most infrastructure are good but could not be built nowadays. Are we also learning from these right decisions taken decades ago?
Per Capita Electricity Consumption

- Argentina
- Bolivia
- Brazil
- Costa Rica
- Chile
- Colombia
- Ecuador
- Honduras
- Mexico
- Paraguay
- Peru
- Uruguay
- Venezuela
- USA
- France
- Germany
- Sweden

kWh/year
Government authorities of some developing countries issue an environmental license only if there is no environmental or social impacts.

Public hearings capture the view of those directly affected by the dam but not the diffusive interests scattered all over the territory.

Trade-off between local X global impacts (air pollution) to the environment are not evaluated.
Environmental Licensing of Dams

1) Compensation to local communities

2) Strategic planning to select the set of dams that will cause minimum impact to the environment (different from no impact)
How to achieve sustainable production of electricity?

- 77% of installed capacity in Brazil is hydro
- Sugar cane is another source of renewable electricity

**Percentage of potential hydroelectric use**

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In conclusion, what is good and what is bad (1/2)...

• Small dams are not necessarily good and large dams are not necessarily bad

• Good dams should be entitled to receive carbon credits without too much red tape, regardless of the installed capacity

• Developing countries should avoid extremes:
  
  No environmental and social control is bad

  Excessive control is equally bad because…

  (a) it causes heavy transaction costs

  (b) it increases the risk perceived by investors, due to delays and unpredictable “compensation costs”
In conclusion, what is good and what is bad (2/2)…

A government auction of new hydroelectric power plants … has been a “failure” according to leading civil society groups…
Most private companies stayed away from what they considered risky investments in new dams.
Government had originally planned to offer 17 new dam projects…In the end, only 7 dams…obtained the provisional environmental licenses…

Brazilian NGO and Social Movements Forum
International Rivers Network, December 17, 2005

The other side of the coin…

The energy that would be produced by hydro plants will be produced by thermal plants. Consumers will pay an extra 1 billion dollars to burn oil and increase the greenhouse effect at a rate of 4 million tons of CO2 per year, along 15 years. It will become more difficult for the poorest to pay for electricity.