

# United Nations Symposium on Hydropower and Sustainable Development

## A developer perspective on hydropower investment



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United Nations Symposium on Hydropower and Sustainable Development  
Beijing, October 27-29, 2004

## 5 KEY QUESTIONS

- ✓ **Do hydro development and financing really need private sector involvement?**
- ✓ **Has the private sector got what it takes ?**
- ✓ **What is the appropriate sharing of roles and responsibilities between the public sector and the private sector?**
- ✓ **Have the Multilateral Development Banks a role to play?**
- ✓ **How to move forward ?**

# A DEVELOPER PERSPECTIVE ON HYDROPOWER INVESTMENT

## THE NEW SCENE

« We recognize the role of **hydropower as one of the renewable and clean energy sources**, and that its potential should be realized in an environmentally sustainable and socially equitable manner »



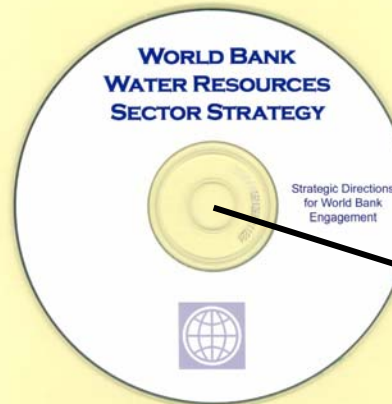
### Report of the World Panel on Financing Water Infrastructure

CHAIRD BY MICHEL CAMDESSUS

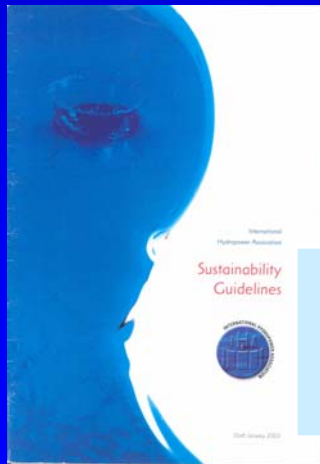
REPORT WRITTEN BY JAMES WILFENY

### Financing Water For All

« **Multilateral Financial Institutions contribution will be central in the overall strategy to provide the needed financing** »



« **The World Bank will re-engage with high reward/high risk hydraulic infrastructure, using a more effective business model** »



« **IHA has produced these guidelines to promote greater consideration of environmental, social and economic sustainability in the assessment of new hydroprojects and [...] existing power schemes** »

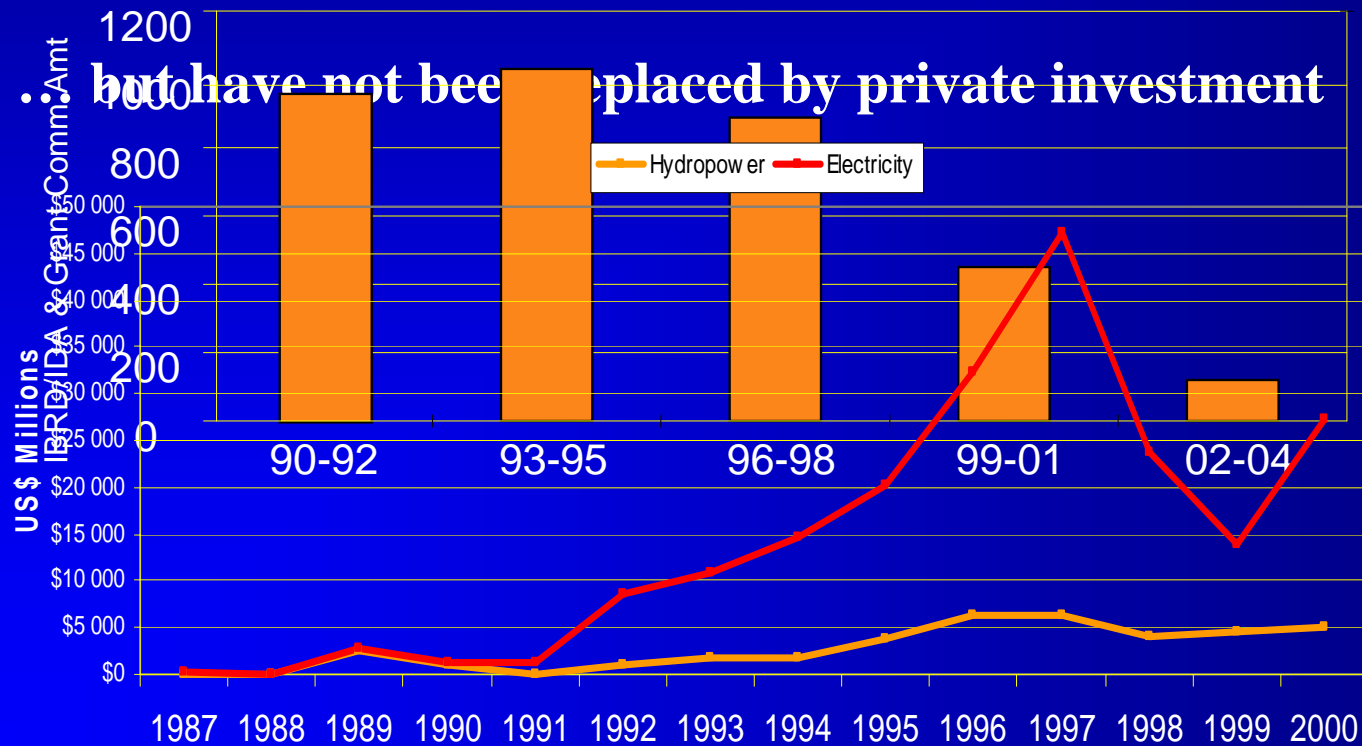
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**EDF**  
Electricité  
de France

## THE FINANCING HURDLES

✓ Public funds have become scarce ...

✓ but have not been replaced by private investment



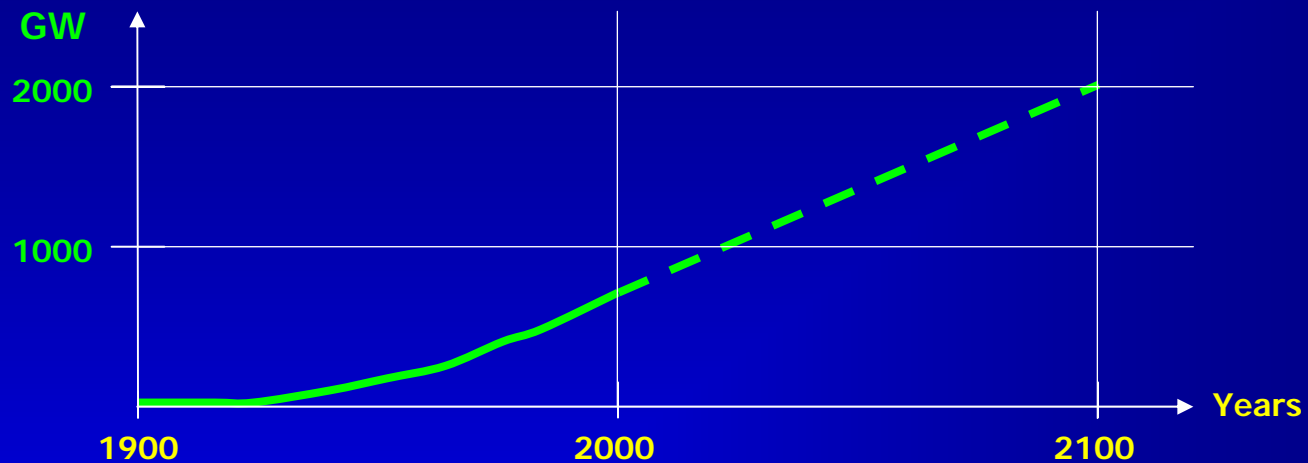
## THE CONSEQUENCES OF THE FINANCING DROUGHT

- ✓ Sustainable hydro projects have been replaced by (more easily bankable) thermal projects
- ✓ In smaller and poorer countries, urgent storage and hydro projects have been postponed

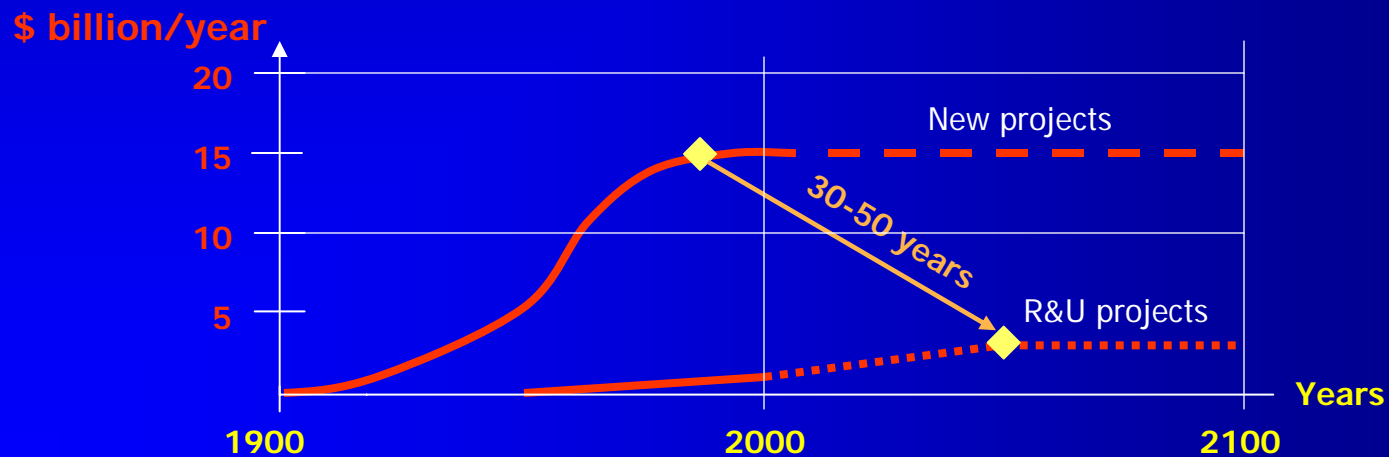
Each sustainable hydro MW which cannot be funded is  
**a missed opportunity for Development  
and the fight against Global Warming**

# THE FINANCING CHALLENGE

## Installed Hydro Capacity



## Financing Requirements



## THE PRIVATE SECTOR: WHO IS IT ?

- ✓ International operators in the power sector
- ✓ Local private entrepreneurs
- ✓ Consumers
- ✓ Equipment suppliers, civil contractors, consulting firms

## THE CURRENT TRENDS OF LARGE POWER OPERATORS POLICY

- ✓ Consolidate rather than expand geographically
- ✓ Increase scale through vertical integration
- ✓ Ensure asset-based revenues
- ✓ Improve efficiency through cost-cutting and rationalisation of organisation
- ✓ High sensitivity to risks
- ✓ Need to manage profit and risks across a diversified portfolio



## WHY THE PUBLIC SECTOR WANTS TO ATTRACT PRIVATE INVESTMENT?

- ✓ **Compensate for scarcity of public funds**
- ✓ **Avoid increasing country debt**
- ✓ **Speed up development and implementation of much needed projects**
- ✓ **Promote competition and market discipline**
- ✓ **Stimulate a dynamic and innovative local industry**
- ✓ **Value the cost of pollution through implementation of a green energy market**



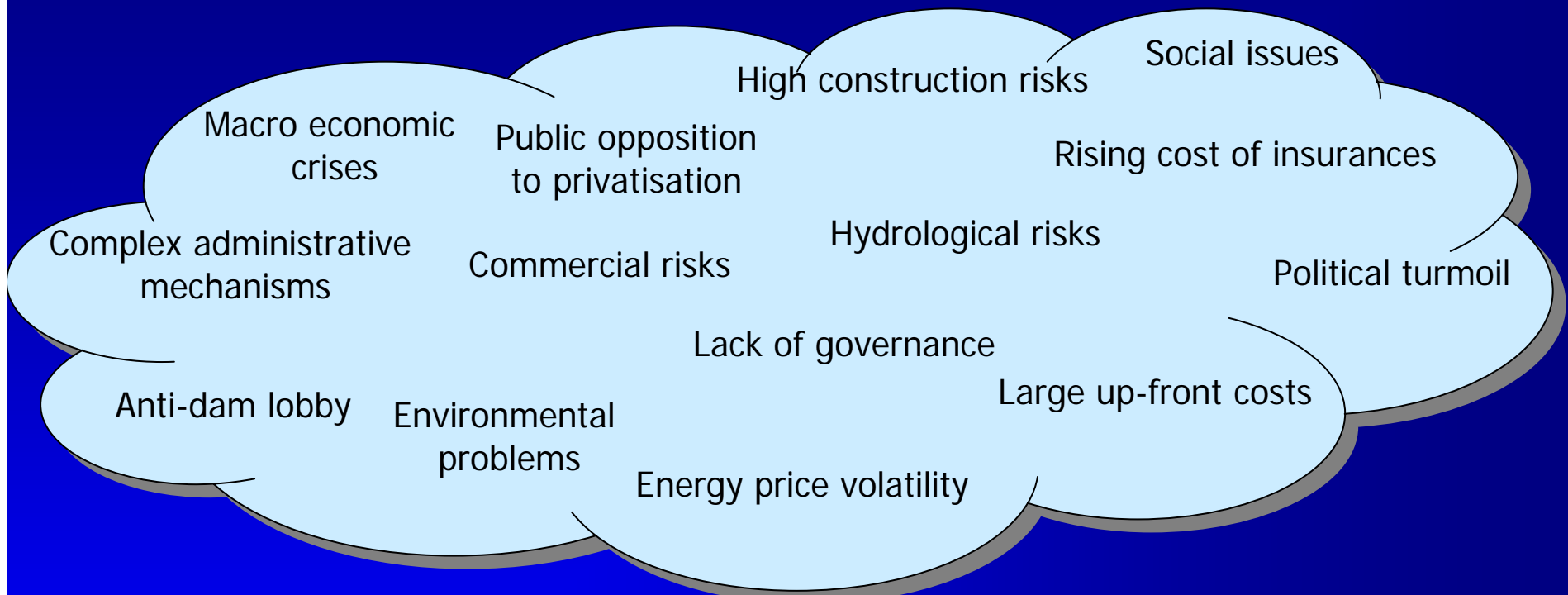
## A DEVELOPER PERSPECTIVE ON HYDROPOWER INVESTMENT

### WHY WOULD THE PRIVATE SECTOR BE ATTRACTED BY INVESTING IN HYDRO?




- ✓ Return on equity
- ✓ Profit margins on supply of goods and services
- ✓ Expansion strategy
- ✓ Ensure asset-based long term revenues
- ✓ Hedge fuel price risks
- ✓ Increase portfolio of renewable energy sources
- ✓ Be a successful player on the green market






# THE DARK CLOUD OF BOTTLENECKS



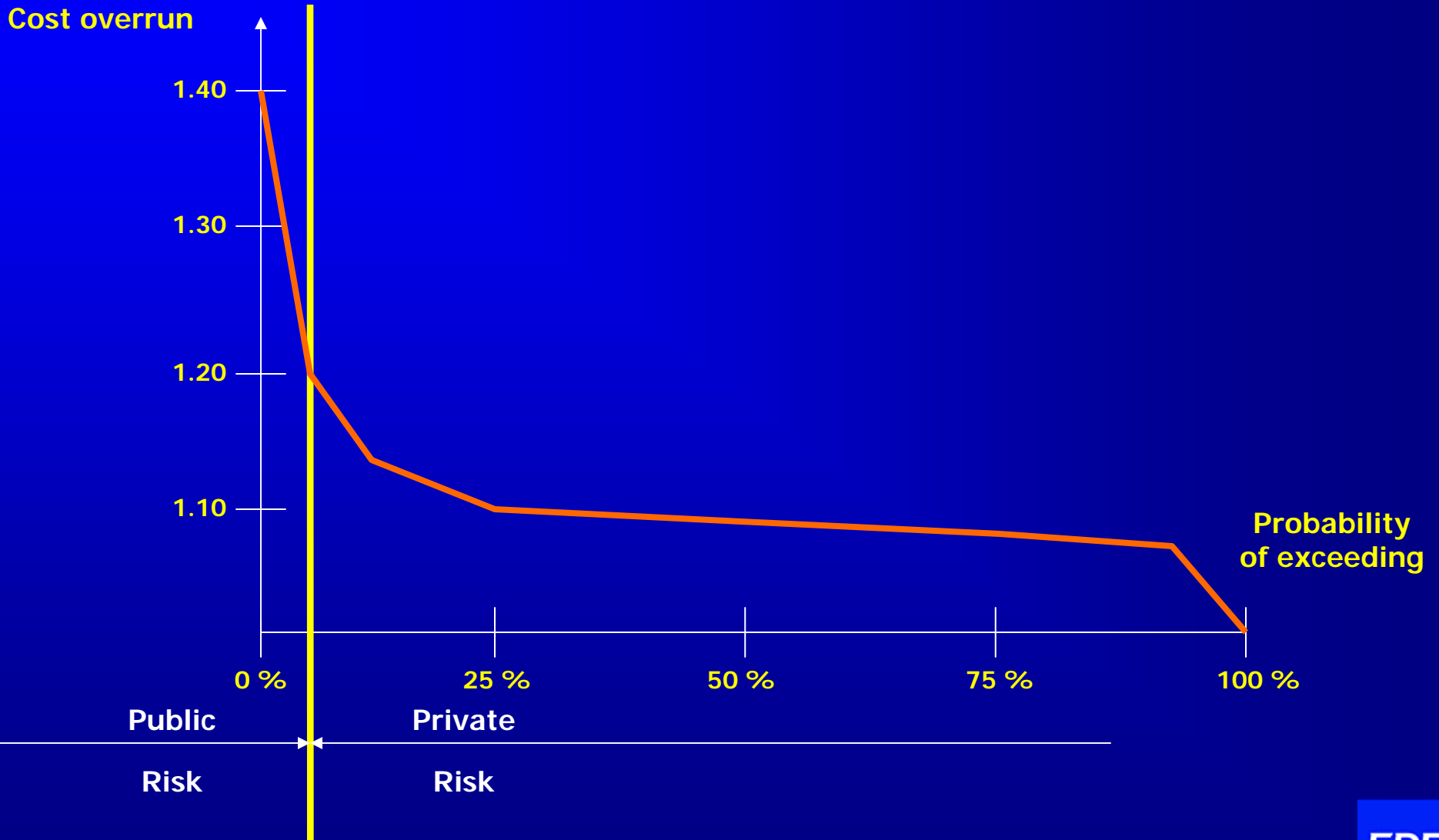
# HAS THE PRIVATE SECTOR GOT WHAT IT TAKES?

			
✓ Provide Equity		✓	
✓ Succeed on deregulated markets	✓		
✓ Reduce cost through sound industrial approach	✓		
✓ Expedite construction time	✓		
✓ Secure funding for foreign component	✓		
✓ Secure funding for local component			✓
✓ Deal with social issues		✓	

# HAS THE PRIVATE SECTOR GOT WHAT IT TAKES?

			
✓ Implement sustainable environmental mitigation plans		✓	
✓ Cope with political problems			✓
✓ Access to all beneficiaries of the project			✓
✓ Interest in long-term benefits		✓	
✓ Take risks	?	?	?

# ONE EXEMPLE : SHARING THE CONSTRUCTION RISK



## PUBLIC / PRIVATE PARTNERSHIP

~~PRIVATE  
HYDRO~~

PRIVATE INVESTMENT  
IN PUBLIC HYDRO

through

Sharing risks

Combining public and private funds

For instance:

PUBLIC SECTOR

Creates head and water storage (dam)

Takes the hydrological risk

Flattens the tariff profile in the early years

PRIVATE SECTOR

Develops this potential (power plant)

Is responsible for plant performance

Pays higher royalties after debt repayment

## PUBLIC PRIVATE PARTNERSHIP : A WIN-WIN ARRANGEMENT

### The Private Sector

- ✓ Gets access to the project with an acceptable level of risk
- ✓ Can provide efficient
  - Funding
  - Industrial added value
- ✓ Gets rewarded for its performance

### The Public Sector

- ✓ Does achieve debt reduction
- ✓ Is in a better position to control issues of national interest such as safety, water rights, resettlement...
- ✓ Gets full ownership of relatively new hydro at the end of the concession period

A matter of  
**CONFIDENCE**

Higher attractiveness

More competition

**LOWER ELECTRICITY PRICES**



## THE PRIVATE SECTOR NEEDS TO ADAPT

- ✓ Improve risk assessment and mitigation techniques
- ✓ Place long-term business and value-creation above short-term financial management
- ✓ Understand that liberalisation should benefit the economy as a whole, not only the market players
- ✓ Enhance its social and environmental awareness
- ✓ Adopt a multi-stakeholder approach



**THE GOVERNMENTS NEED TO PLAY A FRONT ROLE AND PROVIDE...**

- ✓ **Appropriate legal framework**
- ✓ **Level playing field for all renewable energy sources**
- ✓ **Visibility on incentives for green energy**
- ✓ **Mechanisms to enhance short-term revenues (energy funds,...)**
- ✓ **Accountability of all beneficiaries**
- ✓ **Mechanisms to compensate for non-internalized benefits**
- ✓ **Prime responsibility for project preparation**
- ✓ **Absorption of low probability / high impact risks**
- ✓ **Necessary guarantees**



**...AND THE MDBS MUST HELP !**

**HELP TO 'SET THE SCENE'**

- ✓ Assist Governments in creating an attractive environment for the private sector
- ✓ Mobilize grant assistance for capacity building
- ✓ Support base-line studies
- ✓ Encourage development of local capital market
- ✓ Set the tone for other lenders
- ✓ Promote transboundary and regional opportunities
- ✓ Collaborate with professional organizations in demonstrating hydropower sustainability



**...AND THE MDBS MUST HELP (cont.)**

**HELP TO PREPARE AND DEVELOP PROJECTS**



- ✓ Assist in setting up a realistic option assessment process
- ✓ Fund Feasibility Studies
- ✓ Contribute to simplify and standardize documentation to make projects easier to close



**...AND THE MDBS MUST HELP (cont.)**

**HELP TO SOLVE THE FINANCIAL CHALLENGE**



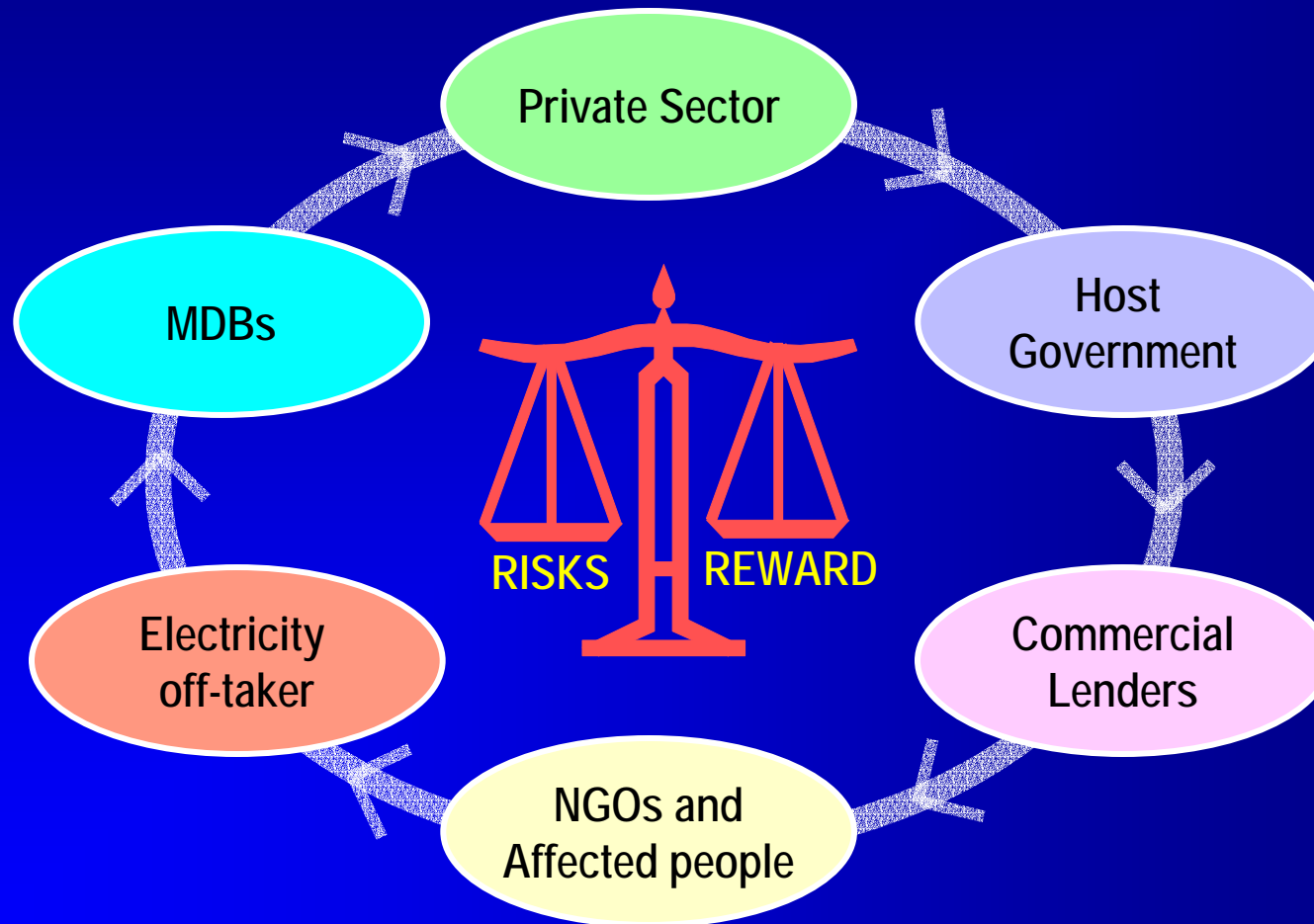
- ✓ Provide loans which attune with the creation of long-term infrastructure assets
- ✓ Lend more at decentralized level
- ✓ Provide insurance and guarantees for risks that neither the private sector nor the government can handle
- ✓ Provide refinancing facilities to allow commercial banks to extend loan tenors
- ✓ Assist government authorities in raising their share of equity
- ✓ Mobilize international co-financing

## THE WAY FORWARD

- ✓ Use the IHA guidelines to benchmark project sustainability
- ✓ Full value of Hydro must be recognized and rewarded ( i.e. on a lease-type basis)
- ✓ Public sector must take the lead for project identification, sizing and preparation (in the context of a basin)
- ✓ Enhance local financing
- ✓ Strong support from MDBs can be crucial
- ✓ Get the most out of existing schemes and ensure their sustainability ( Rehabilitation & Upgrading projects)
- ✓ Use existing assets to mobilize capital for new projects
- ✓ Explore the benefits of staged development
- ✓ Imaginative Public Private Partnerships
- ✓ Get the stakeholders involved early



# FINANCING HYDRO IS A QUESTION OF BALANCE



**THANK YOU**  
**FOR YOUR ATTENTION !**