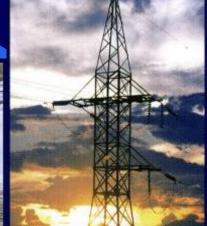


## MRC's role in relation to planning and implementation of mainstream dams and its strategic assessment framework

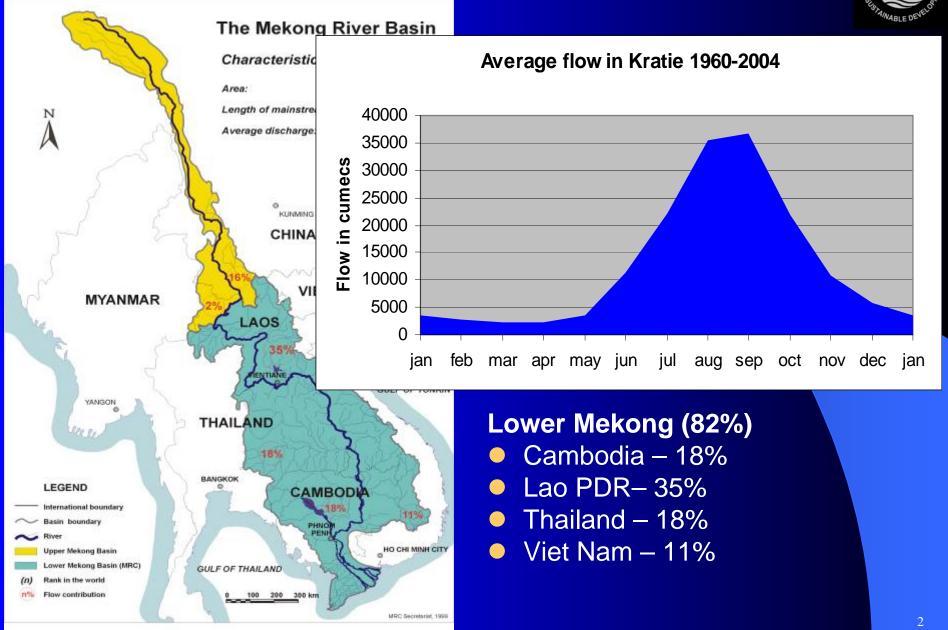
Jeremy Bird, Chief Executive Officer
MRC Secretariat







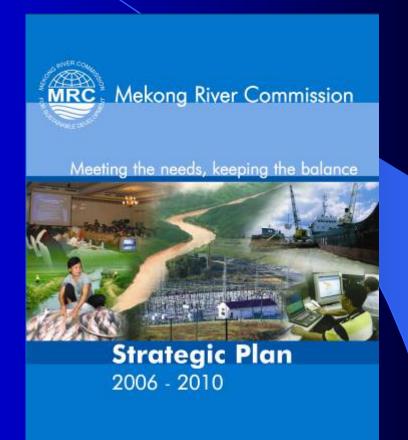




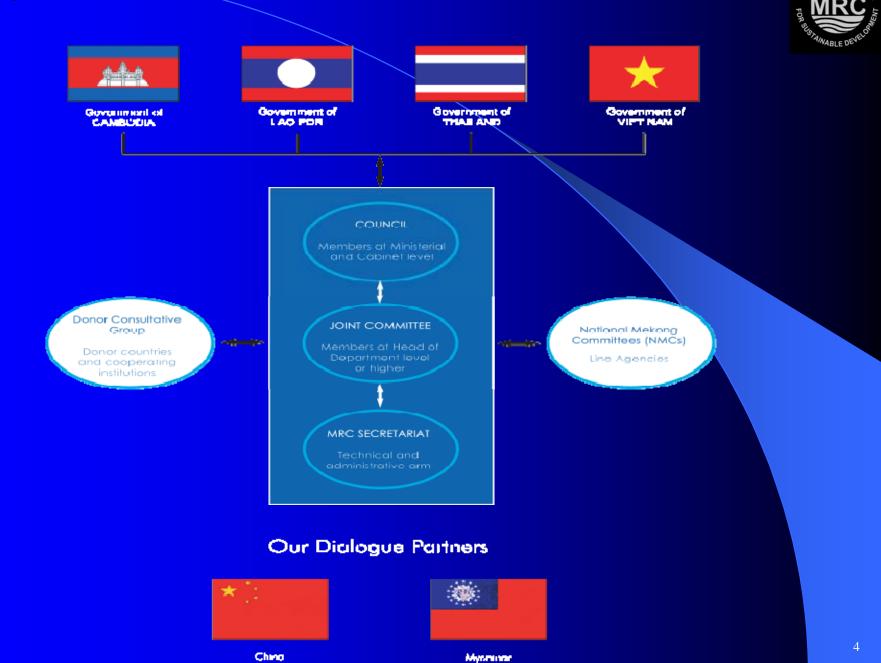


## IWRM context — 1995 Mekong Agreement











#### **Vision for the Mekong River Basin**

An economically prosperous, socially just and environmentally sound Mekong River Basin



#### Mission of the MRC

To promote and coordinate sustainable management and development of water and related resources for the countries' mutual benefit and the peoples' well-being



## Rapidly changing development context

- Underlying trends growth in population, urbanisation, competition for resources
- Influence of global factors climate change; high oil, gas and food prices; high commodity prices
- Availability of private sector finance and investment from regional countries
- Future changes in flow regime from upstream developments

#### leading to

- Resurgence of interest in hydropower development including Mekong mainstream
- Extensive land use changes due to mining concessions (181 concessions in Lao PDR) and plantations (200,000 ha agro-industrial crops by 2010)

### Rapidly Increasing Pace of Development



#### INTERNATIONAL

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#### WORLD

#### ADB, Sweden to help Mekong region in power trade

www.chinaview.cn 2007-12-24 17:08:23

HANOI, Dec. 24 (Xinhua) -- The Asian Development Bank (ADB) and Sweden are helping to set up an institutional framework to support competitive regional power trade in the Greater Mekong Sub-region (GMS).

The framework will ensure long-term stable and mutually beneficial electricity supply to six GMS members, including China, Cambodia, Laos, Myanmar, Thailand and Vietnam, the Vietnam News newspaper reported Monday.

The project will ensure that environmental impacts resulting from developing power projects for regional power interconnection and trade will be kept under control.

The proposed technical assistance for facilitating regional power trade and creating an environmentally sustainable development of electricity infrastructure will include a five-million U.S. dollar grant from Sweden to be managed by the ADB.

The assistance will focus on developing institutions and building capacity to match the expansion of physical infrastructure for a competitive GMS regional power market



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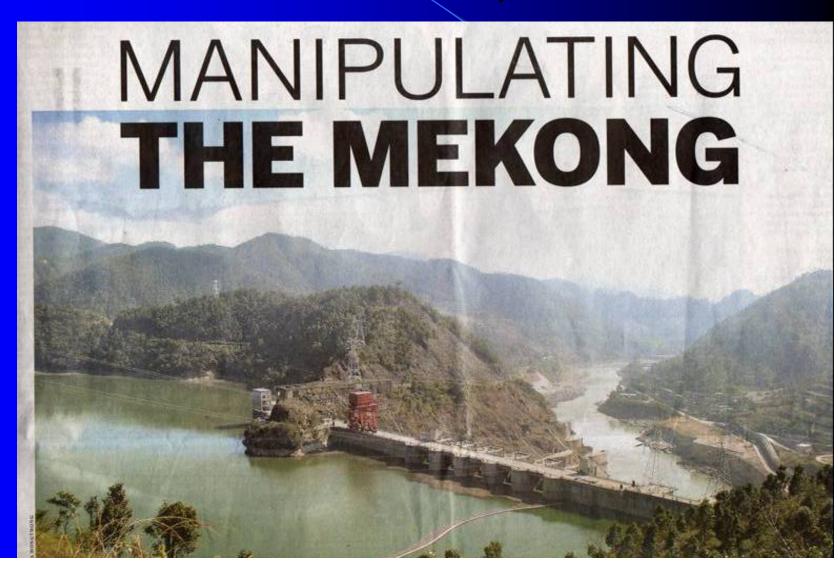
version

Editor: Wang Hongjiang



## Dams in the public domain

The Nation, January 2008



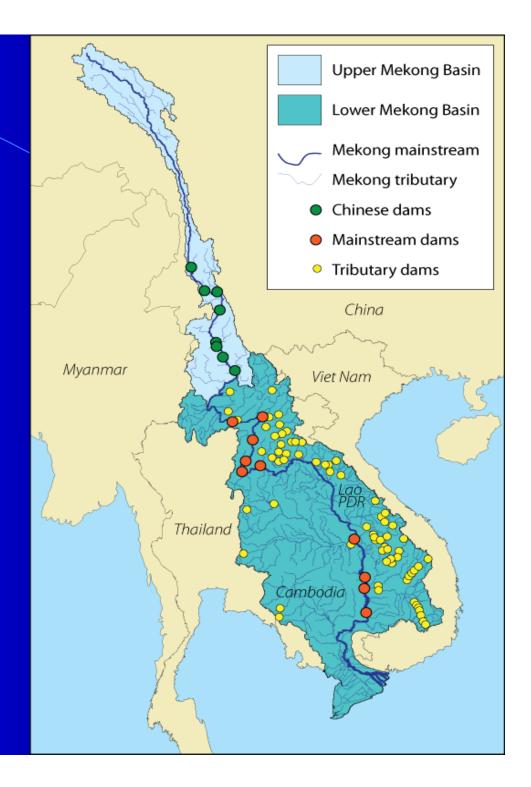


## Hydropower potential in Lower Basin

- Total of about 30,000 MW potentially available in the Lower Mekong Basin.
- Potential on tributaries: 13,000 MW in Laos, 2,000 MW in Vietnam, 2,200 MW in Cambodia (all potential has been developed in Thailand).
- Significant contributions envisaged to economic development, targeted poverty reduction and investment in social sectors

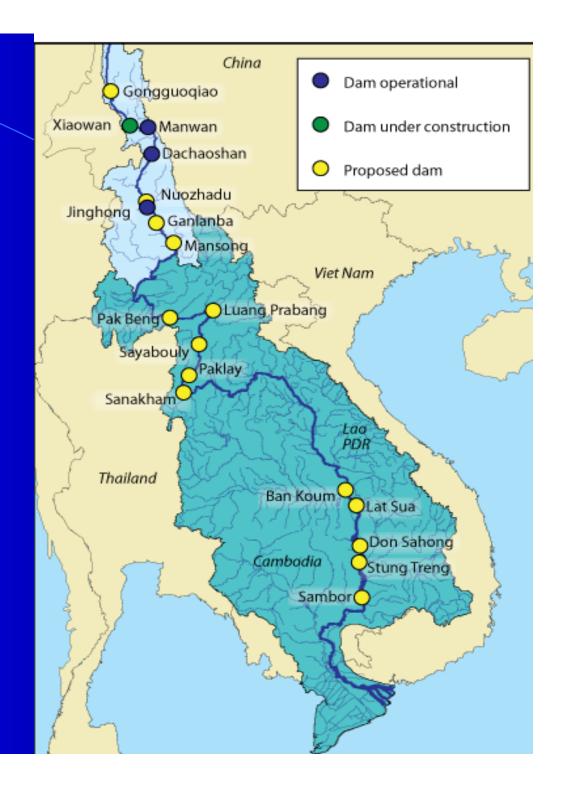
# Projected status of hydropower in the Mekong Basin

 includes hydropower dams in operation, under construction and planned



# Mainstream hydropower – current status

- Currently, mainstream dams only in China.
- 8 being considered in Lao PDR (2 joint with Thailand)
- 2 being considered in Cambodia





## Private sector planning system:

- Project selection based on available master plans and preliminary project site assessments
- Memorandum of Understanding (MOU) for feasibility assessment
- Project Development Agreement (PDA) right to negotiate a concession agreement (defines project parameters and costs including social and environmental)
- Notification and Prior Consultation under 1995
   Mekong Agreement
- Concession Agreement and Power Purchase Agreement



MRC supports sustainable hydropower development implemented within the framework of the 1995 Mekong Agreement and which serves the joint interests of its member countries

## Integration

- across sectors, borders, stakeholder

groups..



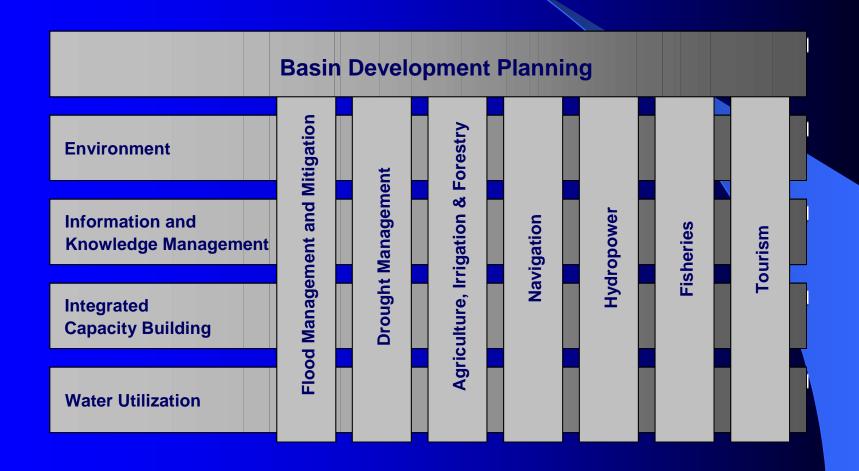


#### Formal MRC Procedures

- Data and Information Exchange and Sharing, 2001
- Notification, Prior Consultation and Agreement, 2003
- Water Use Monitoring, 2003
- Maintenance of Flows on the Mainstream, 2006
- Water Quality, awaiting Council approval



### Integrated Programme Approach



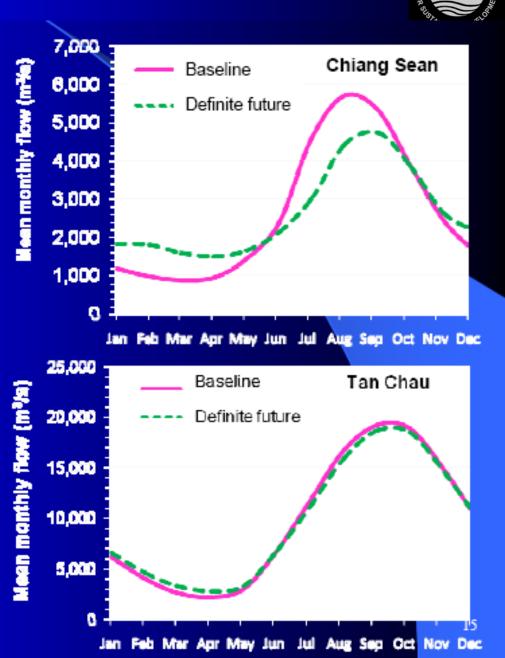
## MRC activities – providing an integrated framework for assessment

- Basin Development Plan (Development Scenarios, IWRM Strategy, Cumulative Impact Assessment)
- Strategic Environmental Assessment and Regional Macro-economic study
- Fisheries
  - Expert Group Meeting on Barrier Effects of Dams
  - Applied research on migration, feeding, spawning
  - Modeling of survival rates
  - Economic valuation
  - Reservoir fisheries...





MRCS is studying the scale of hydrological and other changes as a result of mainstream and tributary projects in Upper and Lower Mekong Basin



## MRC activities – providing an integrated framework for assessment (cont..)

- Sustainability assessment of hydropower (ADB/MRC/WWF joint initiative)
- Change in sediment flows and salinity intrusion
- Sustainable watershed management benefit sharing
- Guidance on transboundary impact assessment
- Navigation (standard ship lock design)
- Power optimization
- Livelihood consequences of environmental impacts

**–** ...

Hold Regional Multi-Stakeholder Consultation on Hydropower Programme (BDP, EP, FP, NAP, FMMP, AIFP, IKMP, ICCS, TCU)

Facilitate Ministerial Briefings, Dialogue with Developers and Financiers, Multi-Stakeholder Forum, Dialogue with China (ICCS, TCU, BDP, EP, FMMP, FP, NAP, AIFP, IKMP)

> Raise Awareness of Risks and Opportunities of Hydropower Development (ICCS, TCU)

Provide Technical Inputs to PNPCA Process for Hydropower projects (BDP, EP, TCU, ICCS)

Improve Communication and Disseminate Outputs (BDP, EP, FP, NAP, FMMP, AIFP, IKMP, ICCS, TCU)

> Expand MRC Hydropower Knowledge Base (BDP, EP, FP, IKMP)

Improve Environmental Baseline for Hydropower Planning and Monitoring (BDP, EP, IKMP)

> Improve Access to Hydrometeorological and Operational Data of Projects (BDP, EP, FMMP, IKMP)

Provide Capacity Building to Line Agencies on Socio-Environmental Policy, Assessment, Monitoring of Hydropower Development (EP, BDP)

Provide Technical Assistance to Developers on Implementing Safeguards (EP)

Identify Barrier Effects of Mainstream Dams to Fish Migration (FP, EP) Assist Optimisation of Mainstream Dams Configuration (IKMP, BDP, NAP, FP) Support Undertake Strategic Regional Environmental Assessment Encourage (SEA) of Proposed Mainstream Planning Dialogue Hydropower Development (BDP, EP, FP, NAP, FMMP, AIFP, IKMP, ICCS, TCU) Provide Guidance on mitigation Measures for Fish Migration (FP) Carry Out Sub-basin SEAs and CIAs as Input to BDP (BDP, EP, MRC support to FP, NAP, FMMP, AIFP, IKMP, decision making ICCS, TCU) on Sustainable Identify Multipurpose hydropower Functionality of Hydropower development Projects (AIFP) Scope Potential for Small Hydropower Development (BDP, IKMP) Introduce "Environmental Extend Considerations for Sustainable Knowledge Hydropower Development" (EP, BDP and AIFP) Base Improve Hydropower Identify Financing Mechanisms and Sustainability. for Sustainability Measures for Build Mainstream Hydropower Capacity Projects (EP) Introduce Sustainability Incentives within Market and Regulatory Frameworks (EP) Provide Guidance on

Develop Standard Specifications

for Navigation Locks in

Mainstream Dams (NAP)

Watershed Management of

Reservoir Watersheds

(AIFP, EP)

### How can MRC reflect stakeholder interests?

- Engagement with MRC Programmes (e.g. Basin Development Plan –Fisheries Programme; etc)
- Strategic Environmental Assessment interaction with representative groups
- Sustainable Hydropower Programme consultations at various levels
- Project specific consultation reports
- Possibility of commissioned studies as part of the PNPCA process
- Others to be discussed ongoing consultancy…

## How can MRC reflect stakeholder interests?









