Eighth meeting of the Task Force on Water-Food-Energy-Ecosystems Nexus, 7-8 December 2023, Geneva, Switzerland

Discussing the key role of transboundary water resources for the clean energy transition" (Thursday 7 December, 14.30 - 16.30).

Panel II: Hydropower. Lessons from Mekong River Basin

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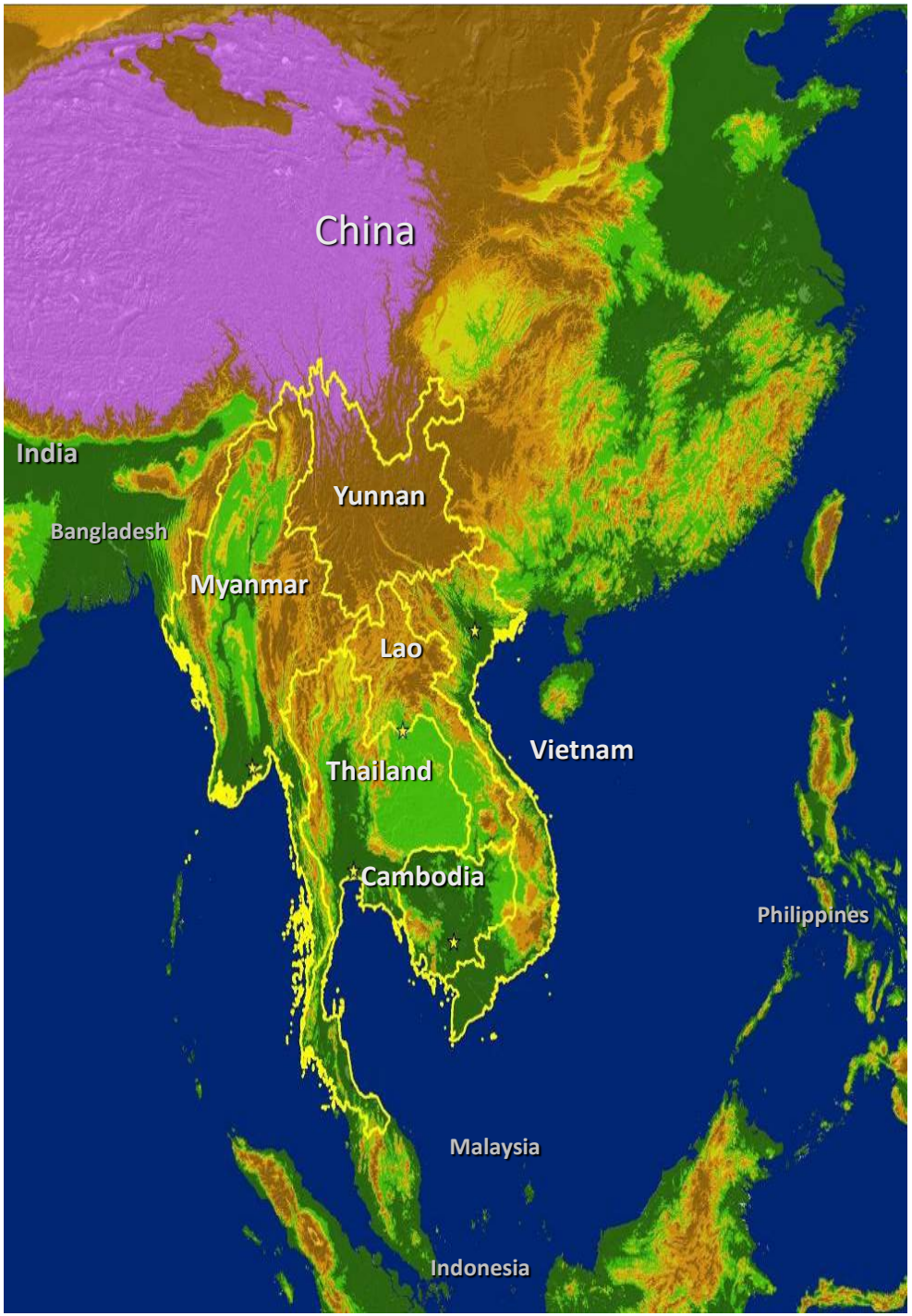
- Mekong River Basin is one of several main rivers in Asia –
- China sits at headwaters to at least 10 major rivers.
- Main source of livelihood and economic growth for nearly 325 million peoples.
- All are impacted by climate change and uncoordinated development.



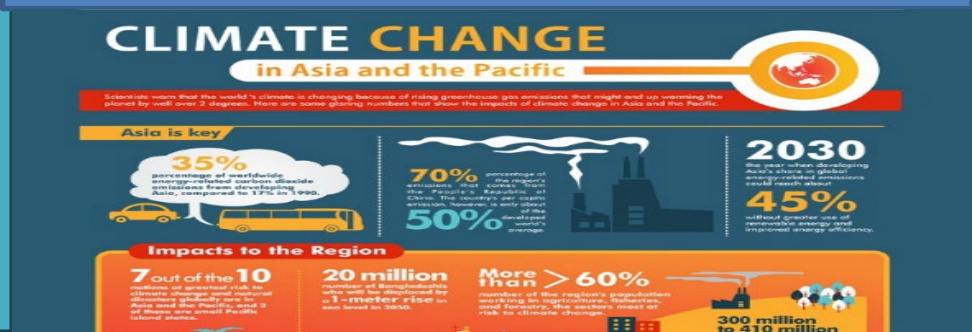
The world's 12th longest river and the third-longest in Asia with an estimated length of 4,909 km (3,050 mi) and a drainage area of 795,000 km^2 (307,000 sq mi), discharging 475 km^3 (114 cu mi) of water annually.

More than 325 million people live within the GMS region, which has a land area of 2.6 million km2 (ADB and SEI, 2002, ADB, 2010a).

Rapid Growth in Infrastructure Development in Mekong

- High hydroelectric potentials – LMB= 30,000MW,UMB=28,930MW
- Rich biodiversity- 1200 and 1600 fish species -inland captured fisheries of the Lower Mekong River Basin (LMB) is estimated at 2.3 million tonnes and 11 billion US dollars/year.
- 82 existing + 179 under study
- Mekong Region power grid
- Series of Lancang Mekong River mainstream dams
- Road, Rail and Navigation projects
- Irrigation expansion and Water Diversions

- Over 179 tributary dams
- China: 11 world's largest dams on Upper Mekong in Yunnan and a dozen more dams near head-waters stretches.
- 02 mainstream dams operational, 07 more dams are currently being built and planned in Laos PDR with funding from China, Vietnam and Thailand etc...
- No longer free-flowing, except for the 450 km stretch in Mekong Delta.



The most urgent challenges in the exploitation of hydropower resources on transboundary rivers in our region

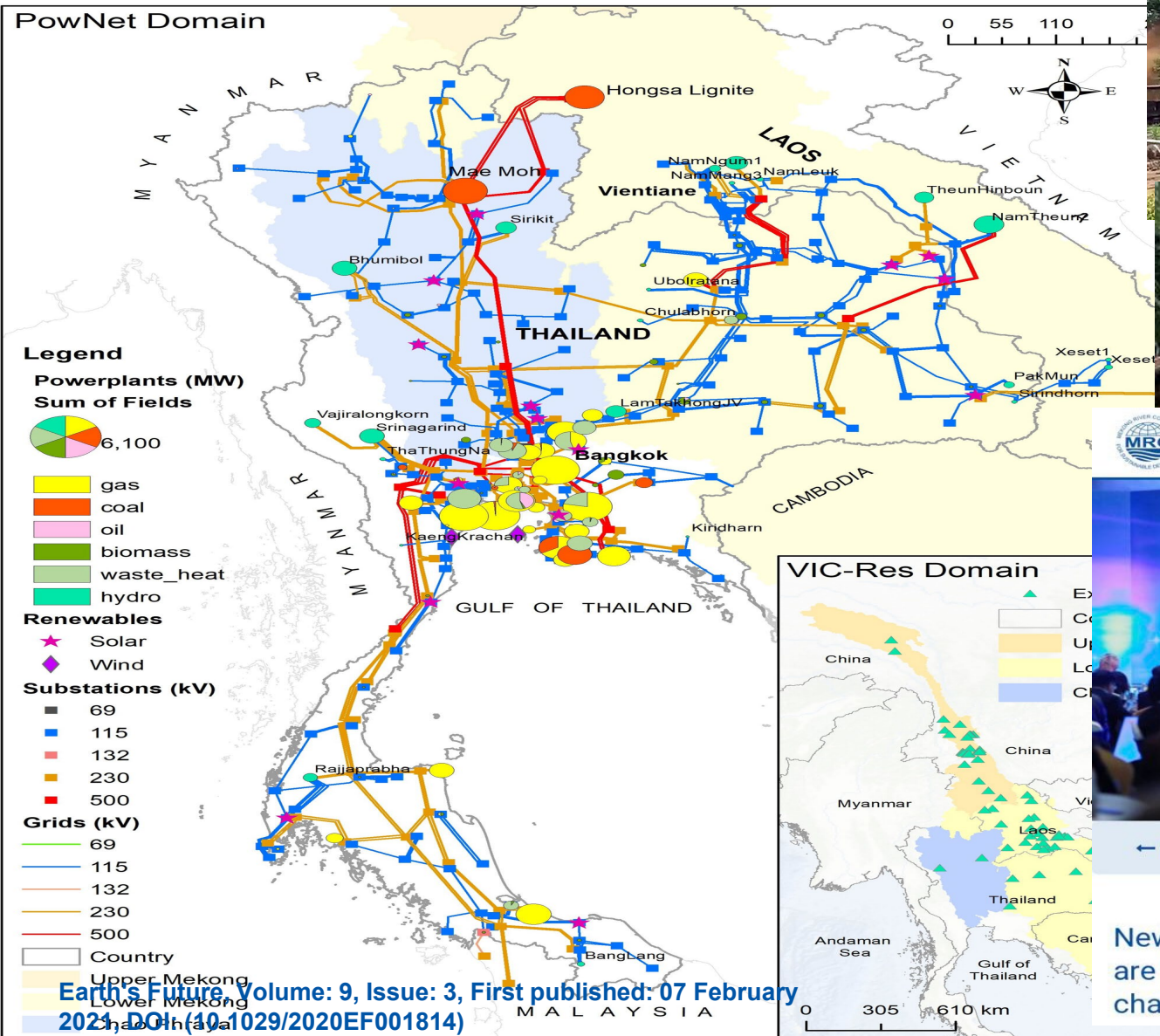
- MRB is threatened by hydropower development, compounded by climate change, water diversion, land-use change, extensive sand-mining, and river erosion.

- "Key areas of concern that require our specific attention are the seemingly permanent modification of mainstream flow regime, the substantial reduction in sediment flows due to sediment trapping, the continuing loss of wetlands, the deterioration of riverine habitats and the growing pressures on capture Fisheries" (p. I, MRC 2018)

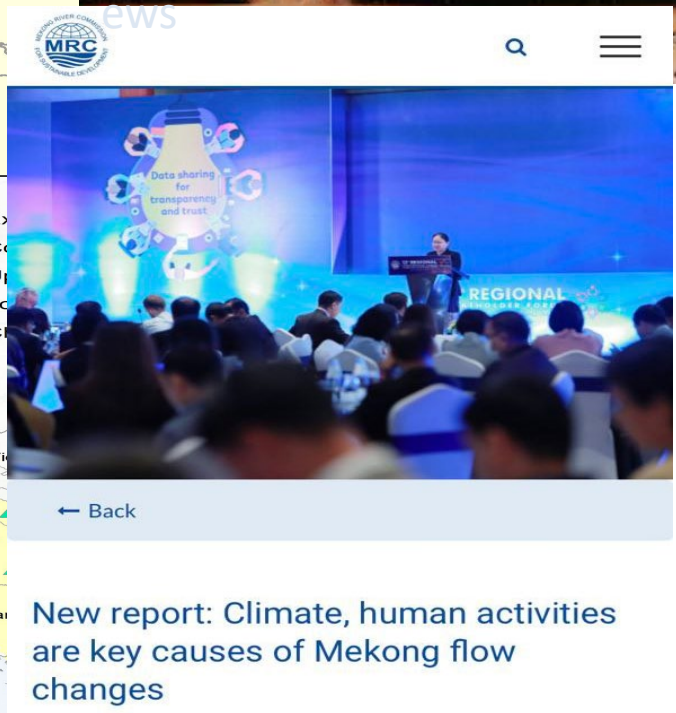
- Mekong is no longer free-flowing, except for the Mekong Delta

- Poor Governance: uncoordinated poorly informed development – 1995 Mekong Agreement currently covering only surface water, mainstream rivers in 4 Lower Mekong Countries – a framework Agreement that must be complimented by clearer and more enforceable norms and rules of international water law (substantive and procedural).

The Greater Mekong's Climate-Water-Energy Nexus: How ENSO-Triggered Regional Droughts Affect Power Supply and CO2 Emissions



Dam break in Laos 2018
https://www.youtube.com/watch?v=nb1xgIqV7fM&ab_channel=BBCN



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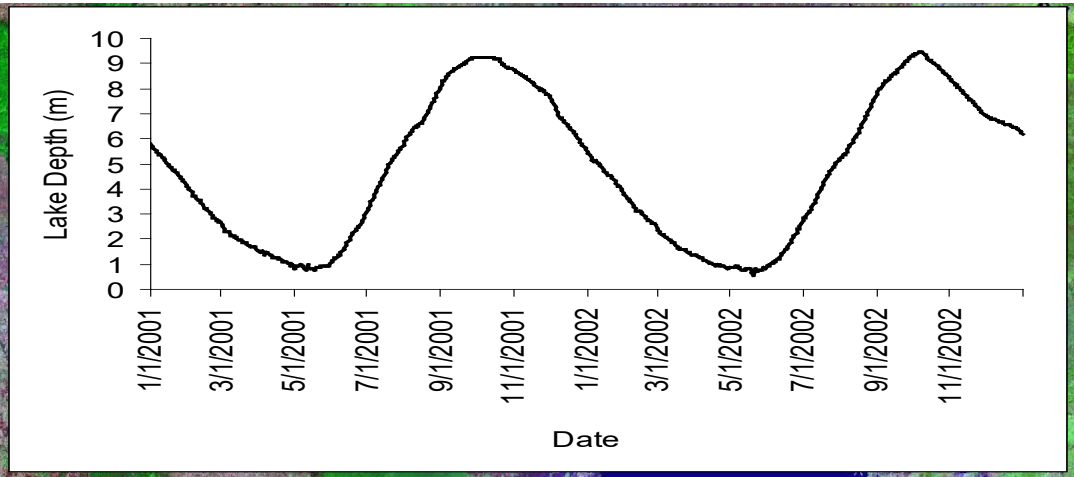
Flood Pulse System



Strongly affect one of the richest rice production in VN Mekong Delta and fish factory in Tonle Sap, Cambodia

- Area: 2500 – 15000 km^2
- Volume: 1.3 – 70 km^3
- Water depth: 0.7 – 9 m
- Catchments: 13
- Catchment area: 90’000 km^2

30 0 30 60 Kilometers

Great Lake - Sept 2000 flood

Role of hydropower operators in the management and governance of transboundary waters

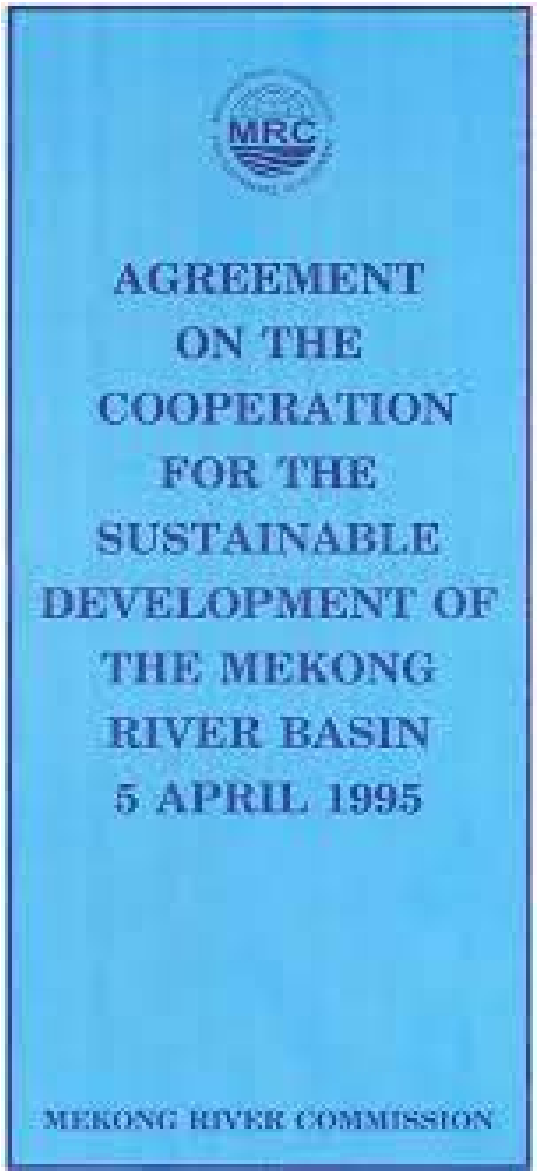
- Currently they are designing, building and operating in isolation with little regards to strategic or cumulative impact assessment and mitigation and cross sectoral measures.

- Some strategic environmental assessment and cumulative assessment have been conducted, however, the dam proponents and operators pay little attention to them.

- They have the role to play, e.g. dam operation coordination to avoid high water level fluctuation impacting navigation, river bank farming and fish habitats, as well as power production.

MA 1995: Procedures for balancing ERU & NHP

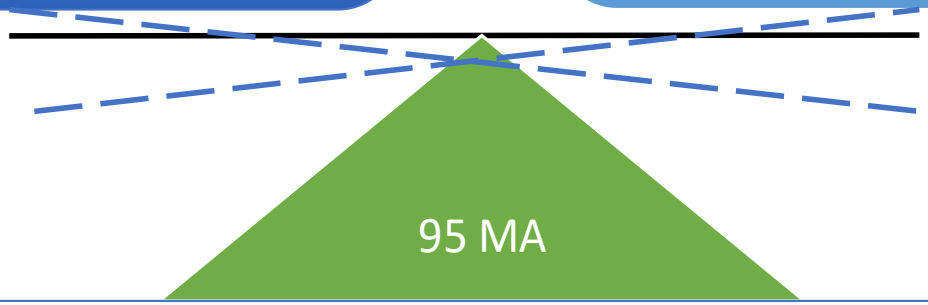
- Several other partnerships and programs have emerged recently. But 1995 MA and MRC remains the only organization/institution with the states as members acting under a joint agreement and with a long-term ambition.
- 1995 MA are clear about what needs to be accomplished but lacks common understanding and lacks particulars on how to achieve goals or to what extent.
- 18+ years of experience shows the 1995 MA is vague, too open to interpretation, and has yet to secure the environmental, economic and social benefits it promises.
- The then MRCS CEO saw the PNPCA process as a test for (MRC) member countries' commitment to sustainable development.



Role of International Law: 1995 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin

Cooperation and Equitable and Reasonable Obligation: Assist each other to realise their development goals and to optimise multiple-use and mutual benefits

Due Care/ No Significant Harm Obligation: Take all measures to avoid, minimise & mitigate possible impacts on river system and transboundary impacts on other riparian countries



Mutual Respect for Sovereign Equality and Territorial Integrity: Cooperation, good faith/Due Diligence, equitable & reasonable utilization, and no-harm and compensation, and other relevant substantive and procedural norms/rules including notification, consultation, assessments, and peaceful differences and dispute management etc.

Pacta sunt servanda – obligation arising from international agreements must be fulfilled in good faith.

What have we learned?

- There has been criticism and contestation by CSOs about the Law effectiveness and failure to achieve and improve the transboundary water governance in the Mekong

- Areas for the improvement: timeliness, quality and completeness of the information, improved consideration for the social, environmental, transboundary and cumulative impact

- The process did force several improvements in the Xayaburi's design - additional US$400 million for fish passage, sediment control structures, seismic safety and improvement of navigation locks.

- ➔ Joint Action Plans, Joint Environmental Monitoring ➔ More Active Regional Planning for improved benefit and risk sharing etc..

- But international cooperation and law are important, the nationalism is not the way forward for transboundary water cooperation in the regional governance and multilateralism.

What Opportunities 1992 Water Convention & UNWC can bring?

- **1992 Water Convention provides more detailed requirements to support interpretation/implementation and a dynamic capable organization to support (not replace) cooperation within the framework of the 1995 MA.**

- Procedural norms and dispute settlement and more specific definition under both the Water Convention and UNWC, and best international practices shared under Water Convention institutional framework

- Previous academic research and national/regional workshops with partners and governments demonstrates clear recommendations on how the 1997 UNWC, 1992 Water Conventions and other international laws can be effectively assessed for relevance and applicability to the Mekong Region and how to be embedded into the National Systems
  - See next slide!

But we need to:

- ***raise awareness of relevant government officials, and regional and national opinion-makers*** involved in transboundary river basin management and governance;
- ***provide an opportunity to build capacity to get better understanding*** of the usefulness and relevance of their application; and,
- ***identify and support interested governments through the ratification process***.

Conclusions

Acceding to both UN global water Conventions (1992 Water Convention & 1997 UNWC) is recommended for Mekong Basin countries on the grounds that **by filling scope, legal substantive and procedural gaps, notably on clear obligations for PNPCA, transboundary EIA, data exchange and dispute resolution, <u>especially as regards dams</u>:**

- *Reinforce* the Mekong Agreement and its provisions, not replace it
- *Align* and clarify the Mekong Agreement with Customary international law
- *Strengthen* the MRC mandate to govern across the basin including tributaries and groundwater
- *Underpin* cooperation within and via the MRC with clear obligations and expectations for countries

THANK YOU VERY MUCH FOR YOUR ATTENTION!