



Rena Sugita

Lessons Learned from the Ground: Two Hydropower Dams in the Mekong Region

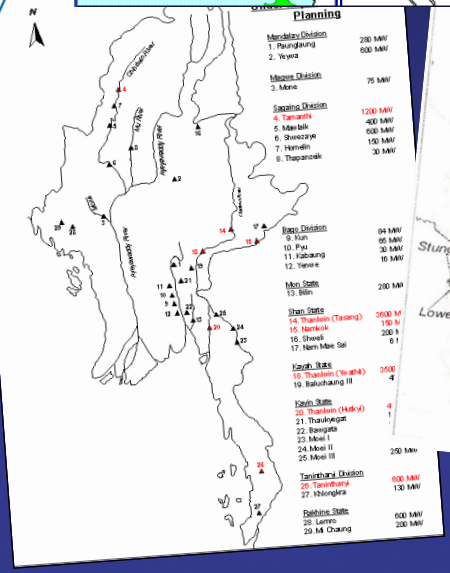
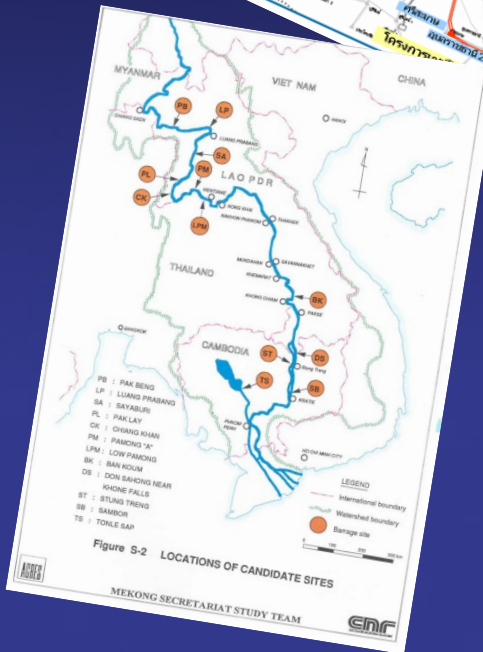
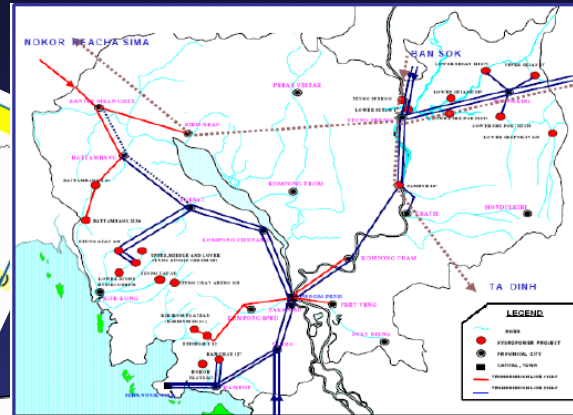
Carl Middleton Ph.D.

In the Mekong Region, Rivers are Life

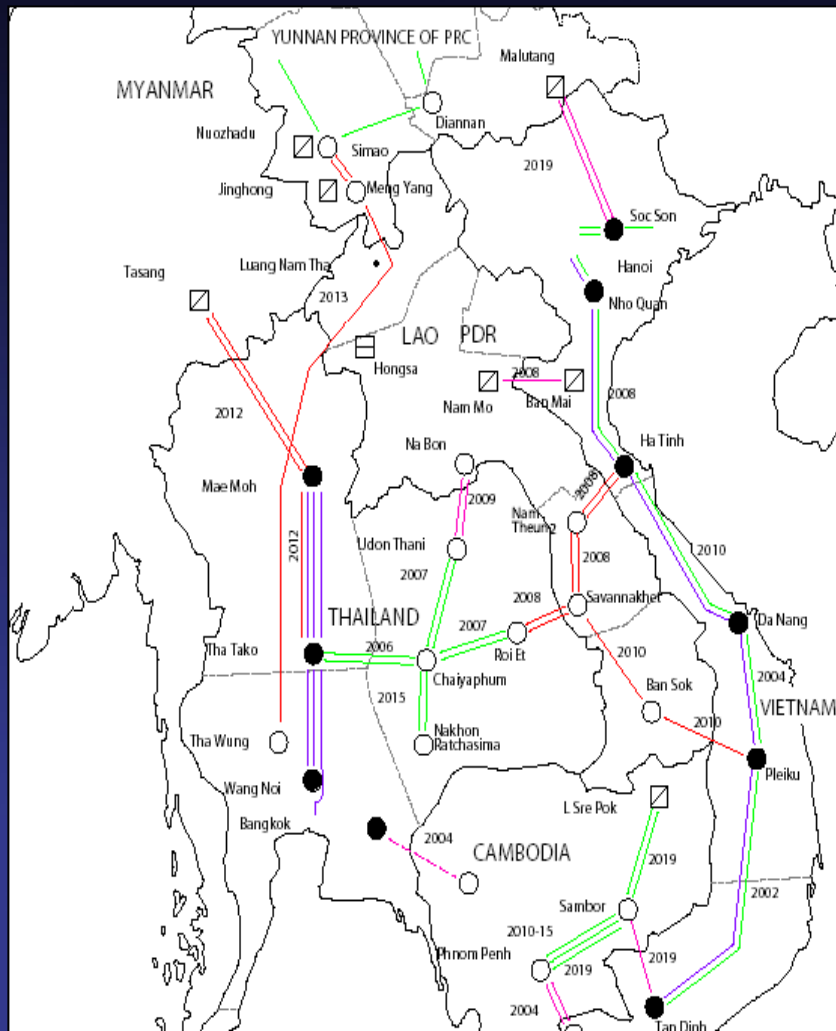


The World's most productive fishery, and second most bio-diverse fresh-water ecosystem

Rapid economic growth and extensive plans for hydropower throughout the region



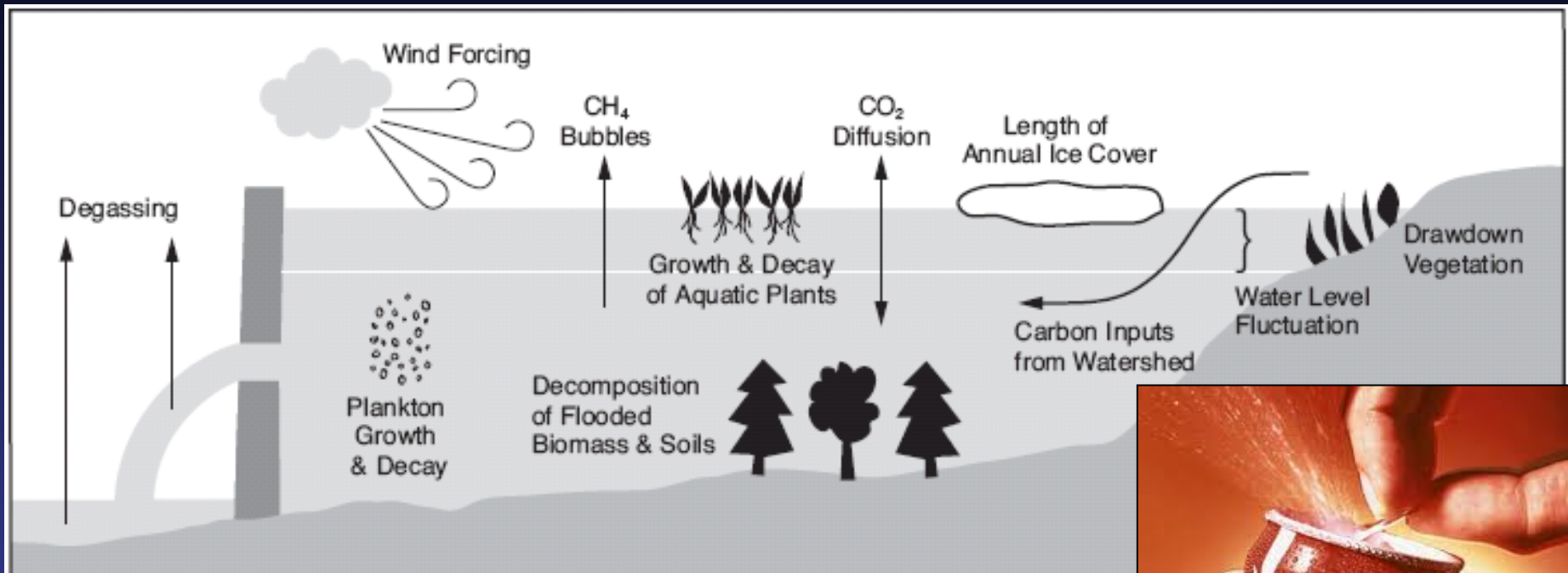
Regional Economic Integration and the Electricity Generation



Regional Powertrade Masterplan (ADB)

- A high growth in power demand, especially in Thailand and Vietnam
- Hydropower dams are both for domestic electricity demand and for regional power trade
- The Asian Development Bank has promoted the Mekong Power Grid since the early 1990s under the Greater Mekong Subregion program

Green House Gas Emissions from Hydropower Dams



- Methane is 25 times more potent as GHG than CO₂ (over 100 years)
- Recent estimates suggest reservoirs may contribute a further 1/3 on top of current human-derived methane sources which is 4% of total global warming

Dams and Climate Change



- Dam developers have been cheating the Clean Development Mechanism (2008)
 - Between 1/3 and 2/3 of projects are not additional
 - Almost $\frac{3}{4}$ of registered hydro projects were complete at the time of approval

Status of CDM Hydropower Projects

- Thailand:
 - 5 projects in the pipeline (all at validation)
- Cambodia:
 - 1 project in the pipeline (at validation)
- Lao:
 - 5 projects in the pipeline (all at validation)
- Vietnam:
 - 146 projects in the pipeline, excluding the terminated projects
 - 54 registered,
 - 1 under review,
 - 1 requesting registration,
 - 90 at validation
 - 5 validations terminated



UNEP Risoe, Sept 2011

Case Study 1: Country Context

Cambodia: Kamchay Dam

- Only 13% of rural households and 54% of urban houses have access to grid electricity
- Non-grid electricity can cost as high as 60 cents/ kw hr
- At least 5 large dams under construction
 - Approximately 11 large dams under study and 1 approved
 - Almost entirely Chinese dam developers
- Increasingly tending towards a centralized electricity system, despite many alternatives



Case Study 1: Project Status and Outcome

Cambodia: Kamchay Dam



Kamchay Dam, Cambodia

- Project approved in 2006
- Project background
 - Sinohydro Corporation
 - Funder is China Exim Bank (US\$280 million)
 - 193 MW, 122m dam, 44 year BOT
- First 10 MW stage opened by PM Hun Sen in December 2009, to be commissioned at end of 2011
- March 2010, International Rivers and Globalization Monitor sent letters to DOE
- STATUS: VALIDATION STAGE (applied October 2008)

Case Study 1: Issues Raised

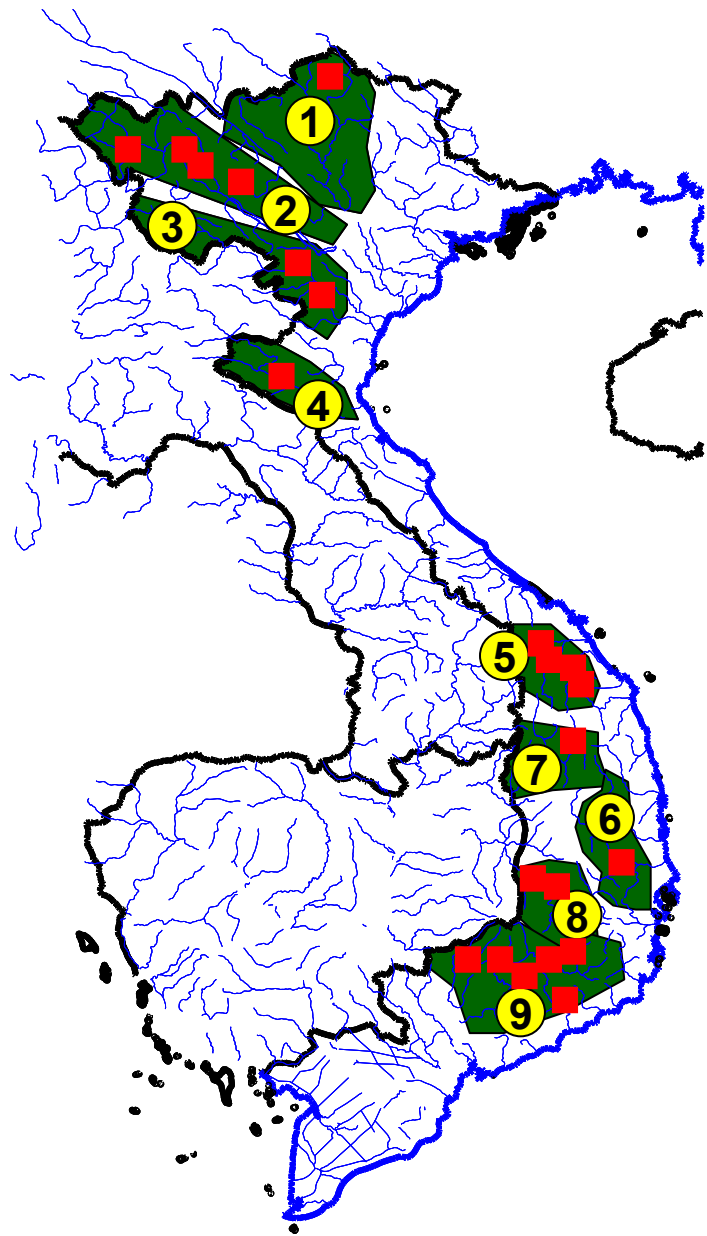
Cambodia: Kamchay Dam



- Will flood 2000 hectares of Bokor National Park
 - Rich in biodiversity
 - Important source of NTFP
 - Impacts on local tourism (at Touk Chhou)
- Non-additional, as (most likely) fully funded by China Exim bank concessionary loan, and construction now almost complete
- Lack of transparency
 - Cambodian govt approved contract in 2005 behind closed doors
 - 44 year contract pushed through Cambodia's National Assembly in 2006
- Lack of public consultation and information disclosure

Case Study 2: Country Context

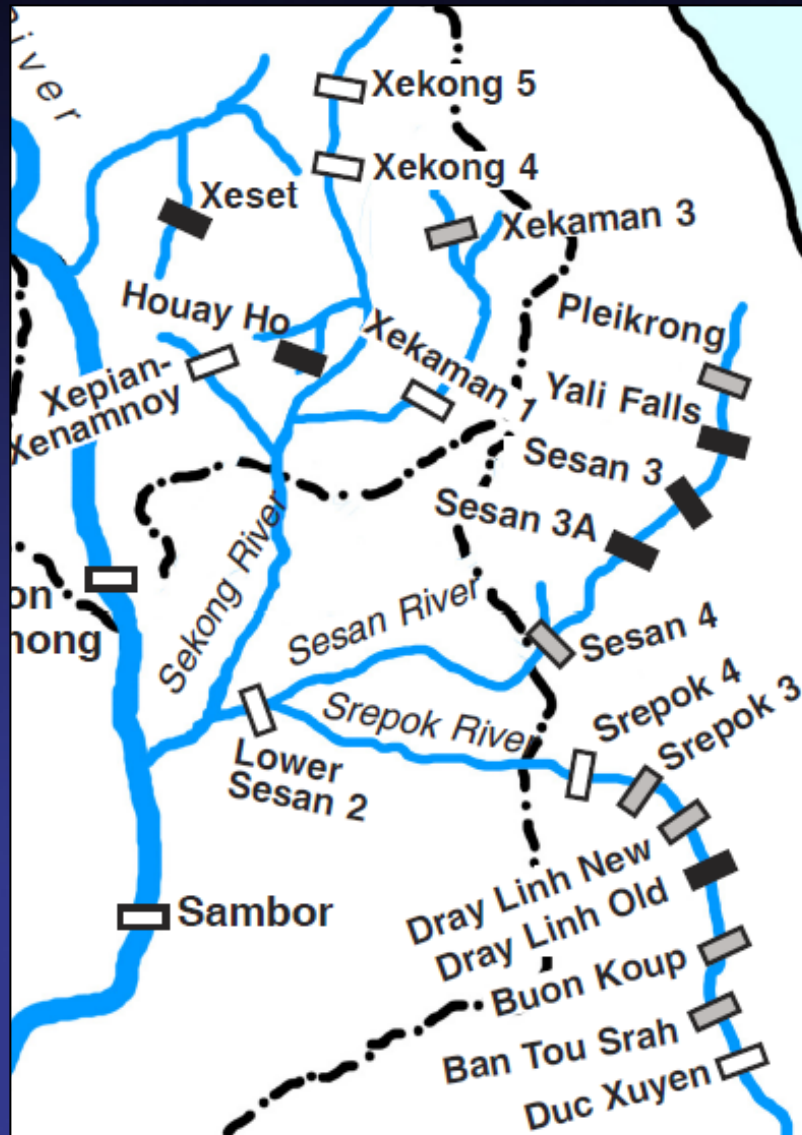
Vietnam: Buon Kuop Dam



- Government predicts that electricity demand will almost quadruple to 40,700 MW by 2015
- Vietnam plans to develop almost all of its viable domestic hydropower over the next 20 years, and to import hydroelectricity from Cambodia, China, and Laos
- As of 2008,
 - 11 large dams already built
 - 15 under construction
 - 28 more planned by 2025

Case Study 2: Basin Context

Hydropower development in the 3S basin



Poor development process :

- No options assessment
- Poor quality EIAs, often not released. No trans-boundary EIAs (until too late)
- No public consultation

Case Study 2: Project Details

Vietnam: Buon Kuop Dam



Located on Srepok River, Dak Lak Province

- 280 MW project, US\$133 million, operated by EVN
- Approved in 2003, and construction since at least 2005
- Started partial operation in March 2009, and full operation in September 2009
- Applied for CDM in June 2009
- Letters sent by 3SPN and NGO Forum on Cambodia in June 2009
- **CDM APPLICATION TERMINATED**

Case Study 2: Issues Raised

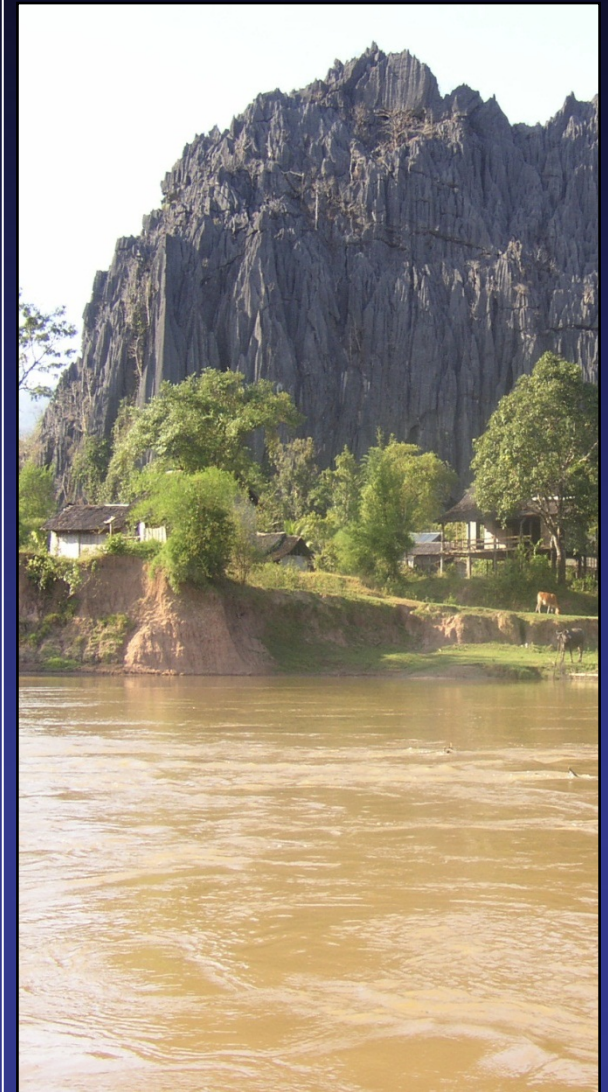
Vietnam: Buon Kuop Dam



- Non-additional, as project already complete
- Caused downstream impacts on Cambodia since 2005 to 11,000 people
 - Punong, Jarai, Tampuan, Brao, Krueng, Thmon and Kraol ethnicities.
 - Fisheries and agriculture based livelihoods
 - Poor water quality
 - Changes in river flood pulse and irregular fluctuations
- Cross-border EIA released in 2007 at a Consultation in Phnom Penh, January 2007 following serious downstream impacts from Buon Kuop construction

Key messages

- Rivers are Life in the Mekong Region
- There are extensive plans for hydropower development and CDM is supporting this business-as-usual approach
- There are far more CDM hydro projects than can be scrutinized independently
 - Of CDM projects that have been flagged, one was terminated, and a second is still under validation since 2008
- Urgent need to “democratize” power-sector planning
- A need for more fundamental transitions in production, consumption and politics (beyond which CDM can facilitate)



Thank you for listening

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