

Mekong Mainstream Dams: New Developments

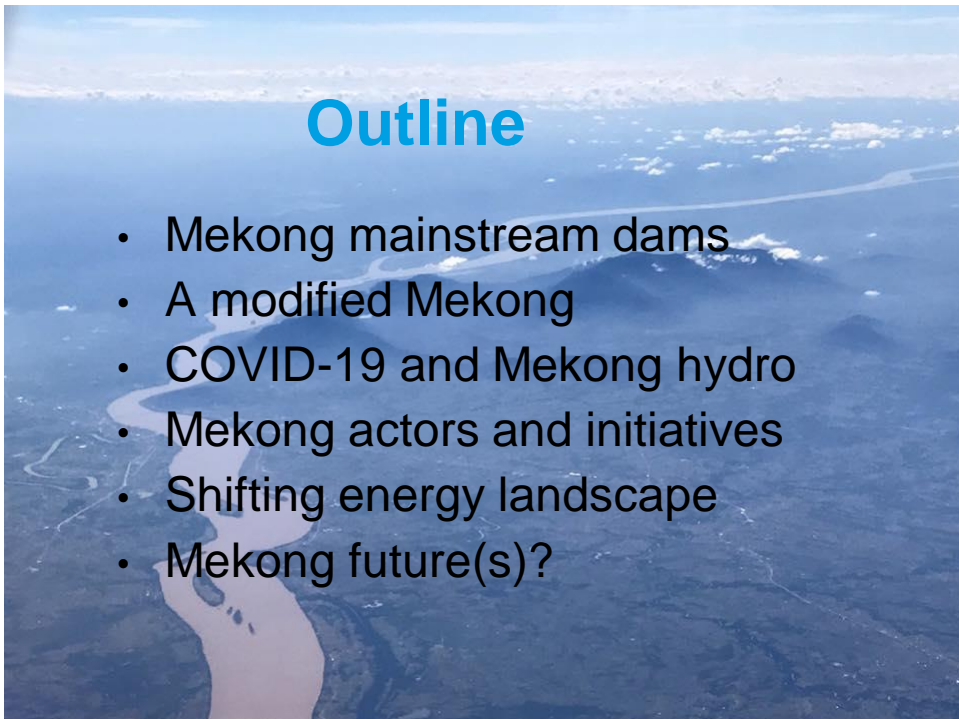


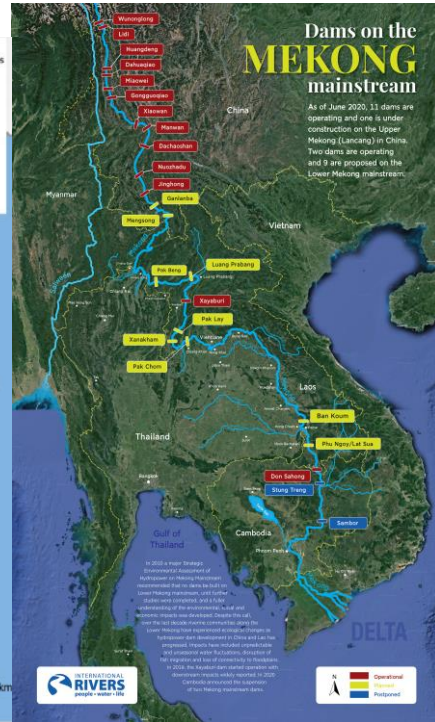
Gary Lee, International Rivers
glee@internationalrivers.org



Outline

- Mekong mainstream dams
- A modified Mekong
- COVID-19 and Mekong hydro
- Mekong actors and initiatives
- Shifting energy landscape
- Mekong future(s)?





LMB: Hydro status and trends

- >100 operational, more planned
-
- The bar chart displays the annual number of projects completed from 1945 to 2031. The y-axis, labeled 'Number of Projects', ranges from 0 to 17.5. The x-axis, labeled 'Year of Completion', shows years from 1945 to 2031. The data shows a long period of zero completions from 1945 to 1968. Completions begin in 1969 (1 project) and continue sporadically until 2000. A sharp increase occurs starting in 2001, with a peak of 16 projects in 2019. After 2019, the number of completions drops to 5 in 2020 and 1 in 2021, with no completions shown for 2022 through 2031.
- | Year of Completion | Number of Projects |
|--------------------|--------------------|
| 1945 | 0 |
| 1946 | 0 |
| 1947 | 0 |
| 1948 | 0 |
| 1949 | 0 |
| 1950 | 0 |
| 1951 | 0 |
| 1952 | 0 |
| 1953 | 0 |
| 1954 | 0 |
| 1955 | 0 |
| 1956 | 0 |
| 1957 | 0 |
| 1958 | 0 |
| 1959 | 0 |
| 1960 | 0 |
| 1961 | 0 |
| 1962 | 0 |
| 1963 | 0 |
| 1964 | 0 |
| 1965 | 0 |
| 1966 | 0 |
| 1967 | 0 |
| 1968 | 0 |
| 1969 | 1 |
| 1970 | 1 |
| 1971 | 1 |
| 1972 | 1 |
| 1973 | 1 |
| 1974 | 0 |
| 1975 | 0 |
| 1976 | 0 |
| 1977 | 0 |
| 1978 | 1 |
| 1979 | 0 |
| 1980 | 0 |
| 1981 | 0 |
| 1982 | 1 |
| 1983 | 0 |
| 1984 | 0 |
| 1985 | 0 |
| 1986 | 0 |
| 1987 | 0 |
| 1988 | 0 |
| 1989 | 0 |
| 1990 | 2 |
| 1991 | 0 |
| 1992 | 1 |
| 1993 | 0 |
| 1994 | 1 |
| 1995 | 1 |
| 1996 | 0 |
| 1997 | 0 |
| 1998 | 1 |
| 1999 | 1 |
| 2000 | 1 |
| 2001 | 2 |
| 2002 | 2 |
| 2003 | 2 |
| 2004 | 0 |
| 2005 | 1 |
| 2006 | 2 |
| 2007 | 4 |
| 2008 | 4 |
| 2009 | 6 |
| 2010 | 7 |
| 2011 | 10 |
| 2012 | 10 |
| 2013 | 7 |
| 2014 | 3 |
| 2015 | 6 |
| 2016 | 9 |
| 2017 | 12 |
| 2018 | 11 |
| 2019 | 16 |
| 2020 | 13 |
| 2021 | 13 |
| 2022 | 5 |
| 2023 | 1 |
| 2024 | 3 |
| 2025 | 0 |
| 2026 | 0 |
| 2027 | 0 |
| 2028 | 0 |
| 2029 | 0 |
| 2030 | 1 |
| 2031 | 1 |



INTERNATIONAL
RIVERS
PEOPLE • WATER • LIFE

The Fate of the Mekong River: Current Development and Future Perspectives

A modified Mekong

The Last Farewell to the Mighty Mekong

The shrinking Tonle Sap, the river's "beating heart," is the latest wake-up call of the damage wrought by dams.

Green algae, blue water add to fears over Mekong health

PUBLISHED: 11 JAN 2020 07:10:07

WRITER: PHAY VORCHOLAN AND KAT JARONATH THONGKUN
RESEARCHER: PHAY VORCHOLAN



1 Mekong river which colour turned blue in some outside Thailand, Laos, and Friday. (Reuters photo)

Mekong River Water Levels Hits Record Lows for a Second Year

The Mekong River Commission said Mekong countries should implement drought plans and request that water storage operators release more water and instigators use less of it.

1 February 2020 09:49 on August 9, 2020

CTN News



Fishermen without fish as Cambodia's river reversal runs late

21 PAK CHAN THAI

3 MIN READ

KAMPONG KHLEANG, Cambodia (Reuters) - Crucial water flows to the Tonle Sap, Southeast Asia's largest lake, have been delayed for a second consecutive year according to river experts, severely disrupting fishing and threatening the food supply of more than a million people.



Sources: <https://www.chiangraitimes.com/featured/mekong-river-water-levels-hits-record-lows-for-a-second-year/>
<https://www.bangkokpost.com/thailand/general/1833439/green-algae-blue-water-add-to-fears-over-mekong-health>
<https://www.reuters.com/article/us-mekong-river-cambodia-idUSKCN24M1T3>
<https://thediplomat.com/2020/09/the-last-farewell-to-the-mighty-mekong/>



The Fate of the Mekong River: Current Development and Future Perspectives

COVID-19 and Mekong hydro

Asia

Southeast Asia's hydropower boom grinds to a halt as COVID-19 stalls projects



Hydropower construction in Laos has been halted due to fears of COVID-19 contagion. (Photo: Jack Board)

sources: <https://www.channelnewsasia.com/news/asia/southeast-asia-hydropower-boom-covid-19-coronavirus-12652202>
<https://asia.nikkei.com/Spotlight/Coronavirus/Laos-debt-woes-worsen-as-bills-for-China-funded-dams-loom>
<https://chinadialogue.net/en/energy/thailand-under-pressure-over-sanakham-dam/>



Thailand under pressure to act against the Sanakham dam project

Campaigners hope a refusal to buy power from the Sanakham dam could stymie its progress and prevent more harm to the Mekong's fragile ecology



CORONAVIRUS

Laos' debt woes worsen as bills for China-funded dams loom

Coronavirus rattles first US dollar bond, adding pressure to weakened economy



Mekong actors and initiatives



- US-China
- Mekong data-sharing (Oct 2020)
- Financiers
- Civil society coalitions
- And many more...



Shifting energy landscape USING MORE RENEWABLE ENERGY IN THAILAND COULD SAVE THE MEKONG AND SALWEEN RIVERS

WIND & SOLAR ENERGY ON THE RISE!

DATA FROM THE INTERNATIONAL RENEWABLE ENERGY AGENCY (IRENA, 2019)



SOLAR
↑ 175% SINCE 2013



WIND
↑ 78% SINCE 2013



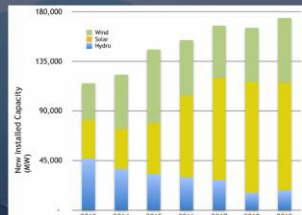
HYDRO
↓ 61% SINCE 2013



International Rivers works with movements to stop destructive hydropower dams and promote truly clean, renewable, energy. As the data from IRENA shows: we're helping make a real difference!

In 2019, the world added 156 GW of new solar and wind – that's double what was added in 2013. Meanwhile, new hydropower declined for 5 years in a row.

As global temperatures continue to rise, these figures are encouraging in the long road ahead.



	Greenpeace et al (2020) “Solar Rooftop Revolution: A Green and Just Recovery for Thailand 2021 -2023”	Four Lower Mekong mainstream dams: Pak Beng, Luang Prabang, Pak Lay and Sanakham
Proposal/ Projects	solar rooftop schemes: households; hospitals; and schools	Located in Laos, majority of power for Thailand
Capacity (MW)	2,778 MW	Approx. 3,820MW
Est. Cost	THB 98,859 billion, US\$3.2 billion US\$1.15million/MW	US\$11.4 billion US\$3 million/MW
Est timeframe	Three Years	Five to ten years
Env and Social Impacts		Thousands forcibly displaced; river transformed to lakes, transboundary impacts etc
Benefits	Distributed	Largely centralized

Sources: <https://storage.googleapis.com/planet4-thailand-stateless/2020/07/cf7b69a7-executive-summary-solar-rooftop-revolution-a-green-and-just-recovery-for-thailand-2021-2023.pdf>; Mainstream dam project documents and reviews on MRC website

The Fate of the Mekong River: Current Development and Future Perspectives

Cambodia scraps plans for Mekong hydropower dams

Campaigners welcome decision which allays fears for fragile biodiversity and communities dependent on river for livelihood



REUTERS

Southeast Asia needs to go all in on the renewables revolution

Solar and wind power can provide plenty of energy for Mekong countries and help avoid a dangerous tipping point for the river



Mekong future(s)?

- Whose rights and voices? Who benefits and bears the cost?
- Pathways to reduce inequalities within and between countries?
- Just energy transitions?
- Cooperation or Conflict?
- CSO priorities and strategies?

Sources:
<https://www.theguardian.com/world/2020/mar/20/cambodia-scraps-plans-for-mekong-hydropower-dams>
<https://chinadialogue.net/en/business/southeast-asia-needs-to-go-all-in-on-the-renewables-revolution/>



