Interbasin Transfers within Thailand*: the *Salween/Luam/Ping/Chao Phraya* projects

An interbasin transfer is an engineering scheme that diverts some or all of the discharge from a discrete river basin (or from a sub-basin within a larger catchment) into a stream draining a completely different basin or sub-basin, thereby agumenting the latters' discharge by a volume equivalent to that diminished from the source catchment.

The two main motivations for interbasin transfers are:

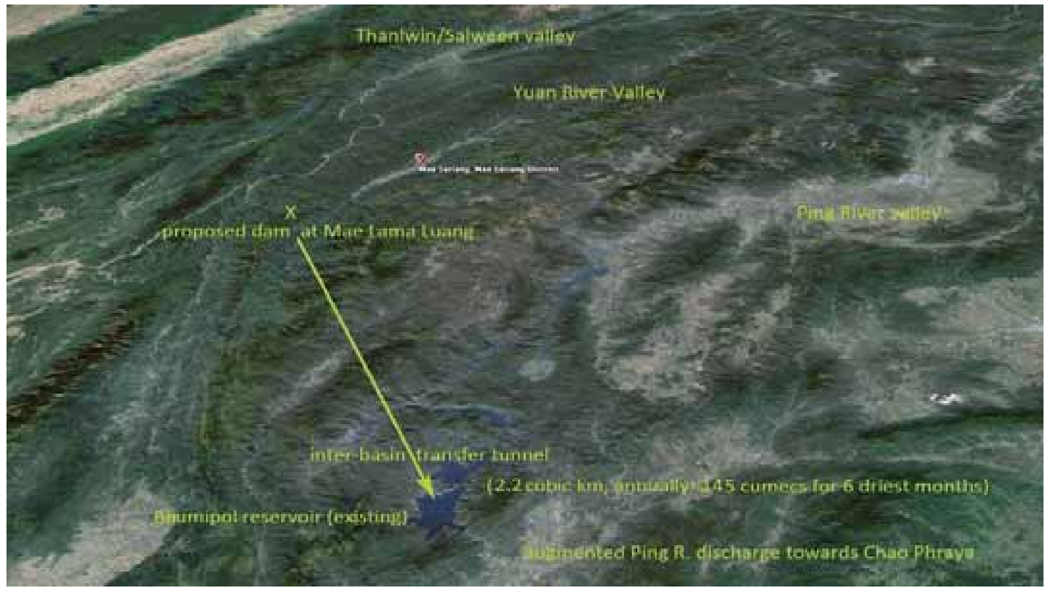
• in hydropower engineering, to take advantage of the receiving streams' topography to significantly increase the hydrostatic head of the release from a reservoir in the original catchment, through a canal or tunnel to a generating facility in the receiving catchment that is much lower in relative elevation than would be practicable within the source basin. The result is a much higher energy yield, for a given dam+reservoir, with only a relatively minor increase in overall capital investment. The best example in our study area is the Nam Theun 2 project in the Lao PDR, which diverts some 300 cumecs of water from the Theun-Kading basin into the Xe Bang Fai (XBF) basin, via both excavated new canals and existing XBF tributaries.

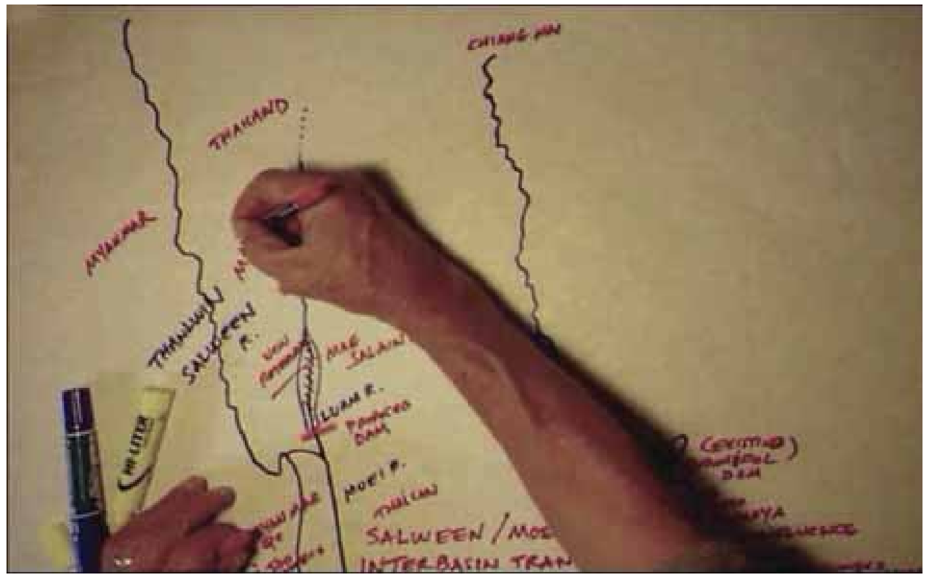
• in water resources management for better meeting both M&I and irrigation demands; where the existing basin's aggregate discharge is insufficient to fulfil essential needs in dry-season or drought conditions. As seen in the instant case (the Salween-Chao Phraya proposal), the energy requirements of interbasin transfer schemes of this category —where the source catchment is at a lower elevation than the receiving basin may be quite extreme, but the cost/benefit economics of pumping vs. social/agricultural/industrial needs still may justify the investment.

** N.B. While the source stream for this project is a shared waterway with the exact international border likely determined by the* thalweg, *i.e., the deepest main channel, which is not necessarily midway between the two banks, the Salween left bank where the intake structures and pumping stations would presumably be located, is in fact entirely within Thai territory. Note also that there presently exist no binding agreements or treaties regarding water sharing between the Salween's co-riparians: China, Burma/Myanmar, and Thailand.*

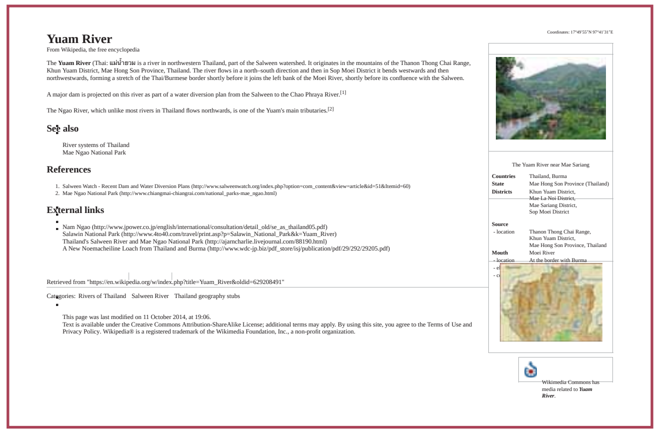
The Salween (Thanlwin, in Burmese) estuary at Myawlamayn, Myanmar: animated fly-through

The Chao Phraya delta at Krungthep (Bangkok)





Oblique space imagery and schematic speed-drawing of Thanlwin/Salween-Luam-Ping/Chao Phraya interbasin transfer components


Coordinates: 17°49′55″N 97°41′31″E

Yuam River

From Wikipedia, the free encyclopedia

The **Yuam River** (Thai: แม่น้ำยวม) is a river in northwestern Thailand, part of the Salween watershed. It originates in the mountains of the Thanon Thong Chai Range, Khun Yuam District, Mae Hong Son Province, Thailand. The river flows in a north–south direction and then in Sop Moei District it bends westwards and then northwestwards, forming a stretch of the Thai/Burmese border shortly before it joins the left bank of the Moei River, shortly before its confluence with the Salween.

A major dam is projected on this river as part of a water diversion plan from the Salween to the Chao Phraya River.[1]

The Ngao River, which unlike most rivers in Thailand flows northwards, is one of the Yuam's main tributaries.[2]

See also

- River systems of Thailand
- Mae Ngao National Park

References

1. Salween Watch - Recent Dam and Water Diversion Plans (http://www.salweenwatch.org/index.php?option=com_content&view=article&id=51&Itemid=60)
2. Mae Ngao National Park (http://www.chiangmai-chiangrai.com/national_parks-mae_ngao.html)

External links

- Nam Ngao (http://www.jpower.co.jp/english/international/consultation/detail_old/se_as_thailand05.pdf)
- Salawin National Park (http://www.4to40.com/travel/print.asp?p=Salawin_National_Park&k=Yuam_River)
- Thailand's Salween River and Mae Ngao National Park (http://ajarncharlie.livejournal.com/88190.html)
- A New Noemacheiline Loach from Thailand and Burma (http://www.wdc-jp.biz/pdf_store/isj/publication/pdf/29/292/29205.pdf)

The Yuam River near Mae Sariang

Countries	Thailand, Burma
State	Mae Hong Son Province (Thailand)
Districts	Khun Yuam District, Mae La Noi District, Mae Sariang District, Sop Moei District
Source	
- location	Thanon Thong Chai Range, Khun Yuam District, Mae Hong Son Province, Thailand
Mouth	Moei River
- location	At the border with Burma

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Categories: Rivers of Thailand | Salween River | Thailand geography stubs

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