

# [Collaborative Research Between ERI/PARI] Study Plan for the Next Phase

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### Overview of our research initiative

- Research counter-part
  - Energy Research Institute (ERI), Chulalongkorn University
  - ERIA, member of Energy Research Institute Network
- Research period

Necessity of power development for enhancing the rural electrification in Myanmar

- 1st phase: October 1st 2013 June 30th 2014
- 2<sup>nd</sup> phase: July 1<sup>st</sup> 2014- June 30<sup>th</sup> 2015 (expected)

#### Rationale

- Necessity of power development for enhancing the rural electrification in Myanmar
- How to benefit from "left-over" of capital flows from the neighboring countries who aim to fuel own power demand?
- Win-win bilateral trade between Myanmar and Thailand in IPP business?



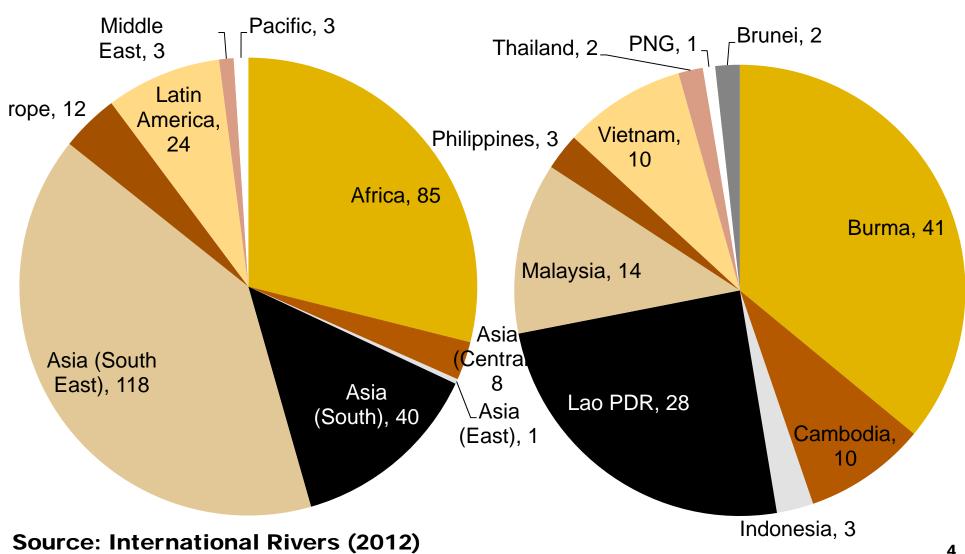


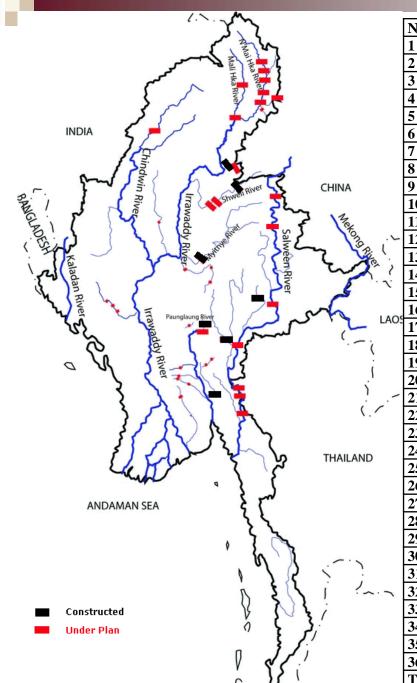
How has China invested into Myanmar hydro plan?





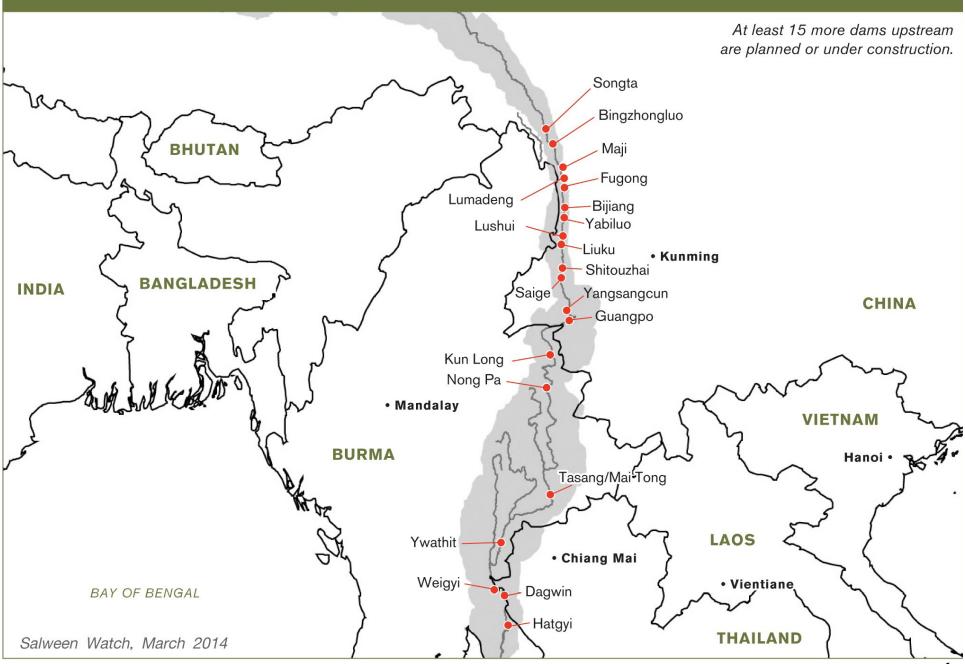
## Chinese Hydro-investment in Myanmar





				Arternativ
	No	Name of Plant	Capacity	Shareholders The stitute
	1	Myitsone(AyeyardyBasin)	6,000 MW	CPI (China)
	2	Yenam(AyeyardyBasin)	1,200 MW	CPI (China)
	3	Kawanglangphu	2,700 MW	CPI (China)
	4	Pisa (AyeyardyBasin)	2,000 MW	CPI (China)
	5	Wutsok(AyeyardyBasin)	1,800 MW	CPI (China)
	6	Chipwi(AyeyardyBasin)	2,800 MW	CPI (China)
	7	Laza(AyeyardyBasin)	1,900 MW	CPI (China)
	8	Chipwinge(AyeyardyBasin)	99 MW	CPI (China)
	9	Tapain(1)	240 MW	DUHD (China)
	10	Tapain(2)	168 MW	DUHD (China)
	11	Gawlan(Nawchankha)	100 MW	YPIC (China)
_	12	Wuxhongze(Nawchankha)	60 MW	YPIC (China)
	13	Hkankan(Nawchankha)	140 MW	YPIC (China)
	14	Tongxinqiao(Nawchankha)	320 MW	YPIC (China)
	15	Lawndin(Nawchankha)	435 MW	YPIC (China)
09	16	Konlon(Upper Thanlwin)	1,400 MW	Hanergy(China)
U:	17	Naungpha	1,000 MW	Hydro China
	18	Mantaung	200 MW	Hydro China
	19	Tarsang	7,110 MW	Three Gorges + Ratchaburi
	20	Hutgyi	1,360 MW	Sinohydro+ EGATi
-	21	Ywathit	600 MW	DUHD (China)
	22	KengTong (Namlwai)	96 MW	YNPG (China)
	23	Wantapeng(Namlwai)	25 MW	YNPG (China)
	24	Solu(Namlwai)	165 MW	YNPG (China)
	25	Mongwa(Namlwai)	50 MW	YNPG (China)
	26	Kengyan(Namlwai)	28 MW	YNPG (China)
	27	Heku(Namlwai)	88 MW	YNPG (China)
	28	Htamanthi	1,200 MW	NHPC (India)
	29	Shwesarye	660 MW	NHPC (India)
	30	Laymyo	500 MW	DUHD (China)
	31	Tanintharyi	600 MW	Italian-Thai
V.	32	Mawleik	520 MW	China Guodian
	33	Nampon	130 MW	DUHD (China)
	34	Namtabat	110 MW	DUHD (China)
	35	Namkha	200 MW	YNPG (China)
	36	Shweli(2)	520 MW	HuanengLancang
	TOTAL		36,524	

#### PROPOSED DAMS IN THE SALWEEN BASIN







Project	Capacity	Cross- border	State	Developer	Builder	Status
Kun Long	1400MW	China	Shan		Hanergy, Goldwater	Proposed
Nong Pa	1000MW	China	Shan	HydroChina, MEP	HydroChina	Proposed
Tasang (Mai Tong)	7110MW	Thailand	Shan	Ratchaburi, Sinohydro, Three Gorges	Sinohydro, Three Gorges	Under Construction
Ywathit	4000MW	Thailand	Kayah	Datang, Shwetaung		Proposed
Weigyi (Mae Saring1)	4540MW	Thailand	Karen			Susepended
Dagwin (Mae Saring2)	800MW	Thailand	Karen			Suspended
Hatgyi	1360MW	Thailand	Karen	EGATi, Sinohydro, Goldwater	Sinohydro	Proposed





## What are barriers to implement mega-hydros?





## Case1: Kun Long Dam

- In 2010, due to refusal of the Kokang resistance army to become a Border Guard Force (BGF), the Myanmar Army launched an offensive and seized control of the area, causing over 30,000 people to flee across the Chinese border.
- the Shan Human Rights Foundation (SHRF) reported that the construction of the dam in Kunlong township is not stable since it is close to the Kokang and Wa self-administrative regions, and there has been recent new displacement of villagers in Kutkhai due to skirmishes between Myanmar Army troops and the Ta'ang National Liberation Army (TNLA) as well as the KIA (Kachin Independence Army).
- According to SHRF, the construction of access roads to the Kunlong dam site has led to large scale land confiscation and destruction of houses, impacting over 60 villages with a population of around 20,000 people. The villagers have been given no compensation. At the dam site, about 500 workers are being employed at cement and gravel production plants.





### Case2: Tasang Dam

- Under a massive scorched earth campaign by the Myanmar Army starting in 1996, over 300,000 people have been forcibly relocated from their lands in southern Shan State, including from areas around the planned Tasang project site.
- SHRF reported that residents in areas slated to be flooded by the Tasang Dam were forced to work for Myanmar Army troops providing security for teak logging in the potential reservoir area. As a result of these serious abuses, there has been an ongoing influx of refugees into Thailand from Shan State.
- There are ongoing armed conflicts near the project site. In November 2013, clashes between the Shan State Army-South and the Myanmar Army took place near Ta Sob Bu on the Salween River.





#### Case3: Ywathit Dam

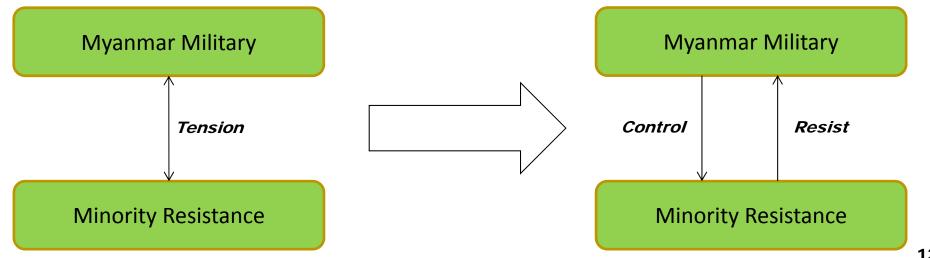
- Since 2010, surveying work for the Ywathit Dam in preparation for construction has been conducted jointly by a Chinese and Myanmar team. It was reported in December 2010 that a survey team was ambushed by Karenni resistance troops near Pruso, leading to the deaths of three Chinese engineers.
- In 2011, new military camps for Border Guard Force No. 1005 and special security troops were established to protect the Chinese dam builders. Also, the Myanmar Army Tactical Commander under No. 55 Regional Command based in Bawlake has been visiting the Ywathit area to monitor and strengthen security for the dam building team.
- The Karenni National Progressive Party (KNPP) reached a 14-point ceasefire agreement with the Myanmar Army in 2012. On 18 October 2013. U Chit La, the Karenni State Minister of Transport and Saw Hu Hu, Karenni State Minister of Electrict Power and Industry organized a public hearing at Pasaung township to inform local people that after the completion of a new 700 MW dam on the Salween, the villagers would get electricity.





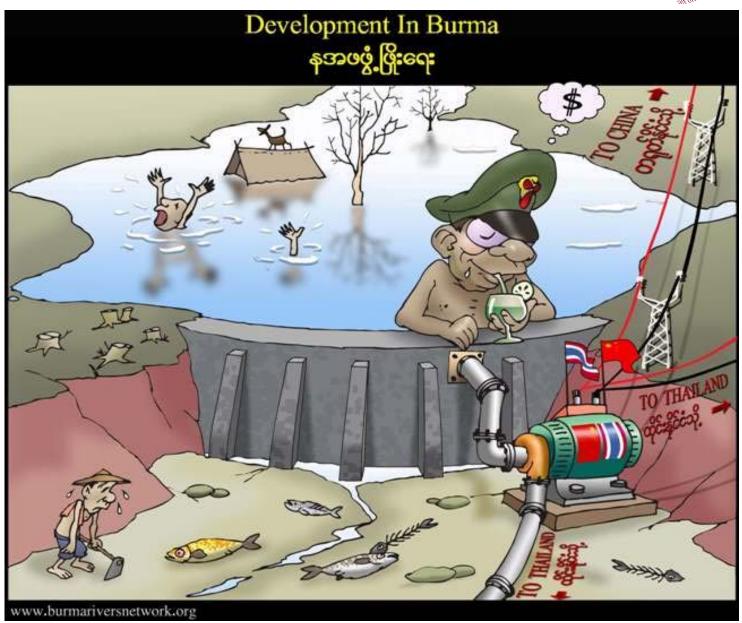
- 1) Dam site are located where the serious tension exists between the national army and minority's armed group.
- 2When the dam was planned in such an area, local villagers are relocated and employed as a forced labor, sometimes making the political refugees from Myanmar.
- **3The peace process between the national military and minority resistance is hampered.**











**Source: Burma Rivers Network** 





## **Echoed by Stakeholders**

- The dam plans are seen by many as being one of the strategies used by the military regime to gain foreign support and funding for its ongoing war effort. It is also viewed as a strategy to increase and maintain its control over areas of ethnic land after many decades of brutal conflict (Salween Watch).
- The Burma Rivers Network (BRN) is holding a press conference in Yangon today to urge the Burmese government as well as Chinese and Thai investors to immediately stop plans to build dams on the Salween River, as this is causing conflict and directly undermining the peace process (OCT29, 2013, Burma River Network).





What are the local community's concerns?



## What are the community's concerns?

Potential Concerns						
I. Transparency			Fisheries			
I-1	Participation in decision-making	III-4	Water Flows			
I-2	Informed consent	IV. Da	m Safety			
I-3	Benefit Sharing	IV-1 Earthquakes and Dam Bro				
II. Social Impact of Dams			Flooding			
II-1	Displacement	IV-3	Sudden Water Surges			
II-2	Food Security	V. Militarization				
II-3	Health Concerns	V-1	Forced Relocation			
11-4	Impacts on Women	V-2	Forced Labor			
II-5	Loss of Culture	V <b>-</b> 3	Land Confiscation			
III. Environmental Impact			Sexual Violence			
III-1	Biodiversity	VI. Mining				
III-2 Forests		VII. Mangrove Loss				





#### Research Schedule

2014				2015					
JUL AUG SE	EP OCT	NOV	DEC JAN	FEB	MAR	APR	MAY	JUN	
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Literature Surve	Survey:		WS2	Interview:			WS3		
	Local Community		BKK	Investors		NPT			
Step1		Step2			Step3				
To identify key I	To reveal the local			To deal with the local's					
in Salween dev	community's perspective			concerns					

How can we approach barriers in Salween developments?

How can we deal with the concerns? How do we expect

How do we expect
Myanmar government to
deal with the community's
concerns?

**Main Theme** 

**Expected Informants in Myanmar Policy Workshop Technical Keith** Cooperation **METI** Outreach PARI, **University of** Tokyo *Implication* ERIA Workshop Related **ERIN** ERI, Ministries Involvement Network Chulalongkorn Data Feedback **Civil Society** in Myanmar •Informants **Community B Community A Community C** 18





# Thank you for your attention! Gucci.kensuke@gmail.com