# Saving the Ngo Chang Hka Valley



#### Kachin Development Networking Group

KDNG was set up in 2004 in Kachin State to promote sustainable development, equality, and justice.

Published in August 2017. All photos are by KDNG unless noted. KDNG would like to thank all those who supported this report.

*Front cover photo:* A local resident standing above the Ngo Chang River *Back cover photo:* A Lachid weaving design (photo by KWAT)

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Note: "Hka" means river in the Kachin language



"Can anyone accept the idea of cutting one's own hand and replacing it with an artificial limb? We do not want anything other than our natural hand." (village elder, Mang Pyaw Village, Sawlaw township)

Happy May Ha Rive

## Summary

The stunningly beautiful, biodiverse Ngo Chang Hka valley, ancestral home of thousands of indigenous Kachin on the eastern Kachin State-China border, is under threat from a cascade of four large hydropower dams planned by the Burmese government and Chinese investors.

The dams, planned by China's YEIG International Development Company Ltd. (YEIG) to produce 1,200 megawatts of electricity, will block the Ngo Chang Hka, a tributary of the N'Mai River, one of the headwaters of the Irrawaddy River. The Ngo Chang Hka sustains the lives of over 4,500 people of Ngo Chang, Lachid, Lhao Vo, and Lisu ethnicities living in seventeen villages along the river valley in Chipwi and Sawlaw townships. These communities have lived sustainably in this area for over 1,000 years, cultivating farms along the steep-sided valley floor.

Local people are strongly opposed to the dams, which have been planned without their knowledge or consent. They fear the loss of their ancestral homes, lands and culture, and the irreparable damage to their natural environment, including unique medicinal herbs growing along the river. Pollution from ongoing molybdenum mining in the upper reaches of the Ngo Chang Hka will be worsened by the building of dams, with mining run-off caught in the dam reservoirs. Past experience of flash floods and earthquakes also causes locals to fear disaster from potential dam breaks.

The nearby Chipwi Nge hydropower dam, completed in 2013 by China Power Investment (CPI), provides a clear lesson of the negative impacts of large dams. Valuable farmlands were destroyed without proper compensation, and villagers downstream now suffer from unpredictable releases of muddy, polluted water from the dam that destroy riverside crops, kill fish, and make bathing dangerous. Promised free electricity from the dam, local villagers now pay three times more for electricity than residents of Mandalay or Yangon. Only one third of the dam's potential capacity is currently being used, due to a lack of transmission infrastructure.

The Ngo Chang Hka villagers have blocked company personnel from surveying for the dams, have written an open letter to the President to stop the projects, and have publicly protested. However, the four dams are among





View of the Ngo Chang Hka valley from Nuzun Baw village

50 new large dams being pushed ahead by Burma's Ministry of Electricity and Energy, to increase national hydropower capacity from about 3,000 to 45,000 megawatts, a large proportion of which is for export to other countries.

Chipwi and Sawlaw townships are active conflict areas, where fighting continues between the Kachin Independence Army (KIA) and government aligned troops, and where thousands of villagers remain internally displaced. A root cause of the conflict is the dispute over control of land and natural resources. Therefore proceeding with the Ngo Chang Hka dams against the wishes of the local communities will be sure to further inflame the conflict.

The Kachin Development Networking Group (KDNG) calls for an immediate cancellation of all planned large hydropower dams on the Ngo Chang Hka and other rivers in Kachin State. KDNG also demands that Burma's current centralized national energy plans, which prioritize export of electricity, are abandoned. Future electricity development plans should conform to a federal decentralized model that prioritizes the power needs in each state first. Existing energy projects should be reviewed to ensure their capacity is being used primarily for the benefit of local populations. This will help forge local development and peace.



## History of the Ngo Chang Hka region

The Ngo Chang Hka flows through the mountain valleys of the eastern edge of Kachin State and into the N'Mai Hka. The N'Mai Hka continues southward and joins the Mali Hka at the Myitsone confluence to form Burma's great Irrawaddy River. The borderlands of the Ngo Chang Hka form part of the eastern Himalayan ecoregion, a place of globally outstanding biodiversity and ancient human settlements.

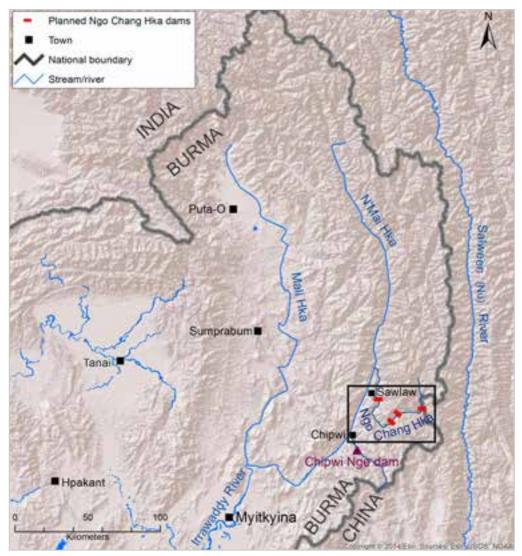
Records indicate that the Lhao Vo and Lachid peoples first settled along the lower and middle reaches of the Ngo Chang River roughly 2,000 years ago, while the Ngo Chang people, who trace their ancestry back to the Lachid, journeyed further upstream where they established settlements roughly 1,200 years ago. Lisu settlers later arrived in the area. These communities were traditionally ruled by hereditary chieftains or Duwas.

These peoples are the traditional custodians of the land in the Ngo Chang region. They have developed sustainable customary land management systems based on their expert knowledge of the area and its natural environment. They rely on the river for the cultivation of crops, including rice paddy and walnuts.



Dancing in Lachid traditional dress





In 1960, as part of a border demarcation treaty, three villages in the upper Ngo Chang Hka area – Hpimaw, Gawlam and Kamfang – were given to China by General Ne Win's caretaker government, in exchange for an area of land southeast of Bhamo. This was strongly opposed by Kachins throughout the country, and was one of the grievances leading to the formation of the Kachin Independence Army (KIA) in 1961. About 500 families from the three Kachin villages were resettled to the Hugawng valley (in Tanai township, western Kachin State). However, unused to the warmer climate in the new location, entire families of resettled villagers died, of malaria and other illnesses. Memories of the fate of those relocated villagers continue to instil fear in Ngo Chang Hka residents, who vow never to face forced resettlement again.

# Conflict

The Ngo Chang Hka flows through Chipwi and Sawlaw townships, which are areas contested by Burmese government-aligned troops and the Kachin Independence Army (KIA). Villages along the Ngo Chang Hka are under the control of the government and its Border Guard Forces, or militia led by Zahkung Ting Ying, but KIA troops operate in the mountains on both sides of the river. Since the breakdown of the KIA's seventeen-year ceasefire with the Burma Army in June 2011, there have been repeated outbreaks of fighting between the two sides in this area. Over 2,000 people remain internally displaced in Chipwi township. They live in two camps in Chipwi town and four camps along the Chinese border, near Pang Wa.

KDNG believes the centralised control and exploitation of Kachin natural resources by the central government and its military is a key driver of the conflict in Kachin state, as local people have no decision making authority over resource management and have no rights to benefit from their own resources.

Therefore KDNG has called for ownership and management powers of Kachin State natural resources to be put into the hands of the people of Kachin State in a federal democratic union as the main solution to this conflict.



Protest in Myitkyina against the war and exploitation of resources

## The Ngo Chang Hka hydropower projects

The Ngo Chang Hka dam projects were first officially announced in February 2009 when a Memorandum of Understanding was signed by Burma's military regime and China's YEIG International Development Company Ltd. (YEIG). Studies were carried out for the dams during 2010 to 2013. An amended Memorandum of Agreement to build four large dams that range from 47 to 79 meters high was signed in 2014. The contents of the agreement have not been made public.

There has been strong local resistance to the dams, and local villagers blocked attempts by the dam company to survey for the upper dam in 2015. However, since May 2017, government officials from Myitkyina have resumed efforts to promote the dams, visiting the local area to distribute blankets, and issuing a letter to a local headman asking for biographies of those opposed to the dams.

The four dams remain included in a list of fifty "on-going" large hydropower projects presented by Myanmar's Ministry of Electricity and Energy (MOEE) in January 2017 during a Strategic Environmental Assessment Workshop sponsored by the International Finance Corporation (IFC, the private investment arm of the World Bank) in Yangon.<sup>1</sup> These new large dams aim to increase hydropower capacity from just over 3,000 to about 45,000 megawatts, much of which is targeted for export.

Burma's current national energy plans, involving massive increases in coalfired and hydroelectric power production, are based on an export-oriented model that relies on the sale of energy resources, mainly from the ethnic states to neighbouring countries, in order to generate revenues for the central government and military. Addressing domestic energy needs is a secondary priority, and relies on the slow and expensive expansion of a centralised grid that mainly serves cities and towns in central Burma. Faster and cheaper "off-grid" alternatives, involving local production and distribution of electricity, are not being prioritized. Currently the IFC, a business partner in hydropower projects world-wide and a direct beneficiary of hydropower expansion, is a main proponent of this export-oriented strategy, as well as other international organisations such as the Japan Investment Cooperation Agency (JICA) and the Asian Development Bank.

### Dam specifications and impacted populations<sup>2</sup>

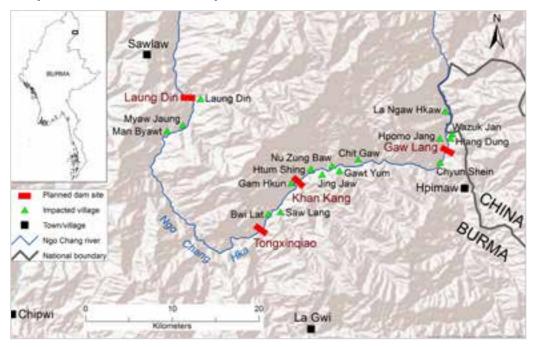
Hydro-	Dam	Installed	Names of affected	House-	Pop-
power	Wall:	Capacity	villages	holds	ula-
Dam	Height,				tion
	Length				
Laung	79 m,	600 MW	Laung Din	30	105
Din	215 m		(upstream of dam)		
			Myaw Jaung	22	160
			(upstream)		
			Man Byawt	54	227
			(upstream)		
Tongxin-	63 m,	340 MW	Bwi Lat (upstream)	28	175
qiao	145 m		Saw Lang (upstream)	22	170
Khan	56 m,	140 MW	Gam Hkun	58	480
Kang	192 m		(downstream)		
			Jing Jaw (upstream)	21	87
			Htum Shing	92	550
			(upstream)		
			Nu Zung Baw	24	120
			(upstream)		
			Gawt Yum	107	608
			(upstream)		
			Chit Gaw (upstream)	56	400
Gaw	47 m,	120 MW	Chyun Shein	116	730
Lang	119 m		(downstream)	_	
			Htang Dung		
			(upstream)	_	
			Hpomo Jang		
			(upstream)		
			Wazuk Jan (upstream)		
			La Ngaw Hkaw	86	620
			(upstream)		
TOTAL		1,200 MW		716	4,432

According to the draft National Electricity Master Plan published by JICA in December 2014, 50% of the power produced by the Ngo Chang Hka dams is targeted for export.



4

#### Proposed dam sites and impacted villages



#### Dam operating companies:

 China's YEIG International Development Company Ltd. (YEIG), a subsidiary of Yunnan Provincial Energy Investment Group, wholly owned by the Yunnan provincial government.



View of Ngo Chang Hka from Htum Shing village

#### 2. International Group of

**Entrepreneurs Co. Ltd. (IGE)**, one of Burma's largest conglomerates, owned by Nay Aung and Pyi Aung, the sons of the former Burma Army general Aung Thaung (now deceased), Industry Minister of Burma's military regime from 1997 to 2011. Eleven Media reported in January 2014 that YEIG would own an 83% stake in the projects, the Burmese government 15%, and IGE 2%.

## Timeline of dam projects<sup>3</sup>

Feb 2009: MOU signed between YEIG, IGE, and the Myanmar Ministry of Electric Power (MoEP)

July 2010: MOA signed with MoEP to build five dams on the Ngo Chang Hka

**2010-2013:** Feasibility studies for the dams carried out

Feb 2014: Environmental and Social Impact Assessments (EIA/SIAs) for the dams begin, conducted by Power China Kunming Engineering Corporation Ltd. (KHIDI) and the Resource and Environment Myanmar (REM)

Apr 2014: MOA between YEIG, IGE, and MoEP amended and signed to build four dams with a total installed capacity of 1,200 megawatts

**Nov-Dec 2014:** EIAs/SIAs are submitted to the Ministry of Natural Resources and Environmental Conservation (MONREC) for consideration

May 2015: About 100 villagers called to a public "consultation" about the dams in Hpimaw, Chipwi township

May 2015: YEIG personnel coming to carry out testing for the upper dams in Htang Dung and Htun Shein villages are threatened by local villagers

May 21, 2017: Officials from the Chipwi Township Department of Electricity and Energy and the General Administration Department in Chipwi visit Nu Zun Baw village (on the Ngo Chang Kha, above the planned Khan Kang dam), calling a meeting of the local headman, elders, and residents of surrounding villages about the dam. They distribute a blanket to each person attending the meeting, but when villagers argue that no one accepts the project, the meeting is suspended.

June 11, 2017: The Chipwi Township General Administration Department sends a letter to the Htum Shing village headman asking for the reasons why he is against the dam project, and to submit biographies of all those against it.

**2026-2027:** Expected date of completion of all four dams according to MOEE





Once free flowing water lies stagnant beside the Chipwi Nge Dam

## Bitter lessons from the Chipwi Nge Dam

"In the process of this project, farms and the hillside paddy fields of the villagers in Mogok and nearby villages were destroyed, cemeteries were removed by force and threat.... The government soldiers terrorized our villagers at work and ordered them not to continue hillside cultivation. The present hydropower plant is located less than a mile from our village, but we do not gain any benefit from it. Instead we suffer and lose our properties." (Resident of Mogok village, immediately downstream of Chipwi Nge dam)

The bitter experience of communities impacted by the Chipwi Nge hydropower dam, completed in 2013, provide a clear lesson to Ngo Chang Hka villagers of the dangers of large dams. The impacts suffered include Burma Army abuses during construction, loss of valuable farmland, broken promises about free electricity, and dangerous unpredictable water releases from the dam, which have caused damage to farmlands and reduction in fish populations.

The 99 megawatt Chipwi Nge dam was built by China Power Investment Corporation (CPI) on the Chipwi River, a tributary of the N'Mai south of the Ngo Chang Hka. It was originally planned to power the construction of the Myitsone dam, but currently transmits electricity to the Myitsone relocation camps and Myitkyina. According to the Deputy Director of the Kachin State Electricity Department, only 33 megawatts of the dam's potential capacity is being used, due to a lack of transmission infrastructure.<sup>4</sup>

Villagers were first officially informed about the dam in December 2008, when a high level delegation of military government officials travelled to Eleven Mile Village, close to the dam site, accompanied by China's then Ambassador to Burma, the CPI Chairman, and the President of the Asia World Corporation, U Tun Myint Naing (a.k.a. Steven Law). The delegation informed villagers that the Chipwi Nge dam would be built and that their land would be submerged by its reservoir. There was no consultation.

Construction began in November 2008, but was halted in 2012, when fierce fighting between the KIA and the Burma Army took place in Chipwi, and the dam site was attacked. Company workers temporarily evacuated the area, but returned when government troops seized back control of the site. Construction continued with tight military security, and in 2013 the dam was complete.

About 200 acres of fertile farmland along the Chipwi River was destroyed by the construction of buildings and the filling of the dam reservoir. Villagers grew rice, walnuts and oranges on these farms, but six impacted families were given only 500,000 kyat (about 500 USD) in total to share among them as compensation for the permanent loss of their farmlands and livelihoods. When the dam was completed, the area of land impacted was larger than they had been told.

"At the beginning of the project, (we were told) it was only 35 acres, but when the project was completed over 200 acres were covered," said a Mogok villager.

Burmese military officials promised villagers free electricity from the hydropower project in 2008, and the Burma Army's Northern Commander Major General Zay Yar Aung made the same promise during a visit to the area on November 21, 2011. Yet today residents of Chipwi town are forced to pay over three times more than urban residents of Yangon and Mandalay for



their electricity, while the villagers from Mogok Mile village who lost land and livelihoods have never received electricity from the dam and continue to rely on their own solar panels for electricity.

A community leader from Chipwi explained:

"Electricity is not free. We are paying 170 kyat per unit in Chipwi, while people pay 120 kyat per unit in Myitkyina, and 50 kyat per unit in Yangon and Mandalay. We were told that the electricity is purchased from San Linn Company. They said that we the local people must provide labor. We were paid only 5,000 kyat (30 Yuan) (lunch not provided) per day while the Chinese workers were paid 80 Yuan, 100 Yuan, or 120 Yuan (lunch provided) for minimum daily wages. Fruit trees in our gardens were destroyed because of reckless road construction. We talked about our grievances to the Chipwi Ma Ya Ka [Chipwi Township Administration Committee] president, but he said that it was for the sake of regional development and we just kept silent."

Since the project was completed, downstream communities have seen their main source of fresh water blocked and polluted by the dam. This has killed off valuable fisheries, disrupted natural flows, and blocked the nutrient rich waters of the river from reaching farmlands. Unpredictable releases of water from the dam's flood gates have made bathing or fishing in the river too dangerous for local communities, who are given no warning of release times.

"Villagers, children and adults, as well as fishermen, find it unsafe and difficult to bathe in the villages below the dam (such as Mogok, Ngo Chik, and Chipwi), because those responsible for the dam do not keep an exact timetable for releasing water, but they release water on an irregular basis on and off. Unclean water and its bad smell from the dam cause the disappearance of fish and bad effects on the health of local people as well as the environment." (Religious leader, Chipwi town)

"At present the water from the dam is released every three months, and fish and water creatures for local consumption are disappearing forever due to the muddy sand in the flood. Our paddy fields are ruined, and fields under cultivation must be abandoned. No compensation was provided for those losses." (Villager, Mogok, Chipwi township)

## Concerns about the Ngo Chang Hka hydropower projects

During September 2016 to March 2017, KDNG conducted interviews with 36 people (29 men and 7 women), including village heads, administrative officials, religious leaders, and farmers, from 16 villages in Chipwi, Sawlaw and Tanai townships. The following are the main concerns raised by the villagers about the Ngo Chang Hka dam projects. (Names have been kept confidential to protect their security).

#### 1. No rights to decide, secrecy

"The government should consult with local people properly when they implement any project, in the same way that family members should be consulted before something is done in their home." (Community leader, Chipwi)

Villagers living along the Ngo Chang Hka have never been properly informed about the dams. Details of dam agreements and impacts remain secret. No data or maps about the potential flood zones of the dams and impacted populations have been made public. Many villagers said they have no idea if they will lose their lands or homes if the dams are built.

No public meetings about the dams were held until May 2015, more than six years after agreements were signed for the projects, and two months before the first EIA report was submitted. Staff of YEIG and Myanmar government officials called a meeting of about a hundred local people at Hpimaw village, close to the Chinese border. A village leader from Htang Dung, upstream of the planned Gaw Lang dam, said he objected to the project in the meeting, but, according to a local church leader from Hpimaw also present, the company ignored arguments against the dam, and falsely used attendance at the meeting as endorsement of the dam projects.

"At the public conference in Hpimaw, local people had no opportunity to discuss any concerns. Those who attended the meeting had to sign an attendance sheet. Each participant was given 50 Chinese Yuan and a blanket. It seemed like they used our signature of attendance as agreement to the project." (Church leader, Hpimaw, Chipwi township) Decisions about how to use the resource of the Ngo Chang Hka, for what, and for whom, are being made by the Yunnan provincial government and the powers in Naypyidaw, without the knowledge or agreement of local people who have been living with the river for generations.

#### 2. Loss of ancestral homes, lands and cultural identity

"Moving the whole village will be heart-breaking. There is a Tun Shein clan because of Tun Shein village. If Tun Shein village is eliminated, the origin of Tun Shein clan will disappear." (Farmer, Tun Shein village, Chipwi township)

The local indigenous communities have deep historical attachment to their homes and lands, where they have lived sustainably for over a thousand years, nourished by the Ngo Chang Hka's free-flowing, nutrient-rich waters. The threat of blocking their beloved river, or "bloodstream" (as described by one villager), and having their homes and lands submerged, is therefore seen not only as a threat to their livelihoods and way of life, but also their cultural identity and existence.

These strong cultural bonds explain the depth of feeling villagers expressed in wanting to protect their lands against the hydropower projects. A village elder from Htang Dung, Chipwi township declared: "If the government continues the project, we will fight against it with arms." A female farmer from the same village said: "We cannot lose this region. We will fight against this project to the end."

The memory of what happened in 1960, when Ngo Chang people lost their homes to China and were forcibly resettled, still strikes fear in local villagers:

"During U Nu's era, Upper Hpimaw, Wazuk Gyan and Hpaung Shin Hkaung areas were demarcated and sold out to China. The Ngo Chang residents were resettled to Hugaung Valley and up to 70 Ngo Chang people died in a day because of the unbearable hot weather there. Therefore, we do not want to be displaced again because of the dam project." (Village elder, Htang Dung village, Chipwi township)



"This location is inhabited by Ngo Chang people and is a valuable historical site for us. There are 90 households and over 600 people living in the village where the Lang Ngo Khaw (Gaw Lang) hydropower dam will be constructed. Lang Ngo Khaw is a low area, so there will be flooding by the dam. It is not acceptable if the land cultivated for thousands of years and residential buildings are destroyed... We will not accept new settlements if they arrange it because this place is our Ngo Chang historical habitat which we have occupied since the time of our ancestors. We have occupied this area for 1,200 years, up to 21 generations. We have owned our lands, farms and streams from the beginning." (Village leader, Htang Dung village, Chipwi township)

#### 3. Loss of farmland and livelihoods

Villages along the Ngo Chang Hka are all agricultural communities. Due to the steep mountains on either sides of the Ngo Chang Hka, the only available flat farmland is along the valley floor. Villagers plant rice and other crops for their own consumption, and mainly rely on walnut orchards for cash income, earning as much as 100,000 Chinese yuan (nearly USD 15,000) annually for farmers. Villagers are therefore very worried about losing this income.

"If the dam project starts, 50 acres of farmland and thousands of walnut trees will be destroyed, causing difficulty for the local people's livelihood. Walnut farms earn 20,000 to 100,000 Chinese yuan annually. It is a good income for the villagers. Food products from wet paddy fields and terraced farms are sufficient for our livelihoods." (Village leader, Htang Dung village, Chipwi township)

Villagers fear that if their farmlands are submerged under the dam reservoirs, there will be no available land to plant their crops.

"As for our Lachid region, we cannot accept this project at all. Rocky cliffs surround both sides of the stream. We can only cultivate and grow near the river banks. We will be in trouble, having no place to cultivate if the area is flooded because of the dam." (Farmer, Gaw Yun village, Chipwi township)



Walnut farms along the Ngo Chang Hka in Htan Dung village



Preparing walnuts for market

"Our villages along the Ngo Chang Hka have no other livelihoods. We cultivate terrace farms for staple foods and grow walnuts for income. The villages are not 100 meters from the river and the paddy fields are also near the river. There are only rocks on both sides of the hill and there will not be any space left if the dam is constructed." (Community leader, Tun Shein village, Chipwi township)

## 4. Loss of rare medicinal plants

The forested mountains of Kachin State are renowned as one of the world's most outstanding biodiversity hotspots. Villagers have been relying for generations on several rare medicinal plants, which they say grow only along the Ngo Chang Hka. They are extremely worried that damming the river may cause these unique plants to disappear.

"Chin Mu and Hking Hku medicinal plants which our ancestors used from generation to generation grow only along the banks of Ngo Chang Hka. Chin Mu is a very powerful medicine for injuries and bullet wounds. It is to be boiled and taken orally for cure. The leaves and buds of Hking Hku are used mainly to treat malaria. They are boiled or pounded for oral consumption. These medicinal plants have been used by our people for generations. We do not want these plants to disappear." (Villager, Htum Shing, Chipwi township)

"Ngashaw Tsik, Gyu Chin, Li Chin, and Lung Yan herbal plants grow only along the Ngo Chang stream and they have been used by our people from generation to generation. Ngashaw Tsik is used as a contraceptive. Gyu Chin is used to prevent gastro related ailments during pregnancy. Its leaves can be boiled or steamed for oral consumption. Ling Yan is used as a tonic, and taken orally after boiling or pounding." (Villager, Htum Shing, Chipwi township)





Rare medicinal plants found in Ngo Chang Hka valley: Gyu Chid (above), Chin Mu (left), Lung Yan (right), and Ngashaw Tsik (opposite page)



Mining operation northeast of Chipwi

#### 5. Mining pollution build-up in dam reservoirs

Mining of molybdenum near the Chinese border has been polluting the Ngo Chang Hka since 2005. The mining, by San Linn and Myanmar Ahtun Ahteit companies, is taking place in the hills above the Mu Gu stream, about 20 kilometres south of Hpimaw. Mining waste is being washed into the Mu Gu stream, which flows into the Ngo Chang Hka. The mining waste appears to have caused a decrease in the amount of fish and other creatures in the river.

"People used to use the Ngo Chang Hka as medicinal water. Body itching could be cured by soaking in the stream for 15 minutes for three consecutive days. Today it is polluted by mining and creatures in the stream are disappearing due to poisoning." (Community leader, Khapat village, Sawlaw township)

Villagers fear that the dams will further harm the ecology of the river. Based on the experience of the Chipwi Nge dam, they know that the reservoir water will become stagnant and ill-smelling, and that the mining waste will worsen this pollution.





The remains of the Ching Hkrang dam, 10 miles north of Myitkyina, which collapsed after heavy rains in July 2006. Five people died in the resulting flood.

#### 6. Increased vulnerability to natural disaster, possible dam breakage

Deforestation during the past two decades in the hills along the Ngo Chang Hka has caused increased flooding. In 2004, there were flash floods along every stream flowing into the Ngo Chang Hka, causing the water level to rise about 50 feet and damaging several bridges. If dams are built, villagers fear that extreme flooding might burst the dams, causing disaster for those living below the dams.

The Ngo Chang Hka area is also prone to earthquakes, with one or two minor earthquakes occurring each year. Villagers worry that earthquakes might also lead to dam breakage, possibly of the entire cascade, threatening countless lives downstream.

#### Increased earthquake risk from dams

Studies by geologists have shown that the weight of water in dam reservoirs can trigger earthquakes.<sup>5</sup> Since 2004, thirteen planned large dams on the Nu/Salween River have been suspended by the Chinese government. A factor for the suspension was the risk of earthquakes, as the Nu River runs along a major fault line. The planned Gaw Lang dam on the Ngo Chang Hka lies only 30 kilometers from the Nu River and this fault line.

### 7. Social problems from migrant influx

Several villagers expressed concerns about social problems that may emerge when large numbers of migrant workers come to their area to build the hydropower dams. These include increased drug trafficking and abuse, human trafficking, and sexual harassment or assault without recourse to justice.

"Drug abuse will be rampant when the dam project comes. There are no immigration checkpoints along the China border, and human trafficking will take place. Local young people will be ruined by narcotic drugs. Young women will face sex problems. Similar incidents happened during the time of logging and mining in the past." (Community leader, Tun Shein village, Chipwi township)

Women were worried about risks to their personal safety:

"We women may suffer dishonor when Chinese workers come here. Good people and bad people will be among the workers. The safety and security for women is a concern." (Teacher, Tun Shein village, Chipwi township)

#### 8. No benefit for local people

Many villagers said they would not benefit from the electricity generated by the large hydropower dams, because they already have access to local electricity sources. They said they either used electricity from mini-hydropower generators and solar panels, or else bought electricity cheaply from the Chinese side of the border.

"Htang Dung village tract has four villages where 730 people live in 116 houses. Electricity is available from China and it costs 5 jiao (100 kyat) per unit, and only 30 yuan (6,000 kyat) a month." (Village elder, Htang Dung village, Chipwi township)





Villagers along the Ngo Chang Hka demonstrate against the planned dams

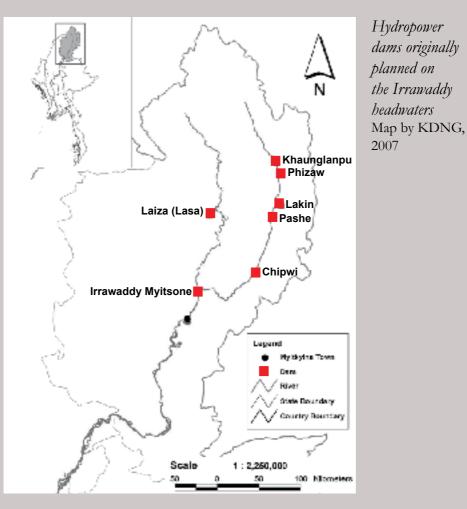
## Public organising against the dams

Locals are aware that the dams are still in the national energy plans, and are determined to organize to prevent the dams from being built.

On September 27, 2016, 45 community leaders from Chipwi and Sawlaw townships signed an open letter to President Htin Kyaw, calling for the cancellation of the Ngo Chang Hka Hydropower Project, as well as the Upstream Ayeyarwady Confluence Basin Hydropower Project. The letter was copied to the State Counselor, the Kachin State Chief Minister, and the Union Electricity and Energy Minister. To date they have received no reply.

On the International Day to Protect Rivers on March 14, 2017, about 2,000 villagers from Chipwi and Sawlaw townships gathered at Htum Shing village to hold a public protest against the planned dams on the Ngo Chang Hka and the N'Mai rivers. Posters opposing the dams have been put up in villages all along the Ngo Chang Hka.





#### Continuing threat of Irrawaddy dams

Seven large hydropower dams planned by China Power Investment Corporation on the Irrawaddy headwaters remain in the Burmese government's energy expansion plans, according to a presentation by the Ministry of Electricity and Energy in January 2017.

Even though the Irrawaddy Myitsone dam was suspended in 2011, it has not been cancelled, and about 3,000 villagers relocated from the dam site are forbidden from returning home.



Anti-dam poster put up in villages all along the Ngo Chang Hka

## **Conclusion and recommendations**

The proposed four dam cascade along the Ngo Chang Hka will have grave and irreversible impacts on local riparian communities and the natural environment. The lives of indigenous peoples, who have built their livelihoods and cultural identity around the unique ecosystem of the Ngo Chang, will be upended and destroyed. Yet these peoples have had no say in the planning of the dams and their concerns have gone unanswered.

The Kachin Development Networking Group makes the following demands to the Burmese government:

- To respect the wishes of the local impacted communities and immediately cancel all plans to build large hydropower dams on the Ngo Chang Hka and other rivers in Kachin State.
- To abandon the current centralised energy master plans, which prioritize export of power and will place the burden of negative impacts on Burma's ethnic areas.
- As part of the solution to Burma's ethnic conflict, future energy policy should conform to a federal devolved model, with energy plans made state by state, prioritizing state and local needs first to enhance sustainable local economic development and employment.
- Existing energy projects should be reviewed to ensure their capacity is being used primarily for the benefit of local populations.





#### endnotes

- <sup>1</sup> Status of Existing, Under Construction and Planned Hydropower Projects in Myanmar, presentation by Ministry of Electricity and Energy, Jan 27, 2017, Yangon.
- <sup>2</sup> Height and installed capacity of dams are from a YEIG presentation, shared with local authorities in Hpimaw in 2015; number of households and population of affected villages are from a KDNG survey.
- <sup>3</sup> Details about official agreements and studies are from a YEIG presentation, shared with local authorities in Hpimaw in 2015.
- <sup>4</sup> Eleven Media, June 11, 2017 at http://news-eleven.com/local/37941
- <sup>5</sup> Silenced Rivers: The Ecology and Politics of Large Dams, Patrick McCully, Zed Books, London, 1996.



The stunningly beautiful, biodiverse Ngo Chang Hka valley, ancestral home of thousands of indigenous Kachin on the eastern Kachin State-China border, is under threat from a cascade of four large hydropower dams planned by the Burmese government and Chinese investors.

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