# SAVE THE NAMTU RIVER

Impacts of the Upper Yeywa and other planned dams on the Namtu in Shan State



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#### Summary

In January 2016, Burma's state media reported that Naypyidaw was proceeding with four new hydropower dams on the Namtu (Myitnge or Dokhtawaddy) River, three of which are in conflict areas of Shan State. These new dams, together with the existing Yeywa dam, will form a cascade blocking half the entire length of the river.

The most advanced of the new dams is the Upper Yeywa Dam in Nawngkhio township, started by Burma's military regime in 2008, and slated for completion in 2018. The planned reservoir will stretch for over 60 kilometers, entirely submerging a large Shan village of nearly 500 residents, called Ta Long, and possibly submerging part of Hsipaw town.

Ta Long (meaning "large harbor") is a prosperous community, renowned in northern Shan State for its organic oranges and pomelos, grown along the riverbank. Ancient stupas in the village are hundreds of years old. Ta Long villagers were neither informed nor consulted before the dam began. An Environment and Social Impact Assessment (ESIA) was carried out for the dam only in 2014, six years after the dam had begun. During the ESIA, the villagers stated clearly that they were not willing to move. Despite this, dam-building has continued, with funding from China, and with the involvement of Chinese, Japanese, German and Swiss companies. A diversion tunnel has been completed, and construction of the main dam wall was beginning in early 2016.

The other planned dams on the Namtu in Shan State -- the Middle Yeywa Dam being developed by Norway's state-owned SN Power in Nawng Khio township, and the Namtu Dam in Hsipaw township -- are also proceeding without transparency, and without the informed consent of impacted villagers. This cascade of dams will have serious impacts on the ecology of the river. Disruption of fish spawning and migration patterns are likely to negatively impact the rich fish stocks upon which thousands of Hsipaw villagers rely. Toxins from mining upstream are also likely to build up in the reservoirs, endangering aquatic life and the health of those relying on the river. Methane emitted from rotting vegetation in the reservoirs will also contribute to global warming.

Another serious concern for villagers living below the planned Namtu Dam in Hsipaw will be the unpredictable fluctuations in water level due to the operation of the dam, and risk of sudden surges causing accidents along the river bank. If there is heavy rainfall, large amounts of water may have to be released, causing flooding downstream.

Even more worrying is the possibility of dam breakage, due to pressure from abnormally heavy rainfall, landslides or earthquakes. The Middle Yeywa dam is being planned over the Kyaukkyan fault line, the centre of the biggest earthquake in Burma's history in 1912, measuring about 8 on the Richter scale. This is of great concern, as the weight of dam reservoirs near fault lines is known to trigger earthquakes. Dam breakage would release a deadly tsunami, destroying any lower dams and also threatening countless communities in the lower plains.

Finally, it is highly unwise for Naypyidaw to be pushing through these risky, untransparent dam projects in active conflict zones. Since early 2016, fighting has intensified in Shan townships where these dams are planned. With Naypyidaw's monopoly over natural resources being a key driver of the ethnic conflict, forging ahead with damaging hydropower projects over the heads of local ethnic communities will only fuel resentment and exacerbate the conflict. We therefore urge the new NLD-led government to immediately halt all plans to build new dams on the Namtu River, including the Upper Yeywa dam. Only when there is a negotiated federal settlement to the ethnic conflict, bringing genuine nationwide peace and decentralized natural resource management, should options for future hydropower development along the Namtu river be considered.

Any future plans for hydropower development on the Namtu River must involve a transparent strategic impact assessment along the entire river, and there must be Free Prior and Informed Consent of affected indigenous communities.

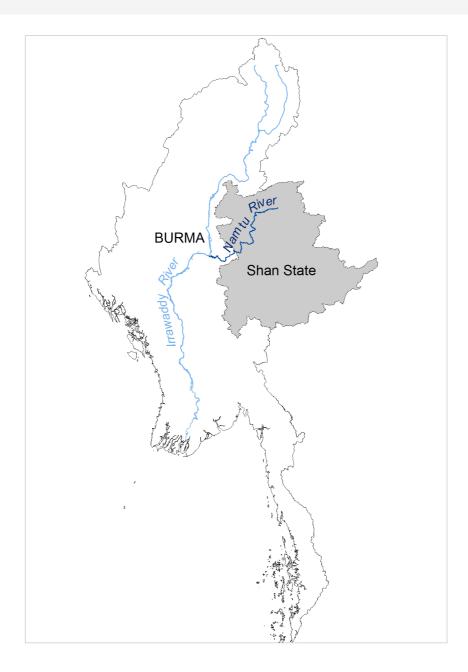
#### The Namtu river

The Namtu (called Dokhtawaddy or Myintnge in Burmese – both meaning "small river") is one of Shan State's most well-known rivers. Originating in the mountains of eastern Hsenwi, it flows through Namtu, Hsipaw, Kyaukme and Nawngkhio townships, before joining the Irrawaddy in the Mandalay plains.

The river is rich in legend, linked to the famous Shan princess Sao Mon Hla, married to the Burmese King Anawyatha in the 11<sup>th</sup> Century A.D. After being banished from court, when accused of witchcraft by the King's other jealous wives, she returned to Shan State along the Namtu river, founding several famous pagodas along the way, before passing away from illness in Hsipaw.



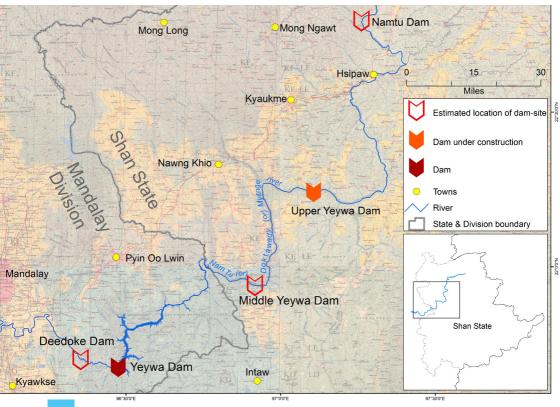
Namtu river near Ta Long



### Existing and planned dams on the Namtu river

The first dam on the Namtu, the Yeywa dam, was completed in 2010 under military rule. It is currently the largest dam in Burma. Another dam, the Upper Yeywa dam, is under construction, and three more dams are being planned along the river. These dam plans were confirmed on January 8, 2016, by Khin Maung Soe, Minister for Electric Power under Thein Sein's government.

Below is a list of the existing and planned dams on the river (listed from downstream to upstream). Further details are available in the appendix of this report.



Map of existing and planned dams on Namtu river

<b>≣\</b> ∞	<b>Q</b>	<b>S</b>		
Name of Dam	Location	Installed capacity	Status	Foreign countries with companies involved
Dee Doke	Kyaukse, Mandalay	66 MW	MOU signed in Nov 2014	Austria
Yeywa	Kyaukse, Mandalay	790 MW	Completed in 2010	China, UK, Switzer- land, Germany
Middle Yeywa	Nawng Khio, Shan State	700 MW	Pre-feasibility study underway	Norway (state-owned co.)
Upper Yeywa	Kyaukme, Shan State	280 MW <sup>ii</sup> or 308 MW <sup>iii</sup>	Under construc- tion, due to be completed in 2018 <sup>iv</sup>	China, Germany, Swit- zerland, Japan
Namtu	Hsipaw, Shan State	100 MW	MOU signed; Road construc- tion to dam site underway	Not known

These dams will form a cascade along the river, turning this fast-flowing artery of northern Shan State into large stretches of still reservoirs.



# The Upper Yeywa Dam – spawned under dictatorship

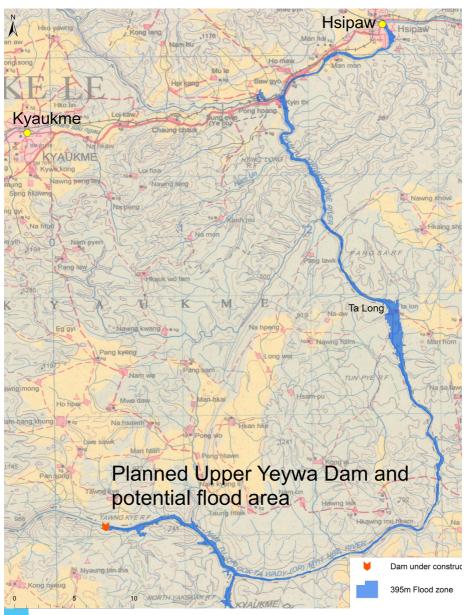
Water diversion tunnel of Upper Yeywa dam

Preparations for the Upper Yeywa Dam started in 2008, under Burma's military regime, the State Peace and Development Council (SPDC). Senior General Than Shwe, whose hometown Kyaukse lies below the Yeywa dam, personally visited the site in April 2010. Construction continued under Thein Sein's military-backed government, and by early 2016 a water diversion tunnel had been completed, but the actual dam wall had not yet been started.

Below are some known details about the dam, mostly from the internet, as there is no publicly available document in Burmese or local languages listing this information. Some specifications of the dam appear to have changed over time. In 2009, the state media described it as a 140 MW dam, but recent sources have described it as being either a 280 MW or 308 MW dam. The height of the dam also varies, between 90 m and 102 meters. This is very worrying, as it will impact the level of the reservoir, possibly submerging a larger area than predicted.

# Details of Upper Yeywa dam plans

Location	1 ½ miles from Taung Che village, Loi Jong tract, Kyaukme township.
Stage of construction	23.62% completed <sup>v</sup> (in October 2015)
Installed capacity	280 MW or 308 MW <sup>vii</sup>
Dam height	90 $m^{viii}$ or 97 $m^{ix}$ or 102 $m^x$
Full reservoir level	395 m above sea level <sup>xi</sup> (with a dam wall height of 97 m)
Operated by	The Myanmar Electric Power Enterprise (MEPE)
Known sources of funding	China Exim Bank <sup>xii</sup>
Companies involved in construction (where known)	<b>China</b> - Yunnan Machinery Import and Export Co. Ltd., Zhejiang Orient Engineering <b>Germany</b> - Lahmeyer International GmbH
	Switzerland - Stucky SA
	<b>Japan</b> – Toshiba, High Tech Concrete Tech- nology Co Ltd (Japan) <sup>xiii</sup>



#### Concerns about the Upper Yeywa dam

Projected flood zone of the Upper Yeywa Dam, with a reservoir level of 395 meters above sea level

# Historic Shan community and unique organic orange growing area will be submerged

The village of Ta Long, which lies on both sides of the Namtu river about 20 kilometers south of Hsipaw town, will be completely submerged once the reservoir of the Upper Yeywa dam is filled. This ethnic Shan village, one of eight villages in Nam Mak Kaw tract, has existed for hundreds of years.

There are 118 households in the village, with 472 people. There is a large Buddhist temple, ancient stupas, a Burmese government primary school, and a community-run school teaching Shan literacy in the summer. The residents of the village rely on farming as their main livelihood, and are very prosperous, as the soil along the river bank is naturally fertile, with no need for fertilizer. There are 68 acres of land used mainly for growing large oranges and pomelos. Soy bean, rice and corn is also grown. The farms are irrigated with stream water from the hills.



Ta Long village

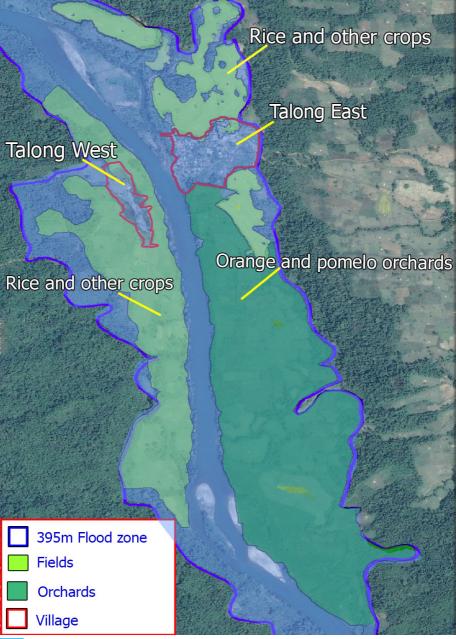


Organic orange orchard near Ta Long

Ta Long is famous in Shan State for the sweetness of its organically grown oranges. Trees in riverbank orchards produce large amounts of fruit, and during harvest time, long-tailed boats carry thousands of kilograms of oranges up to Hsipaw, where they are sold wholesale and transported to other parts of Shan State. The average income for an orange-growing household is estimated at 10 million kyat (about USD 8,000) a year.

The villagers' farms are irrigated with stream water from the hills. Most families also have their own water turbines to generate electricity from the stream water.

The Namtu river has always been the main means of transport for the villagers. The name of the village, "Ta Long" means "Big Harbour." However, in the past few months, a Burmese construction company (Kaday Kyaw Construction Technology Co.) has been building a 40-foot wide road to Ta Long from the east. Locals have heard that this road will is aimed to facilitate the resettlement of their village.



Map showing areas to be submerged by Upper Yeywa dam reservoir (at a reservoir level of 395 meters above sea level)

#### Lack of transparency; no prior consultation with impacted villagers

No dam should be built without the "demonstrable acceptance" of the affected people, and without the free, prior and informed consent of affected indigenous and tribal peoples. (World Commission on Dams)<sup>xiv</sup>

Even though Ta Long village will definitely be submerged if the Upper Yeywa dam is built, there was no consultation at all with the Ta Long inhabitants before the construction of the dam began. The villagers only became aware that the dam would be built when preparation for construction began at the dam site in 2008.

On May 2, 2010, the SPDC chairman of Hsipaw and other township officials visited Ta Long, and collected data about the village. Later, villagers learned that these officials had held a meeting in Hsipaw on May 19, 2010, regarding the resettlement of Ta Long. In the written record of that meeting, three resettlement locations were proposed for Ta Long village, and it was stated:

According to the requirements of this large government project, the villagers (of Ta Long) fully understand and accept that they must resettle. There is no feeling of opposition at all to this. Even though the villagers are attached to their current location, they want to move to a better place. It could be seen that they were respectful towards their "golden" government."



ESIA consultants holding meeting with Ta Long villagers in Kyaukme, July 2014

For the next four years, there was no further official communication with the villagers about the dam, and construction went ahead at the dam site. Then, on July 7, 2014, the Ta Long villagers were summoned to the Kyaukme township administrative hall to attend a meeting held by representatives of the Ministry of Electric Power and consultants of Resource and Environment Myanmar Co. Ltd, who had been hired to carry out the Environmental and Social Impact Assessment (ESIA) for the dam. The villagers were told it was a "public consultation" for the ESIA. The consultants gave an overview of the dam plans, emphasizing the benefits of the project, and said they would visit Ta Long to collect data on each household. They told the Ta Long villages they should choose a suitable location for resettlement. They also asked if the villagers could guarantee their security if they travelled to Ta Long, due to the presence of ethnic armed groups in the area

At the meeting, recorded on video by the consultants, several villagers said clearly that they refused to move. The village headman, Loong Aw Sein Da, was filmed saying:



Ta Long village headman speaking out at ESIA meeting in Kyaukme, July 2014

If you come to survey our village, and tell us we must move and offer us compensation, we won't be able to accept this. We have been living here since our ancestors' time. We are rural people. However much money you pay us, it has no meaning for us. We rely on our crops – our corn and soybean plantations, our orange and pomelo orchards. The oranges and pomelos from Ta Long are famous throughout Kyaukme and Hsipaw. We rely on growing these crops. We don't know any other liveli hood...We refuse to move."

On July 29, 2014, the ESIA consultants visited Ta Long, together with government officials. They called a public meeting at the Ta Long temple, attended by 57 villagers, to discuss the relocation of the village. The authorities tried to persuade the villagers to move by promising them that once they moved, their living conditions would be as good as before. They also promised the villagers compensation equivalent to four

years' income from their crops. The main ESIA consultant, Daw Khin Ohmar Htwe, advised the villagers to set up a committee to prepare for the move. However, the villagers insisted they did not want to move. After this, no further information was provided to the villagers about the ESIA.

On February 23, 2016, over 200 Ta Long villagers signed a petition to Hsipaw MP Sai Kham Aung, of the Shan Nationalities League for Democracy, begging for him to help protect them from forced relocation.

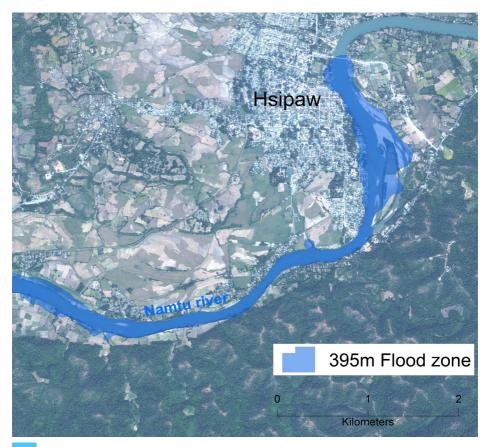
#### Reservoir may submerge part of Hsipaw town

We have mapped the potential reservoir of the Upper Yeywa dam at 395 meters above sea level, using the ASTER GLOBAL digital elevation model . This is the "full reservoir level" given in a document by a Myanmar Electric Power Ministry official in June 2015, if the dam is 97 meters high.

At this level, it appears that scores of houses along the riverbank in the town of Hsipaw will be submerged. However, none of the residents of these houses have been informed of this possibility.

Even more worrying is that one source (a Canadian engineer working on the dam), gives the dam height as 102 meters, in other words five meters higher than the MEPE source. If this is the case, then the reservoir will flood even more residential areas of Hsipaw than feared, but again, there has been no notification of potentially impacted communities about this.

The experience of those displaced by the Upper Paung Laung dam in southern Shan State shows that designated reservoir levels cannot be trusted. When the dam reservoir was filled in 2014, the water level was much higher than predicted, and four resettlement sites had to be moved again to higher ground<sup>xvi</sup>.



Projected flood zone of Upper Yeywa dam near Hsipaw, with reservoir level at 395 meters above sea level

### Concerns about all dams on the Namtu River in Shan State

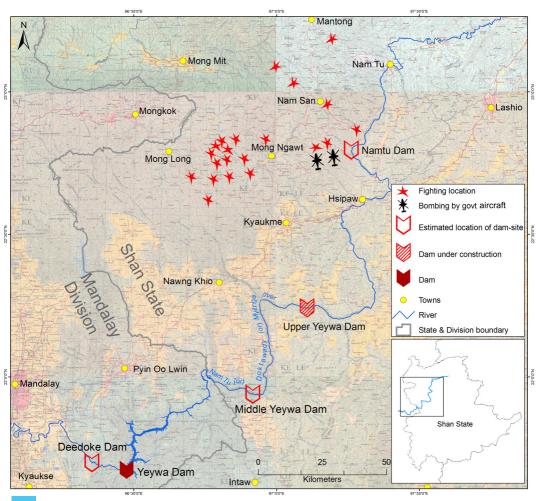
#### **Exacerbating conflict**

The townships of Nawng Khio, Kyaukme and Hsipaw, where dams on the Namtu are being planned, are still active conflict zones, where Shan and Ta'ang resistance forces operate, and where fighting has escalated in early 2016.

Control over natural resources is a root cause of the decades-long conflict. The ethnic resistance forces are strongly opposed to the unitary system of government enshrined in the 2008 Constitution, which grants Naypyidaw sole decision-making power over the management and sale of natural resources in the ethnic areas. They are demanding a federal system of government which would decentralize power to the ethnic states, including over natural resources.

Naypyidaw is therefore showing bad faith towards its proclaimed "peace process" by continuing to make unilateral decisions to sell off the resources in the ethnic areas, including hydropower, before reaching a negotiated federal settlement with ethnic stakeholders.

By proceeding with resource extraction projects, including hydropower dams, over the heads of local ethnic communities -- and in the case of the Upper Yeywa dam, against their wishes -- Naypyidaw is fuelling resentment and mistrust of their "peace process," thereby exacerbating the conflict.



Fighting locations, December 2015 to February 2016

#### Water fluctuations and flooding downstream

Shan community groups have documented how communities along the Nam Mao (Shweli) River in Namkham and Muse began facing problems from unpredictable fluctuations in the river level after the Long Jiang dam was built upstream in China in 2010. <sup>xvii</sup> Instead of flowing naturally, the river alternately dried up or suddenly rose, depending on the operation of the dam. This severely disrupted local transport and trading livelihoods, as boats were often stranded, or else flooded with water. Villagers faced the risk of drowning accidents due to sudden water surges, and also experienced increased erosion of their lands along the river banks.

In Hsipaw, there are about 6,000 people living in 30 villages along the Namtu River, who will face these unpredictable water fluctuations if the Namtu dam is built, but none of them have been informed or consulted about the building of the dam.

Apart from releasing water to generate electricity, dams may also suddenly need to release large amounts of water during times of heavy rainfall, which can cause flooding downstream. Already in July 2015, there were serious floods in Hsipaw, causing a bridge to collapse in the town, killing three people. Below the town, the river level rose several meters, flooding houses and farms in Ta Long village, and causing damage at the Upper Yeywa dam site. Locals said they had never seen the river level rise so high. Should such floods recur, the impacts in Hsipaw could be worsened by a sudden discharge of water from the Namtu dam.



Damage caused by flooding in Hsipaw in July 2015



Damage caused by flooding in Hsipaw in July 2015

#### Risk of dam breakage

An even more serious threat to Hsipaw residents is that the Namtu dam might break, releasing a deadly tsunami of water which would cause catastrophic damage and loss of life downstream. Dam breakage can result from extreme water pressure, triggered by heavy rainfall or landslides, or can be caused by earthquakes.

The area of Shan State where the dams are being built is seismically hazardous. The Namtu river cuts across the Kyaukyan fault line, along which the biggest earthquake in Burma's history, estimated at about 8 on the Richter scale, took place in 1912. The quake centered through Nawngkhio, where the Middle Yeywa dam is being planned.

Earthquake experts have warned that building dams on or near fault lines can actually trigger earthquakes due to pressure from the increased weight of water in the reservoirs. <sup>xviii</sup> Therefore, the building of further dams on the Namtu, increasing the weight of water on the Kyaukyan fault, may increase the possibility of triggering an earthquake.

If a higher dam in a cascade of dams breaks, the deluge of water is very likely to break the dams downstream. Thus, a breakage of any of the upper dams on the Namtu might lead to the breakage of all the lower dams on the river, with devastating impacts not only in Shan State, but also to countless communities in the plains below the Yeywa dam in Mandalay Region.

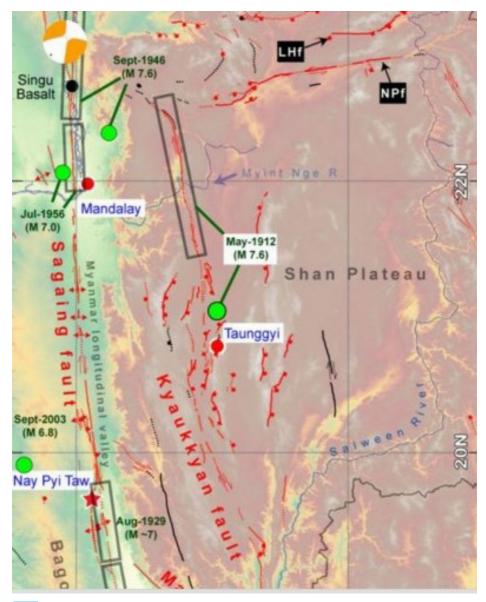


Image 16 - Section of "Neo tectonic map, zoom on Sagaing Fault;" the long grey box shows the rupture patch of the 1912 earthquake crossing the Namtu River in Nawng Khio township (http://www.earthobservatory.sg/news/strong-quake-myanmar)

#### Impacts on the ecology of the river

A basin-wide understanding of the ecosystem's functions, values and requirements, and how community livelihoods depend on and influence them, is required before decisions on development options are made (World Commission on Dams) <sup>xix</sup>

It is certain that the cascade of dams along the Namtu, transforming half of its length into still reservoirs, will have cumulative disruptive impacts on the river's ecology. However, local communities have been given no proper information about these impacts, and do not know whether a proper basin-wide study of these impacts was carried out before planning any of the dams.



Namtu riverbank

During the public meeting for the ESIA for the Upper Yeywa dam in July 2014, the consultants completely downplayed any negative environmental impacts. They informed villagers that they didn't have to worry about impacts on fish in the river, as there were "no endangered species", and the reservoir would be "clean and clear", leading to "thriving aquatic species."

In fact, studies of dams in other parts of the world have shown that dams can drastically reduce numbers of local fish species by disrupting seasonal spawning and migration patterns. Villagers living along the Namtu in Hsipaw rely heavily on fishing in the river, where fish is caught seasonally, mostly in June and July, when the river level is rising. Dried fish and traditional Shan "ba-som" (pickled fish) are staple local sources of protein. According to a local villager: "There are countless different fish in the Namtu, such as ba-moong, ba-nin, ba-kayork, ba-len, ba-lam, ba-kham, ba-mahoa, ba-hay, ba-jue, ba-bok, ba-kaieng, ba-kyorkat. There are also turtles."

The consultants also failed to mention the likely build-up of toxins in the dam reservoirs due to run-off from mining operations upstream, including ongoing lead and zinc mining in the Namtu-Bawdwin area. The accumulation of toxins in the reservoirs and in aquatic organisms will threaten the health of all those relying on the river.

Another fact that the consultants failed to mention was that decomposing vegetation in dam reservoirs releases a large amount of methane and carbon dioxide into the atmosphere. Scientific studies have shown that emissions from dam reservoirs contribute significantly to global warming.

#### **Conclusion and recommendations**

The new dams planned on the Namtu River will have far-reaching social and environmental impacts and risks. Yet they have been developed with a complete lack of transparency, and without the Free, Prior and Informed Consent of impacted indigenous communities.

This is particularly controversial given the location of three planned dams in active conflict zones of Shan State. With centralized control of natural resources being a key driver of the decades-long civil war, building these dams over the heads of local ethnic communities will only exacerbate the conflict.

Such projects expose Naypyidaw's hypocrisy in claiming to be committed to national reconciliation and peace-building in Burma, while unilaterally selling off natural resources, including hydropower, in the ethnic states, before a political settlement has been reached to the ethnic conflict.

They also reveal the hypocrisy of foreign donor countries, such as Norway, Switzerland and Japan, who are showcasing their support for the "peace process," but whose corporations are opportunistically partnering with Naypyidaw to profit from resources in ethnic conflict areas before peace has been reached. In the interests of protecting the rights of communities along the Namtu river, and in promoting sustainable development and genuine national reconciliation in Burma, we therefore make the following recommendations to the new government led by the National League for Democracy.

- To immediately halt all current dam-building plans on the Namtu, including the Upper Yeywa Dam
- Only when there is a negotiated federal settlement to the ethnic conflict, bringing genuine nationwide peace and decentralized natural resource management, should options for future hydropower development along the Namtu river be considered
- Any future plans for hydropower development on the Namtu River must involve a transparent strategic impact assessment along the entire river
- There must be Free Prior and Informed Consent of affected indigenous communities for any future hydropower projects along the Namtu River

## Appendix

# A. Details about existing and planned dams on the Namtu (from downstream to upstream)

#### Dee Doke Dam

Location	12 miles south of the Yeywa dam, in Kyaukse District of Mandalay Division
Current status	MOU for development, operation and trans- fer signed on November 21, 2014
Installed capacity	66 MW
Dam height	14 m
Companies involved	Austria's ANDRITZ Hydro GmbH
Directly impacted communities	n.a.

#### Yeywa Dam

Completed	2010
Installed capacity	790 MW
Dam height	132 m
Operated by	The Myanmar Electric Power Enterprise
Funding sources	China Exim Bank
Companies involved in construction	<b>China</b> - Sinohydro Corporation, China In- ternational Trust & Investment Co. (CITIC), China Gezhouba Group Co. (CGGC), China National Electric Equipment Co., Hunan Savoo Overseas Water & Electric Engineering Co., China National Heavy Machinery Co

Companies involved in construction	Switzerland - Colenco Power Engineering Ltd Britain - Malcom Dunstan and Associates Germany - Voith Siemens
Directly impacted communities	At least three villages forced to relocate from the 59 sq km reservoir area; the historic 1,000-yr-old Sappa Sukha Htattaw Pagoda (founded by Sao Mon Hla) was submerged <sup>xx</sup>

### Middle Yeywa Dam

Current status	MOU signed with Myanmar govt. in July 2014; pre-feasibility study began in April 2015 <sup>xxi</sup>
Installed capacity	700 MW <sup>xxii</sup>
Dam height	60-100 $m^{xxiii}$ or 160 $m^{xxiv}$
Companies involved	<b>Norway's</b> state-owned Statkraft Norfund Power Invest AS (SN Power) is main devel- oper
Directly impacted communities	Unknown

# Upper Yeywa Dam

Location	1 ½ miles from Taung Che village, Loi Jong tract, Kyaukme township.
Stage of construction	23.62% completed <sup>xxv</sup> (in October 2015)
Installed capacity	280 MW <sup>xxvi</sup> or 308 MW <sup>xxvii</sup>
Dam height	90 $m^{xxviii}$ or 97 $m^{xxix}$ or 102 $m^{xxx}$
Full reservoir level	395 m above sea level <sup>xxxi</sup> (with a dam wall height of 97 m)
Operated by	The Myanmar Electric Power Enterprise (MEPE)
Known sources of funding	China Exim Bank <sup>xxxii</sup>
Companies involved in construction (where known)	China - Yunnan Machinery Import and Export Co. Ltd., Zhejiang Orient Engineering Germany - Lahmeyer International GmbH Switzerland - Stucky SA Japan – Toshiba, High Tech Concrete Tech- nology Co Ltd (Japan) <sup>xxxiii</sup>

### Namtu (Da Dae) Dam

Current status	Road to dam site under construction
Installed capacity	100 MW
Companies involved	Hong Pang Co. is building the dam under a Build Operate Transfer agreement with the Burmese government.
Directly impacted communities (accord- ing to local sources)	Shan village of Li Lu, in Namhsan township, with approx. 200 residents, will be submerged

#### B. Petition of Ta Long villagers against forced relocation

#### February 23, 2016

To: Hsipaw State Parliament representative, constituency 2, U Sai Kham Aung

Subject: Seeking help concerning the relocation of Ta Long village, Na Mak Kaw tract, in Hsipaw and Kyaukme townships, Kyaukme district, northern Shan State, because of the Upper Yeywa Hydropower Project on the Dokhtawaddy River

Concerning the above matter, according to the records of a meeting on July 7, 2014, in Kyaukme, organized by the Resource and Environment Myanmar group, the reservoir level of the planned Upper Yeywa dam project on the Dokhtawaddy River will be 395 meters above sea level. As Ta Long village lies at a height of 380 meters above sea level, forests, Ta Long village, and fields and orchards will be submerged. According to the records of the ESIA proceedings, it was clearly stated that Ta Long village would be moved to a place 2 miles away.

In the meeting in Kyaukme, we villagers stated clearly that we absolutely refused to move. In 2014, we sent appeals to MPs of Hsipaw and Kyaukme. Again and again, we have stressed our refusal to move to project representatives who have visited our village, including U Aung Kyaw Min, the Manager of the Upper Yeywa Project, on January 28, 2016, and the Deputy Manager U San Lwin, on January 17, 2106, but to no effect.

Because of this project, we, the villagers of Ta Long, will lose our houses, property, schools, temple, pagodas, orchards, lands, and natural environment, which will all go under water. Apart from this, we don't want to face all the problems which will happen when we move. All of us Ta Long villagers have absolutely no desire to move to another location, and abandon the place where our ancestors have lived for generations.

Therefore, we respectfully request your help so that the relevant authorities can quickly solve this problem for us. (Signed by over 200 villagers)



Upper Yeywa dam construction site



Namtu riverbank



Namtu river





Ancient chedis at Ta Long village



Ta Long village temple



Traditional Shan house in Ta Long village



Ta Long villagers protesting against Upper Yeywa dam

<sup>i</sup> http://www.elevenmyanmar.com/business/four-hydropower-projects-get-green-light

<sup>a</sup> Ahtet Yeywa looks to complete in 2018, Global New Light of Myanmar, Jan 6, 2016

<sup>III</sup> http://www.hydroworld.com/articles/2015/03/toshiba-wins-turbine-contract-for-myanmars-308-mw-upper-yeywa-hydropower-plant.html

<sup>iv</sup> Ahtet Yeywa looks to complete in 2018, Global New Light of Myanmar, Jan 6, 2016

<sup>v</sup> Duane Morris LLC, Myanmar's Hydropower Strategy and Its Impacts on Industry Players, presentation Oct 2015. http://www.slideshare.net/olmas66/myanmars-hydropower-strategy-and-its-impact-on-industry-players

vi Ahtet Yeywa looks to complete in 2018, Global New Light of Myanmar, Jan 6, 2016

vii http://www.hydroworld.com/articles/2015/03/toshiba-wins-turbine-contract-for-myanmar-s-308-mw-upper-yeywa-hydropower-plant.html

viii http://www.lahmeyer.de/en/item/article/new-hydropower-plant-upper-yeywa-in-myanmar. html

<sup>ix</sup> Min Khaing, Assessing Climate Change Impacts on Hydropower Generation in the Myitnge River Basin, Myanmar, June 2015. http://www.ich.no/Opplastet/Dokumenter/Hydropower15/ khaing\_myanmar.pdf

\* Biodata of Lahmeyer engineer, https://ca.linkedin.com/in/abe-daly-6b050b7b

<sup>xi</sup> Min Khaing, Assessing Climate Change Impacts on Hydropower Generation in the Myitnge River Basin, Myanmar, June 2015. http://www.ich.no/Opplastet/Dokumenter/Hydropower15/ khaing\_myanmar.pdf

xii http://www.president-office.gov.mm/en/?q=briefing-room/news/2014/11/16/id-4468

\*\*\*\* http://burmariversnetwork.org/index.php?option=com\_content&view=article&id=374:japanese-companies-sign-hydropower-deal-with-myanmar&catid=11&Itemid=46

xiv International Rivers Network, Citizens' Guide to the World Commission on Dams, 2002

\*\* http://www.jspacesystems.or.jp/ersdac/GDEM/E/4.html

<sup>xvi</sup> http://discoversociety.org/2015/01/03/uneven-and-dammed-development-in-burmas-paunglaung-valley/

x<sup>vii</sup> Shan Women's Action Network and Shan Sapawa, High and Dry – The cross-boundary impacts of China's Longjiang Dam, 2010

xviii http://www.mmtimes.com/index.php/national-news/13805-expert-highlights-thanlwin-dam-earthquake-risk.html <sup>xix</sup> World Commission on Dams, Dams and Development: A New Framework for Decision-making, 2000

<sup>xx</sup> http://www.burmariversnetwork.org/index.php?option=com\_content&view=article&id=79&Itemid=93

<sup>xxi</sup> http://mohinga.info/en/profiles/activity/MM-FERD-ID8944/

<sup>xxii</sup> Duane Morris LLC, Myanmar's Hydropower Strategy and Its Impacts on Industry Players, presentation Oct 2015. http://www.slideshare.net/olmas66/myanmars-hydropower-strategy-and-its-impact-on-industry-players

xxiii SN Power, The Urgent Power Need in Myanmar, April 2014

<sup>xxiv</sup> Duane Morris LLC, Myanmar's Hydropower Strategy and Its Impacts on Industry Players, presentation Oct 2015. http://www.slideshare.net/olmas66/myanmars-hydropower-strategy-and-its-impact-on-industry-players

<sup>xvv</sup> Duane Morris LLC, Myanmar's Hydropower Strategy and Its Impacts on Industry Players, presentation Oct 2015. http://www.slideshare.net/olmas66/myanmars-hydropower-strategy-and-its-impact-on-industry-players

xxvi Ahtet Yeywa looks to complete in 2018, Global New Light of Myanmar, Jan 6, 2016

<sup>xxvii</sup> http://www.hydroworld.com/articles/2015/03/toshiba-wins-turbine-contract-for-myanmar-s-308-mw-upper-yeywa-hydropower-plant.html

xvviii http://www.lahmeyer.de/en/item/article/new-hydropower-plant-upper-yeywa-in-myanmar.html

<sup>xxix</sup> Min Khaing, Assessing Climate Change Impacts on Hydropower Generation in the Myitnge River Basin, Myanmar, June 2015. http://www.ich.no/Opplastet/Dokumenter/Hydropower15/ khaing\_myanmar.pdf

xxx Biodata of Lahmeyer engineer, https://ca.linkedin.com/in/abe-daly-6b050b7b

<sup>xxxi</sup> Min Khaing, Assessing Climate Change Impacts on Hydropower Generation in the Myitnge River Basin, Myanmar, June 2015. http://www.ich.no/Opplastet/Dokumenter/Hydropower15/ khaing\_myanmar.pdf

xxxii http://www.president-office.gov.mm/en/?q=briefing-room/news/2014/11/16/id-4468

<sup>xxxiii</sup> http://burmariversnetwork.org/index.php?option=com\_content&view=article&id=374:jap-anese-companies-sign-hydropower-deal-with-myanmar&catid=11&Itemid=46

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Shan Human Rights Foundation Shan State Farmers' Network Shan Sapawa Environmental Organization

March 2016

