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Blocking a Bloodline

INDIGENOUS COMMUNITIES ALONG THE TANINTHARYI RIVER FEAR THE IMPACTS OF LARGE SCALE DAMS



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Findings and Recommendations:

The Tanintharyi River is one of southern Myanmar's largest free-flowing rivers. Starting at the confluence of the Ban and Kamoethway Rivers in Dawei District, the river runs down through the Tanintharyi Valley until it empties out into the Andaman Sea in Myeik. The river and its tributaries support tens of thousands of indigenous people and vast areas of high conservation value forest.

There are a total of 76 villages, 6,118 households and 32,008 people living directly along the Tanintharyi River, who depend on it as a vital source of food security, water, transportation and cultural expression.

Plans to construct large dams on the Tanintharyi River stand to submerge an area of 144,557-acres¹, potentially displacing up to almost 7,000 people in 32 upstream villages, and significantly impacting the livelihoods, access to water and transportation of over 22,000 in 42 downstream villages. Local communities have never been substantively consulted on these plans.

The proposed dam would also have catastrophic environmental impacts, destroying rich aquatic ecosystems and habitats, and inundating vast areas of pristine forest, destroying some of South East Asia's largest remaining intact forest and biodiversity.

The Tanintharyi River is also situated in an area that has seen more than six decades of civil war, which forced tens of thousands to flee their homes, hiding in the forest or refugee camps on the Thai border. Following a preliminary ceasefire

agreement signed in 2012, armed conflict came to a halt. Communities also fear the impact that the dam will have on peace and stability in the region, and the future for returning IDPs and refugees, who may be forced to relocate again.

In light of the risks and threats posed by proposed dams on the Tanintharyi River, communities call on the government, the KNU and dam developers to listen to their voices and refrain from moving ahead with projects which will adversely impact them and the surrounding environment.

To the Union Government:-

- ▶ Adopt a new energy policy that puts the needs, lives and rights of citizens at its centre. Citizens of Tanintharyi Region have suffered from the impacts of gas and coal extraction, which have generated energy for export rather than the needs of communities. A new energy policy driven by the needs of citizens must be adopted. This means adopting small scale renewable energy alternatives such as micro hydro, solar and wind power to provide energy for the people, rather than for revenue generation.
- ▶ Abandon plans for large dams in Myanmar. Large hydropower dams have huge and irreversible impacts on communities, the economy, the environment, and also put immense pressures on peace and stability. The Myanmar government must reconsider plans to push ahead with large dams that risk the lives and livelihoods of local communities and inundate vast areas of high conservation value forest.
- ▶ Adhere to the principles of the Nation-wide Ceasefire Agreement. The 2015 NCA requires that interim arrangements must be implemented until a comprehensive peace settlement has been reached. The Myanmar government must uphold the principles of the NCA and refrain from moving forward with projects in ceasefire areas without the full coordination and cooperation of the KNU.

¹ International Finance Corporation (2017). Strategic Environmental Assessment of the Hydropower Sector in Myanmar: Baseline assessment report: Hydro Power. USA: Washington, Karen Human Rights Group. (2018). 'Development without us': Village agency and land confiscations in south east Myanmar. Note: information on the size of the proposed dam is not clear and available sources are conflicting – communities have never been provided with full information on the project.

To the Tanintharyi Regional Government:

- ▶ Provide full project information to affected communities and civil society. While there are 18 MOUs for dams on the Tanintharyi River, local communities have received no information on their location, size or status. The Regional Government must act with principles of transparency and accountability, and release all relevant information regarding dam development; this includes contract information, energy export plans, design and location of proposed dams, and assessments on the impacts of the dams on the environment and communities.
- ▶ Pursue an alternative path of development for Tanintharyi Region. Communities throughout Tanintharyi Region have experienced many negative impacts from irresponsible development projects such as loss of lands and the destruction of livelihoods. The Tanintharyi Regional Government must adopt and support an alternative path of development that puts people and the environment at the centre.

To the Karen National Union (KNU):

- ▶ Uphold principles of transparency and accountability in all business activities. This means providing all relevant information to affected communities and civil society organisations with respect to dam developments.
- ▶ Put the interests of local communities at the centre of decisions. Support visions and aspirations for equitable and sustainable development in their territories, and protect communities from negative or harmful projects.

To Greater Mekong Subregion Company and other investors and dam developers interested in constructing a dam on the Tanintharyi River.

- ▶ Provide all information on proposed dam projects to affected communities and civil society. To date GMS and other dam developers have failed to provide communities with full information on plans for dams on the Tanintharyi River. GMS and other dam developers must provide affected communities and civil society organizations with all relevant information on dam development.
- ▶ Respect the rights of local communities to Free Prior and Informed Consent (FPIC) before moving forward with dam plans. This FPIC process must be a transparent and democratic process with the full participation of communities and civil society.

Introduction

The Tanintharyi River, known as the Great Tenasserim River, is one of the largest rivers in southern Myanmar. The river forms at the confluence of the Ban and Kamoethway Rivers, flowing down through the Tenasserim Hills to Myeik, where it opens out into the Andaman Sea. The Tanintharyi River is the bloodline for over 32,000 indigenous people living along the banks of the river, who depend on the river as a vital source of food, water and transportation. The Tanintharyi River basin covers vast area of 4.3 million acres, around 41% of the entire region. This catchment supports vast human, animal and plant life through interconnected streams and tributaries that ensure the maintenance of healthy and vibrant communities and forests.

Communities living along the Tanintharyi River depend heavily on the river and the environmental services that it performs. All villages in the area rely on a mixture of agricultural and forest-based livelihoods comprised of an assortment of orchard cultivation, rotational agriculture, fishing and the collection of forest foods and products. Research results show that 94% of survey respondents depend on the river as a primary source of drinking water and a further 98% of villages identify the river as their most important source of water. The river also provides a vital source of transportation and communication with 90% traveling by boat, almost 60% on a daily basis.

Plans to construct a dam on the Tanintharyi River stand to significantly impact the lives and livelihoods of over 32,000 people living along its banks, as well as tens of thousands more who depend on the river basin. Proposals to construct a 1040 mega-watt dam on the river would flood an area of 144,557 acres (5852²) of community owned farms and forestland, forcing up to nearly 7,000 people in 32 upstream villages to relocate and inundating some of South East Asia's largest remaining areas of forest and biodiversity³. Further, over 22,000 people living downstream would be impacted by changes to river flow and quality, which would decimate fisheries, render water undrinkable and erode riverbanks where community orchards are located. Communities also fear that the construction of a dam may put new pressures on a fragile peace process between the Karen National Union (KNU) and the central Myanmar government, risking a return to armed conflict.

Despite the potential impacts and concerns, those living along the Tanintharyi River have never been properly consulted on dam proposals. Any dam development on the Tanintharyi River must take into consideration the vast social and environmental impacts both upstream and downstream, and allow for the free, prior and informed consent of those who stand to be affected. Indigenous communities throughout Tanintharyi Region have suffered immensely as a result of destructive and irresponsible development projects. This report calls on all parties to listen to the voices of communities and embark on a new path of development that puts people and the environment rather than profit at the centre.

2 Karen Human Rights Group. (2018). 'Development without us': Village agency and land confiscations in south east Myanmar

Disclaimer: there are conflicting sources on the size of proposed dams. IFC (2017) and ADB (2013) have both reported that the dam will be 600 MW. However in 2012, leaflets were sent to communities by GMS company stating that the dam would be 1040MW. Communities have never been fully informed of dam plans and so correct information is difficult to ascertain. For the purpose of this report we will use 1040MW.

3 *ibid*

Methodology

Research for this report was carried out by Candle Light and Southern Youth organisations over a 6-month period. This report documents the importance of the Tanintharyi River to the lives of indigenous communities living directly along the river, and assesses the social, economic and environmental impacts of the proposed dam.

- ▶ **Village and Household Surveys:** Questionnaires were carried out in 51 villages along the Tanintharyi River. Household surveys of approximately 20 questions were conducted with a total of 1,212 people (653 M) and (559F); this comprised 521 people (295 M) and (226 F) in 27 upstream villages, and 691 people (358 M) and (333F) in 24 downstream villages.
- ▶ **GIS Mapping:** Village points were collected in every village along the Tanintharyi River, and maps developed by GIS specialists.
- ▶ **Interviews and focus group discussions:** Interviews and focus group discussions were conducted with community members, CBO members and KNU officials to gather information on the uses and importance of the Tanintharyi River, and collect information on village histories and backgrounds.
- ▶ **Literature Review:** Reports and data collected by the International Finance Corporation and news reports were used to ascertain the details of plans for dams on the Tanintharyi River. Reports from the World Commission on Dams and evaluations of other dams in the region were evaluated to determine the potential impacts of dam proposals on river dependent communities.

Plans to Dam the Tanintharyi River

The Tanintharyi River is one of the largest rivers in southern Myanmar. Starting at the confluence of the Ban and Kamoethway rivers, it flows down through the Tanintharyi valley, and opens out to the Andaman Sea in Myeik. The river is the lifeblood of indigenous communities throughout Tanintharyi Region, who depend on it and its tributaries for food, water and transportation. The expansive river basin also supports a vast biodiversity, home to one of the largest remaining intact forests in South East Asia and a diverse array of vulnerable and endangered flora and fauna.

Plans to dam the Tanintharyi River have been a long time in the making. Proposed dam projects have involved a number of different companies and actors at different points in time as projects have changed hands and plans have evolved. It has been reported that today there are 18 MOUs for dams on the Tanintharyi River⁴. Communities have never been provided with details of these plans, and have been developed without the Free, Prior and Informed Consent of local communities, whose lives and livelihoods are at stake.

Dams on the Tanintharyi River and its tributaries present a range of complex challenges to indigenous Karen communities who are recovering from decades of armed conflict. While the Tanintharyi River still remains free flowing, communities fear that the construction of dams on the river would impact 76 indigenous and conflict-affected communities. These impacts would include physical displacement, the destruction of land and property, damage to fish species and stock, impacts on the quality of water, and transformations to river flows and downstream morphology. These impacts would have considerable impacts on community livelihoods, the integrity of surrounding forest and biodiversity, and may further upset the fragile peace process, potentially leading to a break in the seven-year ceasefire between the Karen National Union (KNU) and the central Myanmar government.

⁴ Eleven Media. (2019). small hydropower plant in Taninthayi River <https://www.facebook.com/watch/?v=487303055348263>

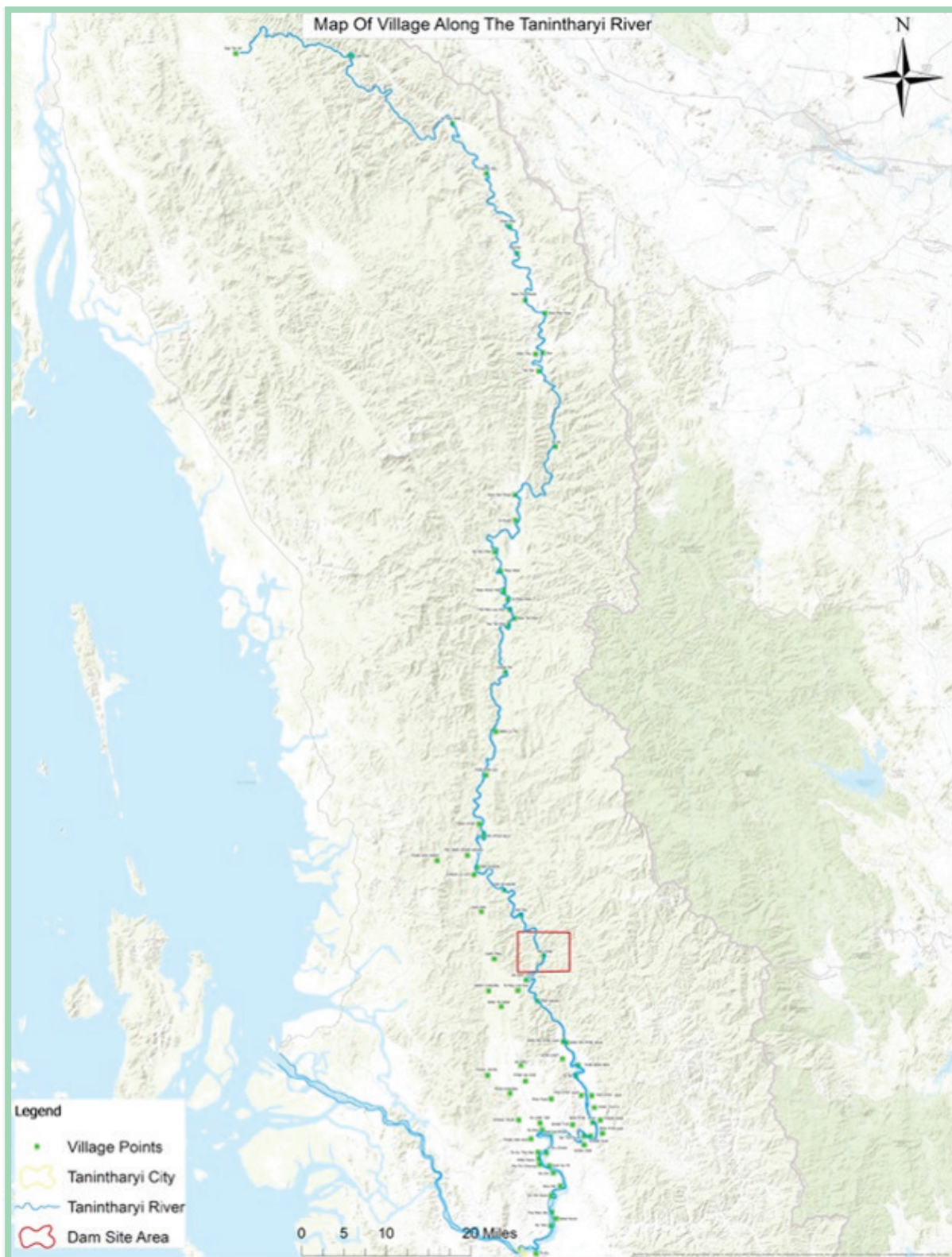
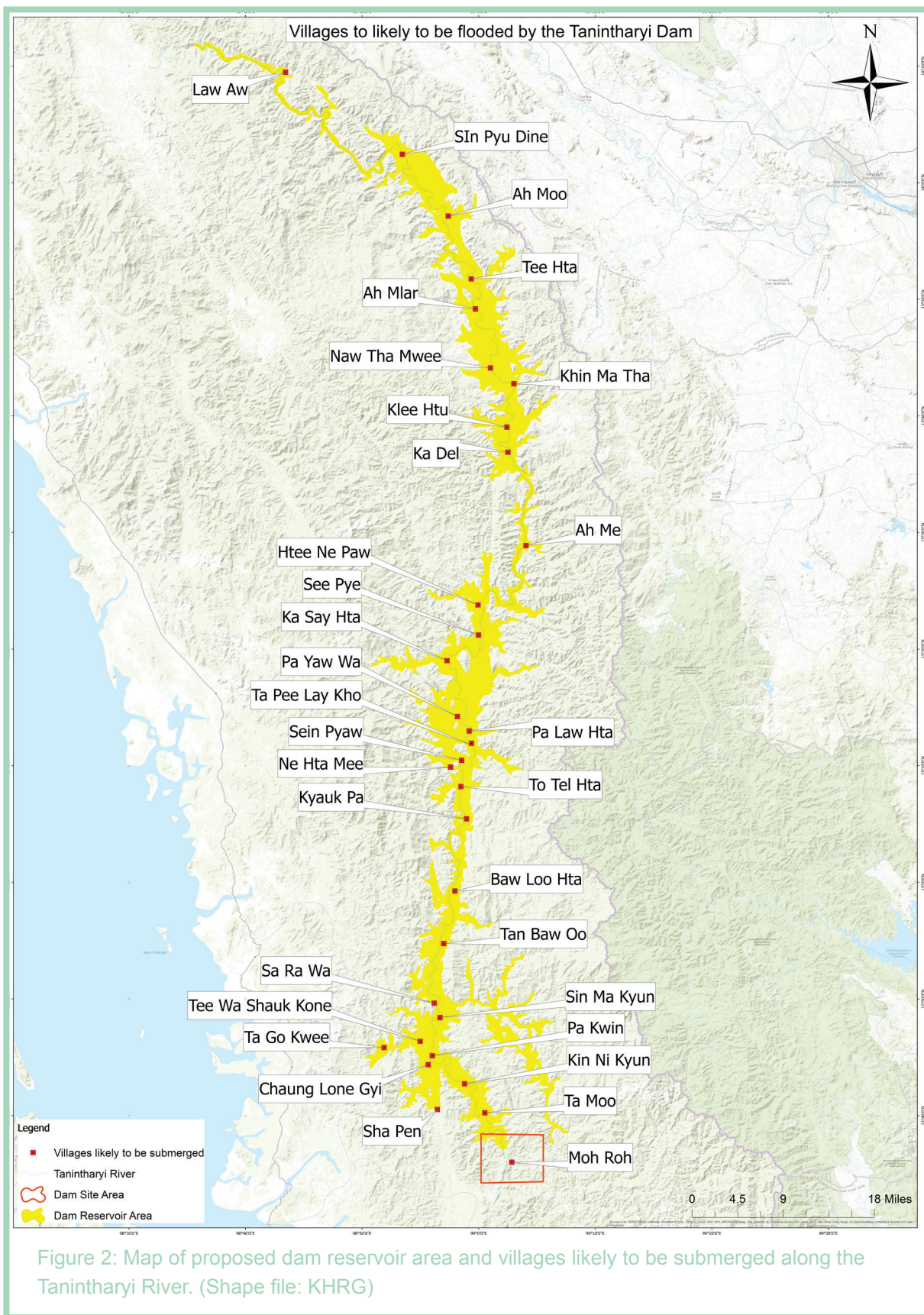


Figure 1: Map of villages situated along the Tanintharyi River



The Development of Initial Plans

Initial assessments for a dam on the Tanintharyi River were conducted by Japanese owned Nippon Koei Company in 1998. The company came to visit the Pa Yo Kwee valley in Moh Ro village two times to conduct surveys and assessments into the feasibility of the site for a dam. These assessments were conducted during the civil war, and amidst some of the most severe clashes in the area. Between 1996 and 1997 heavy Tatmadaw attacks against KNU bases led to the destruction of many villages in area, forcing many to flee to the forest, border and neighbouring villages. During this time the military imposed martial law and communities suffered a range of serious human rights abuses.⁵ The fact that Nippon Koei Company conducted their surveys during intense fighting between the Myanmar military and the KNU, has led some to believe that the company may have been working with the military, however this cannot be confirmed.

Who is the Greater Mekong Sub-region Company?

Greater Mekong Sub-region Power Public Co. Ltd Company is a Thai-owned Company, and subsidiary of MDX Company, a large infrastructure and real estate company based in Bangkok that invests in various power plant projects and sales of electrical power in Thailand and in the People's Democratic Republic of Laos.

Plans for Dams on the Tanintharyi River gain momentum

While the initial assessments by Nippon Koei did not lead to concrete actions, ten years later in 2008 Italian-Thai Development (ITD) Company signed an MOU with the Ministry of Electric Energy (MOEE) to develop a dam on the Tanintharyi River. ITD started surveying the land in the area to develop plans for another large dam and conducted assessments on the potential impacts of dam constructions on communities and the surrounding environment⁶. Assessments showed that a proposed 600MW dam would create a reservoir that would inundate 585 km² (144,557 acres) of land and forest⁷. At the time it was estimated that this would lead to the destruction of over 14 villages home to 879 households and 4,500 people, as well as large expanses of community farm and orchard lands⁸. We now estimate that the number of villages that would be submerged is 32, home to almost 7,000 people.

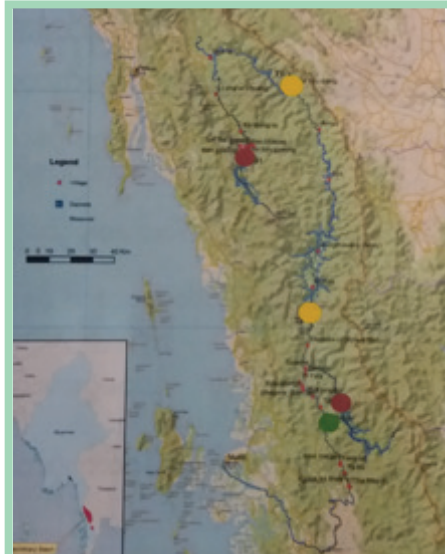


Figure 3: Map of proposed dam sites provided by GMS (photo taken at GMS consultation)

⁶ Karen Human Rights Group., (2018). 'Development without us': Village agency and land confiscations in south east Myanmar.

⁷ IFC, MOEE and MONREC. (2017). Strategic Environmental Assessment (SEA) of the Hydropower Sector: Baseline Assessment reports. Yangon and Nay Pyi Taw: Myanmar.

⁸ Karen Human Rights Group., (2018). 'Development without us': Village agency and land confiscations in south east Myanmar.

In 2012, after the signing of the bi-lateral ceasefire agreement between the KNU and the central Myanmar government, ITD's MOU was cancelled and plans to construct a large dam on the Tanintharyi River were stalled. Communities heard nothing until February 2017 when Thai-owned Greater Mekong Sub-region Power Public Company Limited (GMS) Company came to Tanintharyi town to conduct a consultation on the development of a new dam on the Tanintharyi River. Plans presented by GMS were similar to those that ITD had worked on five years earlier, however this time maps included two dams on the Tanintharyi River and two smaller dams on the Sarawa and Ban Rivers. Villagers and civil society groups attended the consultation, raising their concerns and protesting plans to construct a dam on the Tanintharyi River.

Case Study: Impacts of GMS Company's Theun-Hinboun Dam and Expansion Project in Laos

At the consultation that GMS Company conducted in Tanintharyi town in 2017, dams that GMS had been involved in developing in Laos were presented. The Theun-Hinboun Hydro-power project and its subsequent expansion project were shown by company representatives as examples of the type of dam that they would like to develop on the Tanintharyi River.

The Theun-Hinboun Hydro Power Project is a 210 MW dam that diverts water from the Theun to the Hai and Hinboun Rivers. The project was initiated in 1998 and is a joint venture between the Government of Laos, Norwegian state-owned company Statkraft and GMS Company, with additional financial support from the Asian Development Bank (ADB). While the project has often been referred to as a success by ADB, further monitoring of the project has revealed that over 29,000 people from 71 upstream and downstream villages have been negatively impacted by the project, with over 7,500 people being displaced from their lands⁹. The dam has had catastrophic impacts on the food security and livelihoods of local communities who have seen the decimation of their fisheries, the destruction of paddy land from increased flooding, the erosion of soil for gardens and orchards, and the contamination of domestic water supplies¹⁰. Compensation and mitigation programmes have not been successful, and as such over ten years after the construction of the dam impacted communities are still worse off than before.

In December 2016 another MOU was signed between Power China Company, Noble Prince Company, and Sun and Rainbows Company, owned by U Ngwe Soe, a retired Major in the Myanmar military¹¹. The MOU included the development of the Mae Tha Mee Hkee Industrial Zone, a 70km road between Htee Khee and the coast, and two dams on the Tanintharyi River, one 160MW dam at Sin Pyu Dine village, and another 400 MW dam at Kyauk Pa. Later in 2018, Power China withdrew from the project and plans to develop these two dams on the Tanintharyi River were dropped.

⁹ Bank Track (2016). Projects: Theun-Hinboun dam and expansion - Laos. https://www.banktrack.org/project/theun_hinboun_dam_expansion. Accessed on 08/07/2019

¹⁰ International Rivers. (2019). Theun-Hinboun Dam and Expansion Project. <https://www.internationalrivers.org/campaigns/theun-hinboun-dam-and-expansion-project>

¹¹ Dawei Princess Company. (2018). <http://www.daweiprincess.biz.mm/>

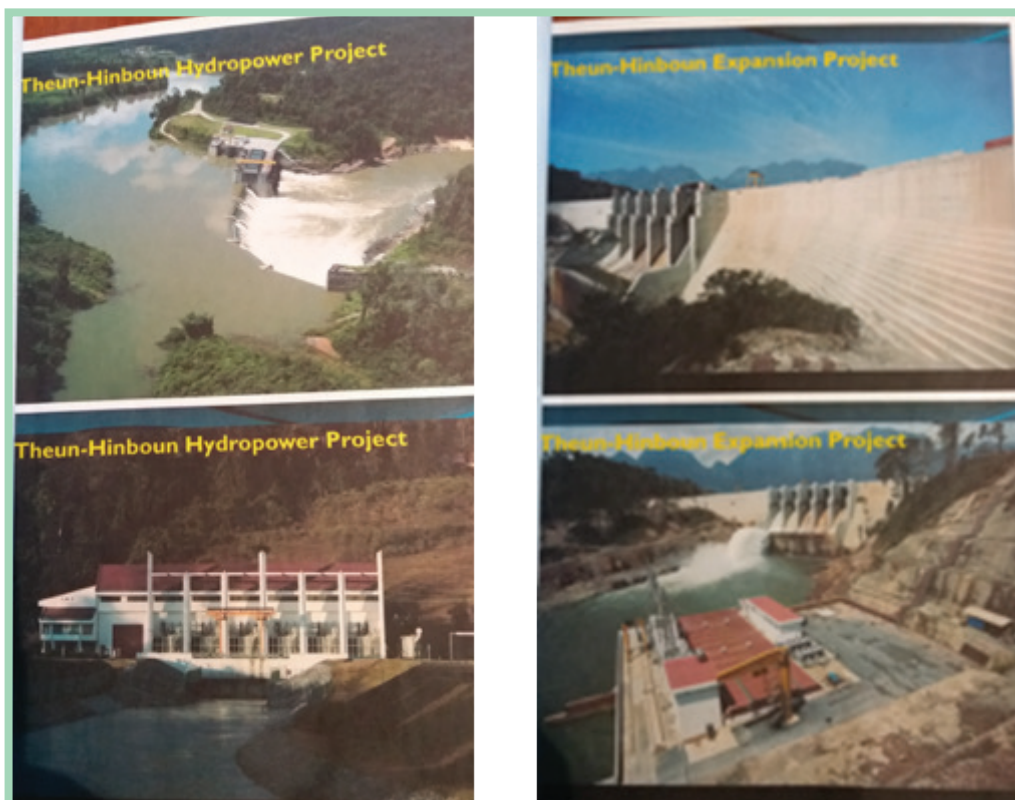


Figure 4: Images of the Theun Hinboun and Expansion Project shown by GMS Company in 2017 consultation (photo taken at consultation)

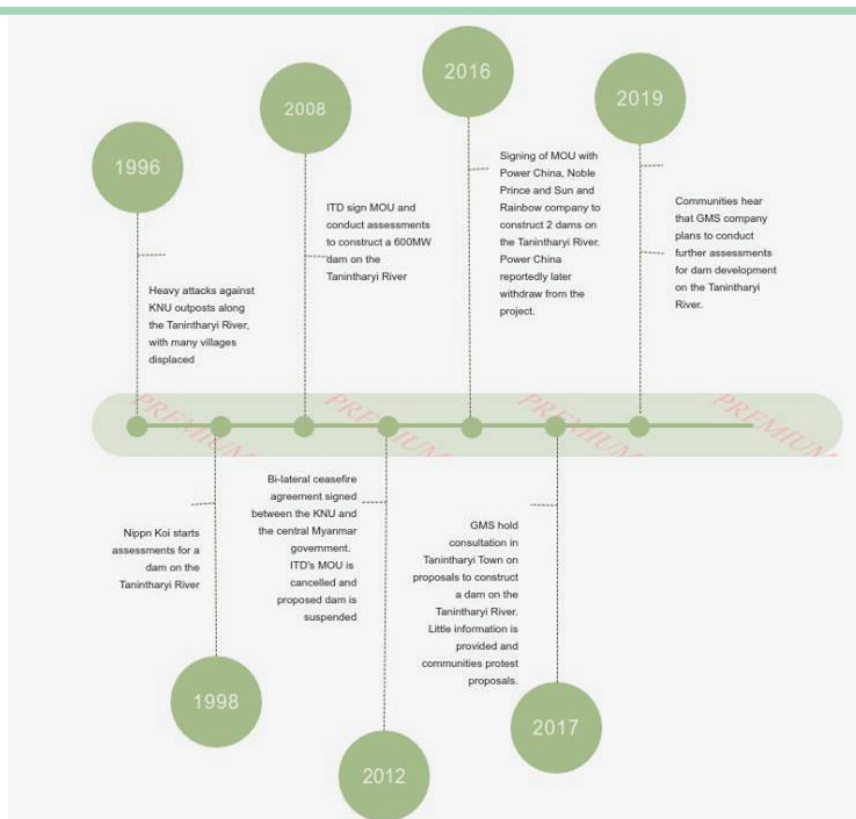


Figure 5: Timeline on dam development on the Tanintharyi River

Tanintharyi River continues to be under threat

Since 2017 no further consultations have been conducted, and communities have been given no further information on the progress of dam development. In May 2019, national news outlets reported that there were a total of 18 MOUs signed with companies for dams on the Tanintharyi River¹². There is little available information on where these dams would be located, their size or the impact they would have on up and downstream communities.

Villagers now understand that GMS Company will conduct further feasibility assessments for the construction of a large dam at Moh Ro village on the Tanintharyi River. Indigenous Karen and Burmese communities along the Tanintharyi River fear for their future and their livelihoods. If these plans are realised and dams along the river are developed, communities fear that they will be displaced from their lands, that their lands and livelihoods will be destroyed, and that the tenuous peace process will be upset, potentially causing a return to armed conflict.



Figure 6: Villagers protest dam proposals in Tharabway Village on the 13th September 2018

12 Eleven Media. (2019).). small hydropower plant in Taninthayi River... <https://www.facebook.com/watch/?v=487303055348263>



Figure 7: Communities hold ceremony on Day of Action for Rivers at Pa Kwin Village on 14th of March 2018

Dam Proposals Must Respect the Rights of Indigenous Communities to Free, Prior and Informed Consent (FPIC)

“The dam [proposal] hasn’t been revealed to us in detail. This project doesn’t meet the principles of FPIC (Free, Prior and Informed Consent), which is an international standard. We are highlighting what will happen to the health, education, and social [sectors] and how we will suffer in the future if these dams were to be built” – Saw Albert, Tee Moe Pwa

Communities along the Tanintharyi River have been denied their right to FPIC

Plans for dam development on the Tanintharyi River stand to irreversibly alter the lives of up to 32,000 people living along it. Despite the size and potential impact of these proposals, indigenous communities situated along the Tanintharyi River have never been meaningfully consulted on these plans, let alone given Free, Prior and Informed Consent.

Principles of Free, Prior and Informed Consent

Free, Prior and Informed Consent (FPIC) is a right that pertains to indigenous people, and the protection of their rights to property, self-determination, participation, non-discrimination, health, food, and freedom against relocation. This right has been recognised by many United Nations and international institutions, and is also, in part, recognised in Myanmar law. The fundamental principles of free, prior and informed consent are:

1. **Free:** Consent must be given voluntarily, free from ‘coercion, intimidation or manipulation’¹³. The process, timeline and decision making structure must be determined by the affected community, and all community members must be free to participate.
2. **Prior:** Consent must be sought ‘sufficiently in advance of any authorization or commencement of activities’¹⁴. This means that the consultation process must be held in BEFORE any government decisions are taken, prior to the signing of MOUs and in advance of project planning processes.
3. **Informed:** Affected communities must be given full information on the proposed project in an accessible and transparent manner, covering the purpose, size, duration, likely impacts, persons involved and processes that the project will entail.
4. **Consent:** Projects must only be conducted with the full agreement of affected communities, reached through the community’s chosen decision-making process. This must respect the communities’ ‘option of withholding consent’¹⁵.

What do the laws say?

United Nations Declaration on the Rights of Indigenous People (UNDRIP)

While UNDRIP is not a legally binding instrument, the Myanmar government is a signatory of this resolution and is therefore in good faith, obliged to adhere to the principles of the charter. The declaration establishes principles that must be upheld for the survival and dignity of the world’s indigenous people, and states that indigenous people will not be forcibly removed from their lands without their free, prior and informed consent¹⁶, that states must seek the FPIC of indigenous people before taking legislative or administrative measures that may affect them¹⁷, and that indigenous people have the right to develop their own strategies for the development of their lands, territories and resources¹⁸.

The 2016 Myanmar Investment Law

Section 65 of the Myanmar Investment Law requires respect for the rights and customs of ethnic groups. In addition, the Myanmar Investment Commission must get the approval of the Pyidaungsu Hluttaw before issuing a Permit to investment businesses, which “may have a significant impact on security, economic condition, the environment, and national interest of the Union and its citizens¹⁹”. This should apply to hydro power plants on a free-flowing river through the land of Indigenous Peoples in a conflict zone.

13 United Nations Economic and Social Council., (2005). Report of the international workshop on methodologies regarding free, prior and informed consent and indigenous people: 46(i).
Accessed online at: https://www.humanrights.gov.au/sites/default/files/content/social_justice /conference/engaging_communities/report_of_the_international_workshop_on_fpic.pdf

14 ibid

15 ibid

16 United Nations. (2008). United Nations Declaration on the Rights of Indigenous People. Article 10.

17 Ibid: Article 19

18 ibid: Article 32

19 2016 Myanmar Investment Law, section 46.

The 2015 EIA Procedure

Any hydro power plant with an installed capacity of over 15 MW must carry out an Environmental Impact Assessment (EIA)²⁰. The EIA Procedure incorporates international standards²¹ on Involuntary Resettlement²² and Indigenous Peoples²³, such as IFC Performance Standards on Involuntary Resettlement (IFC PS5) and Indigenous Peoples (IFC PS7). In circumstances where a project would forcibly displace Indigenous Peoples from land over which they do not have formal land title and instead use under customary tenure that is not recognised by national law, IFC performance standards, and therefore Myanmar law, require FPIC to be obtained. This clearly applies to dams along the Tanintharyi River.

The 2015 Ethnic Rights Protection Law

Article 5 of the Ethnic Rights Protection Law requires that indigenous peoples receive complete and precise information about business activities, major projects, extraction of natural resources or development works in their areas before project implementation in order that negotiations between the government, companies and communities can take place²⁴. While this law has been widely criticized for its weak provisions regarding the rights of indigenous peoples, proposed dam projects have failed to even follow these.

Impacts of the Tanintharyi Dam

Large hydropower dams have had serious human, environmental and economic impacts throughout the region. Dams cause considerable disruptions to the flow of rivers, causing the creation of large flood plains and reservoirs that often result in the physical displacement indigenous and minority communities, in the destruction of forest, wetlands and farmlands, and the disturbance of natural ecosystems. The World Commission on Dams found that between 40-60 million people have been displaced by dams worldwide, and further downstream communities have been impacted by the disruption of river flows and the decimation of fisheries²⁵.

The impacts of the establishment of a large-scale hydropower dam on the Tanintharyi River would be devastating. The establishment of a 1040 MW dam would lead to the displacement of up to 32 upstream villages, and the destruction of 144,557 acres of orchard, farm and forestland²⁶. Dam construction would also have significant impacts on downstream communities such as the decimation of fish populations, the contamination of water sources and transformation of water flows. Further still, the establishment of a large-scale dam could upset the fragile ceasefire process between the Karen National Union and the central Myanmar government risking restarting armed conflict in the region.

20 As must ones that have a reservoir (full supply level) with a volume of at least 20,000,000m or reservoir area or area of at least 400 hectares. Almost all projects that fall below these thresholds will need at least an Initial Environmental Examination.

21 The EIA Procedure does not set out specific standards for Resettlement and Indigenous Peoples. Section 7 of the EIA Procedure states that until Myanmar has specific standards, international standards, including those accepted by international financial institutions including the World Bank Group (and therefore the IFC) should apply.

22 Under section 2(w) of the 2015 EIA Procedure, Involuntary Resettlement means "the mandatory physical displacement of a PAPs from their home arising from a Project, or the unavoidable loss by a PAPs of productive or income-generating assets occasioned by a Project."

23 Section 2(v) of the 2015 EIA Procedure defines Indigenous People (IP) as "people with a social or cultural identity distinct from the dominant or mainstream society, which makes them vulnerable to being disadvantaged in the processes of development"

24 The law uses the term Burmese term for indigenous people *ta ne tine yin tha*, however it is not defined in the law

25 Imhof, A., Wong, S., Bosshard, P., (2002) Citizens guide to the World Commission on dams, International Rivers: USA

26 Karen Human Rights Group., (2018). 'Development without us': Village agency and land confiscations in south east Myanmar. IFC, MOEE and MONREC. (2017). Strategic Environmental Assessment (SEA) of the Hydropower Sector: Baseline Assessment reports. Yangon and Nay Pyi Taw: Myanmar.

Villages along the Tanintharyi River

There are a total of 76 villages home to a population of 32,008 people situated along the Tanintharyi River. For these communities, the Tanintharyi River is a critical lifeline, providing a vital source of water for drinking, irrigation, fishing and transportation. Both upstream and downstream communities would suffer significant impacts as a result of dam development ranging from direct impacts such as physical displacement and loss of land and resources, to indirect impacts such as loss of fish stock, changes to water quality and flow and impediments to livelihoods and food security.

Table 1: Communities situated along the Tanintharyi River

	Villages	Households	Population
Upstream	34	1,709	9,157
Downstream	42	4,435	22,226
Total	76	6,144	32,383

Villages to be displaced	Households	Population	Total village land area (Acres)	Area to be flooded (Acres)
32	1,313	6,965	799,328	144,557

The creation of a 585km² (144,557-acre) reservoir as a result of the dam would flood vast areas of community and forest lands, causing the destruction of village, plantation and forestlands²⁷. Of a total of 34 upstream communities, we understand that as many as 32 villages home to almost 7,000 people would likely suffer direct impacts from the proposed hydropower dam development. These communities would lose their homes, lands, and would be forced to relocate to new areas²⁸.

While upstream communities would face serious direct impacts from dam development and the creation of a 144,557-acre reservoir, 42 downstream communities home to over 22,000 people may also face severe impacts. These include changes to seasonal flows of the river, deterioration in water quality, loss of fish stocks, and the erosion of riverbanks, which would impede their food security, transportation and access to a critical water source.

²⁷ IFC, MOEE and MONREC. (2017). Strategic Environmental Assessment (SEA) of the Hydropower Sector: Baseline Assessment reports. Yangon and Nay Pyi Taw: Myanmar.

²⁸ Villages upstream that would be displaced by dam: Mo Yone, Ta Moo, Sha Pen, Kin Nyi Kyun, Chaung Lone Gyi, Pa Kwin, Ta Go Kwee, Tee Wa Shauk Kone, Sin Ma Kyun, Sa Ra Wa, Tan Baw Oo, Baw Loo Hta, Kyauk Pa, Ko The Tha, Ne Hta Mee, , Ta Pee Lay Ku, Sein Pye, Pa Law Hta, Pa Yaw Wa, Ka Say Hta, See Pye, Tee Ne Paw, Ah Me, Ka Del, Klee Htu, Kin Ma Tha, Kaw Tha Mwee, Am Lar, Tee Thar, Ah Moo, Sin Pyu Dine, and Law Aw.



Figure 8: Houses and community betel orchards along the banks of the Tanintharyi River

Impacts of Large Dams – Findings from the World Commission on Dams (WCD)

While large dams have contributed towards development, they have come at enormous social, environmental and economic costs. These costs are disproportionately borne by often marginalised and indigenous communities, who depend on rivers for their livelihoods, transportation and cultural heritage. The World Commission on Dams (WCD) was established by the World Bank and the IUCN in 1998 to review the effectiveness of large dams and develop a gold standard for dam development in the face of growing concerns and opposition to dam development. In 2000 they released an internationally respected landmark report detailing the comprehensive impacts that large dams have had around the world. Some of their key findings on the impacts of dams include:

Social Impacts of Dams

- ▶ **Physical Displacement:** The construction of large dams creates large upstream reservoirs that submerge vast areas of land. Globally it is estimated that between 40 and 80 million people have been displaced by large-scale dams. Those displaced have faced a many challenges including landlessness, loss of livelihoods, marginalisation, loss of resources and loss of traditional practices and heritage. Resettlement efforts have failed to restore livelihoods, as communities have been force relocated to unproductive lands, and compensation has often been inadequate and unable to recover losses.
- ▶ **Downstream Livelihoods and food security:** It has been estimated that 472 million people living downstream of large dams have incurred serious livelihood impacts worldwide²⁹. Alteration to the flow of rivers, impacts on flood plains, substantial losses of downstream fishery production, salini-

²⁹ Richter, B., Postel, S., Revenga, C., Scudder, T., Lehner, B., Churchill, A., Chow, M., (2010). Lost in development's shadow: the downstream consequences of dams. *Water Alternatives* 3(2): 14-42

zation and intoxication of river water and the erosion of riverbeds have had considerable impacts on downstream communities.

- ▶ **Indigenous people:** Indigenous people have been disproportionately impacted by dam developments, whose livelihoods, cultures and traditional practices have been eroded, while sharing few of the benefits.
- ▶ **Health:** Large dams have had adverse impacts on the health of both displaced upstream communities and downstream communities. Among displaced communities, access to health care, clean water and health services may lead to deterioration in community health. Among downstream communities, the destruction of livelihood bases may lead to an increase in malnutrition. Dam reservoirs have also been associated with increases in methyl mercury levels and an increase in the prevalence of malaria.

Environmental Impacts:

- ▶ **Loss of terrestrial ecosystems and biodiversity & contribution to climate change:** The creation of large reservoirs and the subsequent inundation of vast areas of land, destroy large areas of plants and forests. As well as causing a loss of biodiversity, the submersion of large areas of forest and organic matter releases high levels of methane into the atmosphere. Research shows that the large dams release 104 million tonnes of methane into the atmosphere each year, contributing more than 4% of anthropogenic global warming impacts³⁰.
- ▶ **Loss of fish species and stocks:** Substantial losses of fish species and stocks as a result of large-scale dams have been reported around the world. Dam walls prevent fish migration of some fish species, and changes to river flows, temperature and quality have also had considerable impacts on fish stocks.
- ▶ **Downstream impacts:** The creation of storage dams disrupts the flow of rivers, altering the riverine environment and changing the water temperature. This in many cases has led to a transformation of natural habitats and significant losses of aquatic biodiversity, upstream and downstream fisheries, ecological services of downstream floodplains and wetlands, and downstream marine ecosystems.
- ▶ **Blocking sediments and nutrients:** The reduction in the transportation of sediments and nutrients has significant impacts on the morphology of flood plains and coastal deltas, leading to a loss of habitats for fish and other aquatic species, and leading to a dramatic reduction in the number of bird species.
- ▶ **Cumulative impacts:** The impact of multiple dams in a river basin have led to cumulative impacts on water quality, species composition and river flows. This may lead to a cumulative loss of natural resources, critical flora and fauna, and ecosystem integrity.

30 Lima, I. B., Ramos, F. M., Bambace, L. A., & Rosa, R. R. (2008). Methane emissions from large dams as renewable energy resources: a developing nation perspective. *Mitigation and Adaptation Strategies for Global Change*, 13(2), 193-206.

Livelihoods:

Indigenous communities living along the Tanintharyi River have practiced traditional resource based livelihoods for generations. Communities along the river are dependent on betel-nut orchards, which are tended to year-round, and provide an important source of income. Almost all communities also practice rotational agriculture, fish in the river, and collect forest foods and products from the surrounding environment. With few roads or access routes, communities rely heavily on the river for their livelihoods. Villagers travel by boat to tend their orchards and transport their produce, and use water from the river to irrigate their orchards and farmlands. Dam construction on the Tanintharyi River would have serious impacts on the livelihoods of over thirty thousand people who depend on the river and the ecosystem services it produces for their livelihoods.

While upstream communities would be severely impacted through the loss of orchard, farm and forest-lands as a result of dam storage, downstream communities would also face considerable constraints to their livelihoods. It is estimated that globally over 472 million people living downstream of large dams have suffered adverse impacts to their livelihoods³¹. Dams can lead to the destruction of downstream fisheries, inhibit transportation, and transform the natural flows of rivers.

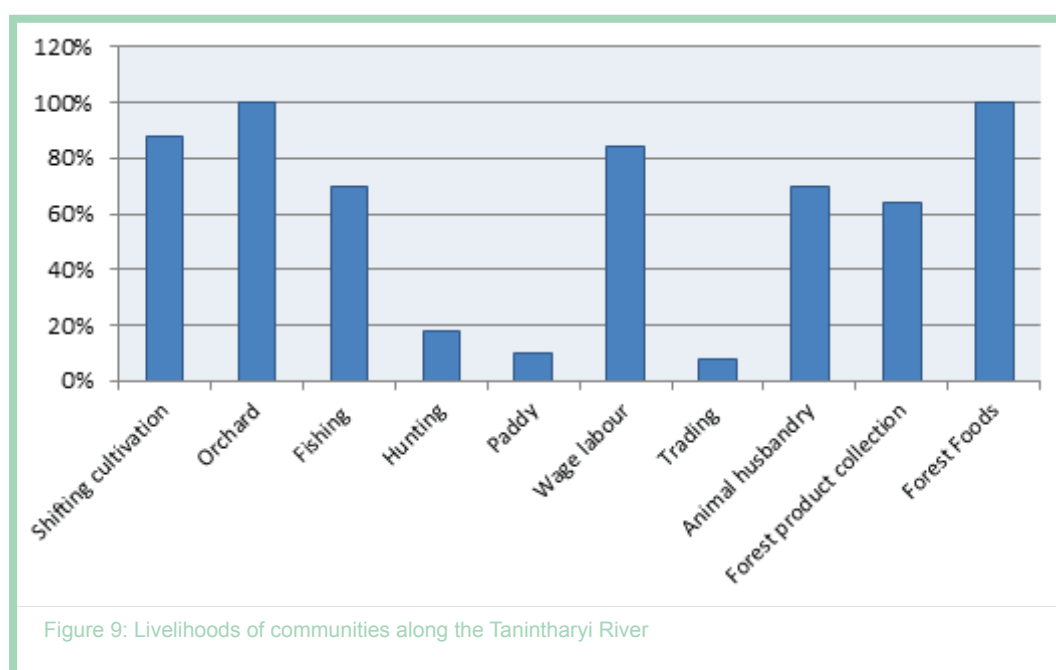


Figure 9: Livelihoods of communities along the Tanintharyi River

Betel and Fruit Orchards

Among the most important livelihoods of communities along the Tanintharyi River is betel and fruit orchard farming, of which all surveyed households practiced. Within betel orchards, villagers plant a range of fruit trees, palms and roots, used for income generation as well as household use the whole year round. Orchard cultivation makes up roughly 50% of household incomes among indigenous communities in Tanintharyi Region, providing both an important income source and a range of other household services³². In addition to tending to their own orchards, households along the river also often work on neighbouring orchards as daily wage labour, again providing an important source of household income. Among communities situated along the Tanintharyi River, betel orchards are usually located along the

31 Richter, B., Postel, S., Revenga, C., Scudder, T., Lehner, B., Churchill, A., Chow, M., (2010). Lost in development's shadow: the downstream consequences of dams. *Water Alternatives* 3(2): 14-42

32 TRIPNET., (2018). Growing up together with the forest: the unique relationship between and indigenous Karen people in Kamoethway. Myanmar: Dawei

banks of the river, where they can be easily tended. The creation of a storage reservoir will submerge and destroy vast areas of community orchards upstream, causing the loss of a vital livelihood for thousands of people. Dams also prevent the transportation of sediments downstream, leading to the erosion of the riverbanks and lead to alterations river flows. This stands to erode riverbanks where betel trees are growing, and could cause flash flooding, further destroying the orchards of 42 downstream communities.

Orchard farmers along the Tanintharyi River transport betel by boat along the river to markets where they can sell their produce. The establishment of a dam on the Tanintharyi River would impair the ability of communities to transport their betel, significantly impacting the most important livelihood of communities in the area.

Rotational Agriculture

Rotational agriculture, known as ku in Karen or taungya in Burmese, is a critical livelihood for communities along the Tanintharyi River. Rotational agriculture is practiced by over 80% of surveyed communities, and provides the vast majority of food for household consumption. Households gain a wide variety of grains, vegetables, fruits and legumes from shifting cultivation fields including rice, aubergines, cucumbers, chillies, pumpkins, watercress, pennywort leaves and beans.

Rotational agriculture is practiced by communities along the Tanintharyi River clearing an area of land for cultivation for one to two years, and then leaving it fallow for ten to fifteen years for soil and nutrients to regenerate, before it can be cleared again for cultivation. Communities along the river cultivate on the hills and valleys surrounding the river. The creation of a large storage reservoir would submerge large areas of surrounding rotational agriculture land, impacting a vital livelihood for up almost 7,000 people living upstream.

Fishing

Fishing is practiced by 70% of surveyed communities along the Tanintharyi River. Fish are usually caught for domestic consumption, and constitute an important form of protein for river dependent communities. Throughout the Tanintharyi River and its tributaries, there is a vast diversity of fish and aquatic species. Local knowledge research has shown that in the Kamoethway River there are over 108 fish species³³, and in the Ban River there are over 70 species³⁴. As a large free-flowing river, the ability for fish species to migrate is vital for sustaining a diverse aquatic ecosystem.

Dams block fish migration, which in some cases can prevent fish species from spawning, leading to the decimation of fisheries and a loss of fish species. The construction of a dam wall would also prevent the transportation of sediments and nutrients, which would damage for the habitats of downstream fish and aquatic animals³⁵. Changes to river flows would threaten sensitive downstream ecosystems, which would also have dramatic impacts on fish species, degrading feeding and breeding habitats³⁶. Finally, alterations to the temperature of the river and increased salinization and intoxication of river water would also degrade and damage fish populations. As well as having serious ecological consequences, this would significantly impair the livelihoods and food security of over 40 downstream communities.

33 TRIPNET., (2018). Growing up together with the forest: the unique relationship between and indigenous Karen people in Kamoethway. Myanmar: Dawei

34 Takapaw (2018), The wisdom, knowledge and customs of indigenous communities Ban Chaung. Myanmar: Dawei

35 World Commission on Dams. (2000). Dams and development: A new framework for decision-making: The report of the world commission on dams. Earthscan.

36 Kumm, M., & Sarkkula, J. (2008). Impact of the Mekong River flow alteration on the Tonle Sap flood pulse. *AMBIO: A Journal of the Human Environment*, 37(3), 185-193.



Figure 10: Villager fishes along the Tanintharyi River

Loss of Livelihoods and Threats to Food Security

Communities living along the Tanintharyi River are heavily dependent on natural resources such as land, forests, the river and its tributaries for their livelihoods. The development of a large dam on the Tanintharyi River will transform natural resources and have far reaching and irreversible impacts on surrounding ecosystems. These will have substantial impacts on community livelihoods and the local economy.

For up to 32 upstream communities, the blocking of the Tanintharyi River will create a large storage reservoir, which will lead to the physical displacement of communities and the displacement and deprivation of livelihoods. For over 40 downstream communities, ecological impacts such as the erosion of river banks, the blockading of fish migration and sediment and nutrient transportation, and changes to the flow, temperature and water quality of the river will significantly impair resource based livelihoods and food security.

The construction of large dams on the Tanintharyi River will significantly impact the livelihood base of up to 32,000 indigenous and river dependent communities, who may face loss of land, access to resources, and the deterioration of fish stocks and water access.

Water sources

The Tanintharyi River provides the primary source of water for almost every community living along its banks. Water from the river is used year round for irrigation, livestock sustenance, drinking, and household use. 96% of surveyed communities stated that the river was their most important water source, while only 4% said that their well provided their primary water source. With few alternatives, communities fear what would happen if they lost their most important water source.

Water source	Irrigation & Live-stock	Drinking	Household	Most important water source
River	50 (100%)	47 (94%)	45 (90%)	49 (98%)
Rain Water	30 (60%)	36 (72%)	33 (66%)	
Well	9 (18%)	30 (58%)	25 (50%)	2 (4%)
Spring	1 (2%)	1 (2%)	0	
Reservoir	1 (2%)		1 (2%)	

Figure 11: Water source and use table

Water quality and flow

Dams have significant impacts on the flow and quality of river water. In upstream areas, dams transform free flowing rivers into stagnant reservoirs. Within reservoirs, the levels of oxygen, the chemical composition and the temperature in the water may change. This may result in decomposition of nutrients that can lead to the pollution of vital water sources downstream, killing aquatic life and rendering the river unsafe for drinking and public use.³⁷

In addition to impacts on quality of water, the construction of large dams also has impacts on the flow cycles and quantity of water. The creation of the dam wall and filling of the reservoir can reduce the downstream water flows, transforming downstream rivers into pools of water with large dry stretches. Water surges can also result in water logging and rising salinity of the water. For communities along the Tanintharyi River, there are few alternative clean water sources, many only relying on the river and rain-water. **The damming of the Tanintharyi River could result in the deterioration of the main water source for over 32,000 river dependent people.**

37 McCully, P. (1996). Silenced rivers: The ecology and politics of large dams. Zed Books.

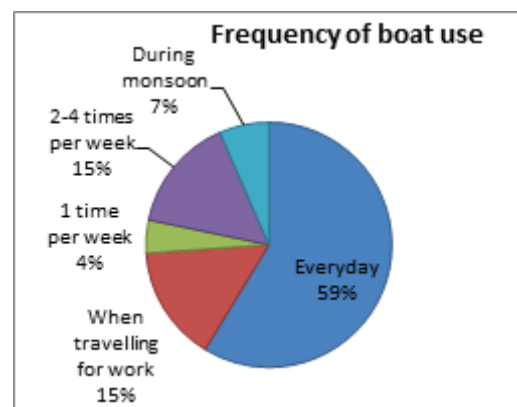


Figure 12: Villagers pray for the future of the Tanintharyi River in Pa Kwin Village

Transportation

Villages along the Tanintharyi River are remote and inaccessible by road. The river is a vital transportation channel for these communities, particularly during the monsoon season. While in the past villagers travelled by rowboats, villagers now travel up and down the river on motor boats in order to buy and sell produce, tend to orchards and farmlands, fish and visit friends and family in neighbouring communities. There are a total of 638 boats among the 51 surveyed communities that are shared among river dependent communities. Among surveyed villagers, 90% use boat as a key form of transportation. 59% of the villagers surveyed travel by boat every day, and a further 84% reported that boat travel is essential for their livelihoods³⁸.

Transportation type	Percentage who use this transportation
Boat	90%
Motorcycle	82%
Foot	72%
Car	20%
Ox Cart	4%



38 UNESCO World Heritage Centre (2016): Tanintharyi Forest Corridor. [online] available at: <https://whc.unesco.org/en/tentativelists/5876/>

Dams significantly alter the flows of rivers, creating blockades and barriers on free-flowing waters and creating large dry areas during the summer months³⁹. Dams may prevent communities from freely traveling by boat, impeding the ability of communities to travel to neighbouring towns and villages, and limiting their ability to sell their farm and orchard produce to surrounding markets.

Cultural uses of the Tanintharyi River

The Tanintharyi River is also central to recreation and cultural uses for communities along its banks. 90% of villagers surveyed said that they use the river for recreational activities such as swimming, playing and bathing, and 56% said that the river is part of the cultural practices that they take part in, including traditional festivals and ceremonies.

Both Karen and Burmese communities use the river for ceremonies, festivals and feasts. Burmese Buddhist communities practice mee myaw pwe along the Tanintharyi River on the month of October during the full moon of thidangyut festival. During mee myaw pwe, villagers float candles along the river and row traditional dragon boats along the river.

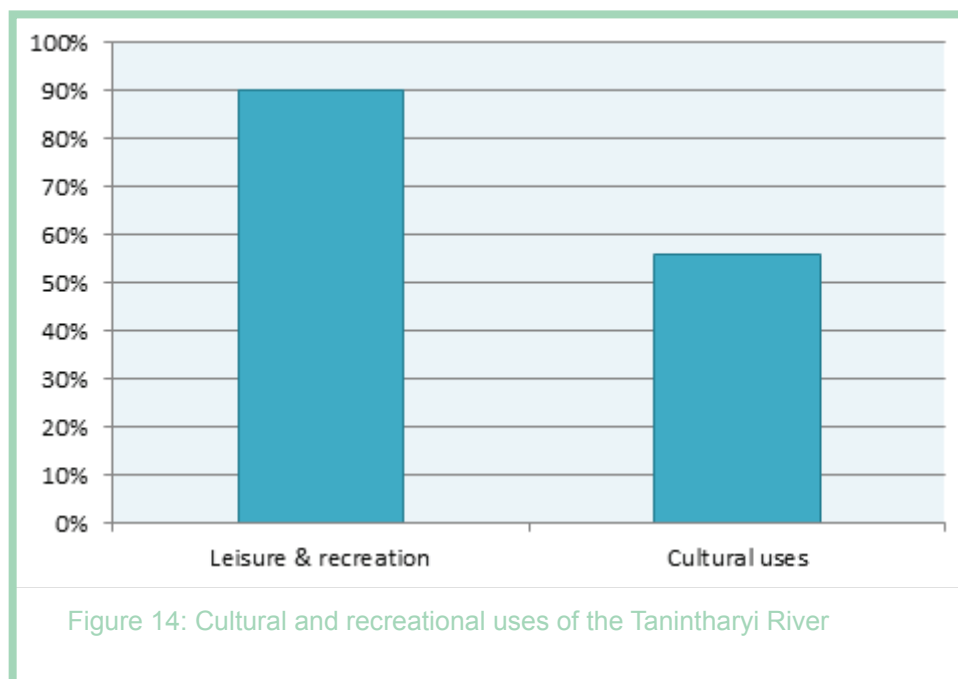
Karen communities along the Tanintharyi River hold communal feasts and celebrations for religious events such as Christmas and Easter along the Tanintharyi River. For these communities, the river banks are an important location for community meetings and congregations.



Figure 13: Traditional dragon boats on the Tanintharyi River (photo by Dawei Research Association DRA)

The Tanintharyi River plays a central part in all aspects of the lives of indigenous communities. Not only does the river provide for economic and environmental needs of surrounding communities, but it also plays a central role in the cultural identity, beliefs and values of these communities. The river plays an important part in cultural and religious ceremonies, practices and festivals, and is linked to both the physical and spiritual health of communities who rely on it. The construction of a dam on the Tanintharyi River may have significant impacts on the cultural heritage of surrounding communities, impairing their ability to practice customs and traditions through the submersion of river banks and alterations of water flows.

³⁹ The World Commission on Dams. (2000). Dams and development: a new framework for decision-making. Earthscan publications: London.



Forest resources and biodiversity

The Tanintharyi River runs through some of the largest remaining expanses of intact high-conservation value evergreen forest in South East Asia. The area lies in the Indo-Chinese-Sundaic zoological transition zone, containing some of the southernmost dry evergreen forest before they transition to wet seasonal evergreen forests further south. This positioning of the Tanintharyi forest creates a unique ecology with a wide assemblage of flora and fauna, and supports healthy habitats for a range of locally endemic and globally endangered species, including tigers, clouded leopards, elephants, sun bears, sambars, and tapirs⁴⁰.

Forest products	64%
Forest foods	100%
Hunting	42%
Fire wood	98%
Animal Grazing	28%

Figure 15: Community Forest Use

Indigenous communities along the Tanintharyi River have managed these forests for generations according to customary tenure practices and systems. Communities rely heavily on the forest for foods, products for domestic use, hunting and firewood. Every surveyed community reported that they depend on the forest for foods such as edible leaves and vegetables, and 64% depend on the forest for non-timber forest products such as bamboo, rattan and palm leaves for house construction. Indigenous communities also use surrounding forests for medicinal herbs and roots that are used both of annual herbal medicine ceremonies and for curing illnesses and ailments in the area.

40 UNESCO World Heritage Centre (2016): Tanintharyi Forest Corridor. [online] available at: <https://whc.unesco.org/en/tentativelists/5876/>

The creation of the dam proposed by IDT and GMS companies would create a large reservoir that would inundate large areas of pristine forest, destroying over 144,557 acres of some of South East Asia's remaining intact rain forest, decimating both the habitats of a range of endangered and vulnerable flora and fauna, and the livelihood base of thousands of indigenous people⁴¹.

Dams Contribute to Climate Change

Far from representing a source of green energy, dams are a major contributor to climate change. Decomposing vegetation and organic matter flooded under reservoirs release high levels of methane. **According to recent research, large dams cause over 4% of global anthropogenic emissions.** In some cases greenhouse gas emissions from a dam reservoir can be equal to or worse than a coal or gas fired power plant.

IDPs and Refugees

Tanintharyi Region is recovering from almost seven decades of civil war. Heavy conflict along the Tanintharyi River in the 1990s led to the destruction of over 21 villages, and forced thousands of people to flee to the forest, neighbouring villages and Thai border for safety. Throughout the whole of Tanintharyi Region it is estimated that there were a total of 80,000 IDPs and refugees as a result of the civil war⁴². Today, 6,146 refugees remain in Tham Hin Camp adjacent to Tanintharyi Region along the Thai-Myanmar border⁴³ and many IDPs still cannot return to their lands.

Villages along the Tanintharyi River	Villages impacted by civil war	Villages destroyed during civil war
76	72	21

Since 2012 following the bi-lateral ceasefire agreement between the central Myanmar government and the KNU, refugees and IDPs have been slowly returning, tentatively re-establishing their communities and livelihoods. Communities fear what the impact of the establishment of dams along the Tanintharyi River will have on recently returned IDPs and refugees, who may be once again forced to leave their lands.

⁴¹ IFC, MOEE and MONREC. (2017). Strategic Environmental Assessment (SEA) of the Hydropower Sector: Baseline Assessment reports. Yangon and Nay Pyi Taw: Myanmar.

⁴² According to the Border Consortium (TBC) in 2012 there were 9,367 refugees and 71,650 IDPs from Tanintharyi Region.

⁴³ TBC, (2019), Refugee camp populations: April 2019. Online. Available at: https://www.theborderconsortium.org/media/123780/2019-04-April-map-tbc-unhcr_updated.pdf

The Future of the Peace Process

The establishment of a dam on the Tanintharyi River not only risks the lands and livelihoods of indigenous communities, but will also put increased pressure on the fragile peace process between the Karen National Union and the central Myanmar government. Tanintharyi Region has been impacted by over six decades of armed conflict between the KNU and the central Myanmar government. Armed conflict was brought to a halt in 2012 by a bi-lateral ceasefire agreement between the central Myanmar and the KNU, improving civilian security and providing communities with space to start to rebuild their livelihoods and communities. In 2015 then KNU signed the National-Ceasefire Agreement (NCA) and has until recently been participating in the “21st Century Panglong” peace talks led by Daw Aung San Suu Kyi. The peace process has come under extreme pressure in recent years, resulting in the withdrawal of the KNU from peace discussions in 2018.

While ceasefire agreements have been signed, mixed control areas such as Tanintharyi Region have experienced extreme pressures over land and natural resource governance during the ceasefire period. The establishment of government sanctioned land concessions, forest reserves and protected areas within mixed control areas is expanding government administration into KNU controlled areas, creating impediments for the future of the peace process. The construction of dams on the Tanintharyi River risks creating further tensions between the KNU and the central Myanmar government, potentially leading to a return to armed conflict.

Conclusion

The Tanintharyi River is a bloodline for over 32,000 people who directly depend on it for drinking water, food security, irrigation, transportation, recreation, and cultural practices, as well as tens of thousands more who live and depend on its tributaries. The river and its extensive basin also support vast areas of intact forest and biodiversity, including a number of vulnerable and endangered animal species.

There are currently 18 proposals for dams on the Tanintharyi River. This includes a proposed 1040MW hydropower dam planned by Thai-owned GMS Power Public Co. Ltd., which will submerge a vast area of 585km². Communities along the Tanintharyi River have little information on dam proposals, and have never been adequately consulted on plans that stand to significantly alter their lives and livelihoods. While plans are made behind closed doors, communities fear that they will have no way of claiming their rights.

Around the world large dams have had considerable and irreversible impacts on communities, the environment and local economies. The creation of large storage reservoirs have led to the displacement of between 40 and 80 million people world wide, and have inundated vast areas of agricultural lands and biodiversity rich forests. Dam walls have also been responsible for changes in water flows and quality, the decimation of fish stocks, and the erosion of downstream riverbanks, causing often-catastrophic impacts to downstream community livelihoods and surrounding ecosystems.

Communities in Tanintharyi Region fear what the impact to their communities and livelihoods will be if plans for dam developments proceed. This research has shown that the proposed a large dam would displace almost 7,000 people in 33 upstream communities, and would significantly impact the livelihoods of over 22,000 people in 42 downstream communities. All communities rely heavily on the river as a primary source of water, food security and transportation, without which they would not be able to survive.

Tanintharyi Region has been the site of over six decades of civil war. During the armed conflict, over 80,000 people were forced to flee their homes, seeking shelter in the forest or in camps on the Thai-Myanmar border. Communities now worry what will become of returned IDPs and refugees, who may again be forced to leave their lands behind. Communities also worry what the impact of large dams on the Tanintharyi River will have fragile ceasefire, and whether their construction will risk a return to armed conflict.

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Annex 1: Statement by TIPs



Tanintharyi Indigenous People Solidarity

Date: 14/3/2019

Statement of Indigenous People's perspective released during an event of International Day of Action for Rivers

1. On the 14th March 2019, the International Day of Action for Rivers, Tanintharyi Indigenous Peoples Solidarity (TIPS) released the following statement:
2. 345 indigenous people gathered together in Pa Kwin Village in Myeik District on the bank of the Great Tenasserim River to celebrate the International Day of Action for Rivers. The event brought together civil society organizations, religious leaders and authorities from both Karen and Myanmar governments.
3. During the discussion, participants learnt that Thai-owned GMS Power Company planned to conduct a feasibility assessment for a dam on the Tenasserim River. Participants talked about how the Tenasserim River is a bloodline for indigenous people, providing for food, transportation, agriculture and the local economy. For this reason, local communities demand full and clear information on what the benefits and impacts of this proposed dam will be prior the start of the project. Further, local communities call upon both governments, civil society organizations, media, community leaders and the international community to urge GMS company to fulfill their obligations by respecting their right to Free, Prior and Informed Consent.
4. With respect to this proposed project and others like it, the indigenous peoples of Tanintharyi Region kindly request the assistance of the Union Government, KNU, international human rights and environmental organizations and international financial institutions to closely monitor and ensure that all projects are conducted with the consent of the people, and that values of fairness and justice are upheld.

Saw Kho

Vice Chari Person

Tanintharyi Indigenous People Solidarity (TIPS)

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Annex 2: Statement by the Chaung Ma Gyi and Kain Mya Thi Zar Committee

The statement of local community on Indigenous people rights day ceremony.

Date 13.9.2018

Location- Tharabway Arshipcar village, Tanintharyi Region

Over the past 25 years we have met 106 times to call on the United Nations to create a declaration, guaranteeing the protection of the rights of all indigenous peoples. On 13th September 2007, United Nations Declaration on the Rights of Indigenous Peoples was finally created. In this declaration, there are 46 recommendations and 144 countries have signed up to it. Myanmar is one of those countries, however until now they have not fulfilled their obligations in implementing it.

Indigenous people live in their territories according to their traditional customs and practices, without causing any harm or damage to the natural environment. Greedy people, however are trying to colonize the territories of us indigenous people, by establishing large-scale projects that will violate the rights of indigenous people and destroy the environment. If the natural environment is destroyed, so will our traditional customs, knowledge and languages.

These people have started their projects in our territories without the Free, Prior and Informed Consent of indigenous people. We, as indigenous people, are not against development, but it must be sustainable and should be in line with international standards and avoid unwarranted damage to the environment.

If large-scale dams and conservation projects go-ahead in our territories, then our rights will be violated and our future and safety will be threatened. In our territories we have our own history and culture, if these projects go ahead then these will be lost.

We don't need this dam. This dam is not necessary for development. But it is a project that will cause immense damage and irresolvable problems. This project also presents an obstacle to achieving a federal democracy through this period of national transition.

Since this project is not in line with international standard and poses many harms to the rights of indigenous peoples, we believe that this project will not provide for the sustainable development of our region.

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Naw Thazin Nyo	09769738362
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Annex 3: List of villages along the Tanintharyi River

No.	Village (Karen)	Village (Burmese)	Households	Population	Villages destroyed during civil war	Villages impacted by civil war	Size of village area (acres)
1	Wai Tar Eh	Myitta	396	2192		Yes	22,211
2	Kwee Wa Wa	Ine Wine			yes	Yes	34,789
3	Law Aw	Law Aw	20	84	yes	Yes	21,347
4	Ka Saw Wah	Sin Pyu Dine	70	797	yes	Yes	32,198
5	Ah Moo	Ah Moo	119	560	yes	Yes	78,932
6	Tee Tha	Tee Tha			yes	Yes	23,782
7	Am Lar Tha	Am Lar	86	115	yes	Yes	12,784
8	Naw Tha Mwee	Naw Tha Mwee	33	105	yes	Yes	13,278
9	Kin Ma Tha	Kin Ma Tha	29	121	yes	Yes	1,257
10	Klee Thu	Klee Thu	24	70	yes	Yes	6,586
11	Ka Del	Ka Dal	22	109	yes	Yes	7,269
12	Ah Mae Tha	Ah Mae	19	74	yes	Yes	73,208
13	Tee Ne Paw	Tee Ne Paw	22	144	yes	Yes	4,894
14	See Pyet	Se Pyet			yes	Yes	32,189
15	Ka Say Tha	Ka Say Tha	63	317	yes	Yes	7,834
16	Palaw Wah	Pa Yaw Wah	20	110	yes	Yes	23,123
17	Pa Law Wo Tha	Pa Law Wo Tha	20	100	yes	Yes	21,980
18	See Pa Law Htar	Sein Pyaw	25	195	yes	Yes	21,321
19	Tha Pee Lay Ku	Tha Pee Law Ku	31	163	yes	Yes	43,980
20	Naw Tel Htar	Ta Tha Mee	93	300	yes	Yes	23,123
21	Toe Tet Htar	Toe Tet Htar	35	176	yes	Yes	22,133
22	Pa Ya	Kyaw Pa	20	96	yes	Yes	33,422
23	Baw Lu Htar	Baw Lu Htar	50	315		Yes	59,279
24	Bo Thaw Pa Law	Thin Baw Oo	71	498		Yes	31,399
25	Ta Ra Htar	Sa Ra Wa	50	306		Yes	46,601
26	Pa Htoo Klo	Sin Ma Kyun	51	311		Yes	17,616
27	Pa Re Ku	Tee Wa Shauk Kone	45	271		Yes	8,578
28	Tha Ko Kwee	Tha Ko Kwee	32	224		Yes	10,056
29	De Pa Law	Pa Kwin	43	250		Yes	18,937
30	Kaw Law	Kyaw Chaung	19	111		Yes	11,232
31	Loh Pa Doh	Kyauk Lone Gyi	43	274		Yes	14,654
32	Da Paw Tha Lo	Kin Ni Kyun	80	410		Yes	19,888
33	Ta Moo	Ta Moo	57	311		Yes	28,732
34	Moh Rone	Mo Yone	21	48		Yes	27,716
35	Pa Weh Htar	Pa Weh Htar	43	250		Yes	9,912
36	Ta Nay Lo Ku	Kone Thar Yar	36	326		Yes	4,467
37	Poe Kyun	Poe Kyun	32	180		Yes	10,166
38	Kyauk Pe Po Htar	San Pe	27	169		Yes	17,202

39	Kaw Ma Pyin East	Kaw Ma Pyin East	172	1032		Yes	32,615
40	Kaw Ma Pyin West	Kaw Ma Pyin West	33	110		Yes	9,747
41	Hein Lat	Hein Lat	61	330		Yes	4,209
42	Ka Baw Yu Ae	Thin Baw Nan	90	491		Yes	21342
43	Ye Bu	Ye Bu	97	494		Yes	7,872
44	Tha Htay (East)	Tha Htay (East)	138	649		Yes	6,557
45	Tha Htay (West)	Tha Htay (West)	83	396		Yes	5,115
46	Thein Naw	Thein Naw	126	576		Yes	14,295
47	Mine Tha Thu	Mine Tha Thu	87	435		Yes	1,512
48	Ban Pyin (East)	Ban Pyin (East)	82	410		Yes	11,513
49	Ban Pyin (West)	Ban Pyin (West)	162	965		Yes	1,117
50	Ywa Tit Kone	Ywa Tit Kone	32	220		Yes	8,902
51	Kywe Ku	Kywe Ku	50	397		Yes	1,828
52	Kyar Kaung	Kyar Kaung	33	186		Yes	3,737
53	Shwe Doe	Shwe Doe	21	102		Yes	2,604
54	Ta Poe Htar	Tha Ra Bwin (East)	218	1357			4,418
55	Ta Ma La	Ba Da Mya	96	495		Yes	2,400
56	Ta Poe Ta village	Tha Ra Bwin Village	370	1700			
57	La Mine Kaw	La Mine Kaw	170	948			12,423
58	Ah Lay Bine	Ah Lay Bine	62	318			2,134
59	Htike Ka	Htike Ka	76	997		Yes	4,321
60	Ma Yan Chaung	Ma Yan Chaung	110	593		Yes	7,579
61	Kyauk Sa Yet	Kyauk Sa Yet	270	300		Yes	12,784
62	Ko In	Ko In	124	840		Yes	9,802
63	Kaw Tha	Kaw Tha	120	736		Yes	12,421
64	Ta Ku Nge	Ta Ku Nge	76	286		Yes	7,543
65	Wan Na	Wan Na	269	1621		Yes	10,234
66	Hta Me	Swe Chaung	25	119		Yes	10,244
67	Ta Poe Kee	Thein Pyin	178	998		Yes	28,408
68	Lo Mu Ko Tee	Kyauk Taung	100	400		Yes	5,525
69	Ta Lone Thet	Ta Lone Thet	96	523		Yes	4,555
70	Ta Ya Kone	Ta Ya Kone	53	201		Yes	2,159
71	Pa Leh Htar	Pain Chaung	80	367		Yes	18,266
72	Ka We	Ka We	80	418		Yes	11,184
73	Bwe Pa Law	Kyin Ka Doh	99	500		Yes	11,182
74	Inn She Kone	Inn She Kone	272	1120		Yes	10,023
75	Sa Pet Kone	Sa Pet Kone	60	296		Yes	3,489
76	Ta Ku Dine Ne	Ta Ku Dine Ne	26	375		Yes	12,112
	Total	76	6144	32383	21	72	

This report has been jointly researched and written by Candle Light, Southern Youth and Tarkapaw Youth Group. We would like to thank everyone who has given their time and support in producing this report.

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