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## Infrastructure From and For Forest Communities: The MicroHydro Power in Long Liam, Sarawak

*After the cancellation of the Baram mega-dam in 2016, the villagers of Long Liam, who were among the thousands opposing the construction of a mega dam, joined forces to install the very much needed power source in their community. Something the mega dam would not have provided.*

The year 2016 saw a great victory for indigenous peoples in Sarawak. The construction of the 162-metre high Baram Dam - which would have flooded 41,200 hectares of forests, displaced at least 26 indigenous villages and affected up to 20,000 people -, was cancelled. This decision came after repeated protests, blockades and opposition by indigenous people and allied networks. Two strategic road blockades were set up in 2013 and accomplished to remain for over two years: one to prevent workers entering the dam site and another one to prevent cement trucks and workers from constructing the access road to the Baram Dam.

The cancellation of the dam also meant that all the Native Customary Rights land seized for the dam site and the reservoir was returned to its original indigenous owners.

The mega-dam was part of the Sarawak Corridor of Renewable Energy (SCORE), one of the five regional corridors in the country, which aim to encourage investment in energy-intensive industries by providing them access to energy, transport and communication infrastructure. Among the ten priority industries identified by SCORE, to which the Baram Dam would have provided energy for, are oil, aluminium, palm oil, timber and steel. (1)

After the cancellation of the mega-dam, the villagers of Long Liam, a community deep in the interior of Baram, who were among the thousands opposing the construction of a mega dam, joined forces to create and install the very much needed electrification and power source in their community. Something the mega dam would not have provided. In 2019, a Micro Hydro Power started working in Long Liam. (2)

The story of resistance against the Baram Dam stands nowadays not only as a source of inspiration for many communities threatened by mega dams, but also for those trying to reclaim infrastructure to their own needs and start a bottom-up inclusive energy process.

Bryan Anderson, who is from Long Liam, carried out two interviews with people from his village. Both interviewees actively participated in protesting against the mega dam and led communal work (*gotong-royong*) during the construction of the Micro Hydro Power.

Sam, the first person interviewed, is one of the lead-speakers for the Micro Hydro Project and Nina is a woman who plays an important role in the woman group (*kaum ibu*) and knows peoples' rights regarding the ancestral Native Customary Rights land. (3)

Their testimonies help us understand how can infrastructure look like when having the needs of communities as the starting point as well as the many challenges and obstacles that they still need to

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confront.

**Why were you opposing the dam and how did you organize the resistance against this project?**

SAM: I have several answers to your question. My first answer is that we chose to reject the Baram Dam because a mega project like that would have destroyed the ecosystems around the construction area. Secondly, it would have cost us our homes; all the affected Baram people would have lost their homes. Thirdly, the flood from the construction of the dam would have also cost us our inherited land, where we grow various kinds of crops. It would have destroyed the crops that have been planted by our forefathers, which we keep harvesting for years now. My fourth answer to your question is that the Baram Dam would have brought a detriment to the Baram people in terms of having to rebuilt new settlements for their families.

NINA: For me, we rejected the dam because we need the land in order to live. Our land is the source of our food and other resources. The dam would have caused a serious damage to everything that we have now. It is not a small matter. The dam would also have caused us to flee from our homes and settle elsewhere.

The first thing we did to show our rejection towards the dam was doing a demonstration at Nahah Uve' [an area of Baram riverbank close to where the mega project location was proposed] during their site visit. We really did not want the dam. The next thing we did was to hold a blockade at the Kilometre 15 Camp of the Long Kesseh road because, during that time, we heard that the equipment and machineries for the dam were going to be transported via that road. We set up the blockade in order to stop the people from bringing their equipment to the proposed dam site.

**What is the infrastructure that you actually need as a community?**

SAM: As a community, we really need electricity, but not in a way that the energy facility construction would destroy our nature or river. The second thing that we need is a proper connection road. A proper road will make it easier for us to transport our agricultural products to town. This proper road would also provide better connections for the community within the Baram area.

NINA: We long to have infrastructure projects, such as a telecommunication facility, a hospital, a school and a road. But what we need the most is a telecommunication facility because it will make things so much easier for us these days. We do need a hospital as well, but we already have one in Long San. However, during the rainy season, when the river rises, it is difficult and dangerous for us to go in case there is an emergency, thus, we need a proper road.

**Now your community has a micro hydro project for meeting the energy needs of the community. How did the project come about?**

SAM: An NGO suggested that we build a micro hydro at Long Liam. So, in the community of Long Liam, people agreed on mutual cooperation and worked together to complete the micro hydro project from the start to the end.

NINA: This project became a reality because the members of the community agreed to have this friendlier micro hydro project rather than the damaging mega hydro dam. We feel that we will benefit from this project.

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## **Are you satisfied with the project? What were the challenges?**

SAM: To be honest, I feel a little dissatisfied because the energy generated by the micro hydro is yet insufficient to provide the electricity that is needed by the whole village. Despite that, we are happy because although the power generated is not enough to support all electrical appliances in our homes, it had helped us to at least light up our homes. The main challenge that we need to face with this micro hydro is to keep a continuous water supply. We are not able to run the micro hydro if there is insufficient water and that is a problem that we are facing right now. We will not use the micro hydro during drought season due to less water supply but we are able to use it during the rainy season.

NINA: We are quite satisfied with the micro hydro at this early stage. However, issues have risen after using it for some time and, due to this, we started feeling a little dissatisfied. The micro hydro cannot provide us 24 hours power supply. On top of that, the power generated by the micro hydro is insufficient to accommodate the power supply needed for the whole village. Another challenge is that the intake tank of the micro hydro is not strong enough to withstand the force of the water current, causing it to leak from beneath its reservoir. That is why we welcome any improvement that can be made to this project in order to provide us with sufficient power supply, because this is definitely a technology that we would want for our village.

## **In your opinion, do you think that local small-scale energy projects could be replicated in nearby villages in Baram, or other places?**

SAM: I would love to recommend this micro hydro to other villages. It is a very clean form of energy because it does not need fuel to run. For a community from rural areas like us, this is an advantage because we do not need to go to the nearest fuel seller to fill it up. Thus, it is also very economical. I would also like to suggest that in the future, should this project be implemented in other villages, professional engineers or personnel should be invited to join the local team in order to study about the water sources and flows. This way the micro dam could be built in the best way possible, thus enabling the community to enjoy the electricity regardless of the weather condition. This is to avoid unhappy villagers due to insufficient power supply.

NINA: I don't see any reason why it should not be replicated in other places. The only consideration is to be sure that the nearby river flow can accommodate enough flow to power up the micro hydro to generate electricity for the whole village. However, since we are facing challenges with the one we have now, maybe some improvements are needed before implementing it in other places. It is best to also have another alternative small-scale energy source next to the micro hydro, such as solar energy, so that when the water flow is not strong enough during the dry season, we can switch to solar energy for power supply.

(1) <http://smasarakawak.com.my/cgi/subissues.cgi?file=56is.txt>

(2) The Micro Hydro project was supported by SAVE Rivers and the Bruno Munster Fund.

(3) The original names have been changed for security reasons