



TINA RIVER
HYDRO DEVELOPMENT PROJECT

NEWSLETTER

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Quality Control (QC) Laboratory moved to site, awaiting dam construction



EC Lab Technician, Mr. Pawan Kumar (Center) and the two local Laboratory Technicians in side the QC Laboratory, which is now up and running at Lot 2-1 within the Office Site premises.

As preparations continue for the main works to commence on the Tina River Hydropower Development Project, one of the most important office facilities, the Quality Control (QC) Laboratory, has been successfully relocated from Hyundai Engineering Company (HEC) campsite at Grass Hill in Central Guadalcanal, to Lot 2-1 within the Office site premises.

Now relocated to its permanent and final location, the state-of-the-art facility is equipped with quality testing laboratory equipment, designed for testing civil engineering building and construction materials.

It also houses soil testing laboratory equipment and machines, as well as geo-technical

engineering equipment; all of international standards. The testing equipment and accessories are all necessary during the construction process to test concrete, cement, soil, bitumen, aggregate, rock and steel testing lab equipment to ensure they meet the international standards set for the Project.

HEC Lab Technician, Mr. Pawan Kumar said all the laboratory machines were transferred to the construction site in early November. Since moving all equipment on site, the team have been completing the required gravel sample tests in preparation for work on the dam to start.

"We have moved every piece of lab equipment to the site and are progressing with all experimental

lab test requirements. As soon as work on the dam facility kicks off, we will be busy with laboratory testing for gravels and sands that will be used to construct the facility."

He goes on to say the laboratory is a critical facility for the project and is key to the construction of the dam.

"For the construction to progress without any issues, the laboratory is crucial to ensure we produce quality construction work. The concrete and gravel that will be used to construct the dam must be of a high-quality standard and the laboratory will test and ensure materials meet the guidelines," Mr. Kumar added.

In terms of meeting international standards, Mr. Kumar said the quality of work must be adhered to the Australian Standard (AS) and the American Association of State Highway and Transportation Officials (AASHTO) Standard. "These are the world class standards that are going to be used in the construction of the Tina River Hydropower Development Project."

The Laboratory is currently being manned by a small team of four people consisting of a Quality Assurance and Quality Control (QA&QC) Manager, a Lab Technician, and two local Lab Assistants with more lab assistants to be employed as construction progresses.



Message from the Minister

Hon. Bradley Tovosia
Minister for Mines, Energy and Rural Electrification

“...Tina construction will pave the way for further investment and new jobs for people while helping our economy build back better”

It's been a busy year for Tina with many significant milestones reached. Last month, I was privileged to be a part of the historic ground breaking ceremony held on 2nd November at the Tina River Project construction site. Officiating the ceremony was our Prime Minister Hon. Manasseh Sogavare and in attendance were several other Ministers, senior government officials, foreign dignitaries, partners, donors and lenders.

Most importantly, there was a huge attendance from the public and local communities who came to support and witnessed the event and I thank you for coming, despite the rain. We were entertained by members of the surrounding communities performing their traditional welcome and dances, as well as presenting gifts. It was great to see the soil being turned, marking the beginning of the construction period.

As I said at the ceremony and reiterate now, I want to especially thank and commend the original landowners and surrounding communities for their patience, cooperation and support especially over what has been a challenging few years. As our Prime Minister and I both acknowledged at the event, it has taken the tireless efforts of many over several years, including from those who host the project on their customary land, to drive the project to get to where it is today. We know the next few years of Tina construction will pave the way for further investment and new jobs for people while helping our economy build back better. And your Government is resolute in its commitment to continue to partner with key parties including donors, the Guadalcanal provincial government and landowning groups.

So as we wrap up 2022 and look forward to a prosperous new year, I want to leave you with this final remark said by our Prime Minister at the groundbreaking.

“We will not be where we are today without you. I ask that we all work together for a secure and better Solomon Islands. The government alone cannot move this country forward. Nation building is a collective effort that involves all of us”

God Bless for the holiday season.



Tina River Project Concrete plant ready to be commissioned



The Concrete Plant being installed at the office site.



A local mechanic who assisted in the installation of the generators.

The Concrete batching plant for the Tina River Hydropower Development Project has gone through its final installation work and is expected to be in full operation by early 2023.

Manas Ranjan Samal, Hyundai Engineering Company (HEC) Electrical Manager confirmed that the installation of the concrete facility is almost complete and will soon begin the process of testing and commissioning.

“We are now completing the electrical works and testing will commence in the

strength in structures.

The concrete batching plant process flow begins from the feeding of aggregates into individual bins depending on formation size.

“These aggregates will be weighed individually as per the design set in the control panel. After weighing, they will be transferred to the mixing unit. Above the mixing unit, are weigh hoppers for cement, admixtures and water.

“The job of the weigh hopper is to weigh and then transfer the contents into the following mixing unit. Cement is transferred to the weigh hopper employing a screw conveyor. Water is pumped up into the weigh hopper. After mixing for a specific time as set by the mixing unit, the mixer will discharge the contents into a transit mixer to be transported to the construction site.”



The new Generators that will provide electricity to the Concrete Plant.

The plant will only be used to produce conventional concrete for small structures, the access roads

and power house. In order to produce

concrete for the Roller-Compacted Concrete (RCC) Dam, two more Concrete Batcher Plants of 120 m3/hr and 180m3/hr will be installed near the dam site. The Concrete Batcher plant is an important infrastructure for the construction of the Tina River

coming weeks for commissioning.” The plant will produce different grades of concretes for various works based on the mixed design taking into consideration the concrete slump, grade, and efficiency. Mixed design is the process of finding right proportions of cement, sand and aggregates for concrete to achieve target

and power house. In order to produce concrete for the Roller-Compacted Concrete (RCC) Dam, two more Concrete Batcher Plants of 120 m3/hr and 180m3/hr will be installed near the dam site. The Concrete Batcher plant is an important infrastructure for the construction of the Tina River

Hydropower Project because it allows the production of quality readymix concrete.

“It has an advanced computerized control systems for the accuracy and quality of concrete production. There are various ways to mix concrete but batching by use of a batch plant is very accurate,” Mr Samal added.

“Batching of concrete is done in fixed batches (proportions) for a fixed time. Fixed proportions of each item are individually weighed prior to addition into the mixing unit. This concrete batcher plant will help to produce the required quantity and quality of conventional concrete for project construction work,” he explains.

The operation of the batching plant and production of ready-mix concrete also follows strict quality control and test requirements to be followed at each stage. Engineering & Mechanical Division workers of HEC with assistance from a local company, Island Enterprises Limited, have recently installed generators that will provide much needed electricity to power the plant.

The workers have confirmed that they will proceed with the testing of the plant after the installation of the generators and before any further Project construction in 2023.

Crusher plant installed, awaiting main construction works



The Crusher Plant installed.

Installation of the Crusher Plant for the construction of the Tina River Hydropower Development Project has been completed. This vital piece of infrastructure equipment has been installed at the office site and is required to crush rocks and boulders into different sizes of aggregate which are required for the further construction of access roads and main facilities including the dam and powerhouse.

Mr Manas Ranjan Samal, Electrical Manager for construction contractors Hyundai Engineering Company (HEC) explains the newly installed infrastructure is key to the successful construction for many parts of the Project. "Since concrete is the prime requirement for any construction project and aggregate is the major ingredient of it, the Crusher Plant is really important in order to produce the required sizes of aggregate. This crusher plant will be used for the entire project and the facility will produce approximately 400,000 m3 of aggregate with an average production rate is about 800 m3 per day."

He further explained in detail that the primary unit of the Crusher Plant is called a Jaw Crusher, the secondary unit is a cone crusher. There are chains of conveyor belts to transport raw material from one unit to another and a vibrating screen is used to separate crushed aggregate based on the sizes."

"A sand unit is also available to produce sand through separation because the plant employs a wet crushing method to minimize dust generated during crushing operations. Here, the processed water used for the operation will be recycled and reused through a gravitational sedimentation method. Wastewater recycling enables us to save large quantities of water. Additionally, a water mist system will be used to suppress dust during the transportation of crushed materials in the conveyors," the Electrical expert explains.

In terms of work capacity, the Crusher Plant has an overall capacity of 150 tons per hour with a production efficiency of 70%. The

Jaw type crusher and the cone type crusher will produce 50mm, 25mm, 10mm, and 5mm aggregate in its output.

The Crusher plant and the Concrete Batch Plant are located at Lot 2-1, within the HEC office site premises, at an elevation of about 300 metres above sea level. The core land location is important to be able to facilitate the production, transportation of aggregate and concrete respectively to the required working area for the access roads and powerhouse. The location was also chosen because it was not close to environmentally sensitive areas or existing residential settlements meaning the siting of the crusher plant ensures the least exposure to noise and dust to communities.

Testing on the crusher plant facility will be commencing in the coming weeks and the facility is expected to be commissioned for operation in early 2023.

First-aid facility finishing soon

Workers on the Tina River Hydropower Development Project will have access to medical services while at work thanks to a health facility recently constructed on site.

The clinic, located at the Office site in the core land will be operational in the coming weeks and ready to cater for the close to 100 contractor workers.

Mr Livingston Gila, Construction Supervisor for Hyundai Engineering Company(HEC) said it is vital for the camp to have a health facility so they can ensure all staff and contractors working on Tina are being well cared for medically. "We are looking forward to opening the clinic in the coming weeks. The only finishing touch is floor tiling and some plumbing work."

The facility will accommodate six beds for patients and a doctor's examination room. It will operate as a basic health facility. "It will be accessed by construction workers and will particularly cater for dealing with any on-site accidents and treatment for minor illness. The facility will also do basic laboratory testing, routine health screenings, vaccinations and other healthcare services," Mr Gila briefly stated.

He further added, the health facility is essential for a projects like Tina, where there is potential for serious accidents at any time when working with machinery and complex construction.

He goes on to add, it is also a standard requirement in any construction project that a health facility is erected and accessible for all workers. The Workers Health and Safety Environment and Social Management Plan (ESMP) of the Tina Hydropower Project requires a First Aid Facility to be constructed and operational on site.

"With the setting up of a health facility like this, we can be proactive in addressing health concerns and promoting wellness. Construction workers can be assured that their health and safety is a priority of the Project," Gila added.

HEC Electrical Manager, Mr Manas Ranjan Samal said HEC will be responsible for the facility, which will function as the main medical facility for the Project workers.

The six-bed facility will be operated by two shifts with registered nurses, certified by the Solomon Islands

Ministry of Health and Medical Services, during construction work hours. The clinic will house emergency medical equipment and a stock of medicines so that the nurses can provide basic first aid, and in the event of a severe injury and/ or medical emergency, transport the patient to the hospital by on site ambulance.



Construction Supervisor for HEC, Mr. Livingston Gila explaining the work that is needed to be completed.



Material used for the finishing of the first-aid facility.



A local construction worker tiling the facility.

Ground Breaking Ceremony Wrap up



Hon Manasseh D. Sogavare
Prime Minister of Solomon Islands
 "While we know it is designed to dramatically increase the amount of renewable energy in the Honiara while reducing our reliance on expensive diesel power, more importantly years from now, long after the infrastructure has been built and the electricity is powering, generations of Solomon Island people will still be benefiting from TINA."

which took place on Wednesday, 2 November, 2022 at the project site located on the upstream Tina River tributary of Ngalmibu river, 20 kms southeast of Honiara.

Elders, chiefs and representatives of the Malango and Bahomea house of chiefs and members of the Tina catchment communities also attended, participated and witnessed the landmark ceremony. They also performed a traditional welcome and presented dignitaries with gifts.

PM Sogavare also thanked and commended the original landowners and surrounding communities for patience, cooperation and support.

"We will not be where we are today without you. I ask that we all work together for a secure and better Solomon Islands," he said while adding that "the government

alone cannot move this country forward. Nation building is a collective effort that involves all of us." Not only are we building a world class hydropower facility that will provide our people with clean, more reliable and affordable electricity, but we have also been investing in

the future of our rural communities through the successful implementation of the Community Benefit Sharing Project. We have improved water and electricity supplies, trained local students, up skilled rural women and helped communities become job ready to work on the construction of this infrastructure.

We have already achieved some great things but today, at this ground breaking ceremony, we mark another important milestone. You can see around us, construction activity is already taking place with much more to follow in 2023. The next few years of Tina construction will pave the way for further investment and new jobs for our people; helping our economy build back better. Also in attendance were partners, donors and lenders; the Australian High Commission, World Bank, Asian Development Bank and Solomon Power.

Located 35 kilometers (km) south east of Honiara at the upstream end of the Ngalmibu River Basin, Tina is the first major Hydropower project implemented by the Solomon Islands Government and financed by grants and concessional loans from the Australian Government, including the Australian Infrastructure Financing Facility for the Pacific (AIFFP), Abu Dhabi Fund for Development (ADFD), Green Climate Fund (GCF), The World Bank, Korea- EX- IM-Economic Development Cooperation Fund (EDCF) and the Asian Development Bank (ADB).

When completed and operational, electricity delivered through Tina has the potential to significantly reduce the price of electricity and lessen the country's reliance on expensive imported diesel. This will make accessing electricity more reasonable for the population which in turn can increase the electrification rate particularly for households.



Daniel Una, Chairman, Roha Cooperative society

"In terms of benefits, already the powerlines are constructed. We already have access to water supply and we will benefit more from other things as the project progresses. I am very happy to witness this very important occasion today; the groundbreaking ceremony signifies that we are moving to another level

which will bring more opportunities for us in terms of employment for the people of Malango and Bahomea. It's something that we will survive on for the coming years. There are so many issues being raised in the past through the media but today, we the people of Malango and Bahomea, are so happy and fortunate to host this project; the first of its kind for the country".



H.E. Yongwoo Kwon
Ambassador for Cooperation with the BIE

"On behalf of the Korean Government, am honored to attend the groundbreaking ceremony of the Tina River Hydropower Project along with Mr. Jaehyun PARK, Managing Director of K-Water. Tina River Hydropower Project is funded jointly by the Export-Import Bank of Korea's EDCF program and will enable electricity generation leveraging a renewable energy source, contributing greatly to environmental protection and improved living standard for Solomon Islands. The Korean government is actively striving to improve its

relations with Pacific Island Countries including Solomon Islands. This year marks the 44th anniversary of the establishment of diplomatic ties, which came in 1978, between Korea and Solomon Islands. I hope that the Tina River Hydropower Project will serve as a pivot upholding the two countries' friendship".



Hon Rexon Ramofafia
Minister of National Planning and Development Coordination

"As a the national planning and coordinating agency and a partner of the project, the Ministry of National Planning and Development Coordination (MNPDC) is glad to witness the ground breaking ceremony of Tina Hydropower Project. Energy is a critical enabler of development. The ground breaking event signifies another important milestone in the development of clean and renewable energy in Solomon islands. It also promises us reductions in the cost of electricity which would have significant social and economic

benefits for Solomon Islands. The ministry will continue to support the project, and looks forward to its successful completion."

Solomon Islands has witnessed another milestone event after the official groundbreaking ceremony for the country's mega national Hydropower Project, the Tina River Hydropower Development Project. Prime Minister Manasseh Sogavare officiated at the ground breaking,

CBSP wrap for 2022

For the past 2 years, the Community Benefit Sharing Project (CBSP) team, lead by Project Coordinator Francis Kapini, have worked tirelessly to deliver a program designed to enhance the positive impacts of the Project to the communities. Wrapping up a busy 2022, we spoke with Francis who explained what has been achieved with positive investment in basic services and infrastructure for the local communities.



(Left): Worker from Pacific Strata Drilling & Water Engineering Services, with drilling machine at the Rate Community High School. (Right): Local residents of the Tina Hydro Catchment area undergoing a CBSP funded training.

During 2022, briefly describe what activities happened under the Community Benefit Sharing Project?

Lots of activities took place but the main 4 areas of focus were :

- Water Supply Program with the completion of Tina, Sughina, Marava, Horohotu 3, Aretakiki, malatoha systems.

- 11Kv Transmission line construction in which 8.5km of 11Kv line was completed connecting 141 households.

- CBS fund with the completion of the options paper including public consultations, development of CBS Fund constitution and Operations Manual.

- PET and TVET training which saw more than 350 eligible community members participate and be trained in with pre-employment workshops or as a part of the partnership trade and vocational training with SINU.

A lot was achieved during the year, but in your eyes, what was a highlight for the CBSP program ?

I think the water program was a highlight for me especially because of the impact it has on the communities once they realised what was really happening and the water supply was going to be located right on their

doorstep. To relieve the difficulty for many of the women and young kids, who would toil almost daily many kilometres to fetch water, was the most rewarding part of the year and my personal highlight.

Can you give an example of when your team worked in collaboration with our communities to deliver on a part of a program element?

Throughout all program components, we worked closely with the communities but more so with the water projects. This project required significant community coordination had to be coordinated to ensure we got things right and put systems in places where they wanted them for maximum benefit and convenience. In some villages, the community members also helped moved equipment to site. There were cultural aspects as well to be considered so it was really important we worked in line with what was suggested by the communities.

What challenges did the CBSP team face this year?

There were many challenges faced. The pandemic was still affecting activity and then riots and aftermath caused some concerns. From within the Project, I think we also became a victim of our own success as people outside eligible Tina

catchment communities saw what others were getting from our programs. Again, the water investments being a big one. CBSP was built on the concept of community and common or public goods and after many years of consultation and building a fair and equitable program, some people still had expectations that were out of our scope. It is not always possible to please everyone.

Do you have any great stories of direct impact you have heard from communities?

A guy called me one night from Tina and told me he is actually taking a shower under one of the installed taps put in by CBSP. For a man to call someone, just to tell you he is excited to have a bath; says everything and tells me we have made a real difference.

What can we expect in 2023?

We can expect CBSP program to be extended therefore allowing us to finalise a few incomplete activities; being the CBS Fund and its Board, a few community water systems and the commissioning of the 11kv transmission line.

Local company behind the Tina River Hydro CBSP water supply program



(Left) The company's local drillers drilling the Mataruka 3 borehole. (Right) Mr Michael Rahe, center, with CBSP Coordinator Francis Kapini, and Boniface Talu, a local water expert hired by CBSP during inspection.

The construction of direct water supplies and improved sanitation to villages in the Tina River Hydropower catchment area has been a vital deliverable of the Community Benefit Sharing Project (CBSP).

As a part of the Tina River Hydropower Development Project (TRHDP) Implementation Agreement (IA), the CBSP team successfully delivered the project by engaging the expertise of local borehole drilling company – Pacific Strata Drilling & Water Engineering Services. The strategy is in place to ensure the Project helps build local business capacity which was achieved through fulfilling section 6 of the implementation agreement by procuring local contractors for the drilling activities.

Pacific Strata Drilling & Water Engineering Services is a family-owned local company. One of the Company's local employee has over 45 years of water well boreholes drilling experience worldwide, with a recognised Australian driller's license. He also has work experience in countries such as Fiji, Tonga, Samoa, Vanuatu, Australia and Thailand to name but a few and with that breath of knowledge in borehole drilling, the company is unmatched in the Solomon Islands and Pacific region.

In March 2022, the Pacific Strata Drilling & Water Engineering Services was engaged by the Tina River Hydropower Development Project (TRHDP) under the Community Benefits Sharing Project (CBSP) to work on the drilling component for the water supply and sanitation project. These systems were to be installed in public facilities and village centres in the Bahomea and Malango cultural areas, as well as the catchment communities of the Hydropower project.

A total of 16 boreholes, 7 of which were drilled by Pacific Strata Drilling & Water Engineering Services were completed in 2022, while

another local drilling company, Soldrill Services completed worked on the remaining 9. The bigger communities of the Tina River Hydropower catchment area, such as Rate School, Tina Village, Malatoha, Mataruka 1, 2, & 3, and Betivatu school were drilled by Pacific Strata.

This was with assistance from the Water Resources Division (WRD) within the Ministry of Mines, Energy, and Rural Electrification (MMERE), especially to complete drilling of two boreholes, at Rate school and Tina Community because their drilling machine is not capable of drilling in hard volcanic formation and deeper boreholes. MMERE also provided air compressor machine for development of all water well boreholes drilled by the local company. The WRD also provided High Pressure PVC pipes for the two boreholes drilled at Rate school and Tina River.

MMERE Water Resources Division provided High Pressure PVC pipes to SOL Drill company for 7 boreholes drilled. The MMERE Water Resources Division has professional capacity to assess groundwater and the drilling capacity of our machine is 200m for 165mm diameter borehole.

Early in 2022, the WRD provided drilling services to Hyundai Engineering Ltd at their camp site at Garivera and Office site at Tina. The deepest borehole drilled so far is located at Office site at Tina at depth 140m.

With the CBSP water supply and sanitation project, the Pacific Strata Drilling & Water Engineering Services management said, they are very fortunate to be part of its success.

"It's been a pleasure to be able to deliver high yield boreholes for the respective communities of the Tina River Hydropower project catchment area. The project has broadened our human resources capacity and experience, especially since all our boreholes were deep and high yield. This project has also enabled us to procure new

equipment and accessories targeted at drilling deeper wells for villages at high elevations should the need arises in the foreseeable future," a company statement said.

It added, the arrival of their new equipment, which costs over SBD\$500,000 through the CBSP outflows means the company is now ready for borehole drilling any formation, any terrain, any elevation and anywhere the need exists.

After the successful drilling of boreholes in the Tina Catchment area, it was rewarding to see the of relief of the villagers when the water started flowing. "It's always fun to see the reaction of the people when the air blasting of the water was conducted," it further added.

The Pacific Strata Drilling & Water Engineering Services also wishes to thank other local companies such as Tongs Corporation and Island Enterprises for supplying the materials for the borehole and water supply and sanitation project.

CBSP Coordinator, Mr Francis Kapini said the process for engaging the drilling companies and material suppliers was a direct selection process due to the limited number of companies in town able to work on drilling jobs.

"The Project directly selected Pacific Strata who could drill boreholes from 60 meters and more, while Soldrill Services was selected to for the 35-55-meter boreholes."

He added, "working with Pacific Strata Drilling & Water Engineering Services has been outstanding; they are a highly rated company with professional borehole drilling experts."

The CBSP water supply and sanitation project still has 12 more boreholes to complete in 2023 with Pacific Strata Drilling & Water Engineering Services in charge of work for the 3 larger boreholes.



The renewable roadmap ahead - where SIG energy policies and climate change adaptation measures meet

With the unstable cost of imported fuel in the Solomon Islands, citizens are feeling the pinch it has caused to their electricity budget. For an average size family, a \$100 spent for cash power can last a full week, but sadly that is no longer the case.

Less than 20 percent of the total population of 726,691 in Solomons have access to any electrical power. Many of the rural areas, which make up 80 percent of the population, still have no access to reliable electricity after 44 years of independence.

These are serious issues that need to be fixed. Let's be clear; access to electricity means better basic necessities for people such as healthcare, education and infrastructure. Recently, in an effort to put a concrete plan in place to increase energy sources, the Ministry of Mines, Energy and Rural Electrification (MMERE) delivered the Renewable Energy Roadmap; a policy to endorse projects that use renewable energy sources to access electricity, such as hydropower, solar and wind sources.

First off the rank to bring renewable energy to the island is a transformational national project, the Tina River Hydropower Development Project (TRHDP). This first of a kind, large scale utility renewable energy project is designed to dramatically increase the amount of renewable energy in the Honiara

national grid by nearly 70 percent and reducing reliance on expensive diesel power

While providing more affordable and accessible energy, Hydropower projects like Tina hold a double relationship with climate change as it contributes to the avoidance of greenhouse gas emissions from the burning of fossil fuels. With COP27, held in Egypt's Sharm el-Sheikh wrapping up in November, the world is watching as critical conversations take place that will shape the global agenda for years to come. Climate change has devastating effects on the Pacific and back in Sols, the Tina River Hydropower Development Project is doing its bit by addressing the reduction of greenhouse gas emissions.

That said, it is a positive step forward that the Solomon Islands Government is committed to initiating measures to enhance the country's energy efficiency and decrease the reliance on fossil fuels through solar and other renewable energy sources; which the Tina River Hydropower Project is leading.

Tina has also brought a focus on the renewable energy sector and highlighted the Solomon Islands great natural potential for hydropower resources. Mandated in the MMERE Renewable Energy Roadmap, the Government is aiming to deliver projects over the next decade that will provide 500MW of this energy

source to the country.

This roadmap follows on from the Solomon Islands Government National Energy Policy Framework (NEPF) 2007-2009 renewable energy goal to see the optimal utilisation of renewable energy resources. Apart from the NEPF 2007-2009, the National Government through the Ministry of Mines, Energy and Rural Electrification (MMERE) also announced in 2021 it is currently developing a National Energy Strategy (NES) to map out available renewable energy sources across the country.

The strategy is aimed at increasing renewable energy-powered electricity in rural areas while reducing diesel-powered engines in the medium to long term. It also aims to build new mini-grids in rural areas to provide electricity to support and boost socio-economic activities; a National Government priority to help build back better.

There are certain Government development policies and strategies, like the Renewable Energy Roadmap, that are of relevance to climate change mitigation. That means options for climate change mitigation are in place; focusing on the utilisation of renewable energy (hydro and solar) energy efficiency and conservation technologies as per government approved policies and strategies.

This is something that all Solomon Islanders can be proud

of. The reality is and as highlighted at COP27, also countries like Solomon Islands contribute minimal green-house gases into the atmosphere. However, being a Least Developed Country (LDC) as well as an island nation, it is alarmingly exposed to the impacts and associated risks brought on by climate change. Because of this, Pacific Island countries like the Solomon Islands and their governments, are encouraging countries with higher emissions to agree to a fair, ambitious and legally binding agreement to reduce greenhouse gases at the climate change negotiations as part of the United Nations Framework Convention on Climate Change (UNFCCC) - the UN entity tasked with supporting the global response to the threat of climate change. It is with no hesitation that Solomon Islanders are anticipating more support from around the world in the renewable energy sector and with Projects such as Tina Hydro. And with a dedicated Ministry focused on positive change and an endorsed roadmap to follow, more affordable, reliable and cleaner energy is just around the corner.

The Tina River Experience

A distinctive model for benefiting customary land owners

Genuine partnerships between landowners, community, Government and commercial entities are not just important for sustainable development; they are absolutely essential. This has been proven by the Tina River Hydropower Development Project (TRHDP) in Solomon Islands, where the flagship renewable energy project will provide more affordable, reliable and accessible power to its people and put Solomon Islands at the forefront of the new green global economy. As well as these essential benefits, Tina has also paved the way with the development of an innovative and unique transactional model; allowing customary landowners to partner and benefit long term from the national Project.

Understanding the dynamics - Solomon Island landowners

Solomon Islanders normally describe themselves as landowners, not landholders, and this is true: more than four-fifths of the land mass of the country remains customary in nature. It is not subject to any central governing or formal administrative structure or process but is subject to the organic and complex workings of social, cultural and spiritual relationships that permeate it. Customary land is the ultimate indigenous terrain – where non-tribal authority including the independent state of Solomon Islands, does not even have records. The complexities of customary land is often one of the difficulties for large “development” projects to access such land and is the working reality when thinking about arrangements between landowners and would-be investors, including the government.

As uncovered during many years of deliberate and considered consultation during the Tina process, the Solomon Island landowners actual desire can best be expressed as the notion of “partnership”. Instead of “putting up” one’s land for commercial finance, landowners often express a preference for partnership, in which they retain hold of their land while offering its use to a potential partner who would bring to the deal knowledge, capital and commercial nous. Together, this partnership binds two parts of a package which contributes to a profitable and successful ongoing relationship.

This “partnership” is the holy grail of the great majority of landowners, and the professed desire of many investors as well. Despite this, achieving it in practice has proven extremely difficult; until Tina.

The forming of a partnership - Tina Core Land Company (TCLC)

Based on years of consultation and lessons learnt through other in-country commercial arrangements with customary landowners, a different and innovative approach was required

for Tina to be successful. And a model needed to be created unlike anything previously used in this developing country. The result was the establishment of the Tina Core Land Company (TCLC); an entity set up with a 50/50 percent partnership between the Solomon Islands Government (SIG) and the 5 traditional landowning tribes. The TCLC was established in 2019 to hold the perpetual title of the acquired land, and administer the acquired land on behalf of SIG and the landowning tribes.

The TCLC was specifically structured to capture land compensation; an arrangement designed to fairly compensate the 5 Core land Tribes whose land was acquired for hosting the Project’s infrastructures. It is intended that the funds can be used to trigger commercial investments for the benefit of the tribes who also hold shares in the Tina Core Land Company(TCLC). The TCLC, being a functioning commercial entity, operates with an organisational structure that assumes responsibly to support the growth of the tribal cooperatives. It also has a solid working relationship via a commercial contract with owner/operator Tina Hydro Limited (THL) through which a land lease agreement is in place.

The model will not only capture the lease payment but also an income stream from the eventual power sales for the Cooperatives. To get the best out of this innovative approach, stringent governance has been applied by a Board composing of 5 SIG representatives and 5 representatives from the Tribes elected by the people. Importantly, the Board ensures the ongoing transactions, which occur from the lease payment made by Tina Hydro Limited (THL) as the lessee in the Land lease agreement, are well invested for the benefit of the tribes. Supporting this entity are also dedicated resources within the SIG Project Office who provide liaising roles for members of the 5 core land tribes who seek information relevant to the Co Op.

This robust model was developed in addition to the already established Community Benefit Sharing Project (CBSP) which is in place to gain the social license for the investor to be part of this cultural community. The CBSP’s sole purpose is to administer benefits that will be captured from the revenue stream that will be generated once the hydro power system is operational. The CBSP is not directly related to land compensation; it is a benefit that is due to the Project host communities despite them not having any of their land acquired for the project. To ensure the above model is successful, it is important that both the Community Benefit Sharing Project and TCLC model work in parallel.

What Tina can teach others – a model to replicate

Tina River Hydropower Development Project has tackled the difficulty of customary land ownership by building a

partnership as an absolutely fundamental foundation and in so doing has developed a model which acts:

- To register, title and commercially secure customary land without the original customary owners losing it.
- To create an equitable long term partnership between the government and indigenous landowners. This can be seen in the example where representatives from the 5 tribal groups are a part of the TCLC board and also make decisions with their Government counterparts.
- To host a multi-hundred million dollar plus infrastructure PPP investment (a hydropower dam, lake and power station) on the land held and governed within the framework of the said partnership.
- To provide a combined solution for the entire arrangement within a broader context of benefit sharing arrangements with the related tribes and communities who jointly host

the project in their community, but whose land is not being used for the project.

The ongoing success of the TCLC will play a major role in helping the country fully realise gains and tangible public benefits from Tina. Years from now, long after the infrastructure has been built and the electricity is powering, generations of Tina catchment communities will still be benefiting thanks to this model. Better still, the Solomon Islands is in a remarkable position to teach so much to its Pacific neighbours; having paved the way with a customary landowner model that works for infrastructure developments, investors, its people and country.



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