



SOLOMON ISLANDS

Health & Safety Snapshot and Case Studies

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TINA RIVER HYDROPOWER DEVELOPMENT PROJECT (TRHDP)

Affordable. Renewable. Sustainable.

Reducing the cost of electricity to power a brighter future
and making a positive impact on the environment.

#tinahydro



Case Study One – TINA RIVER HYDROPOWER DEVELOPMENT PROJECT (TRHDP)



» Project:

- First renewable energy project with a planned capacity of 15 megawatts (MW) – large-scale infrastructure project designed to help lower the high cost of electricity in Solomon Islands.
- Public-private partnership project whereby Korea Water Resources Corporation (K-water) and Hyundai Engineering Co., Ltd (HEC) are the sponsors of the Project Company – Tina Hydropower Limited (THL, the Developer).
- THL will develop, construct and operate the hydro plant under a power purchase agreement (PPA) for 35.75 years. For reading purposes see link <https://pressroom.ifc.org>
- Has four components: **Access road, dam facility, 66Kv transmission line and, Technical Assistance/Administration.**

» Environment and Social Management Plans (ESMPs)

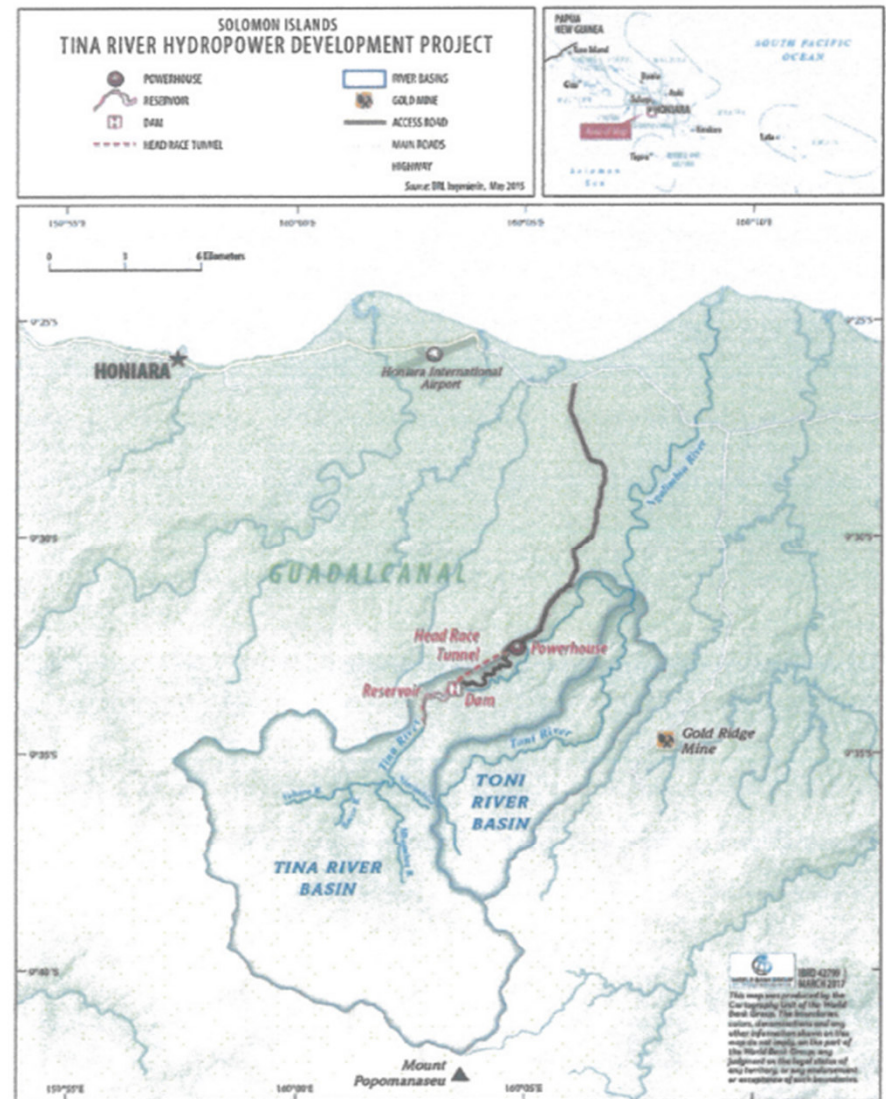
- THL & HEC – has 31 plans – see link: <https://www.tina-hydro.com/project-esmps/>
- PO – has 7 plans



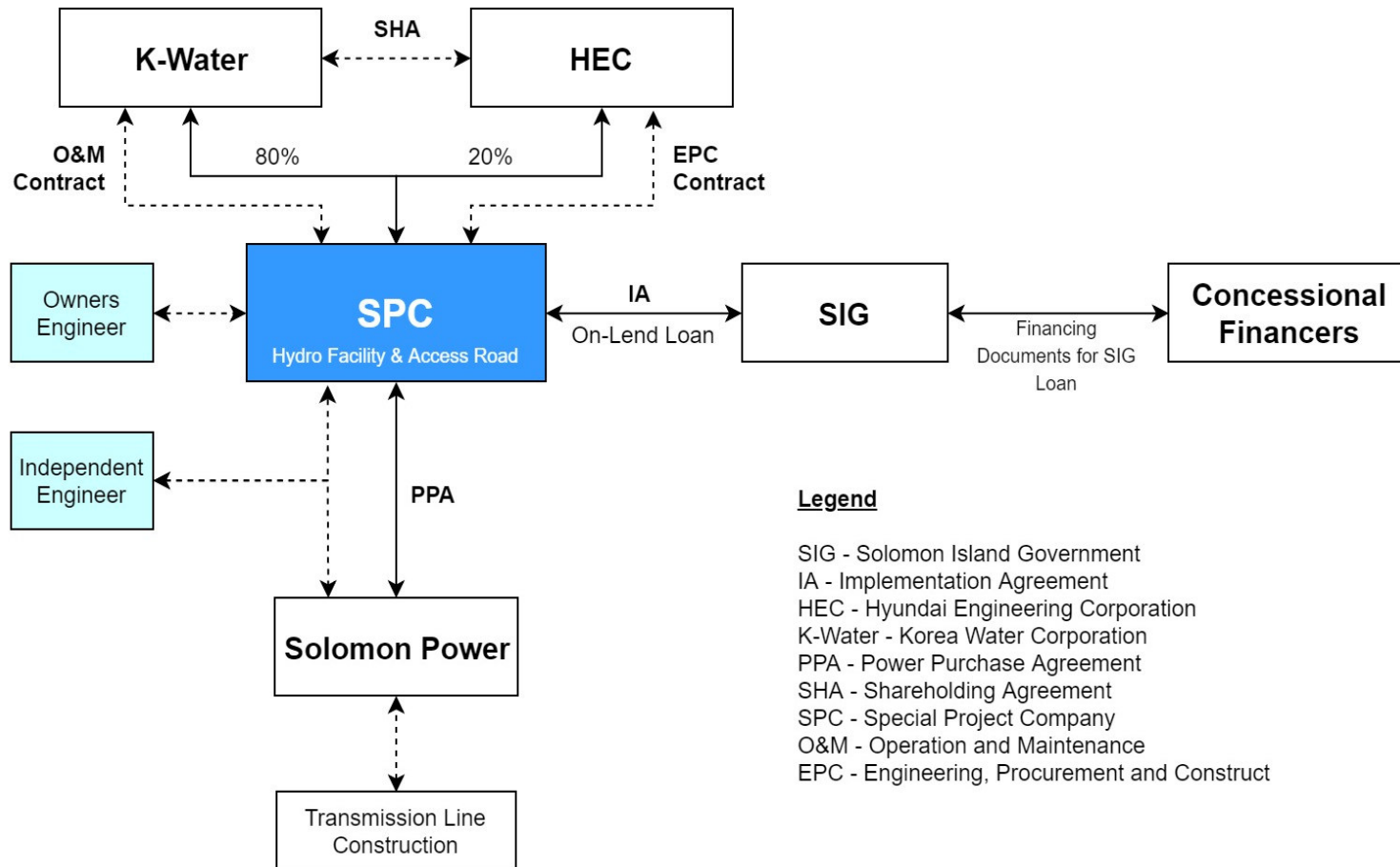
Right: Map of Tina Hydro Site.
 Left: Map of Solomon Islands.



Figure 1: Map of Project Area²



Project Implementation Structure



Case Study One – TINA RIVER HYDROPOWER DEVELOPMENT PROJECT (TRHDP)



- » **Health and Safety Practices of TRHDP (in ref to P8-WHSMP and P11-TMP others include P11-TMP, P9-WCC, P7-SMP)**
- Risk hazard assessment; daily toolbox meeting; Safety training; daily inspections on tools/equipment; observations (Unsafe Acts/Unsafe Conditions).
- Road safety features and traffic control devices like the 'stop-go signs'; warning/traffic lights; crash cushions; cones; drums, others.

» **Issues**

HEC's Experiences :

- Labor and working conditions – not H&S related but could lead to some H&S issues.
- Resourcing – not enough capacity (only one H&S training officer at HEC).
- Language barrier.

Key Issues identified by PO

- **Non-compliance – issuing of NCRs to Contractor is ineffective – so what is the next step after NCRs are issued...?**
- **Near miss chances/incidents and accidents (unreported) – PO received reports from general community members.**

» **Outcome**

- High turn-over – workers leaving and look for other jobs.
- Time consuming when preparing for regular training on E&SS and H&S.
- High tendency that workers did not get the key messages on H&S matters (a concern).
- **More grievances/complaints raised by community people (e.g., on water supply system) – this indicates that the NCRs that are issued by THL/OE effect on the Contractor.**

Country Specific H&S Challenges – SOLOMON ISLANDS



» Geographical led Challenges

- Steep terrain – risky, worker’s safety is a priority, communities downstream affected, instability of slopes.

» Sectorial led Challenges

- Budget issues – Energy sector not supportive to PMO with issues related to H&S.
- Lack of M&E for compliance regarding permits (between MMERE & THRDPO).

» Other country specific led Challenges

- Weather conditions – affect construction works.
- Workload and overtime (monitoring night works).
- Worker’s insurance.



Project Construction Sites – Lot 2-2 and Lot 3



LOT 2-2 Earth works



H&S Opportunities/Solutions– SOLOMON ISLANDS



» Geographical based Solutions/Opportunities

- Project coordination meeting – teams meet and discuss issues such as labor and working conditions of HEC workers, water supply.
- Development of a monitoring plan to monitor and assess the Developer’s DC in regard to E&SS or H&S– in progress (PO and MECDM).

» Sectorial based Solutions/Opportunities

- Strengthen the network and collaboration between TRHDPO & MMERE (and other relevant SIG Ministries) and monitor the Developer’s and Contractor’s permits/DCs, ESMPs and other H&S matters.

» Country based Solutions/Opportunities

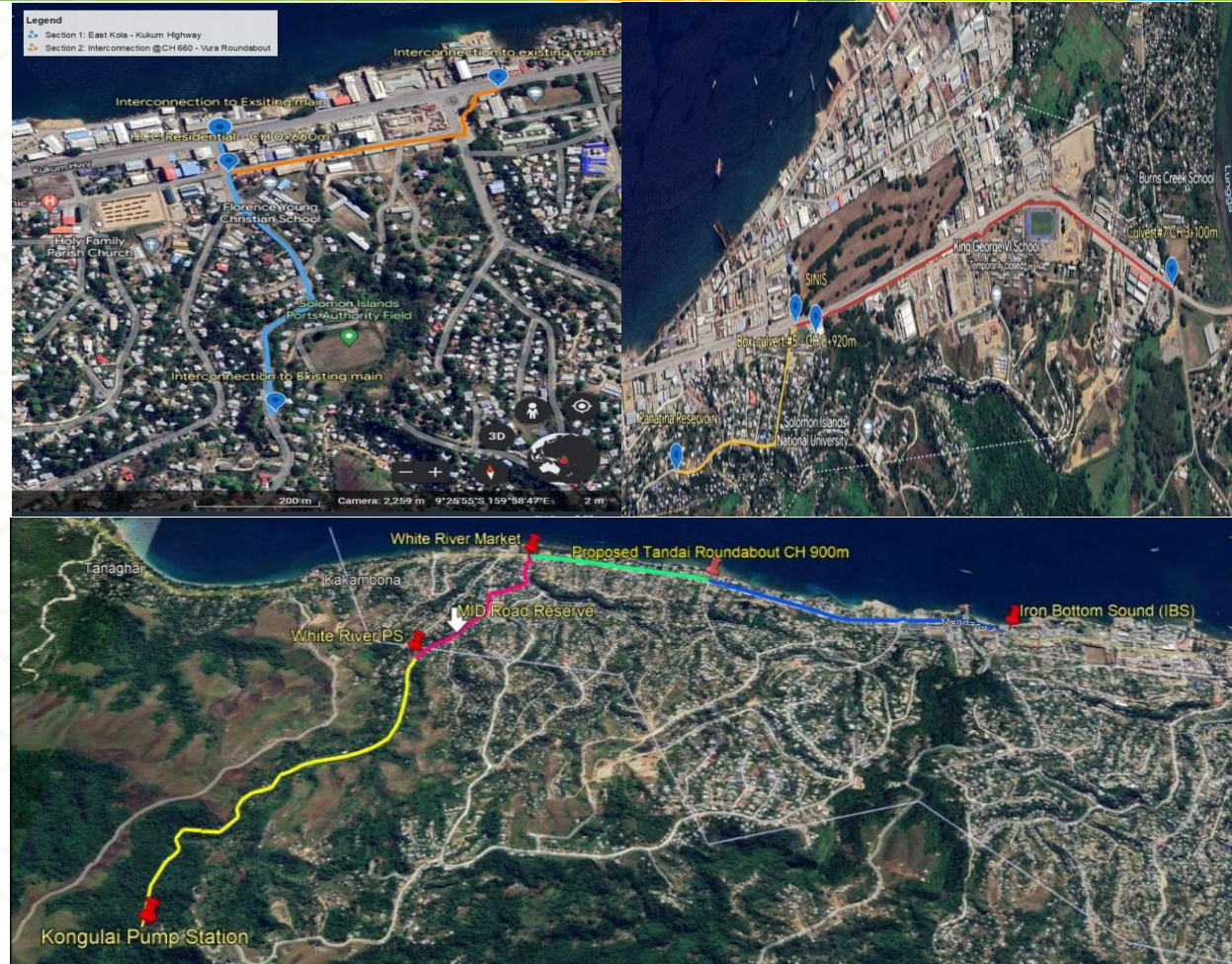
- Financing – to compensate for OT and workload in staff or, including all staff.
- Training on H&S to build and empower Project teams esp. E&SS and H&S Officers.
- PO provide support to Contractor (HEC) and improve their work on H&S – through networking with the Banks.



Case Study Two—HNWS TRUNK MAIN UPGRADE

» Project

- Solomon Islands Water Authority trading as Solomon Water is the implementing agency and Pacific Engineering Projects (PEP) is the principle Contractor for this project.
- Construction of 10.16km HDPE water main.
- To increase water supply distribution capacity.



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Case Study Two— HNWS TRUNK MAIN UPGRADE



» Issue

❑ Safety & Timeframe: Multiple Contractor working on site, Communication, existing utilities, Public, contractor compliance, lack of compliance enforcement by relevant authority, Resources, Weather.

» Outcome

- Increase stop works
- Weekly coordination meeting with other Contractors and Utilities
- Increase monitoring, site inspection, design work – overwork
- Delays in review of construction methodologies/management plans.
- High Inefficiency

Country specific H&S Challenges – SOLOMON ISLANDS



- » Geographical led Challenges
 - UXO
 - Property encroachment
 - Terrain
 - Access to network - communication
- » Sectorial led Challenges
 - No safe work practice codes available.
 - Lack of resources – low income
- » Other Country challenges
 - Poor safety culture

Case Study Two— HNWS TRUNK MAIN UPGRADE



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H&S Opportunities/Solutions– SOLOMON ISLANDS



» Geographical based Solutions/Opportunities

- UXO Survey
- Community consultation/coordination with relevant authorities.
- Site specific method statements
- Communication plan

» Sectorial based Solutions/Opportunities

- Capacity Building – specific training construction site safety (H&S), calibration of machine etc.
- Provide resources on safe work practice.

» Other country solutions/opportunities

- Provide training and relevant resources on H & S.

Case Study Three– Land Marine time Connectivity Project



» Project

- Rehabilitation and upgrading of about 3.29km of roads in and around Honiara



Case Study – Land Marine time Connectivity Project



» Issue

- Land Issues – Assets
- Property issues – Non-land Assets
- Drainage outlets – within residents along the road

» Outcome

- Consultation
- Government compensation

Case Study – Land Marine time Connectivity Project



- » Geographical led challenges, solutions/opportunities
 - Topography and Terrain
 - Climate and weather pattern
 - Solutions/recommendations
- » Sectorial based challenges, solutions/opportunities
 - Budget constraints
 - Project scheduling and coordination
 - Solutions/recommendations
- » Other country specific solutions/opportunities
 - People behaviours (respect road reserves, whereas in SI - No)



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