IFLA ASIA-PACIFIC
INTERNATIONAL FEDERATION
OF LANDSCAPE ARCHITECTS

Project Sidara

Timor-Leste

8°33’51.8”S 125°39’51.9”E
(-8.5643784,125.6644173)

A Resilience Building Initiative by IFLA APR

IFLA ASIA-PACIFIC
INTERNATIONAL FEDERATION
OF LANDSCAPE ARCHITECTS

Project Background

Timor-Leste

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INTERNATIONAL FEDERATION OF LANDSCAPE ARCHITECTS

AAPME

Africa Asia Pacific Middle East

AWARDS 2018

RESILIENCE BY DESIGN

Initiated by

IFLA ASIA-PACIFIC

INTERNATIONAL FEDERATION
OF LANDSCAPE ARCHITECTS


Culture and traditions


Heat Islands and Fire Resistance


Economic Viability


Natural Disasters and Weather Extremes


Flood and Water Management


Wildlife, biodiversity, habitat enhancement or creation


Food Security and Production Systems


Social and Community Health

IFLA ASIA-PACIFIC
INTERNATIONAL FEDERATION
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Resilience building project for Community

Timor-Leste

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Project Sidara, Hera

Timor-Leste

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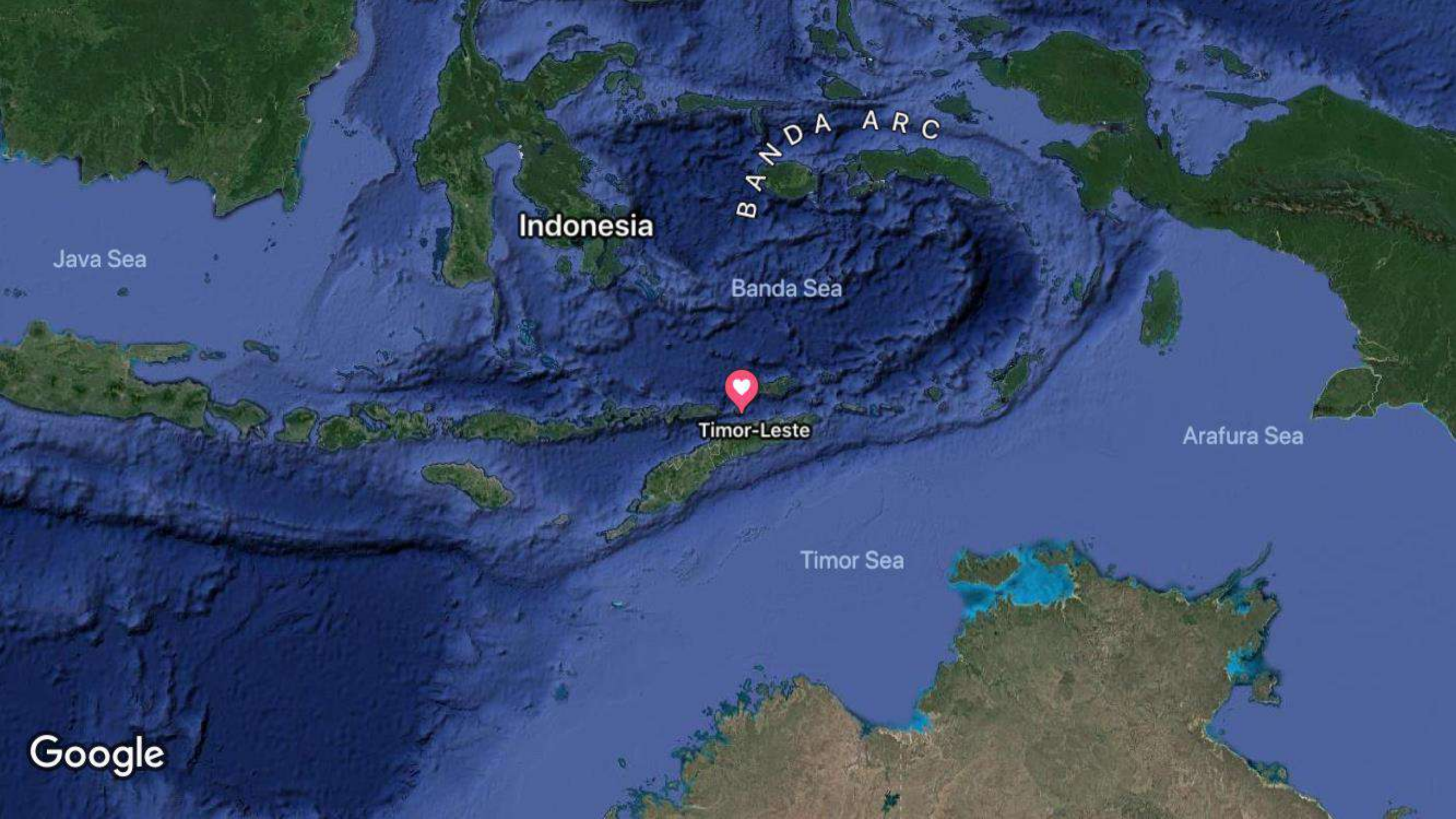
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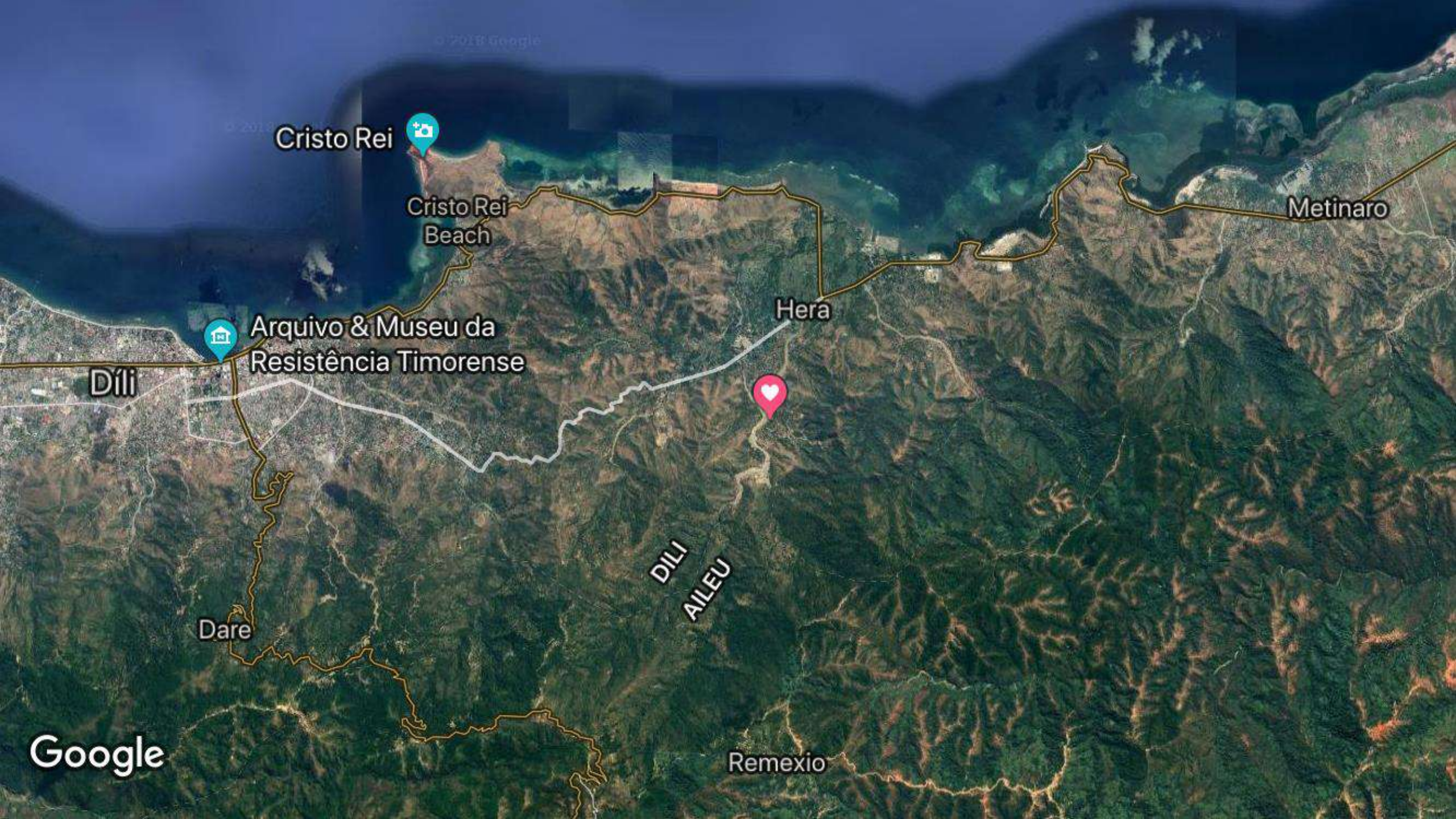
Cristo Rei
Cristo Rei Beach
Metinaro
Hera
Arquivo & Museu da Resistência Timorense
Díli
DILI
AILEU
Dare
Remexio
Google

Background - Crisis in Timor-Leste

- 2006/2007: Crisis in Timor.
- Branca is a volunteer who served in refugee camps in Hera. Her own home became a camp!
- The catholic church was closed because of the crisis and many people started attending the Sidara church.

Crisis in Timor-Leste

- During that time, she discovered many disabled people in the community. Started ministering to the disabled.
- Shared vision to others and people helped to buy land beside the current house for the Disability centre.

Terence & I work closely with Branca, a volunteered nurse from an Australian NGO, who has lived among the community for 16 years, serving in the area of education, health and community development.

PROJECT SIDARA | TIMOR LESTE

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- A project that will impact 6 villages with around 225 families in this area
- Providing them economic viability, clean water and sense of purpose

We worked with Branca and focused on the community centre of Sidara that could impact the village. This centre has
- a clinic
- birth delivery centre
- community farming
- a church
- Sunday school

1. Living condition of the villagers in Sidara

- There are 6 villages with around 225 families in this area.

- Most live in houses made from palm fronds, some live in concrete houses with zinc roofs. Most people have dirt floors, some who have income from work have cement floors. During the rainy season, rain water drips into some houses – poor/damaged roofing.

- The majority of homes are overcrowded, with sometimes up to 3 families living under one roof.

- General hygiene(washing hands, taking showers etc) is a major concern. Most people still rear their animals near/inside their home compounds, sometimes the animals enter into their kitchens.

- 15 years ago when Branca visited the community where the water source is, she found out that many children were dying from diarrhoea, from the contaminated water source.
- She then started a water project in that community to protect the water source – fencing it up, covering it and piping the water to the homes. Lives started improving as the water quality improved.
- 4 years ago, Branca visited the water source and found that there wasn't maintenance done and most of the covering/protection for the water source was destroyed. Many have diarrhoea and water related sicknesses now because they have been drinking from a dirty water source directly. There are also skin problems related to a contaminated water source

2. Water quality and supply

- There is no running water in the homes.
- Limited water source from the mountains.
- Contaminated water source from nearby river during occasion rain season

Micro-financing projects - to give jobs to women and youths; and breaks the spirit of poverty

Wall to keep out rushing water during flood

Wire fencing cannot keep out wild animals

Huge water shortage

tank cost USD500/each

SPONSORSHIP FUND RECEIVED (as of 20 Feb 2019)

Name	Company	Amount
Mr B Gurumurthy	Landscape Engineering Pte Ltd	SGD 5,000.00
Mr James Lim & Ms May Choo	Uniseal Global Pte Ltd	SGD 5,000.00
Mr Tay Kerk Khong	–	SGD 2,000.00
Mr Siah Hung Wee	CPC Construction Pte Ltd	SGD 2,000.00
Mr Cheong Yow Kin	–	SGD 1,000.00
Mr Eng Lam Goh	BNL Services Pte Ltd	SGD 1,000.00
Mr Jason Sim	Playpoint (Singapore) Pte Ltd	SGD 1,000.00
Mr Eng Tok Ching Kenny	Nyee Phoe Flower Garden Pte Ltd	SGD 1,000.00
Mr Eng Tok Ching Kenny	Gardenasia Pte Ltd	SGD 1,000.00
Mr Kenny Tan	LINK (THM) GROUP	SGD 1,000.00
Mr See Hwa Neo	TENarchitects	SGD 1,000.00
Mr Simon Kong	SD ARCHITECTS & ASSOCIATES PTE LTD	SGD 1,000.00
Mr Terence Tan How Moh	Greenearth Landscape Designers & Planners	SGD 1,000.00
Mr Kenneth Tong	De Electrical	SGD 1,000.00
Mr Damian Tang	–	SGD 1,000.00
TOTAL		SGD25,000.00

Additional contribution		
Mr Damian Tang	– Up to SGD 2,000.00	to cover flight, accommodation and on-site management & supervision; personal contribution
Mr Terence Tan	– Up to SGD 2,000.00	to cover flight, accommodation and on-site management & supervision; personal contribution
Mr See Onn Yeow	– USD 500.00	to cover additional tank cost and surface piping works; personal contribution
Mr Lim Kok How	– SGD 100.00	to cover farming basic tools, seeds and supplies; personal contribution

More than SGD 25,000.00 raised for the project!

Project Anchor Sponsor:

Landscape Engineering Pte Ltd

Uniseal Global Pte Ltd.

Phase 1 - CONTRACT SIGNED WITH H2O Australian water boring company
(on 22 Feb 2019)

PUMP & POWER

Contract Agreement
Drilling & Construction of 1x Deep Well and Supply and Installation of Well Pump System

PREAMBLE

This Contract is made this **19th of February, 2019** between **International Federation of Landscape Architects (IFLA)-Asia Pacific Region** (herein after referred as CLIENT) on one part and **H2O PUMP & POWER** (herein after referred as CONTRACTOR).

WHEREAS the Client intends to drill **1x deep well and supply and install one x set well pump system** at Sidara Sisters' Site, in Hera, Timor Leste as per Quotation dated 29/10/2018.

AND WHEREAS the Contractor has agreed to undertake said works subject to the terms and conditions hereunder.

GENERAL OBLIGATIONS

Working Relationship
The Client and Contractor shall work together in a spirit of co-operation and goodwill with the aim of completing the work in a timely manner, to the appropriate standard and to the benefit of all parties involved.

Contractors General Responsibilities
The Contractor shall with due care and diligence carry out and complete the works in accordance with the provisions of the Contract. The Contractor will supply all necessary tools, machinery, materials (including screens and plain casings) and labour to carry out the work, unless specified otherwise in the Contract.

Clearance of Site
Upon completion of the works the Contractor shall remove from the site all equipment, tools, surplus materials, rubbish and temporary works and shall have the site clean and in a condition to the satisfaction of the Client.

Client General Responsibilities
The Client shall pay the Contractor the sum of money due to the Contractor in accordance with the provisions of the Contract.

TIME

Commencement of the Works
The Contractor shall commence the work on the **25th March 2019** - unless subject to special instructions from the Client.

Completion of the Works
The whole of works should be completed within a time period of 2 weeks or such extended time as may be allowed under the Contract or agreed between the parties.

TOTAL CONTRACT VALUE

Item	Description	Quantity	Rate (US$)	Amount (US$)
01	Mobilization-Demobilization, Preparation Services & Cleaning Up On Completion	1	-	Inclusive
01	Drilling Services Package (0-70m)	0-70m	-	15,000.00
02	Supply & Install Well Pumping System	1 Set	-	Inclusive
	TOTAL CONTRACT VALUE			**15,000.00**

H2O – We Work On Water

PUMP & POWER

Where the Contractor is instructed by the Client to drill to depths in excess of 70m then any additional cost will be at $150.00 – per meter.

Payments under this contract cannot exceed the total contract value stated above without authorization from the Client.

PAYMENT

First payment of 50% of Total Contract Value equal US$7,500.00 is required upon the signing of contract.
Second payment of 50% balance remaining of Total Contract Value equal US$7,500.00 will be made upon completion of drilling construction & well pump installation work.

In the event of dry wells H2O cannot be responsible. These are risks associated with drilling, charge will be lump sum of US$10,000.00.

UNFORESEEN EVENTS OR CONDITIONS

Should any event or condition occur which could not have been foreseen by a Contractor and is out of the control of the Contractor; which causes delay and/or additional expenditure and/or renders the work impossible to perform then the Client and the Contractor will agree a suitable change to the Contract.

SIGNED FOR / ON BEHALF OF THE CLIENT

Signature: .....

Name: Damian Tang

Occupation: Project Lead

Address:
20 Bendemeer Road,
BS Bendemeer Centre, #04-02,
Singapore 339914

SIGNED FOR/ON BEHALF OF THE CONTRACTOR

Signature: .....

Name: DVI FOR LEON MERINGTEN

Occupation: OPERATIONS MANAGER

Address:
H2O Compound
Comoro River Road
Dili, Timor Leste

H2O – We Work On Water

PUMP & POWER

TECHNICAL SPECIFICATION

1.1 SCOPE OF WORKS
The works comprises the drilling and construction of one water borehole in Hera, Timor Leste.

1.2 DRILLING SITES
The Client will indicate to the Contractor the sites to be drilled, if necessary the Client may request the Contractor to carry out geophysical survey. The Client will ensure that the communities have given any necessary permission for the use of the land where the drilling is to be carried out. The Contractor will clear all debris, of any kind, and leave the land as far as it is possible in its original condition (site restoration) after the borehole has been constructed, developed and tested.

1.3 BORE STATEMENT RECORD
On completion of borehole the Contractor will supply to the Client a detailed bore statement composing a record of the appearance of the water, soil sample and rocks encountered, type and size of borehole casing, position type and size of screen, development activities and any other relevant construction details.

1.4 BOREHOLE SPECIFICATION
Borehole will be drilled and completed according to the specifications provided in Contract and actual conditions found on site, using proper drilling tools, drive pipes, temporary casings, casing pipes, gravel packs and sanitary protection, based on actual characteristics of aquifer formations, which are considered unsuitable for exploitation of the wholesome water.

Proposed drilling method: Drill 8-1/2" hole till hit the bedrock and install 6" steel casing into the hole, then continue with air drilling to drill 6" hole through the bedrock. Once the drilling is succeed the borehole will be equipped with the following:

- Base plug
- Sedimentary sump
- Machinery Slotted 4" UPVC Screen
- 4" Casing UPVC PN8 or PN12.
- Stabilizing Pack 3mm – 5mm
- Bentonite Seal.
- Sanitary Seal and tapered cement slab.
- Bore Cap

Borehole drilling average depth expected to be from 50 meters to 70 meters.

1.5 DRILLING
The Contractor will use drilling equipment capable of drilling to a depth of 50-70m as proposed by Driller.
If water of sufficient quantity of minimum 0.5 LPS (litre per-second) is not found then the borehole will be designated as dry and the Contractor will backfill it according to the drilling rules.

1.6 FORMATION SAMPLES
The Contractor will take at least one sample every 3 meters during the drilling and at every change in formation and the Contractor will keep a record of soil strata.

1.7 GRAVEL PACKING
A properly stabilizing pack of size 3mm-5mm will be placed in the annular space between the whole wall and the outer face of the casing according to the recommendation of Driller.

1.8 GROUT SEAL AND BACKFILL
A bentonite grout seal of minimum 1m length shall be placed above the gravel pack. The annular space shall then be back filled with suitable inert material.

1.9 BOREHOLE DEVELOPMENT
The Contractor will develop the borehole by air-lift flushing or surging for a period of at least 4 hours. Prior to development the borehole will be sounded. Following development the borehole will again be sounded. Any sediment

H2O – We Work On Water

PUMP & POWER

which has settled in the borehole will be removed. If the sediment is more than 0.5m in depth this indicates a fault in the borehole construction. The Contractor will take any necessary steps to remedy the fault.

1.11 PROTECTION OF THE BOREHOLE DURING CONSTRUCTION
Maximum care shall be taken to avoid the physical, chemical, or bacteriological contamination of the borehole water during construction. If the borehole is contaminated due to Contractor's negligence, the Contractor will be obliged to remove the contaminant from the borehole at his own cost.

1.12 SANITARY PROTECTION SEAL
The entire borehole shall have a proper protective sanitary seal cast in concrete by the Contractor. The protective seal shall be placed minimum from 3.5m below ground level to 0.25m above ground and will occupy the annular space between the whole wall and the outer face of the casing.

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Phase 1 - SITE PREPARATION WORK commenced on 15 March 2019

Tractors mending some paths into the village

Entering the village through the river

Making sure works are within the land boundary

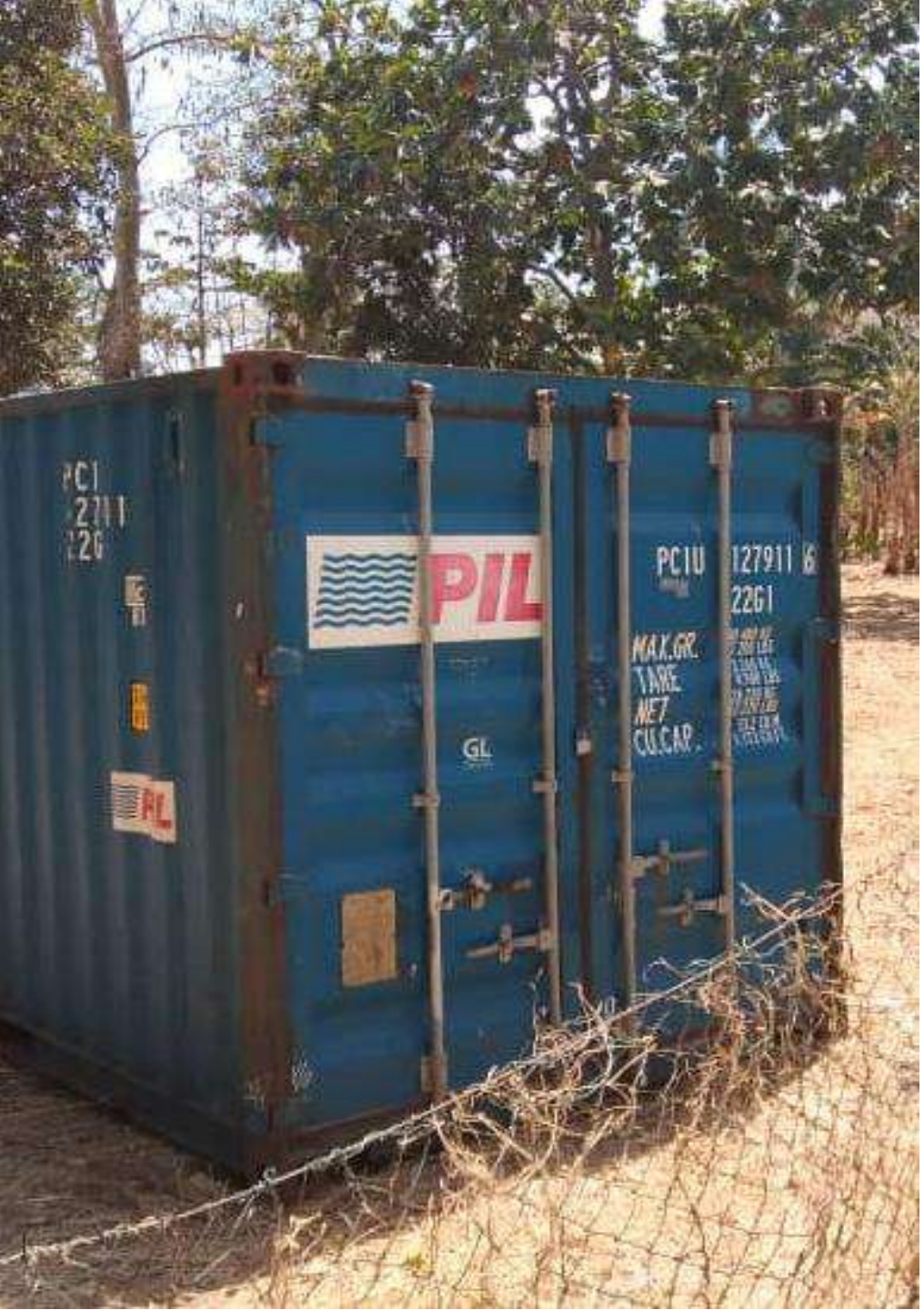
Supervision for the excavation and preparation to be done right

Phase 1 - BORING WORK commenced on 21 March 2019

Setting the boring machine in place

Water brought from Dili to lubricate the drill preventing it from overheating

Using drill size 8-1/2” to hit bedrock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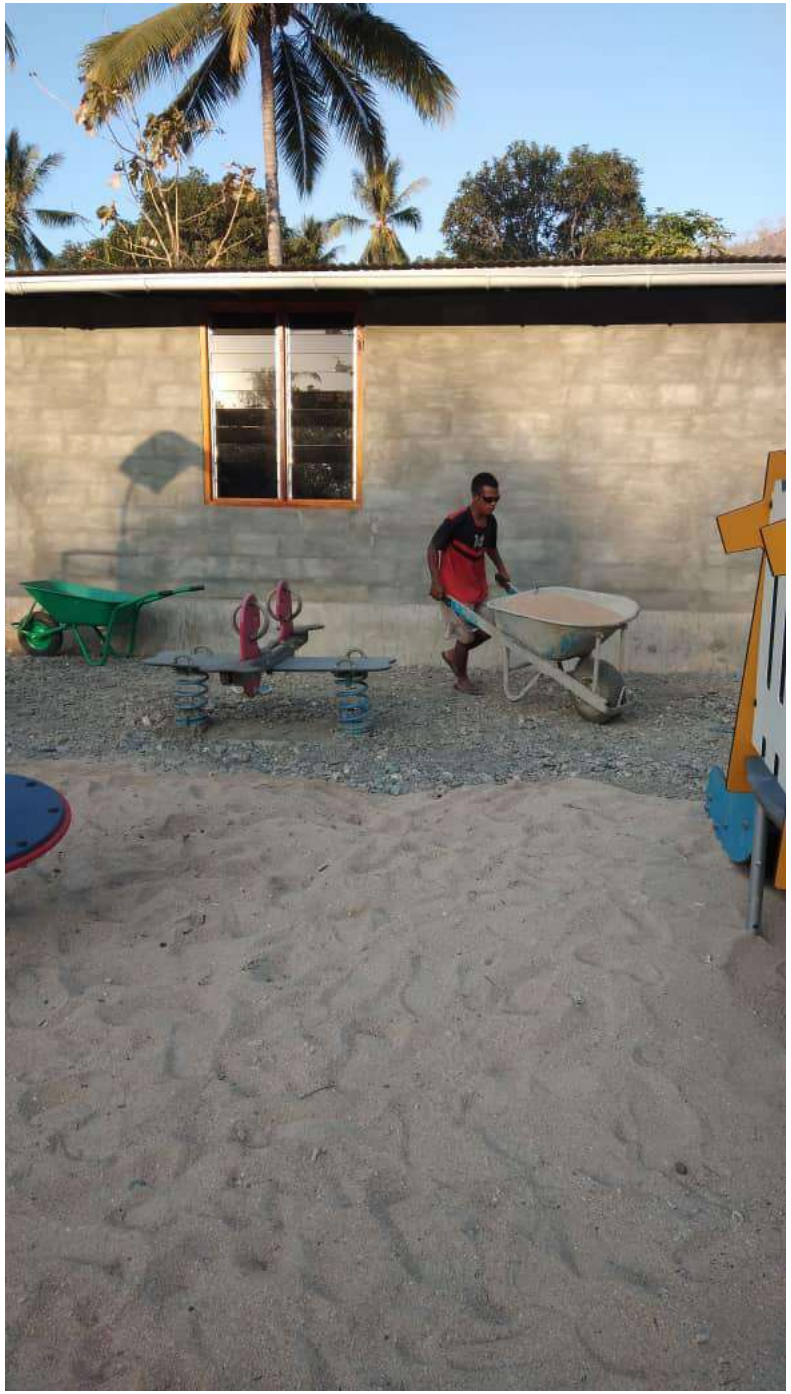
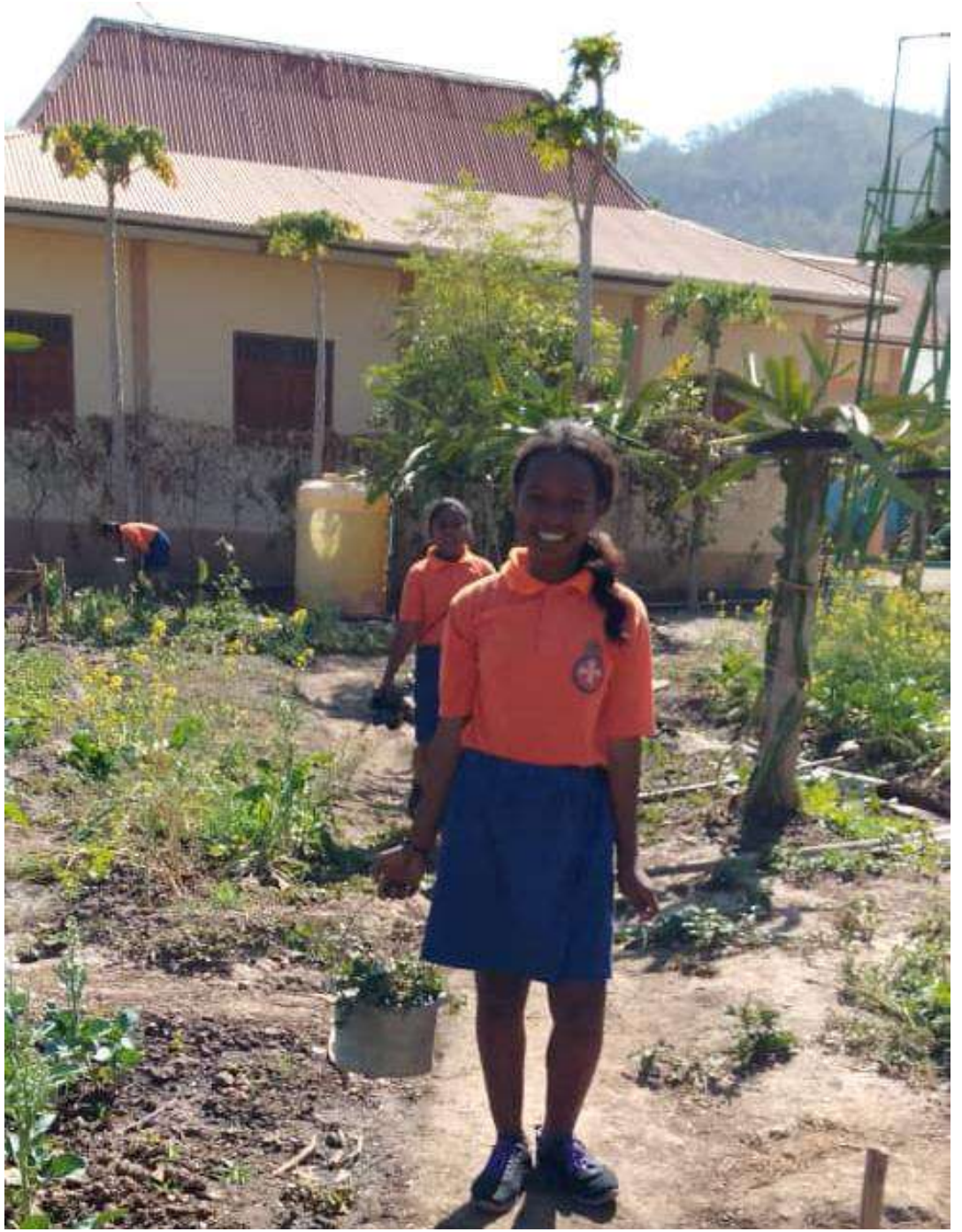



PHILIPPINES



USD 20,000 sponsorship
9 months completion
Playground sponsor by Playpoint
Logistic sponsor by PIL Shipping
2 Landscape Architects
1 Project Manager

More than 300 families and children benefitted!

Project Moris Foun Hera, Timor-Leste

The Next Community Project

Hospital site for the poor

[USD26,000 Sponsorship confirmed]


SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

Call for Resilience Building Fund for Project XX

Target **USD xx,000**

Objectives and Targets

- **For drilling pipe well & water tanks**
- Improvement of the small community farm & earthworks
- Stormwater management against flood during heavy rainfall (about 2x a year)
- Cultivate livelihood skills sets and learning from Landscape Architects

Target Sponsorship deadline by xx 2021

- All supporting companies and organisations will be acknowledged in IFLA Asia Pacific region newsletter.
- All proceeds go directly to the implementation cost without third party or agent cost.
- The project status will be updated regularly to the supporters.
- Denominations of minimum SGD1000 is appreciated
- Cheque made payable to **MCI Group Asia Pacific Pte Ltd**
- No administration charges by IFLA Asia Pacific region or third party