



Laindatang
Water
Connections



LAINDATANG WATER CONNECTIONS PHASE III

Building access to clean water and sustainable connectivity for the residents of Laindatang School and residential areas

Introduction

The residents of Laindatang primarily rely on rainwater storage for their daily needs. However, during the dry season, they must travel approximately 4–6 kilometers uphill to fetch water from springs or purchase it from tanker trucks. Unfortunately, these trucks often refuse to make the trip due to poor road conditions, rendering water access in the village unreliable.

The scarcity of water also affects hygiene and health. Some residents reported bathing only once or twice a month when water supplies are nearly exhausted. Consequently, efforts to maintain healthy living practices in Laindatang are severely hindered.

Laindatang Village and its school are located in East Sumba Regency, East Nusa Tenggara Province, Indonesia. The school is approximately 25 kilometers from Waingapu, the capital city of East Sumba Regency.



Project Location

Laindatang Village is nestled among the rolling hills of Sumba. It is located in Mbatakapidu Village, part of Kota Waingapu Subdistrict, East Sumba Regency. The village is also home to Laindatang Elementary School.

Beneficiaries

The total beneficiaries of this project are 190 people, consisting of:

- 100 individuals from 19 households in Laindatang Village
- 90 individuals associated with the school, including 13 teachers and 77 students

Laindatang's Clean Water Facilities Are Now in Use

Laindatang Elementary School and the neighboring Laindatang Hamlet have successfully benefited from three phases of the #waterconnections project, with the clean water facilities now fully operational.



About Laindatang Water Connections

The Laindatang Water Connections project is a social initiative organized by the Kawan Baik Indonesia Foundation, fully supported by the Fair Future Foundation. The project focuses on providing clean water access to remote areas, particularly in Laindatang Hamlet and its surrounding areas.

To date, two phases of the project have been successfully completed:

- Phase One: Optimization of rainwater harvesting connectivity and malaria detection.
- Phase Two: Water and sanitation connections for Laindatang Elementary School.

This project involves various local stakeholders, including the East Sumba Regency Government through the Departments of Education, Health, and Public Works. Key collaborators alongside the Kawan Baik Indonesia Foundation include the Fair Future Foundation, Rotary Australia, and supporters such as Kemika, Bali Soap, Sumba Volunteers, the Mbatakapidu Village Government, individual donors, and, most importantly, the residents of Laindatang Hamlet and Laindatang Elementary School.

Support from Collaborators and Donors

The project aims to attract additional collaborators to further optimize synergy among all parties involved, strengthen project implementation, and ensure sustainable impact.



Challenges and Issues

Given its remote location far from clean water sources, Laindatang Hamlet faces significant priority challenges.

Lack of Reliable and Sustainable Clean Water Access

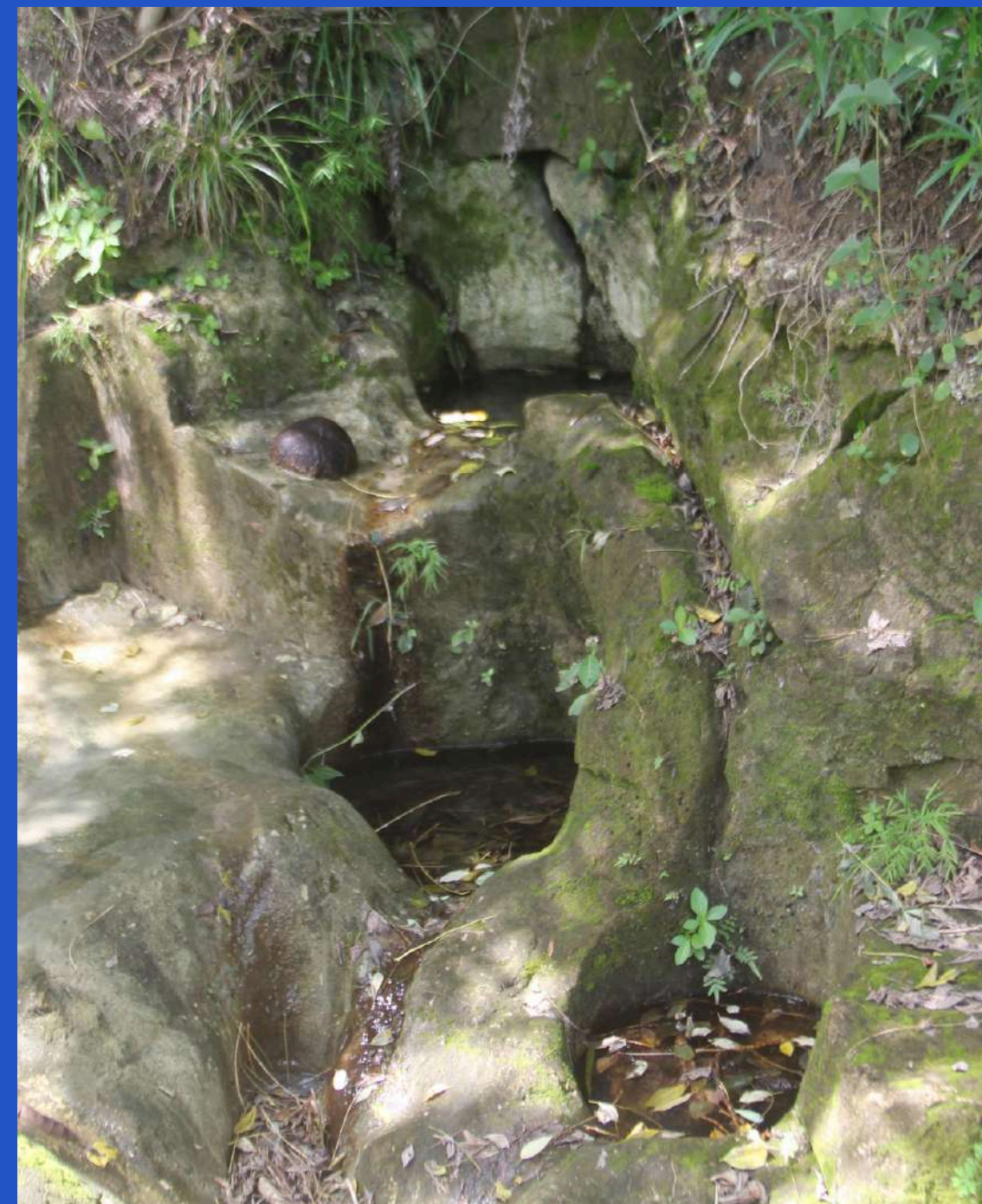
The residents of Laindatang Hamlet struggle with limited access to a reliable and sustainable clean water supply.

Insufficient Clean Water Storage Facilities

Currently, there are no facilities available to store clean water in sufficient capacity to meet the community's general needs.

Lack of Electricity for Water Pumps

Laindatang Hamlet does not yet have access to electricity to power water pumps.





Ferrocement reservoir



Residential House



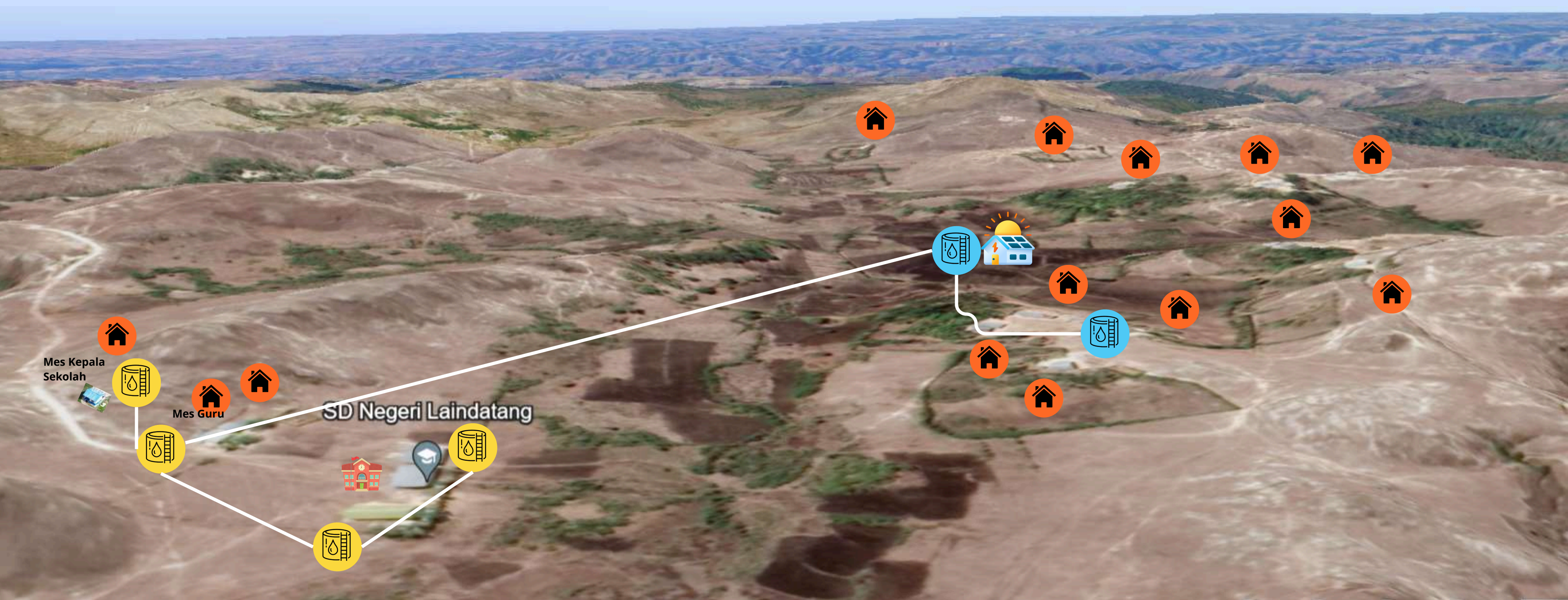
Ferrocement reservoir has been built



Pump House & Solar Panel



School

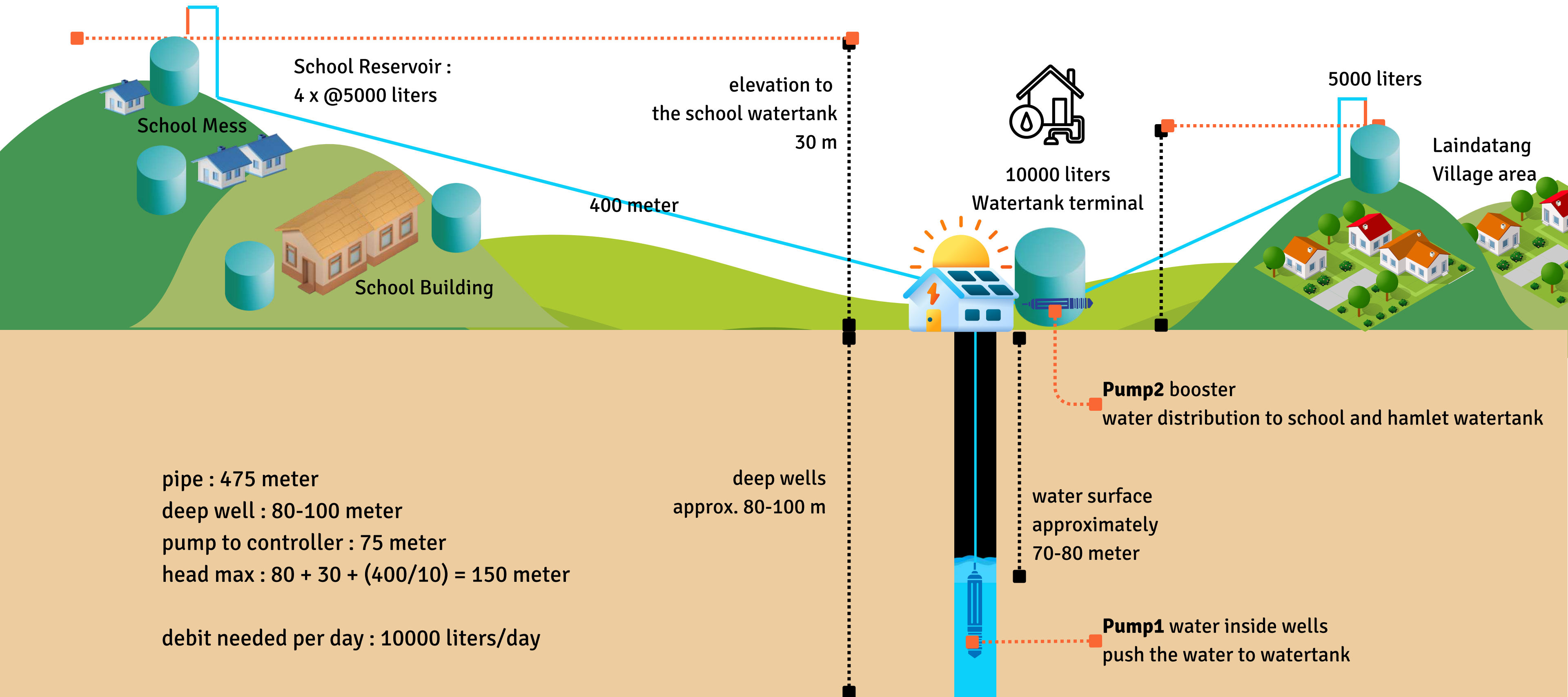


Mes Kepala Sekolah

Mes Guru

SD Negeri Laindatang

ELEVATION BETWEEN WATERTANKS AND WELLS SCHOOL AND HOUSES



pipe : 475 meter
 deep well : 80-100 meter
 pump to controller : 75 meter
 head max : $80 + 30 + (400/10) = 150$ meter

debit needed per day : 10000 liters/day

Activity



The entire series of clean water access activities in Laindatang will be implemented in phases, led directly by the Kawan Baik Indonesia field team. This initiative also involves various specialists, including borehole experts, solar energy experts, and ferrocement tank specialists.



Survey

The survey conducted by the well-drilling expert team aims to precisely identify water sources, determine the optimal depth, and ensure an adequate flow rate. Additionally, it ensures all aspects of the well-drilling process run smoothly. The involvement and commitment of the beneficiary community in maintaining the facilities are key focus areas of this survey.



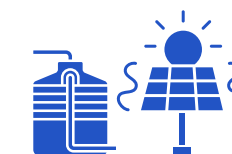
Well Drilling

The well drilling is carried out using a hydraulic drilling machine, with a maximum depth of 100 meters. This specialized task is handled by the foundation's expert partners with extensive experience in well drilling in East Sumba.



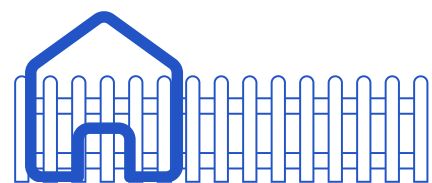
Ferrocement Water Tank Construction

Water storage facilities are constructed using a ferrocement system with a total capacity of 20,000 liters across multiple locations. Water from the well is pumped into storage tanks and then distributed to household tanks throughout Laindatang Hamlet.



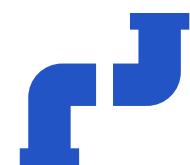
Solar Powered Pump Installation

Due to the absence of electricity from PLN in Laindatang Hamlet, solar-powered water pumps are recommended. Although gasoline or biodiesel generators are an alternative, they impose significant operational costs (fuel) and environmental impact, making them less ideal for the community.



Construction of Pump House, Installation of Wells and Safety Fencing of Pump Area

Other essential facilities include a pump house and installations to support the performance of the pump and power generator, as well as protective fencing to safeguard the area from livestock that frequently pass through.



Water Distribution

The clean water connections in this project are limited to Laindatang Hamlet, utilizing the existing pipeline infrastructure. By harnessing the power of gravity, the system efficiently distributes water throughout the village without requiring electricity.



Water Center

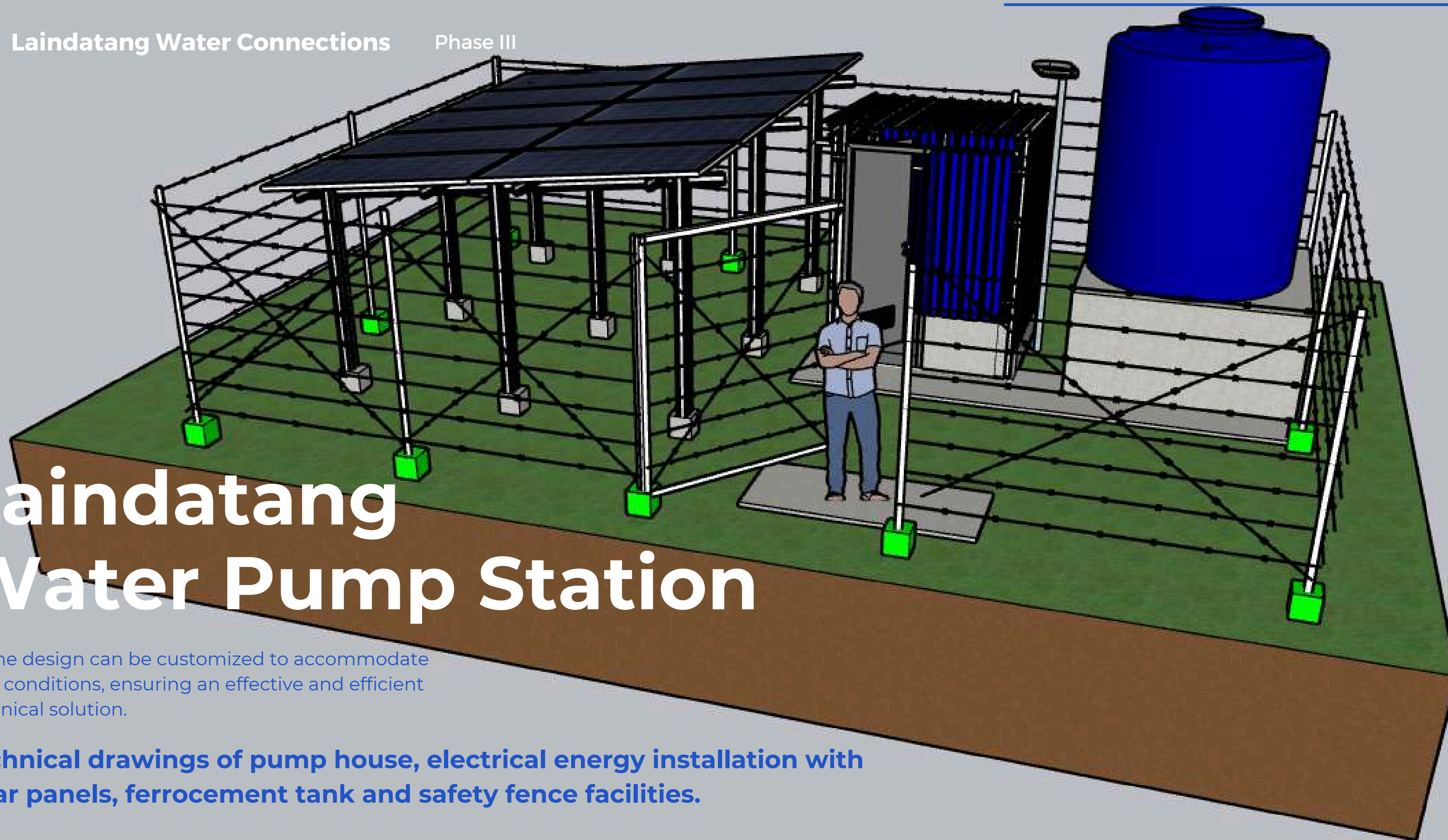
Infrastructure will be constructed around the tanks to store clean water for the community.



Laindatang Water Pump Station

(*) The design can be customized to accommodate field conditions, ensuring an effective and efficient technical solution.

Technical drawings of pump house, electrical energy installation with solar panels, ferrocement tank and safety fence facilities.



Map Location



Beneficiary Map of the Laindatang Water Connections Project

The total number of beneficiaries

190 people

The total number of water resources

1 deep well in this area

The length of piping in this area

1500 meters piping

Proposed Timeline



JULY
2024



Survey

A needs assessment was conducted by gathering input from residents about water and sanitation conditions. The data was analyzed, results were presented to the team, and collaborative efforts were made to identify appropriate solutions.

AGU
2024



Preparation and Socialization to Partners and Residents

Collaboration for future facilities in Laindatang Hamlet involves various stakeholders, including the East Sumba Regency Government (Departments of Education, Health, and Public Works), Kawan Baik Indonesia Foundation, Fair Future Foundation, and Rotary Australia, all of whom provided valuable input and support.

SEP
2024



Project Implementation

The project implementation focuses on completing designated tasks and leveraging resources to achieve its objectives. Effective communication and collaboration are essential at this stage to promptly address any challenges that arise.

NOV
2024



Monitoring and Evaluation

To ensure progress aligns with the project timeline, it is crucial to monitor task completion, allocate resources efficiently, and address any deviations or risks, ensuring the project remains on track.

DEC
2024

Settlement and Reporting

Upon completion, we will continue supporting the Laindatang community by assisting in the formation of a Water Committee to manage and maintain the facilities.



PHASE I

1. Water Tank Repairs and Rainwater Harvesting Systems, Repair existing water tanks, construct rainwater harvesting systems, and install household filtration systems to provide safer and healthier clean water.
2. Construction of Public Toilets. Build public toilets that meet health standards, including proper toilet facilities, water taps, septic tanks, and waste filtration systems.
3. Improving Road Access to Laindatang Hamlet. Enhance the connecting road access to Laindatang Hamlet, facilitating vehicle mobility and transportation for water supply, healthcare services, and other essential needs.
4. Malaria Early Detection and Health Checks. Conduct malaria early detection programs and provide health check services in Laindatang Village.

PHASE II

The clean water and sanitation connection project at SDN Laindatang, Mbatakpidu village, includes the implementation of ferrocement tank construction, installation of rainwater harvesting facilities, construction of healthy sanitation, PHBS education, and nutritious eating initiatives, all aimed at creating a healthy learning environment.

Ferrocement Reservoir

1. Headmaster's Mess
2. Water Tanks for Classrooms
3. Water Tanks for Teacher Office
4. Renovation of Teacher's Mess Water Tank

Healthy Sanitation

1. Two healthy toilet stalls in the teacher's mess area
2. Renovation of two healthy toilet stalls in the school area





Laindatang Water Connections

Phase III borehole water route plan



	Ferrocement reservoir		Toilet
	Old reservoir		Washing hands
	Box Control		Infiltration
	Rainwater Harvester		Septic tank

TECHNICAL MAP WATER CONNECTIONS SDN LAINDATANG

School Toilet
Renovation

Budget Estimate

No	Activities	Budget
1	Well Drilling	Rp111,660,000
2	Construction of pump house and well installation and safety fence	Rp20,006,400
4	Construction of clean water facilities in the form of ferrocement tanks	Rp68,580,000
5	Monitoring	4,200,000
TOTAL BUDGET		Rp204,446,400

43.33%

The most important components of the overall financing are the construction of ferrocement reservoirs, pump houses, well installation and pump area safety fences.

54.61%

The next expenditure is the procurement of drilled wells.

2.06 %

The project's operational costs remain moderate, as activities in this village are part of a larger clean water provision initiative in Laindatang (points 6, 7 and 8)



SUSTAINABLE DEVELOPMENT GOALS



NO POVERTY

The development of clean water facilities aims to improve quality of life and address inaccessibility due to poverty.



ACCESS TO CLEAN WATER AND SANITATION

Availability of access to clean water and quality, unpolluted clean water reservoirs connected to healthy sanitation.



GOOD HEALTH AND WELL-BEING

With easier access to clean water and healthy sanitation, a sustainable healthy lifestyle can be implemented.



PARTNERSHIP FOR THE GOALS

Involving the village community to build their own healthy sanitation facilities, from and by the residents, the goals are achieved and maintained together.



OUR TEAM



Kawan Alex

Donor Representative &
Official Advisor



Kawan Ayu

Director



Kawan Gogon

Manager Program



Kawan Ino

Project Coordinator



Kawan Annisa

Secretary and HR



Kawan Niluh

Finance Manager



Kawan Cae

IT and Web Developer



Kawan Primus

Staff Technology



Kawan Elthon

Photographer



Kawan Wahyu

Illustrator and
Graphic design



Kawan Santi

Treasurer and Admin

Help Them Become Healthier with access to quality clean water.

You can make an impact through this project, your contribution is a form of commitment to support the Kawan Baik Indonesia Foundation in helping to provide access to healthier, sustainable clean water.



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Legian - Bali

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