

UNSW ÉNERGIE RENOUVELABLE VANUATU – UNSW Engineering Students Learning, Helping, Experiencing

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Vanuatu (UNSWERV)

&

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Vanuatu Community Aid



UNSWERV - WHAT DO WE DO



UG and PGCW thesis students design renewable energy and water supply projects for Tanna island

- PV for stand-alone power for public facilities
 - Dispensaries, aid posts, schools, water pumps
- Micro-hydro for mini-grids
- Ram pumps
- Geothermal exploitation
- Grid transition from fossil fuel

Groups travel to Tanna to install and repair small systems:

- PV lighting and phone charging in dispensaries, aid posts and schools
- Water supply
- Supported in country by Vanuatu Community Aid

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Google Maps



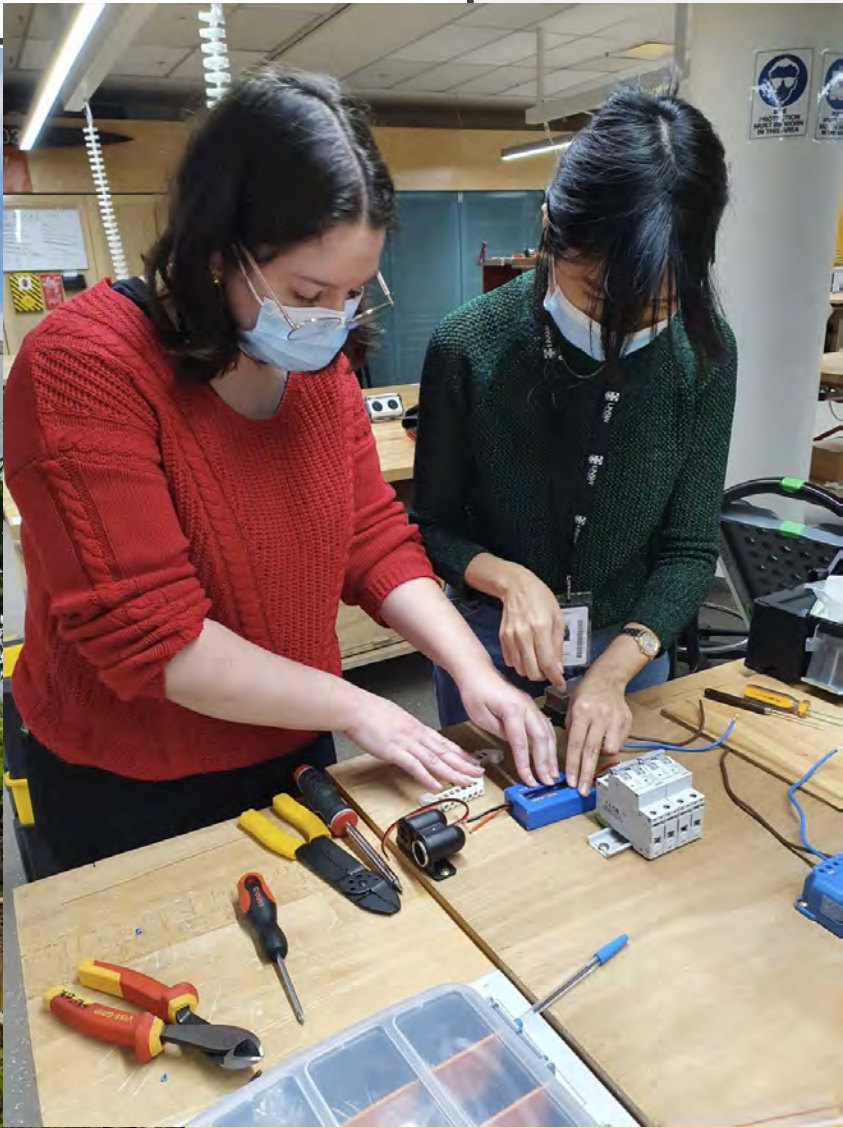
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WHAT DO WE DO



REDMI NOTE 9
AI QUAD CAMERA

Photo credit: Jackson Iaka

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LOWEN SCHOOL, 2007/08



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IMAKI MICRO-HYDRO 2009



Hydro power from existing water supply line

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IMAKI MICRO-HYDRO 2010



Hydro power from dedicated penstock

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SOLAR CROP DRYERS AT THE KAVA STORE, PORT VILA 2010-2012



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CYCLONE PAM 2015

After cyclone Pam

- July 2015



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IMAKI & IQUARAMANU DISPENSARIES 2016

Iquaramanu Dispensary



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JULY 2017

July 2017



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TRAINING AT IMAKI 2018

Donated Solar Panels at Imaki

- July 2018
- Solar lighting
- Phone charging



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SOLA PAWA GAET 2018

Basic guide for small PV systems in Bislama and English

- Bislama and English
- Public training sessions in two villages



Example: Destribusen bod we oli mekem blong aidpost raon long Tanna, i soem stret fasin blong setemap sola sistem blong yu.

Jaj kontrola (rekuleta)

Dabol Dc sekut breka blong pawa ikam long sola panel

Dabol dc sekut breka blong pawa iko lo ol laet wetem ples oli jajem fon

Fues holda blong ol fuees we pawa i stap ko mo kamaot long batri



Meta blong makem o mesarem pawa iko long ol laet mo fon jaja

12v Dc soket blong jajem fon(fon jaja)

U.S.B plak blong jajem fon long trak

link o lain blong konektem (+) waia iko long ol laet

Link o lain blong konektem(-) waia iko long ol laet

JANUARY 2018

January 2018

- Aid posts: Kwamera, Isaka, Imayo
- Dispensary: Port Resolution (upgrade)
- Lamlu School improvements



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JULY 2018

Aid posts

- Inapkasu
- Uruwaren
- Etukeyi
- Laus



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CEREMONY AT IQUARAMANU 2020

Nepraintata Area Council



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SEPTEMBER 2020

PV

- September 2020
- Lopakas Aid Post
- Launatke Aid Post
- Green Hill Dispensary
- Repair Etukei, Loano and Lohaten Aid Posts



LOANATOM & LOUSULA 2020

Loanatom Water Pump

- Existing pump
- New Solar Power
- MC Electrical support

Lousula Aid Post

- January 2020
- Solar lighting
- Phone charging



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GREEN HILL MALARIA LAB 2020

Green Hill, North Tanna

- January 2020
- Solar lighting
- Phone charging

Imaki Mini-Grid, S. Tanna

- January 2020
- Solar incomplete
- Return blocked by COVID-19



BORDERS RE-OPENED JULY 2022



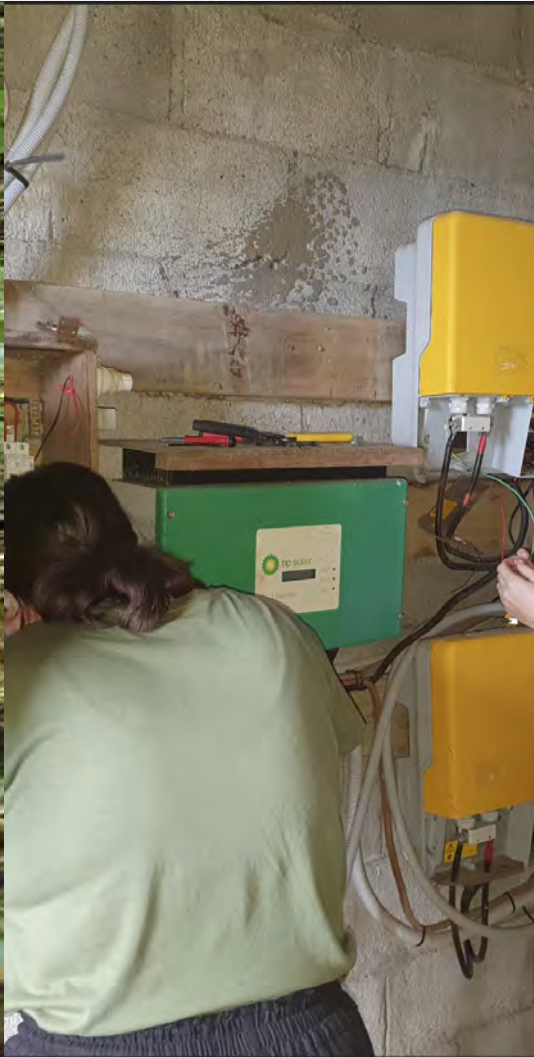
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BORDERS RE-OPENED JULY 2022



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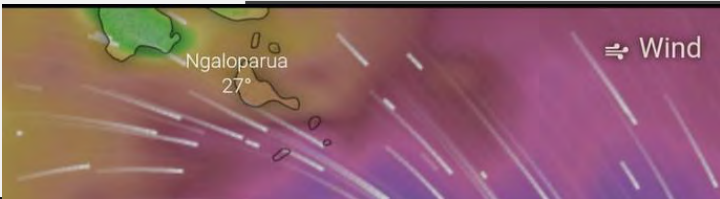
PARTNER REPLACED IMAKI HYDRO!



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JANUARY 2023



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TALLY

| | Design only | Design & Install | Upgrade, Repair |
|----------------|------------------------------|---|--|
| Dispensaries | 1 (Kings Cross) | 6 (Imaki, Ionanen, Lawiaru, Lamlu, Iquaramanu, Green Hill) | 6 (Port Resolution, Imaki, Ionanen, Isaka, Lamlu, Lawiaru) |
| Aid Posts | | (16) Etujei, Lauis, Kapalpal (Loanialu), Kwaraka, Kwamera, Isaka, Imayo, Ianapkasu, Uruwaren, Karamasanga, Loonoo, Lohatan, Lounahuru, Lopakas, Launatke, Ikapo | (5) Namilu, Isaka, Etujei, Loonoo, Lohaten |
| Schools | 2 (Isaka, Lamlu) | 4 (Louen, Imaki primary, Imaki Seondary College, Lamlu) | 4 (Imaki, Lamlu, Lenaken, Port Resolution) |
| Minigrid | 1 (Imaki) | 1 (Imaki) | |
| Water supplies | 3 (Isaka, Iquaramanu, Lauis) | 21 (Loanatom, TAFEA College area) | |
| Crop dryers | | 2 (Port Vila) | |
| Other | | 1 (Green Hill Malaria Lab) | Many inspections, repairs for small, private systems, advice for Imaki presbytery, Lamlu Convent |
| Booklet | Community Training | https://liudan034.wixsite.com/unswerv/resource | |

STUDENT-BUILT WEBSITE



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<https://liudan034.wixsite.com/unswerv>



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THANKS TO SUPPORTERS

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- Alternative Technology Association;
- Redlands School;
- Timbre Flaws Choir;
- The Darcy and Patricia Wentworth Foundation;
- UNSW Institute for Global Development



DONATE@UNSW . “VANUATU DEVELOPMENT STUDENT PROJECT (PS20997)”