

## PWD & EPI VCAP SITE

### RESULTS & RECOMMENDATIONS FROM VULNERABILITY ASSESSMENTS & COMMUNITY ENGAGEMENT

#### *Recommendations for PWD: Epi VCAP Site*

- Technical Assessment for Epi site prioritized among all VCAP sites due to potential availability of PWD machinery and staff stationed on island in 2016
- Erosion control specialist to accompany engineer from PWD in order to coordinate soft measures to compliment infrastructure strengthening
- Strengthen existing sea wall protecting small section of road as it passes along the coastline in Malvasi Village,
- New bridge constructed near Yervali School; and partial demolition of collapsed bridge to allow for natural drainage of river and coastal storm surge
- Explore possibility of repairing formerly used road near Green Hill to avoid dangerous slope. Improvements to slope and drainage installed for slopes in road between Ruwo and Burumba
- New bridge constructed at river crossing in Mabfilau area, connecting to Valesdir airport
- Smaller improved and resilient vehicle crossings to be constructed at smaller creeks in Rovo Bay, Ponkovio and Mabfilau
- Work with provincial authorities and island-wide chiefly council to prepare a formal agreement regarding provision of local resources as community contribution towards road works



*(Collapsed bridge near Yervali School is no longer accessible to vehicles)*

### Primary Roadway & River Crossings

There is one primary roadway stretching from Moriu Village in the Varsu Area Council in northern Epi down to Votlo Village in Vermaul Area Council that serves as the primary accessway for communities in the VCAP project site on Epi Island. This roadway passes through stretches of the immediate coastline, coconut plantations and cattle pastures. **The road has become increasingly inaccessible due to the impact of inclement weather, upland erosion, flooded creek beds and decaying infrastructure.**

#### *Rovo Bay to Ruwo*

There is a **large collapsed bridge** adjacent to **Yervali School near Ruwo** that can no longer be accessed by vehicles. This collapsed bridge is producing significant erosion problems. A temporary route leading to an alternate crossing location (without any bridge) has been created approximately 100 meters further inland. This newly improvised crossing requires that locals must regularly clear out large stones and logs blocking vehicle access. **Building a bridge at this location further inland**, that will allow for safe passage regardless of the weather, was reported as a priority by communities here.

There is a **small but vital sea-wall near Malvasi Village** that protects the roadway from coastal erosion as the road narrowly passes along a sheer vertical cliff and would require serious engineering work to relocate. This sea-wall was built decades ago but requires maintenance in order to prevent coastal erosion from reducing accessibility of road. Communities and provincial authorities are requesting if **PWD can provide basic maintenance for this seawall.**

## Challenges for PWD Epi VCAP Site

**PACC**, another **climate change project** aimed on improving the primary roadways on Epi Island was conducted in Varsu AC that phased out in 2015. Some communities members from the Epi VCAP site performed manual labor for the PACC project and there are reports of some incomplete payments for labor. It must be clearly stated that **VCAP and PACC are separate projects** addressing climate change adaptation.

Some locals may still be irate or frustrated regarding PACC **or they may be hesitant to participate in community labor**. It should be stressed to communities that VCAP's approach will involve **PWD taking the lead to establish community contracts** through established PWD processes, which distinguishes VCAP from PACC.

**Free access to resources** such as sand and coral for road improvements for the primary road for have been promised by many community leaders throughout VCAP assessment missions and the design phase of the project. Provincial authorities recommend that based on previous experiences with PACC, **that chiefly representatives (including disputing parties) sign an agreement formalizing this provision of resources**.

**Land disputes** are a very big challenge when working within the Epi VCAP site, in communities such as Burumba, Ponkovio, Ruwo and Yopuna. Great care must be taken to when offering community contracts and engaging stakeholders to be **impartial and inclusive**. No payment for road building resources, such as sand and coral, should be offered. Communities should contribute resources, as payment may lead to renewed fighting and disputes.

**Partner with the Epi Council of Chiefs** before road works begin to ensure their support should disputes arise.

There is a **small creek crossing in Rovo Bay** leading towards Malvasi that needs an **improved crossing** to allow for safe access during heavy rains. Malvasi also experiences heavy flooding and perhaps **improved drainage for the primary roadway** could also assist in alleviate flooding in nearby households.

### *Ruwo to Burumba*

**There is at least one reported death** in the area directly linked with the **hazardous road conditions** on an **incline near Burumba**, which involved a vehicle losing traction in rainy conditions and then rolling down a ledge. Several other vehicles have been damaged at this location in the road and passengers have been injured. Locals felt that a **safety railing should be installed** along the roadside here and that **improved materials and drainage should be installed along the slopes** to improve access.

Some locals have even recommended **relocating a small portion of the road along this dangerous slope** near Burumba (Green Hill). There is a former roadway that is no longer used that bypasses this dangerous slope in Green Hill and locals indicate that perhaps if it is repaired it could serve as an alternate and safer route. A **technical specialist should assess** the potential of shifting the accessway to an area less affected by heavy rainfall and erosion.

**Ponkovio has two small creeks that require climate resilient crossings** for the roadways that will allow for improved access for vehicles and pedestrians.



*(Many slopes located along roadside are adjacent to vertical stone cliffs)*

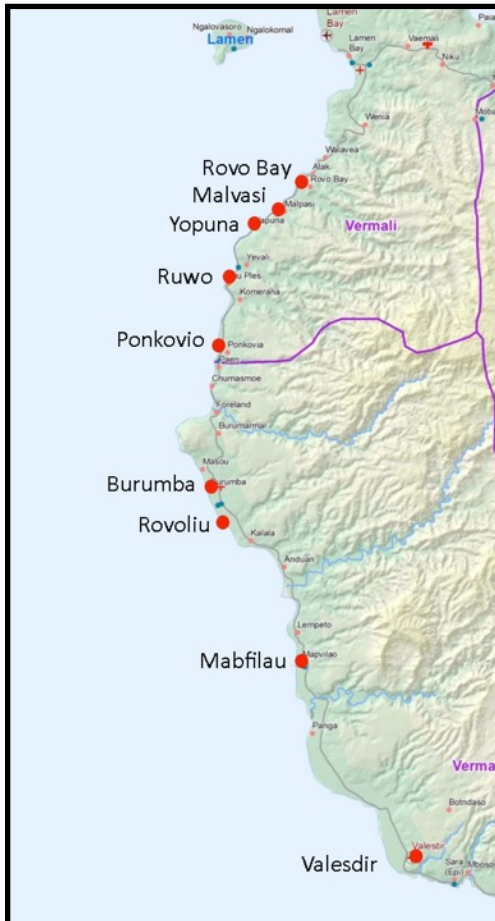
### Burumba to Mabfilau

There is one river crossing in the Mabfilau area that connects to the Valesdir airport that experiences heavy flooding during rain times and becomes inaccessible for vehicles and pedestrians. There is **no bridge of any kind at this crossing and vehicles must cross over large stones** along the river bed. During heavy rains, the small crossing swells to around 45 meters across and becomes **inaccessible to vehicles and pedestrians**. Installing a safe bridge at this crossing, located at an appropriate place further inland is highly needed according to reports from the Mabfilau community. The design must be considerate of the wide area that floods during periods of heavy rainfall.

There is one slope in this area as well that could benefit from improved materials such as cement to improve accessibility in wet conditions, along with the installation of drainage to prevent erosion.



*(Road near Mabfilau passing through coconut plantation)*



*(Communities in Epi VCAP Site)*

### Footpaths & Feeder Roads

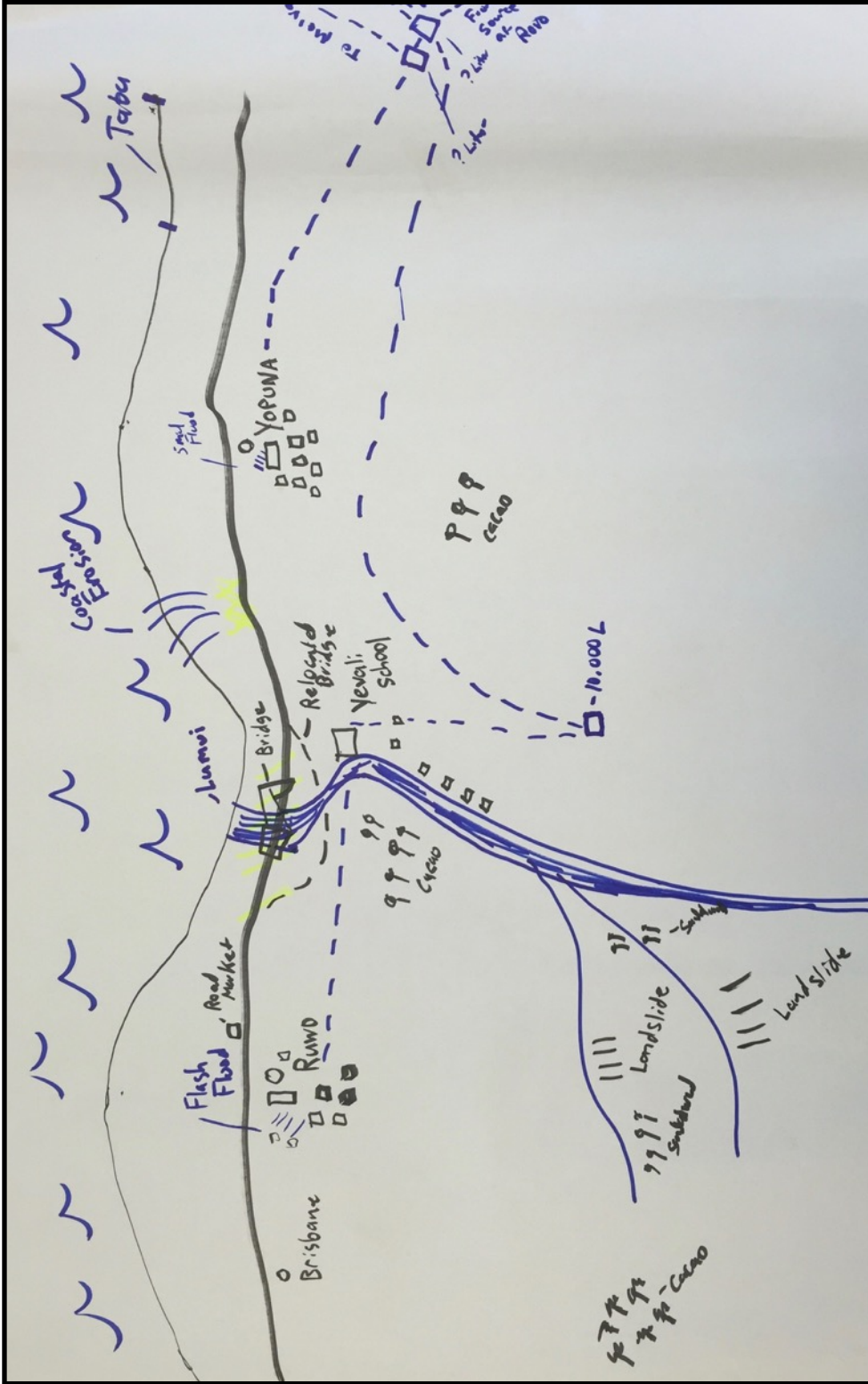
While some communities in the Epi VCAP site did indicate that footpaths and feed roads (leading to the interior of the island where local gardens are located) are in poor condition and inaccessible in rainy conditions, VCAP should not prioritize these accessways as they do not connect to service centers, but rather to individual garden areas belonging to various families.

### Resources Available

- Ships can access most communities, safe passage
- Verbal Offer from Chiefly Councils to provide
- Established Village Development Committees (5), Site Coordinator, & Provincial Area Secretaries (2) and District Administrative Officer for Epi Island.

**Community Mapping - Ruwo / Yopuna VDC**

**Community Mapping - Ruwo / Yopuna VDC**

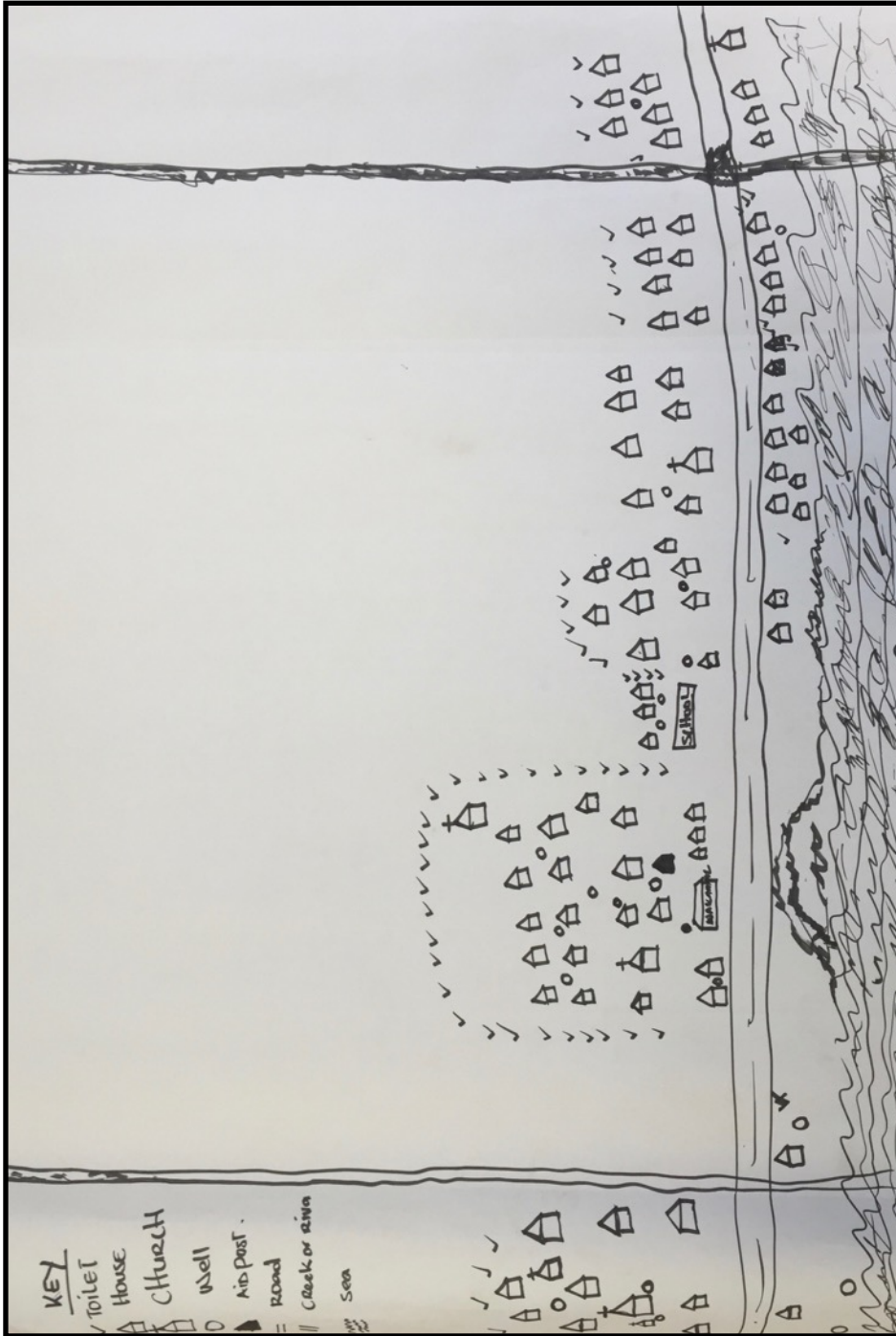


Community mapping exercise showing climate related vulnerabilities as indicated by community along the primary road passing through Ruwo and Rovoliu. The dark black line denotes the location of primary road, solid blue lines denote river and creeks, dotted blue lines indicates the location of gravity feed water supply system and yellow marker shows the location of climate vulnerabilities indicated by community members.



## Community Mapping - Ponkovio VDC

### Community Mapping - Ponkovio VDC



Community mapping exercise showing climate related vulnerabilities, in particular the river and creek crossings, as indicated by community along the primary road passing through and near Ponkovio.

