

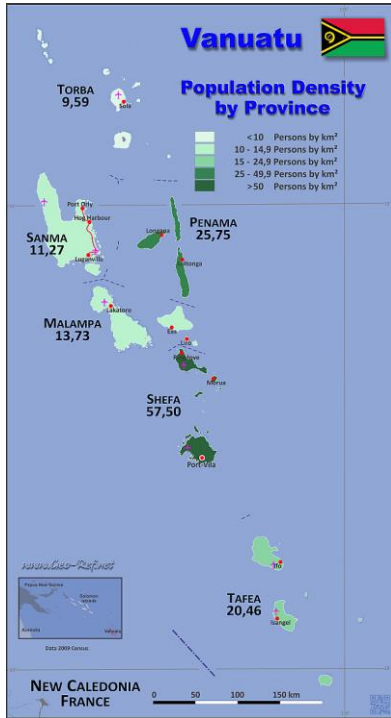


USE OF KOBO TOOLBOX TO ASSIST VANUATU COMMUNITIES WITH SAFELY MANAGED WATER SUPPLY

Michelle Knappstein

Outline

- Background
 - KoBo Toolbox
 - Advantages/Disadvantages
 - Challenges
 - Data Management (DoWR NAS)
 - Conclusions
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Background

Location

- Vanuatu is in Malanesia
 - Over eighty islands
 - Land area approx. 12,000 km²
 - Population approx. 270,000 with 75% living in rural areas
 - GDP approx. 2,900 (US\$) per capita (PPP)
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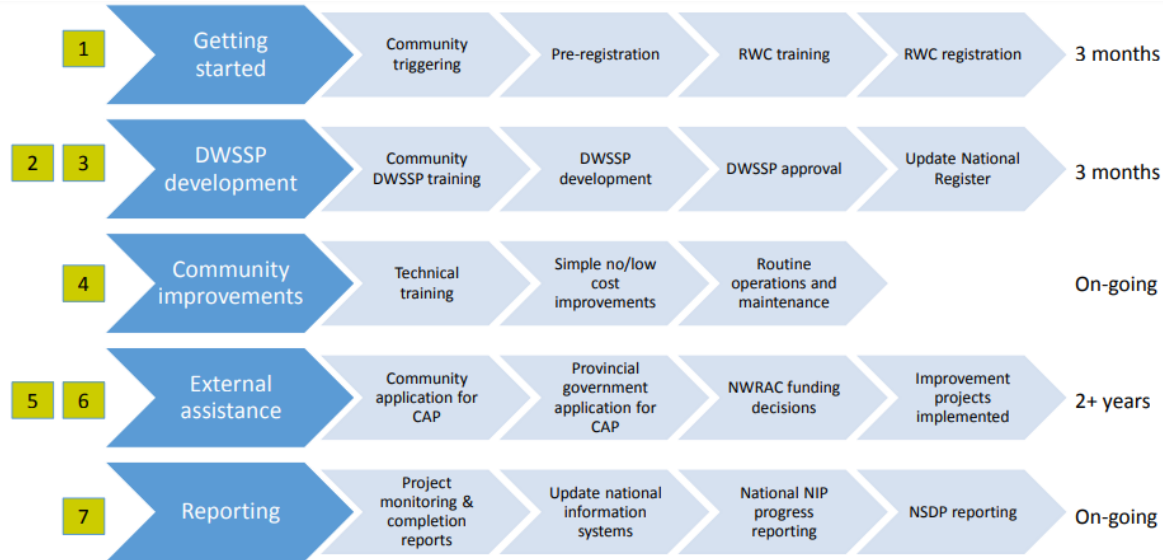
Background

Department of Water Resources (DoWR)

- Assisting communities to achieve safely managed drinking water contributing to Vanuatu's goal of 100% access by 2030
- DoWR is responsible for the 'National Implementation Plan (NIP) and Capital Assistance Programme (CAP) for Safe & Secure Drinking Water'



Background





Background

Process for concept design for Rural Gravity Fed Systems in Vanuatu

- Site visit to community after DWSSP
 - Complete GPS and Altimeter survey of existing system and proposed system, including measuring flow rates at the source and storage tank
 - Collect information on population and household distribution
 - Use Google Earth, GIS and Excel Spreadsheets to complete concept design (pipe alignment and hydraulic design)
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KoBo Toolbox

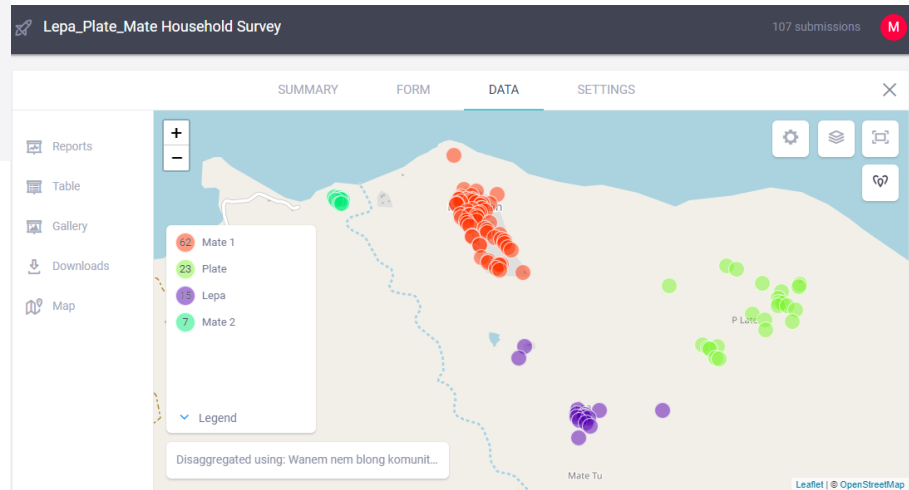
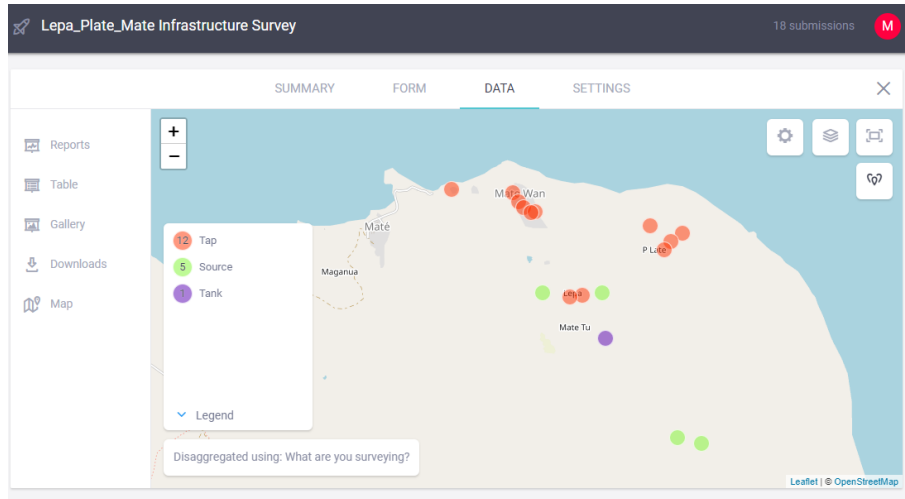
- Field data collection platform
- Enables quick collection of population/household information and location/status of infrastructure
- Provides raw data needed to understand water demand, water source flow rate and distribution of people in a community
- Information when combined with GPS and altimeter surveys can be used for preliminary/concept design



Why KoBo Toolbox

KoBo Toolbox is one of the only online survey tools that is free to use (without restrictions), can export to Excel, CSV and KML, can be used offline, has the ability to share forms and edit/view rights to forms, ability to collect spatial data, pictures and videos

KoBo Toolbox



KoBo Toolbox

The screenshot displays the KoBo Toolbox interface for the 'Lepa_Plate_Mate Infrastructure Survey'. The top header shows the KoBo Toolbox logo, the survey name, and '18 submissions' with a red 'M' icon. The main interface is divided into a left sidebar, a top navigation bar, and a central content area.

Left Sidebar:

- NEW (highlighted)
- Deployed (82)
- Draft (0)
- Archived (0)
- Downloads
- Map

Top Navigation Bar:

- SUMMARY
- FORM
- DATA (active)
- SETTINGS

Central Content Area:

Download Data

Select export type: XLS (selected), XLS (legacy), CSV, CSV (legacy), Media Attachments (ZIP), GPS coordinates (KML), Excel Analyser, SPSS Labels

Value and header format: Labels

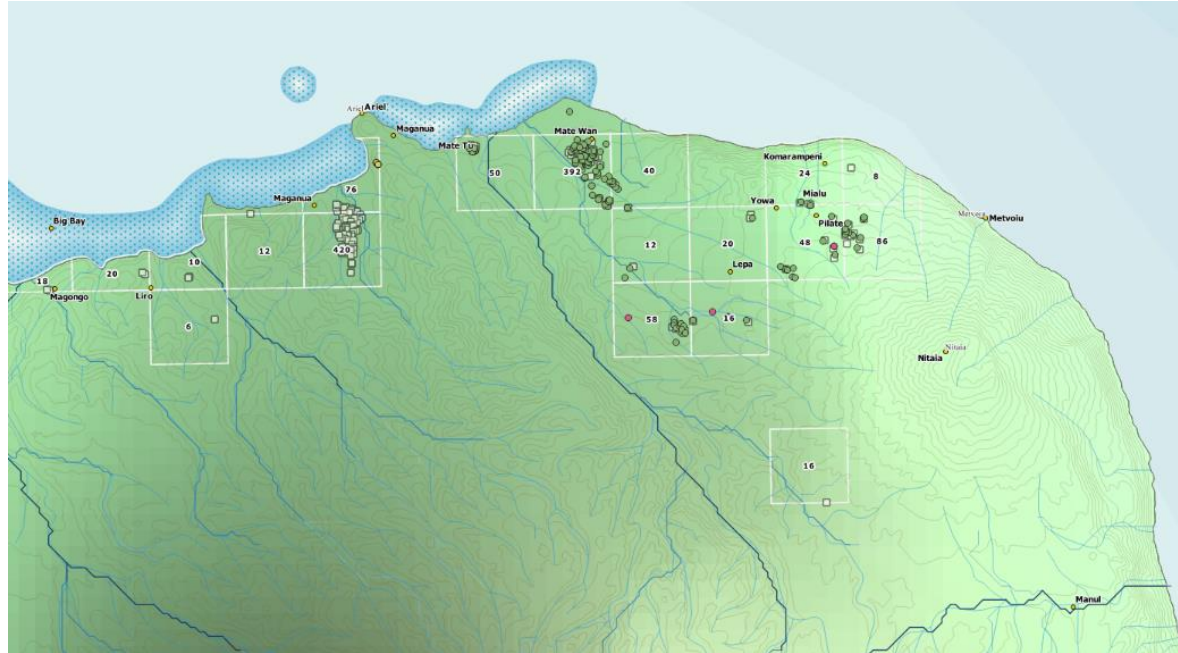
Advantages

- Information stored on a central server
 - Consistent way to collect data that makes it difficult to forget to take certain measurements and all information is in one place e.g. photos, GPS co-ordinates, flow rates
 - Digital information can be exported in a variety of formats
 - Can be used offline without internet in the field
 - Free to use
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Advantages



Advantages



Disadvantages

- Difficult to make form changes in the field (need internet connection)
 - Exporting data in different formats can be time consuming
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Challenges



- Need a tablet or smart phone to collect data (preferably water resistant)
 - Sometimes spatial data is not accurate due to collection method
 - Small amount of training required to use KoBo Toolbox in field but adequate computer skills are required to change survey questions and sync and export data
 - Sometimes difficult to charge tablet or smart phone in field
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Data Management

- Digital information exported can be stored and managed effectively by the DoWR such that it is accessible to everyone in the department on the DoWR NAS system
 - Digital information is easier to manage than hand written notes that can be lost or require post processing to store on the DoWR NAS
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Collaboration

- Digital information can be shared easily with other government organisations e.g. Sanitation and household information can be shared with the Ministry of Health (MoH)
 - The data can be shared easily if required for detailed design of projects
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Conclusions

Use of KoBo Toolbox has:

- sped up the process of collecting population data
- enabled spatial plotting of data
- made design and cost estimates of improvements more accurate and easier to complete



Questions?

