# OCPP Vanuatu: DEPC Data Management System Summary Findings

Aim:

Assist the DEPC in developing a data management system for use across all divisions within the department. The objectives to achieve this are:

1. Develop a user friendly, easily manageable, data management, entry and dissemination system for use across DEPC divisions.
2. Support transfer of data into the data management system
3. Define and provide guidance material on data management protocols, including collection, input, cataloguing, storage, and use for continued population of data within the system into the future.
4. Support establishment of data sharing agreements within and between departments and relevant stakeholders.
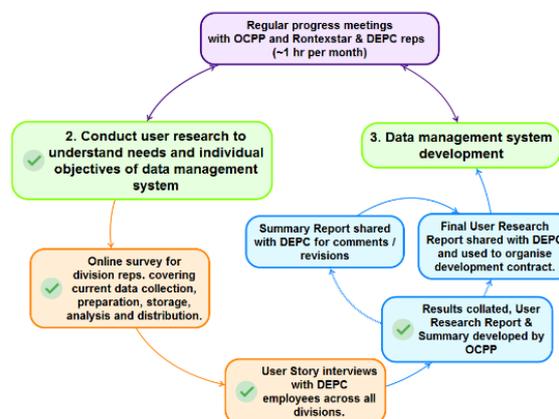
Project work plan: User Research progress to date.

Headline findings:

- There is significant appetite across DEPC to enhance the department's data management processes to ensure data are available and accessible across divisions.
- Data and resources to manage them are limited. DEPC staff felt the limited data availability and accessibility is restricting their ability to make and justify evidence-based decisions.
- To ensure a new data management system is used effectively; the system needs clear protocols and user-friendly training resources.
- There is currently a pilot system being developed by the Biodiversity and Conservation division and OGCIO. This has the base functionality that would be required for a larger system so would be a strong foundation from which to develop a department-wide system.
- Data sharing is a big challenge, both within and across Government departments. Further clarity is required to provide details on what information is available, who owns or is responsible for it and a defined process to access. The National Geospatial Data Policy exists, but policies are required for other data types.
- Reluctance or challenges to share data within and between departments creates bottlenecks in work and reduces the ability of staff to use evidence to inform decision making.
- Current data processes are manual, leading to backlog in applications/work being processed.
- Data are not stored, catalogued or collated efficiently. Data are used for an immediate task but may be lost or not accessible to others, leading to duplication of effort and limited historical data records.
- DEPC is required to contribute to a number of Government initiatives/targets and share data between departments, however the current data management system means this is often challenging to accomplish.
- The new system needs to tie in with other systems being used, especially those relating to data collection (Live & Learn Vanuatu ranger toolkit and KoboToolbox forms used by provincial officers in reporting). The system also needs to link to other departments' reporting systems such the indicator generation process in VBoS.
- DEPC are keen to include an interactive geospatial element to display data used across multiple divisions.
- The system must include user-friendly indexing and search functions to assist in cataloguing all available data and ensuring they are easily accessible.

- A public-facing information and application portal would enable DEPC to share relevant data with communities and would facilitate submissions of development and CCA applications to the responsible member of DEPC staff.

Functional requirements of a data management system:

- The system needs to link with other systems e.g., Live & Learn Vanuatu ranger toolkit, KoboToolbox forms, VBoS indicator statistics generation, and cross-Government department reporting systems where possible.
- Include an interactive geospatial element to display data used across multiple divisions.
- Provide user friendly indexing and search functions to assist in cataloguing all available data and ensuring they are easily accessible.
- Data analytics and results export to generate results for reporting.
- Ability to indicate confidence in data.
- User accounts that enable controlled access to certain datasets, for example categorising sensitive data through a traffic light system, supported by user logins at different clearance levels (metadata only, view, download, edit etc.)
- Standardised data entry structures, for example standardised names and metadata fields.
- Ability to attach additional information to records.
- A public-facing information centre, providing relevant data including CCA boundaries and regulations, pollutant/waste information/guidance, species distribution map (at an appropriate resolution), and outreach materials.
- An online portal for development application completion and submission, including a workflow system to ensure applications are fully complete prior to submission. Similarly, the system could include an application process to register new CCAs, submitting the data/reports required.

Non-functional requirements and complementary support:

- The system will be developed using maintained "off-the-shelf" software that is easily updated. Continued support will be secured for maintenance of the system.
- Comprehensive testing and training phase, integrating user feedback into the development, and providing training sessions for all staff. Clear user guidance, including documents and training videos, will be accessible through the system.
- Provision of guidance and training to establish data collection, management and sharing protocols. For example, replicating the national geospatial data sharing agreement with other data types.
- Clear workflows to capture who is responsible for tasks.
- Internships to support DEPC in scanning and uploading current and historic data/documents to the new system.
- Support to establish formal data sharing agreements between divisions and Government departments as appropriate.

Recommendations and next steps:

- Work with DEPC to generate a prioritised list of system requirements and define analytical functions that would be most useful for reporting and indicator generation purposes.
- Develop and expand the pilot established by the Biodiversity and Conservation division, currently being built on a voluntary basis by OGCIO developers. Contract local developers to build and expand this system, ensuring continued inclusion of OGCIO developers.
- Continue to involve DEPC in the build of this system through user testing and feedback sessions and by providing training in data management best practice.
- Provide support to Live & Learn Vanuatu to continue developing and expanding the CCA ranger toolkit app, including ensuring the app links with the developed data management system.