Context Landscapes in Pacific Island Countries are exposed to climatic shocks & stressors which impact ecosystems & livelihoods.

Objective Using open source geospatial information & technologies to produce collaborative geospatial solutions for landscape management.

Output A geospatial application for multiple landscape users which integrates multi-scale data & enables multi-method data creation & analysis.

Outcome Improved management of multifunctional landscapes under changing climates through active stakeholder participation.

www.livelihoodsandlandscapes.com

QConut

A mobile geospatial application for promoting sustainable and climate-smart Pacific Island agricultural landscapes

Context analysis

- Secondary data analysis of climate & census data, reports
- Land use - land cover mapping
- Household surveys
- Semi-structured interviews
- Review of ICT tools
- Stakeholder Analysis

ICT4Development framework
Iterative co-development with stakeholders for ongoing co-design and field testing.

⊗ Fiji & Tonga

- Stakeholder roles
- Existing use, collection & access of geospatial info
- Unmet needs
- Barriers to uptake

Needs assessment

Use case & requirements analysis

- Tonga annual crop survey
- Fiji field-based forest monitoring
- Digital data collection, reference layers, querying, visualisation & download

⊕ Agricultural extension officers identified as priority users

Software components **free & open-source**. Server components deployable to **cloud services**. Mobile components support **Android**. Geospatial application as **automated** as possible.

Developing, testing & deploying

Shiny dynamic interaction

Multi-user spatial geodatabase

PostGIS Spatial PostgreSQL

QField mobile GIS

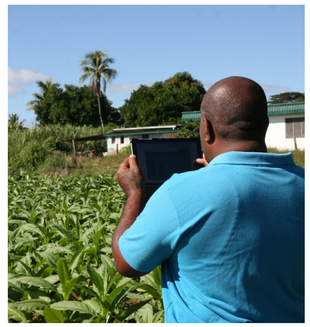
Google Earth Engine cloud processing

Sustainability assessment

Impacts **Scientific** – novel utilisation of geospatial information & technologies for community development.
Community – enhanced adaptation capacity through application co-development & knowledge exchange.
Environmental – more sustainable & climate-smart management of landscapes through improved communications between agricultural stakeholders.

Access website for publications

Eloise Biggs
Bryan Boruff
Michael Boyland
Eleanor Bruce
Kevin Davies
John Duncan
Clemens Grunbuhel
Viliami Manu
Jalesi Mateboto
Pyone Myat Thu
Andreas Neef
John Oakeshott
Natasha Pauli
Helena Shojaei
Renata Varea
Nathan Wales



Crop surveying with agricultural ministries in Fiji & Tonga.

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