



Customer Story

Vanuatu Globe – Google Earth used to plan for and raises awareness of climate change in Vanuatu



Google™ Maps Engine

Project Background

The Pacific islands are among the countries most vulnerable to sea level rise globally.

Vanuatu Globe was a project that was developed out of the Pacific Australia Climate Change Science and Adaption Planning Program (PACCSAP) – a program funded by the Australian Government to help Pacific Island countries better understand and prepare for the potential impacts of climate change. NGIS was appointed by CRCSI to implement the capacity building component of the program.

The capacity building component of the project aimed to provide government and community within each Pacific Island nation with the capacity and tools to effectively plan for sea level rise.

Throughout 2013, NGIS attended several in-country scoping missions to determine each country's requirements, and subsequently undertook a series of training programs to build the desired mapping capabilities of each respective government. To support this capacity building, NGIS also scoped the software and hardware required to effectively use the LiDAR data provided by the project.

Key Benefits

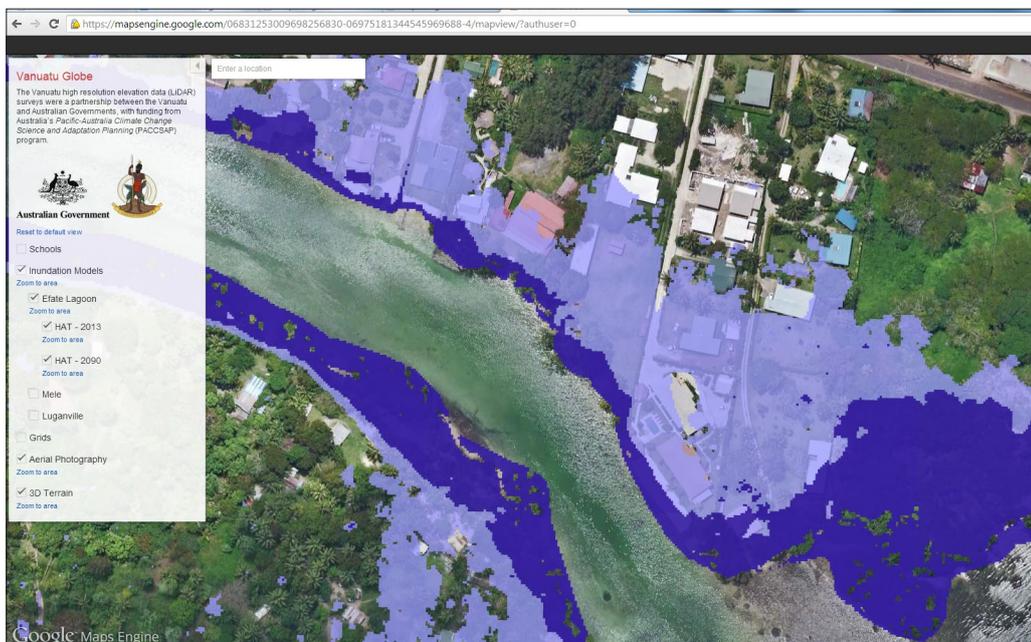
- » Easy to use visualisation tool for the effects of climate change
- » A platform in which the government of Vanuatu can educate its community on the impact of climate change
- » A planning tool for government agencies to put mitigation measure in place to reduce the risks of coastal inundation
- » A teachers aid to educate future generations of Vanuatu about the effects of climate change



As a part of that capacity building, the program needed to provide the people of Vanuatu with access to the acquired data so they could increase sea level rise and coastal flooding awareness to enable effective planning and decision making.

The Challenge

During the Vanuatu planning mission NGIS and the CRCSI worked with the Vanuatu government to get buy in and support for the Vanuatu Globe. Making the extremely valuable LiDAR data free, highly available and highly accessible to everyone was a new concept for the Vanuatu government, and a very different approach to climate change awareness.



“Climate change is a fact. And when our children’s children look us in the eye and ask if we did all we could to leave them a safer, more stable world, with new sources of energy, I want us to be able to say yes, we did.”

President Barack Obama,
State of the Union Address,
January 28, 2014

Many Aid Programs have been implemented using software that has taken little into the consideration for its accessibility and capability post implementation. NGIS and CRCSI were focussed on long term sustainability and ensuring that the high resolution data and inundation models, were available to the key decision makers and policy builders in Vanuatu in a medium that was familiar and easy to use.



The Solution

The Vanuatu Globe was established by NGIS using the industry leading Google Maps Engine Cloud technology. The resulting globe provided consolidated access to a wealth of high resolution elevation data and aerial photography, including inundation layers to illustrate the predicted impact of sea level rise for Vanuatu.

According to Nathan Quadros, Education and Business Development Manager, Cooperative Research centre for Spatial Information (CRCSI), Google Maps Engine was the obvious platform for the Vanuatu Globe project.

“Google Earth has been downloaded over 1 billion times worldwide. It is the most intuitive, familiar and easy to use mapping application available.”

“It’s high performing and readily available,” said Quadros.

A focus for the Vanuatu program was on creating awareness, use and distribution of the valuable information. The recent internet fibre cable connected from Fiji made this possible.

“As a cloud based application Google Maps Engine will allow the government of Vanuatu to focus on the dissemination and applications of the data by having Google manage the Globe’s infrastructure and software,” added Quadros.

During the capacity building, training was provided on the Vanuatu Globe to ministry staff. To help teachers increase climate change awareness in schools, a course called *“Climate change mapping for teachers”* was delivered using Google Earth and the Vanuatu Globe.

Google Maps Engine



“Google Earth has been downloaded over 1 billion times worldwide. It is the most intuitive, familiar and easy to use mapping application available.”

**Nathan Quadros,
Education and Business
Development Manager,
CRCSI**



The Results

The Vanuatu Globe provides high resolution data across Vanuatu with inundation layers for predicted sea level rise and coastal flooding scenarios for 2030, 2055 and 2090. The release of the globe has provided the people of Vanuatu with an effective planning tool giving the government insight into the challenges the islands of Vanuatu face adapting to climate change. Many Pacific Islands countries are now implementing a range of measures to mitigate the impacts of storm surge and inundation including sea walls and mangroves.

The Vanuatu Globe project will allow government ministries to focus policies, planning and development for change mitigation.

“The Vanuatu Globe is going to change how planning is done in Vanuatu to accommodate the effect of climate change and the disaster risk reductions and considerations,” said Brian Phillips, Manager of the National Advisory Board on Climate Change and Disaster Risk Reduction in Vanuatu.

Vanuatu Globe and the White House

The Vanuatu Globe was show cased at the White House Climate Data Initiative launch as a leading example around the world for increasing climate change awareness through the use of mapping.. The Climate Data Initiative is focussed on using technology, data and the cloud for climate change awareness and modelling.

The Vanuatu Globe is available from the Vanuatu National Advisory Board on Climate Change and Disaster Reduction website www.nab.vu

“The project has been an absolute success. Vanuatu village leaders used the Vanuatu Globe to demonstrate the predicted extent of inundation for their village to increase awareness,”

Nathan Quadros,
Education and Business
Development Manager,
CRCSI

More Customer
Case Studies

www.ngis.com.au

