

Honolulu, Hawaii: January 2015



Republic  
of Vanuatu

# ICTs in the Vanuatu Schools, Local Island Languages as Part of “Access,” and MGOV

Office of the Government Chief Information Officer (OGCIO)  
Presentation to Pacific Telecoms Council Conference; PTC 15

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# Topics for Today:



**First Survey of ICTs in the Vanuatu Schools**



**Island Languages = Part of “Access”?**



**Mobile E-Government: MGOV**



# First Survey of ICTs in the Vanuatu Schools

# Key research questions:

- ? Types of schools
- ? Access to ICTs
- ? Digital literacy
- ? Priority given to ICTs
- ? Obstacles to ICTs
- ? Policy conclusions



# Three types of schools:

1. A working computer lab for students, with an average of 10 desktops, all secondary schools (about 20/514 of these)
2. No lab for students, but a few computers for teachers/admin (number unclear, perhaps 50 schools)
3. No computers or ICTs at all (the vast majority of the 514 schools and virtually all the kindergartens)



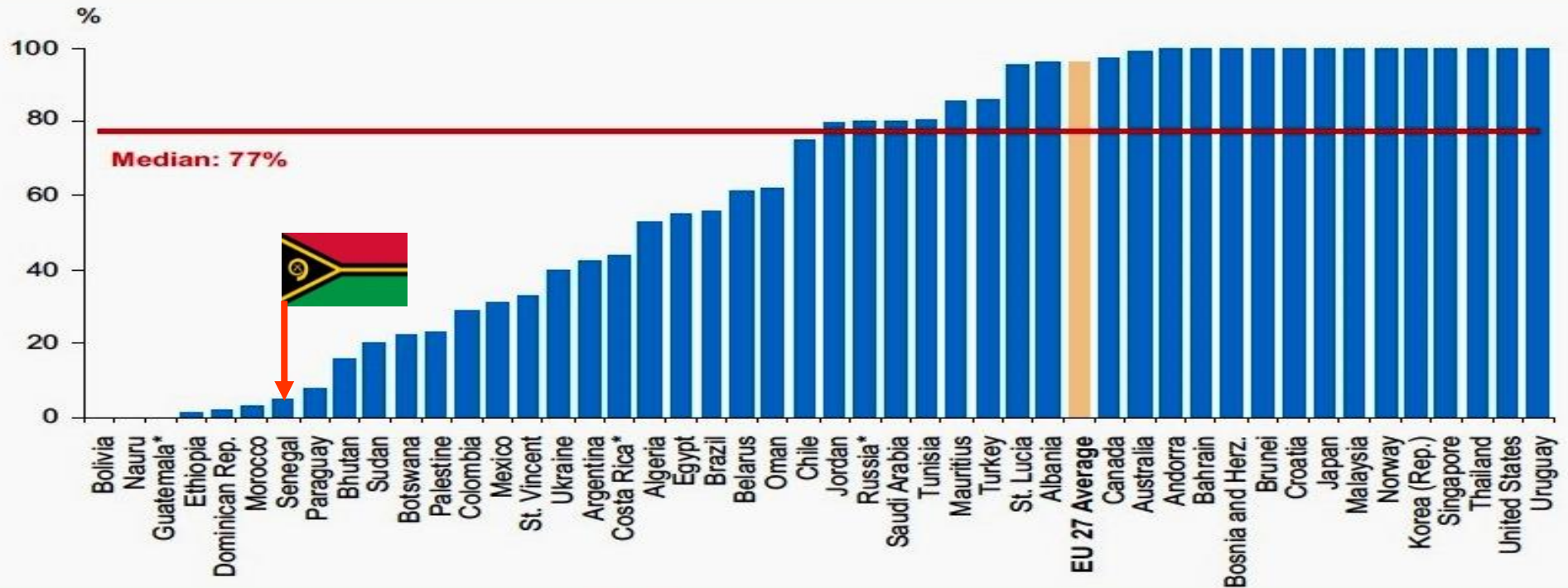
**No schools had tablets.**

**1 school had computers in a few normal classrooms**

# Only 6% of schools have Internet access

- ☹️ 5% of students have Internet access
- ☹️ 14<sup>th</sup> percentile of 48 countries reporting to ITU
- ☹️ About the same as Senegal

Chart 2.4: Proportion of schools with Internet access (for ISCED levels 1-3), 2008-09\*\*



Note: \*\*Or latest available year. Includes national estimates. \*Refers to public schools only.

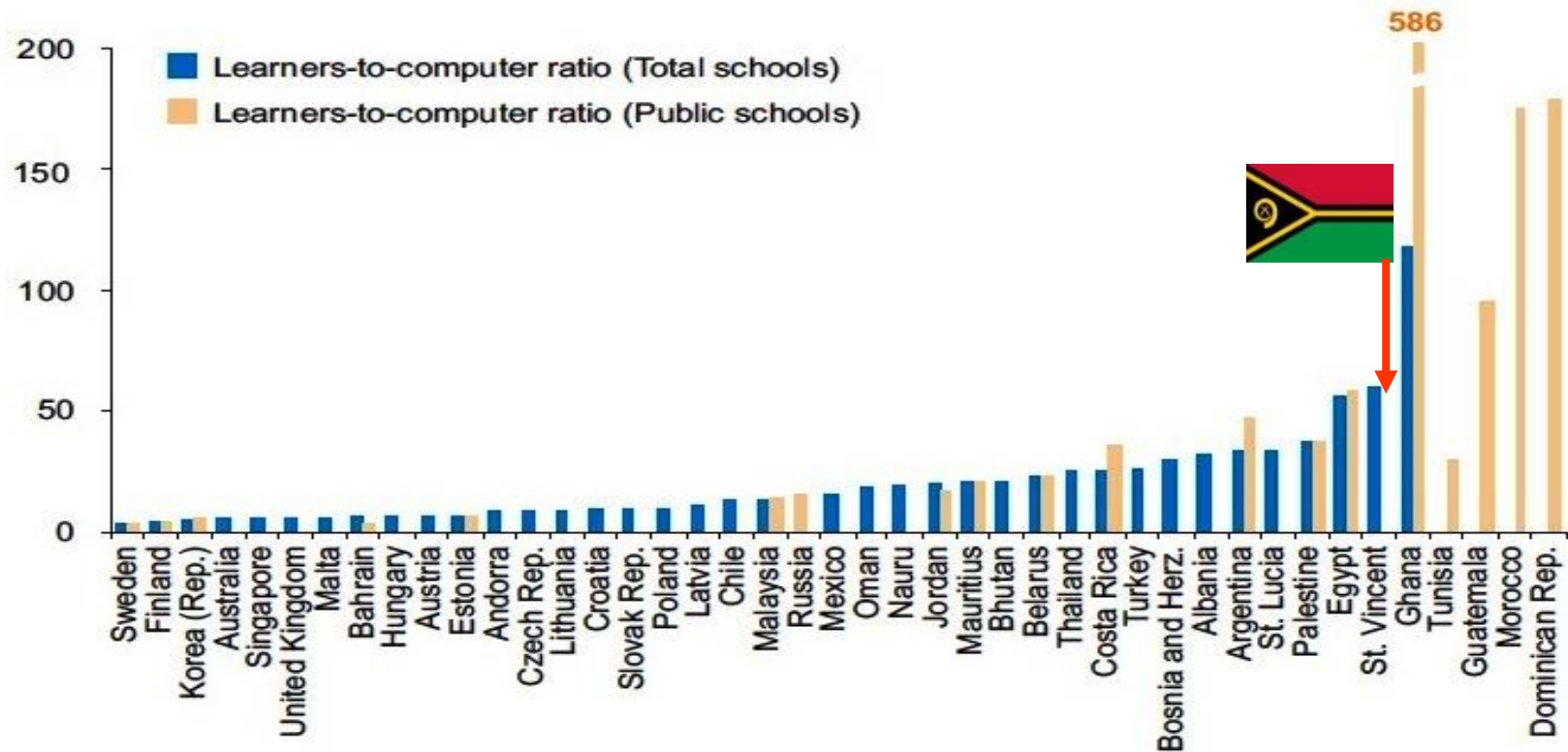
Source: UIS Pilot Questionnaire on Statistics of ICT in Education; ITU Survey on the WSIS Targets (including data for Egypt, which was also part of the UIS Pilot Questionnaire); national sources.

ITU = International Telecommunication Union, a UN agency

# 205 students compete for every computer

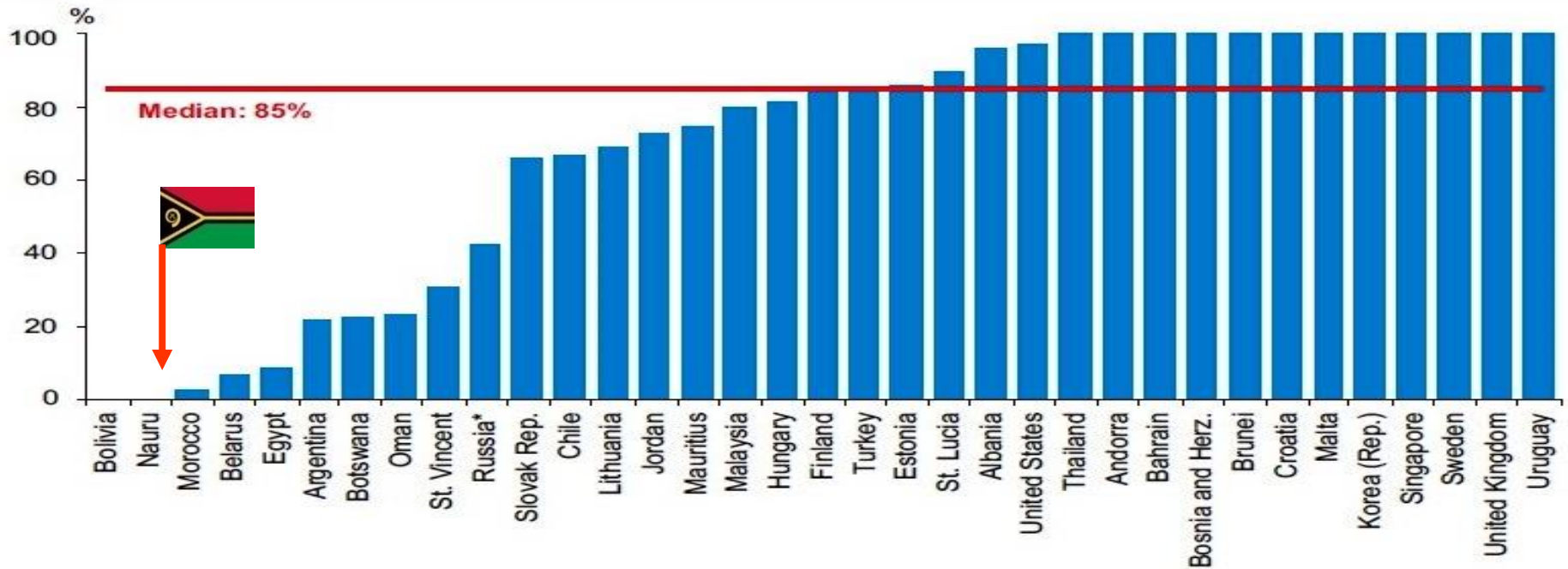
- ☹️ Vanuatu students to computer ratio: 205 students per computer; **only about 300 computers for 61,400 students**
- ☹️ 4<sup>th</sup> percentile of countries reporting
- ☹️ Thus 96% of countries are doing better

Chart 2.2: Learner-to-computers ratio (for ISCED levels 1-3), 2008-09\*



# Vanuatu broadband school access is about 1%...

Chart 2.5: Proportion of schools with broadband Internet access (for ISCED levels 1-3), 2008-09\*\*



Note: \*\*Or latest available year. Includes national estimates. \*Refers to public schools only.

Source: UIS Pilot Questionnaire on Statistics of ICT in Education; ITU Survey on the WSIS Targets (including data for Egypt, which was also part of the UIS Pilot Questionnaire); national sources.

...3<sup>rd</sup> percentile in world, per ITU ☹️



# Digital literacy:

☹️ **Bad news: est. of computer literacy in schools: 4%, almost all secondary students**



😊 **Good news: schools w/ computer labs have a 71% computer literacy rate, compared to almost zero w/ no lab**



# Priority given to ICTs:

Response by Ed Officers	Percentage
Very High	0.0
High	5.6
Medium	0.0
Low	22.2
<b>Very low</b>	<b>72.2</b>
<b>TOTAL</b>	<b>100.0</b>



# Main obstacles to ICTs:

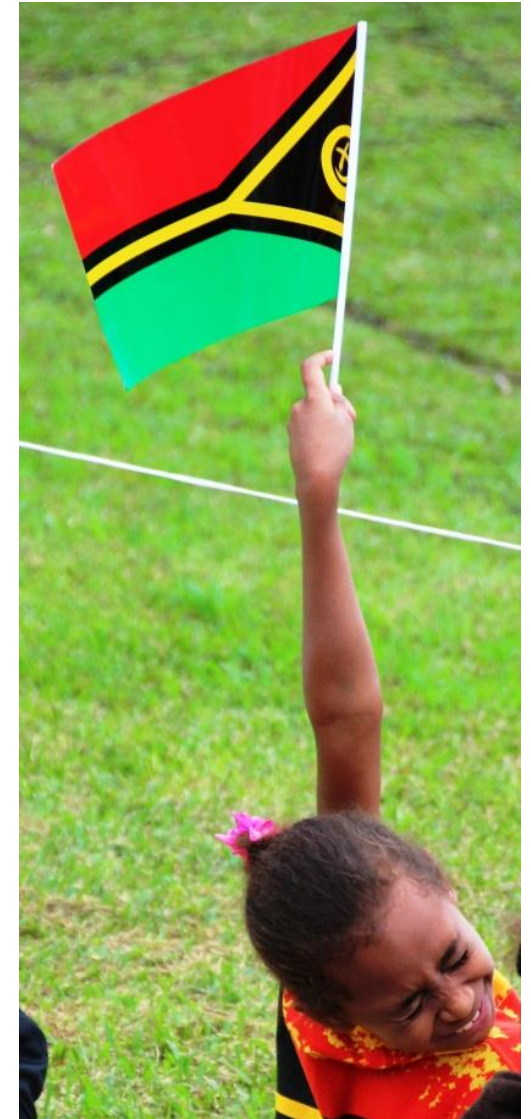
Response by Ed Officers on Obstacles	Percentage
<b>Electrical power</b>	<b>76</b>
<b>HR, training, IT capacity</b>	<b>71</b>
Internet access/coverage	48
Finances, sustainability	48
Maintenance	29
Remoteness	24
No computers	19



# Policy conclusions from 1<sup>st</sup> survey:

- ☹️ Low scores on ICT access & literacy
- ☹️ ICT usage + literacy largely confined to the 2 main towns, & nearby
- 😊 Schools w/ computer labs have a **71% computer literacy rate**, hence focus on that
- 😊 Input of even 300 to 2000 computers/tablets w/ access would have a big impact

Partly as a result of this survey, the CoM has designated education as the top sector for ICTs

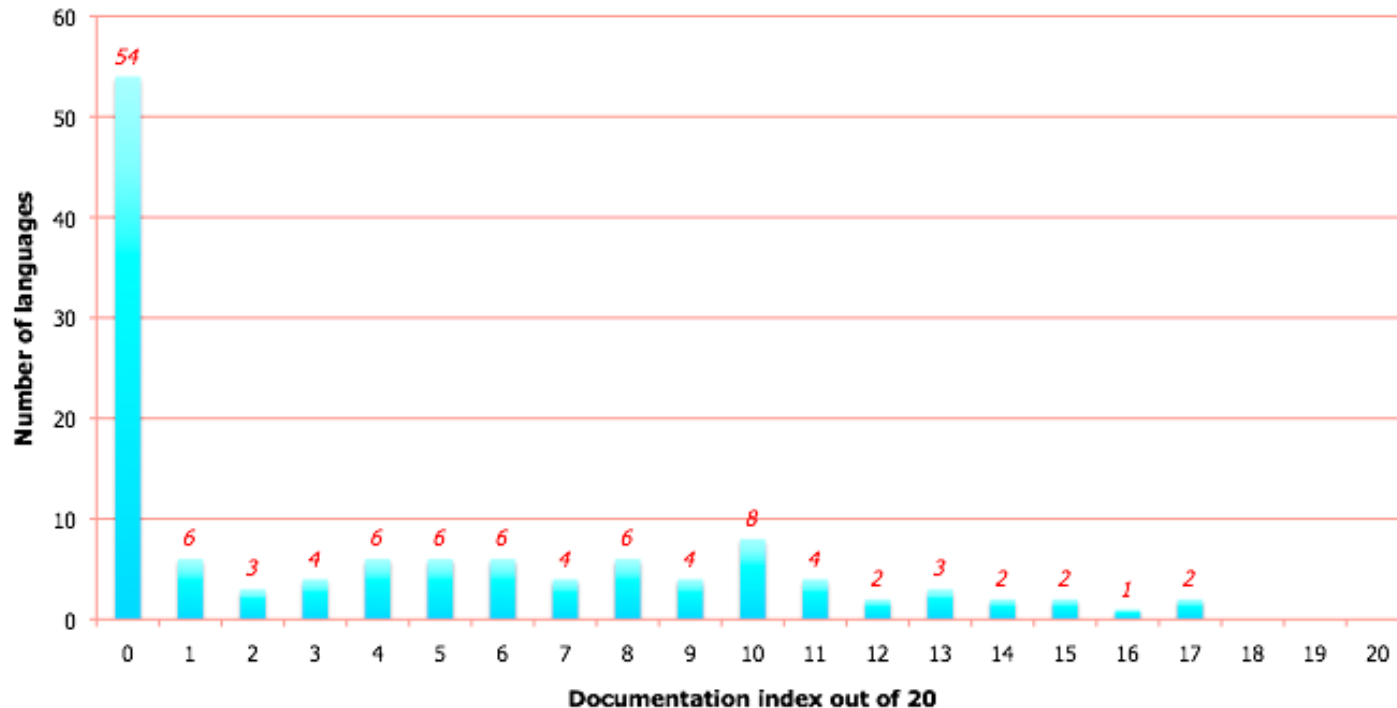




## Island Languages – Part of “Access”?

Of the 123 island languages , 54 (44%) are totally undocumented and 53 (43%) are poorly documented....

Documentation index, Vanuatu languages

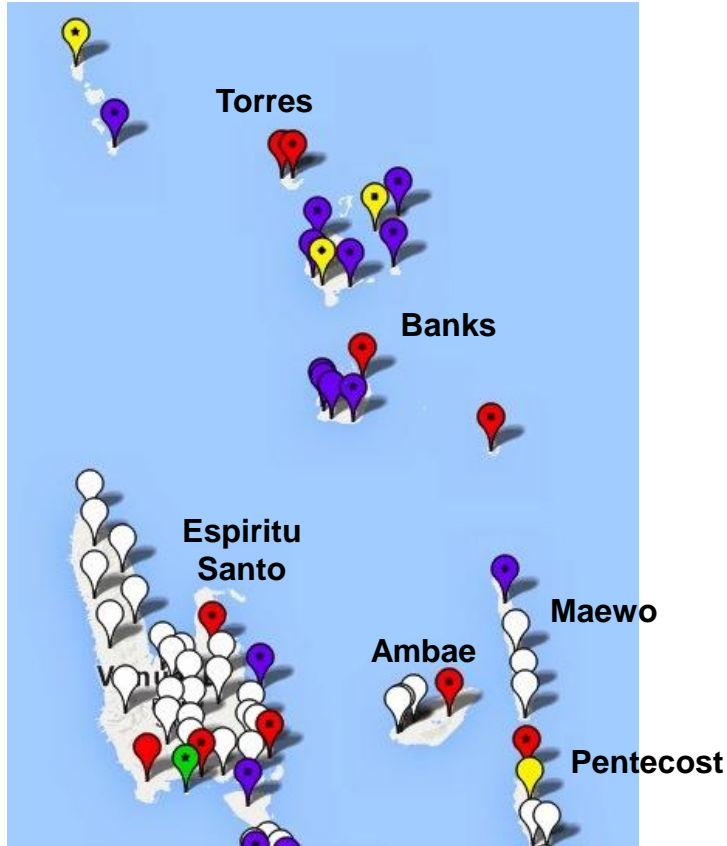


Source: Nick Thieberger, U. of Melbourne, PARADISEC, 2014








...and only 3 (2.6%) are well documented, meaning have a good dictionary and orthography

# In the northern part of the country, only remote Torres and Banks has had moderate work in language documentation and preservation



Northern Vanuatu

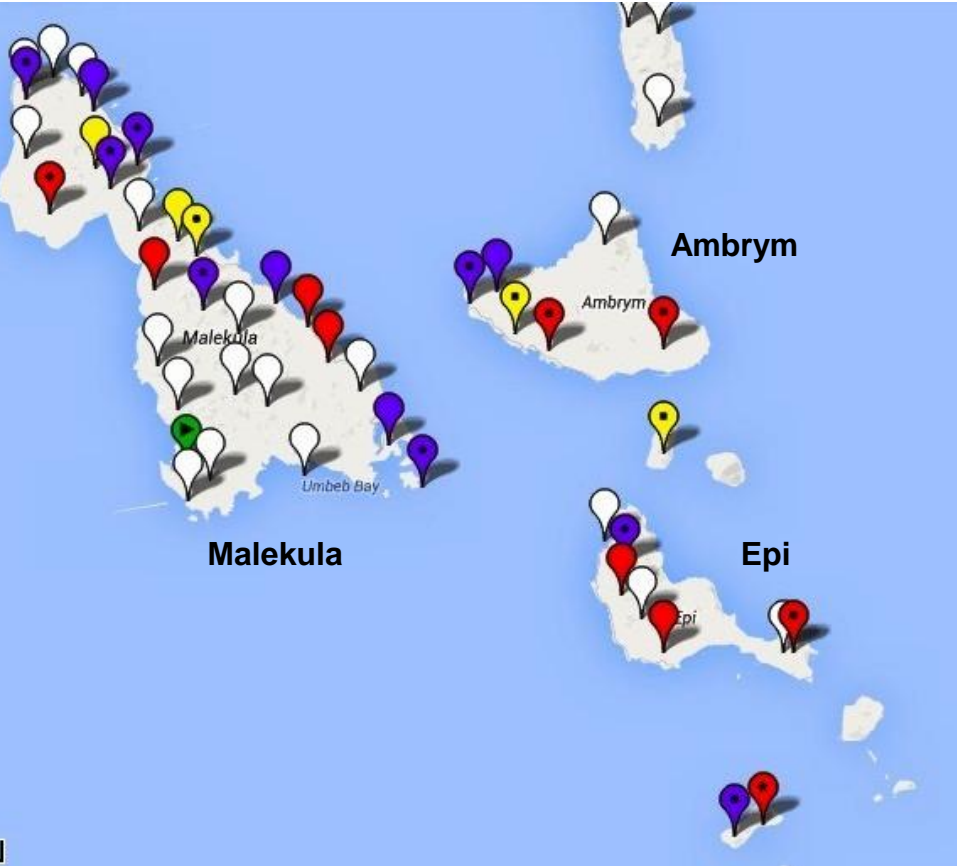
## Marker Legend:

-  White: no documentation; score of 0/20
-  Red: very poor documentation; 1-5/20
-  Blue: poor documentation; 6-10/20
-  Yellow: moderately well doc.; 11-15/20
-  Green: well documented; 16-20/20

**Note: only 1 green marker in the region; white, red and blue are all zero to poor**

Source: adapted from Nick Thieberger, U. of Melbourne, PARADISEC, 2014

# Malekula interior is un-documented and the coast is poorly documented



North Central Vanuatu

Source: adapted from Nick Thieberger, U. of Melbourne, PARADISEC, 2014



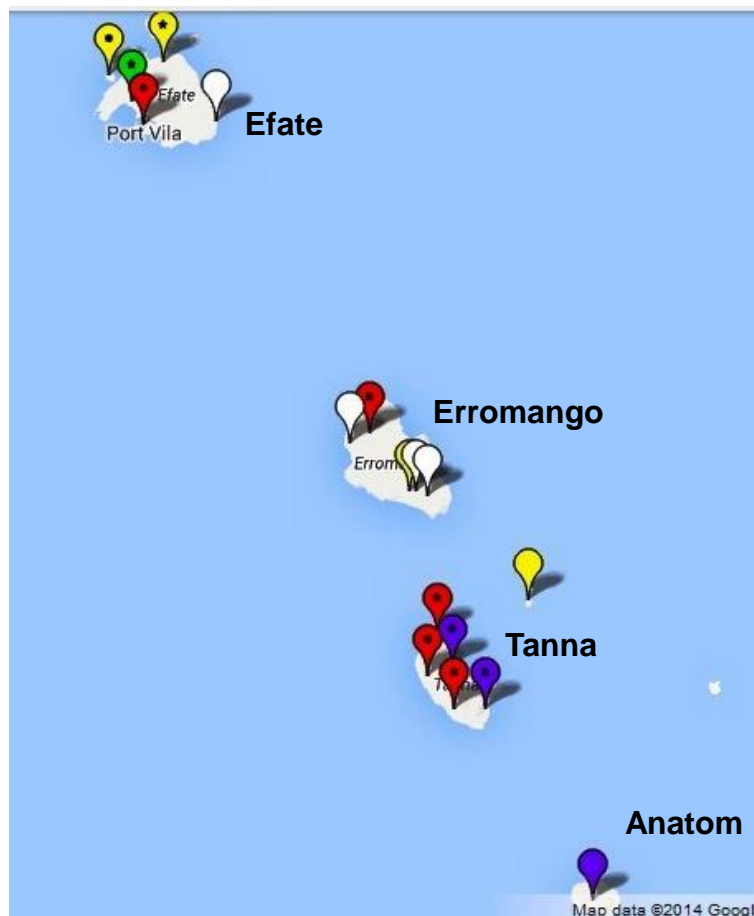
### Marker Legend

- White: no documentation; score of 0/20
- Red: very poor documentation; 1-5/20
- Blue: poor documentation; 6-10/20
- Yellow: moderately well doc.; 11-15/20
- Green: well documented; 16-20/20

Again note: only 1 well documented language








# In central-south Vanuatu, only Efate has a well-documented language



## Central to South Vanuatu

Source: adapted from Nick Thieberger, U. of Melbourne, PARADISEC, 2014



-  White: no documentation; score of 0/20
-  Red: very poor documentation; 1-5/20
-  Blue: poor documentation; 6-10/20
-  Yellow: moderately well doc.; 11-15/20
-  Green: well documented; 16-20/20

# These unique island languages and cultures are threatened by external forces, and no ICT content has been developed to counter these forces

- ☹️ Tsunami of Western culture, almost all in English, w/ sub cable bringing more
- ☹️ Lack of enforcement of national policy that Grades 1-2 should be taught in island languages; only English or French are used
- ☹️ Urbanization of the population (especially youth) est. at 4%/year
- ☹️ Lack of development of good digital content in island languages
- ☹️ Lack of school projects in island languages
- ☹️ Lack of funding for island language preservation and celebration



# Needed solutions include:

- 😊 Use of ICTs to digitally document languages, cultures, ceremonies, food ways, native crops, folk medicines, ancestry, legends, etc.
- 😊 Digital mapping of cultural and language assets
- 😊 Use of island languages in school projects and content for grades K-1-2-3
- 😊 Enforcement of new National ICT Policy that “local languages and cultures should be documented and celebrated”
- 😊 Development of business opportunities
- 😊 Training of youth in this area
- 😊 Possible recognition that local language and content are part of ICT “access”?



Source: Graham Crumb





# Mobile E-Government: MGOV

# Vanuatu is the first country in the world to have a detailed MGOV strategy



Developed by experts:



Three parts:



Lit review



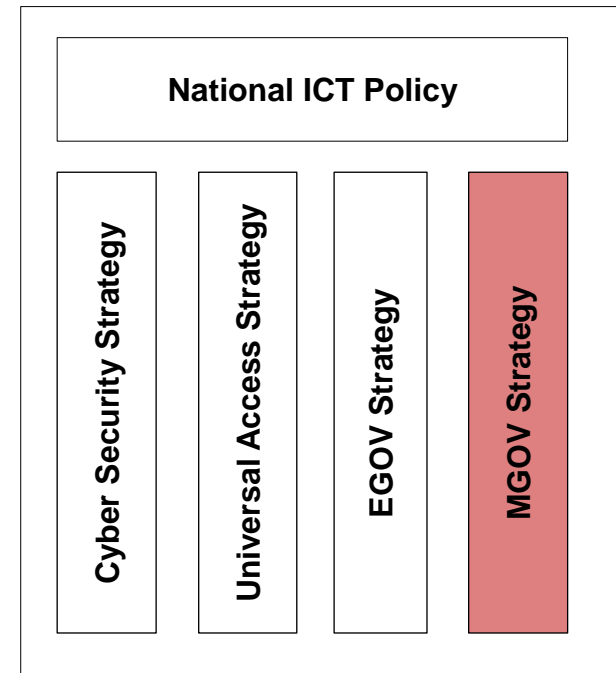
Vanuatu strategy



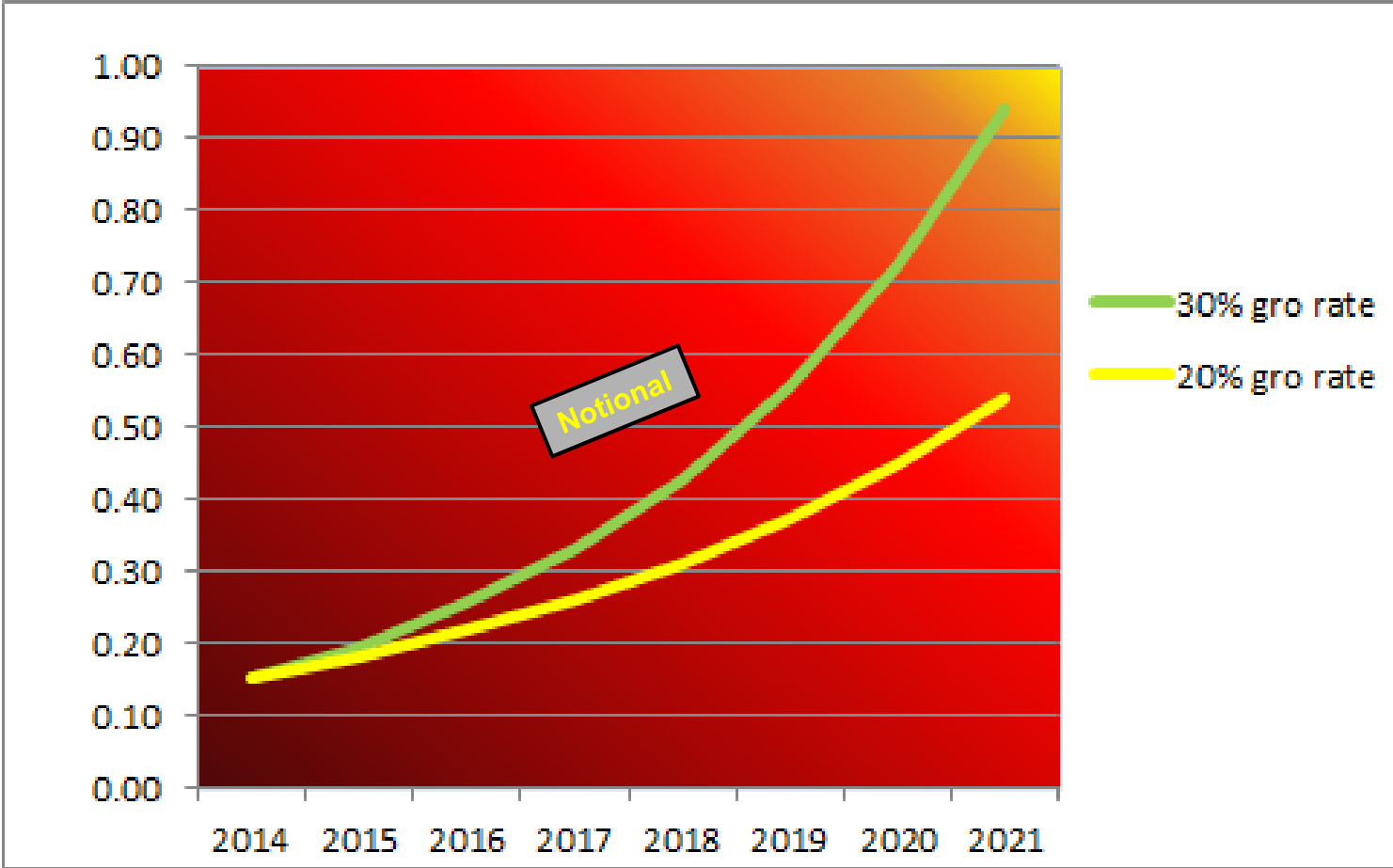
Toolkit for any country



Soon a “pillar” in our Nat ICT Policy:



# Fast smart phone rollout will have an impact on MGOV...



...and will build on the current est. 80-94% household penetration of mobile phones

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# The MGOV plan reflects local policy conditions & needs

## STRUCTURE



## NARRATIVE

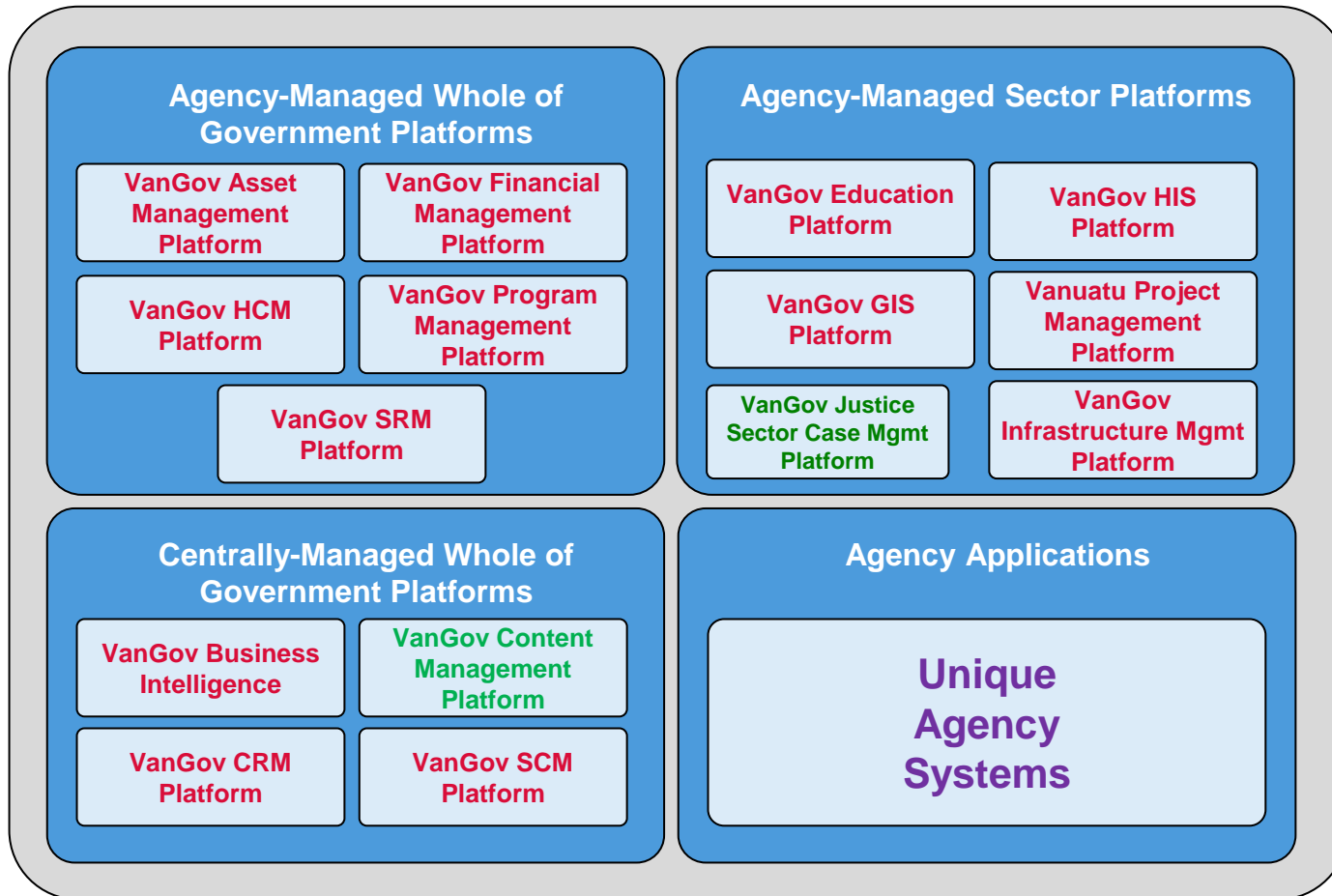
1. Background
  - 1.1. Policy Context
  - 1.2. Needs Assessment
2. Strategic Framework
  - 2.1. Objective and Goals
  - 2.2. Approaches and Principles
3. Strategies
  - 3.1. Strategies – Institutions
  - 3.2. Strategies – Innovation System
  - 3.3. Strategies – Infrastructure
  - 3.4. Strategies – Services and Applications
4. Implementation Plan
  - 4.1. Governance
  - 4.2. Management
  - 4.3. Priority Initiative 1
  - 4.4. Priority Initiative 2
  - 4.5. Priority Initiative 3

# The plan is phased over time and reflects the anticipated customer base and network development

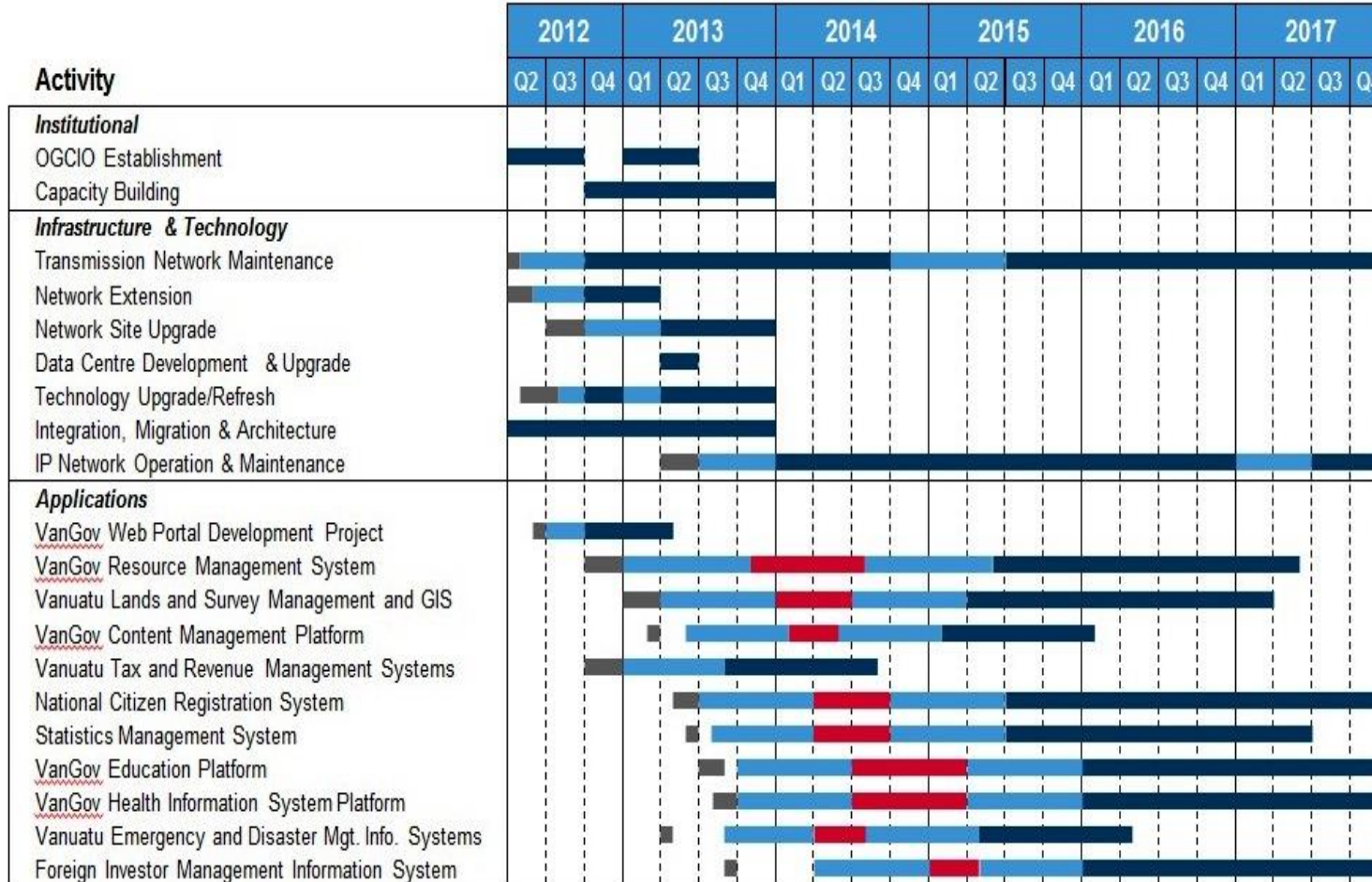
2014	2015-2016	2017-2018	2019-2020
READINESS AND QUICK WINS		USAGE	
80-90% voice coverage 20% population by 3G 7% has smart phones smart phone price 300-500USD	90-93% voice coverage 25-30% covered by 3G 12-20% has smart phones smart phone price \$200-300 USD	95-98% voice and high speed coverage 75% covered by 3G 50-70% has smart phones smart phone price \$40-100 USD	98-99% voice and high speed data coverage 85-90% has smart phones smart phones price \$25-90 USD
Develop implementation plan	SMS-based MGOV applications: <ul style="list-style-type: none"> <li>○ Civil Registry (birth, death, marriage, etc. registration)</li> <li>○ Civil Defense (weather forecasts, emergency warning alerts, etc.)</li> <li>○ Health (vaccination alerts, public health prevention, etc.)</li> </ul>		
Develop investment plan	MGOV mobile applications: <ul style="list-style-type: none"> <li>○ Health (collection of health-related data)</li> <li>○ Education (courseware for mobile learning)</li> <li>○ Civil Defense (protecting women's safety)</li> </ul>		
Create governance structures	Provide MGOV training	MGOV Strategy for Health Sector	MGOV mobile applications According to sectoral strategies
Create MGOV leaders	Facilitate access to mobile devices (One device per child)	MGOV Strategy for Education Sector	
	Establish legal framework (ICT policies for equal and equitable access to mobile technologies)	MGOV Strategy for Tourism Sector	
	Establish legal framework (ICT policies for equal access, Guidelines for green mobile technologies)	MGOV Strategy for Transport Sector	
	Define guidelines and good practices Guidelines for green mobile technologies)	MGOV Strategy for X Sector	
	Develop capabilities of ICT industry (Promotion of private sector integration on MGOV strategies)		Implement Sector Strategies



# Our “integrated government initiative” or iGov Initiative, addresses our major E-GOV application issues across many high priority areas...

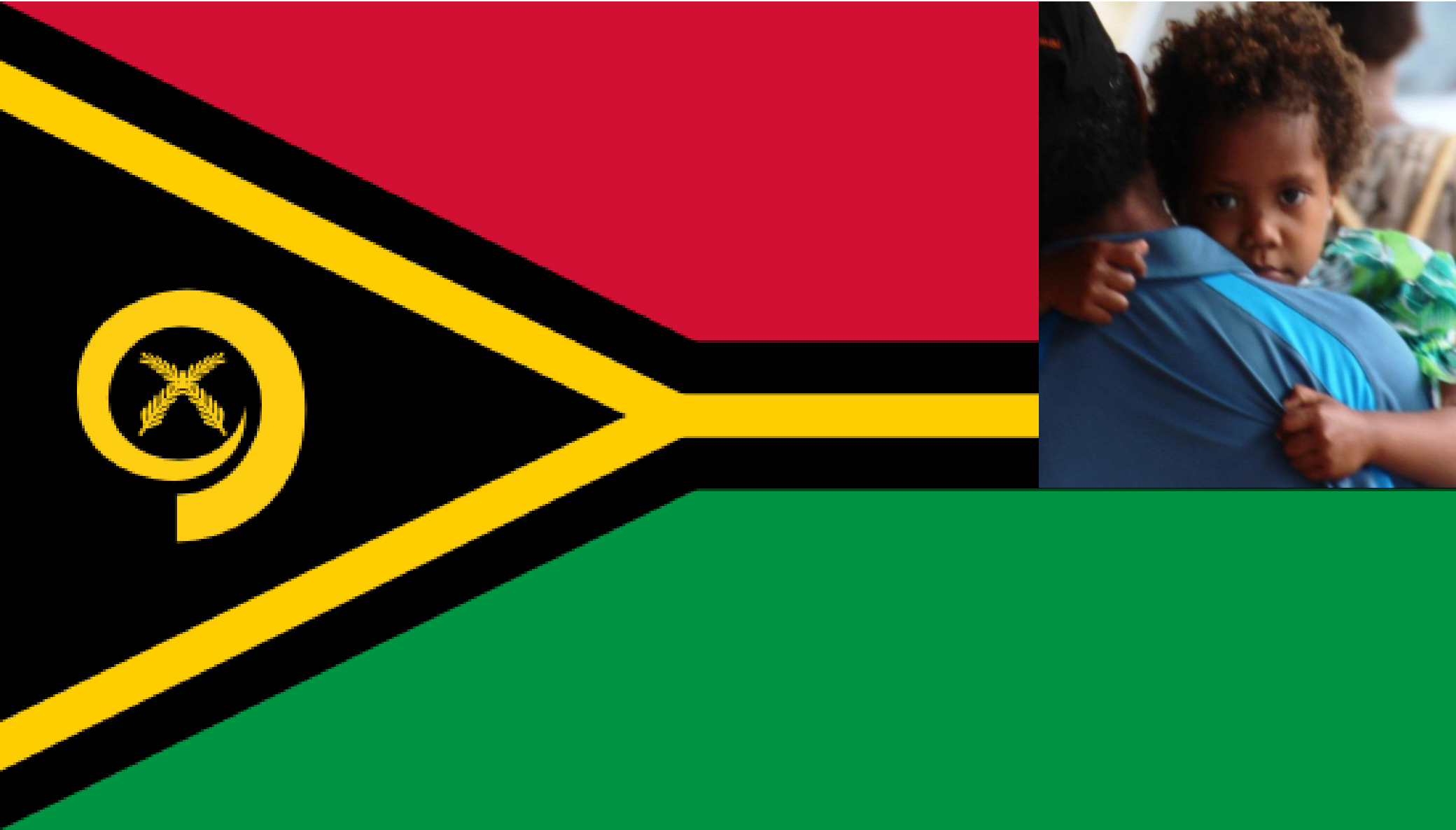


# ...the Plan is now being refined for a major donor loan/grant operation, and M-GOV will be an integral part



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**This is who we are working for:**



**Tank yu tumas!!!**

