



**NAP
Global
Network**

INTEGRATED VULNERABILITY ANALYSIS (IVA) FRAMEWORK & DATABASE

*Laying the Groundwork for the
National Adaptation Planning
Process*



The IVA

- 1. The Pacific IVA Framework Pacific IVA Framework and NAPs**
- 2. The guiding principles**
- 3. The structure**
- 4. Application across sectors and levels**
- 5. The database**
- 6. Prospects of supporting future Pacific NAP processes**



Pacific IVA Framework

Purpose:

- Inform climate-resilient investment prioritization and M&E in a way that is systematic, robust, transparent and integrated
- effectively inform the development of the National Adaptation Plan (NAP) as well as its implementation and monitoring and evaluation process.



Pacific IVA Framework

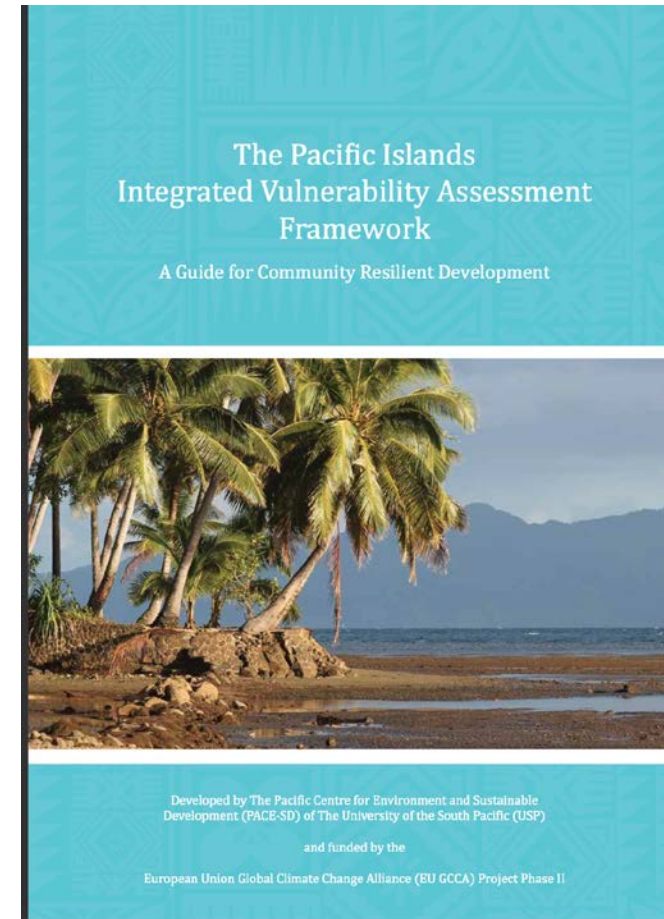
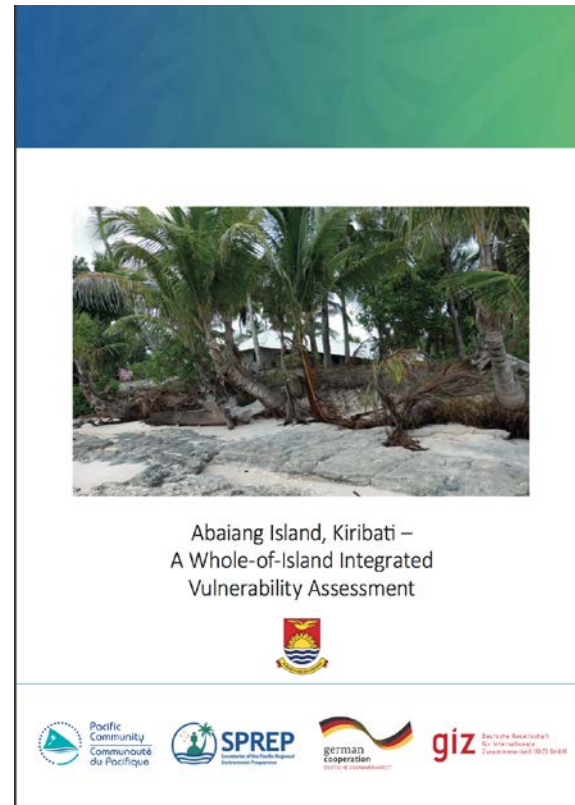
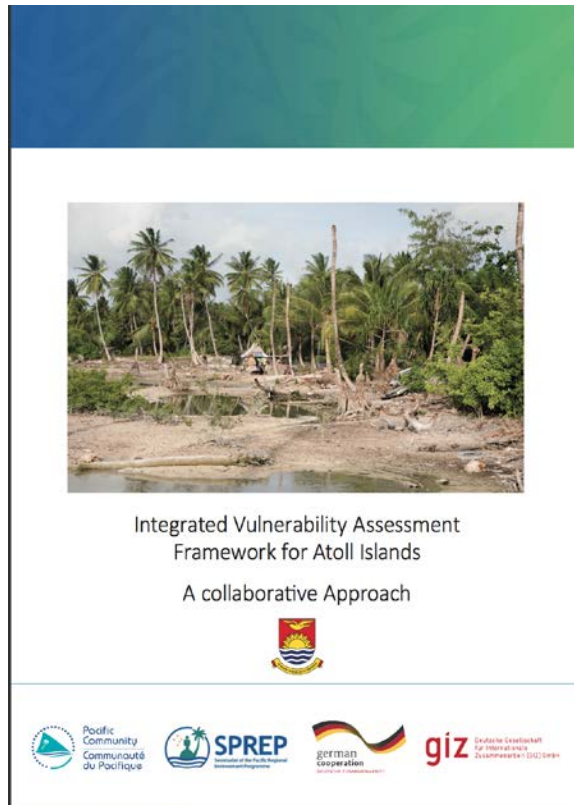
Background:

- Previously conducted VAs vary in approach, methods, theme, geographic cover, scale and timescale
- No reference point to frame a **COLLECTIVE ANALYSIS** and **USE OF RESULTS** from previous assessments and existing vulnerability related data for integrated adaptation prioritization and M&E
- The IVA developed to provide a common overarching framework for adaptation decision-making that allows for the comparative analysis of vulnerability across sectors (environment, health, place, water, food, income, energy) and governance levels (community, provincial, national).
- Need for an vulnerability assessment framework that local communities understand and use



Pacific IVA Framework

Background:



The IVA & NAPs in the Pacific

NAP GN support in Kiribati, Tuvalu & the Solomon Islands

The national IVA frameworks and databases aims to support:

- ❖ Identification of **people and places that are particularly vulnerable** to climate change and **how**
- ❖ Identification and prioritizing evolving climate adaptation and disaster risk management needs across sectors and at national and sub-national levels
- ❖ Development of institutional mechanisms for effectively incorporating climate vulnerability data to inform the NAP development and M&E
- ❖ Provision of time and place-based gender disaggregated vulnerability data
- ❖ Climate financed project proposals development & project M&E



How the IVA assesses vulnerability

Vulnerability is determined by the exposure and sensitivity of people's **Livelihood Assets (LAs)** to the effects of climate change and the ability to cope in a 'climate impacted' environment.

The VAF translates 'the ability to cope' as the **ability to meet the human security objectives (HSOs)** or desired **future** in a changing environment.

5 LAs – 7 HSOs

5 LAs	7 HSOs
Natural Resources/Environment Infrastructure and services Finance Human Resources Institutions and Governance	Ecosystem Health Community Health Security of Place Water Security Food Security Income Security Energy Security

The IVA Framework

LIVELIHOOD ASSETS (LAs)	Human Security Objectives (HSOs)						
	Ecosystem Health (e)	Community Health (h)	Security of Place (p)	Water Security (w)	Food Security (f)	Income Security (i)	Energy Security (n)
Natural resources (N)	Ne	Nh	Np	Nw	Nf	Ni	Nn
Infrastructure and Services (I)	Ie	Ih	Ip	Iw	If	Ii	In
Finance (F)	Fe	Fh	Fp	Fw	Ff	Fi	Fn
Human Resources (H)	He	Hh	Hp	Hw	Hf	Hi	Hn
Institutions and Governance (G)	Ge	Gh	Gp	Gw	Gf	Gi	Gn

Vulnerability is explained as the combined exposure and sensitivity of LAs to climate change and disasters how this affects the extent to which HSOs are met at a particular point in time.

IVA Application

- **Multiple sources of data** (quantitative, qualitative, GIS and satellite imagery, community perceptions, census)
- **Community level:** focus group discussion, individual interviews, transect walks, household surveys, photos
- **National level:** multiple sources of secondary data, quantitative and qualitative expert analysis and ranking



IVA Scorecard *(before and after)*

HUMAN SECURITY OBJECTIVES (HSO)	LIVELIHOOD ASSETS (LA)					June, 2016 HSO Average
	Natural resources	Institutions & Governance	Human Resources	Infrastructure	Finance	
Ecosystem health	4	2	3	2	1	2.4
Energy security	3	3	3	4	2	3
Food Security	4	4	3	4	4	3.8
Income Security	3	4	3	4	4	3.6
Security of Place	4	4	3	4	3	3.6
Community Health	3	3	4	3	3	3.2
Water Security	4	3	4	3	2	3.2
June, 2016 LA Average	3.57	3.29	3.29	3.43	2.71	

HUMAN SECURITY OBJECTIVES (HSO)	LIVELIHOOD ASSETS (LA)					June, 2016 HSO Average
	Natural resources	Institutions & Governance	Human Resources	Infrastructure	Finance	
Ecosystem health	2	2	3	2	1	2
Energy security	3	1	3	1	2	2
Food Security	2	2	3	1	1	1.8
Income Security	2	2	3	1	1	1.8
Security of Place	2	2	3	1	1	1.8
Community Health	3	3	4	2	2	2.8
Water Security	4	3	4	2	2	3
June, 2016 LA Average	2.57	2.14	3.29	1.43	1.43	

1=Very
challenging

2=Challenging

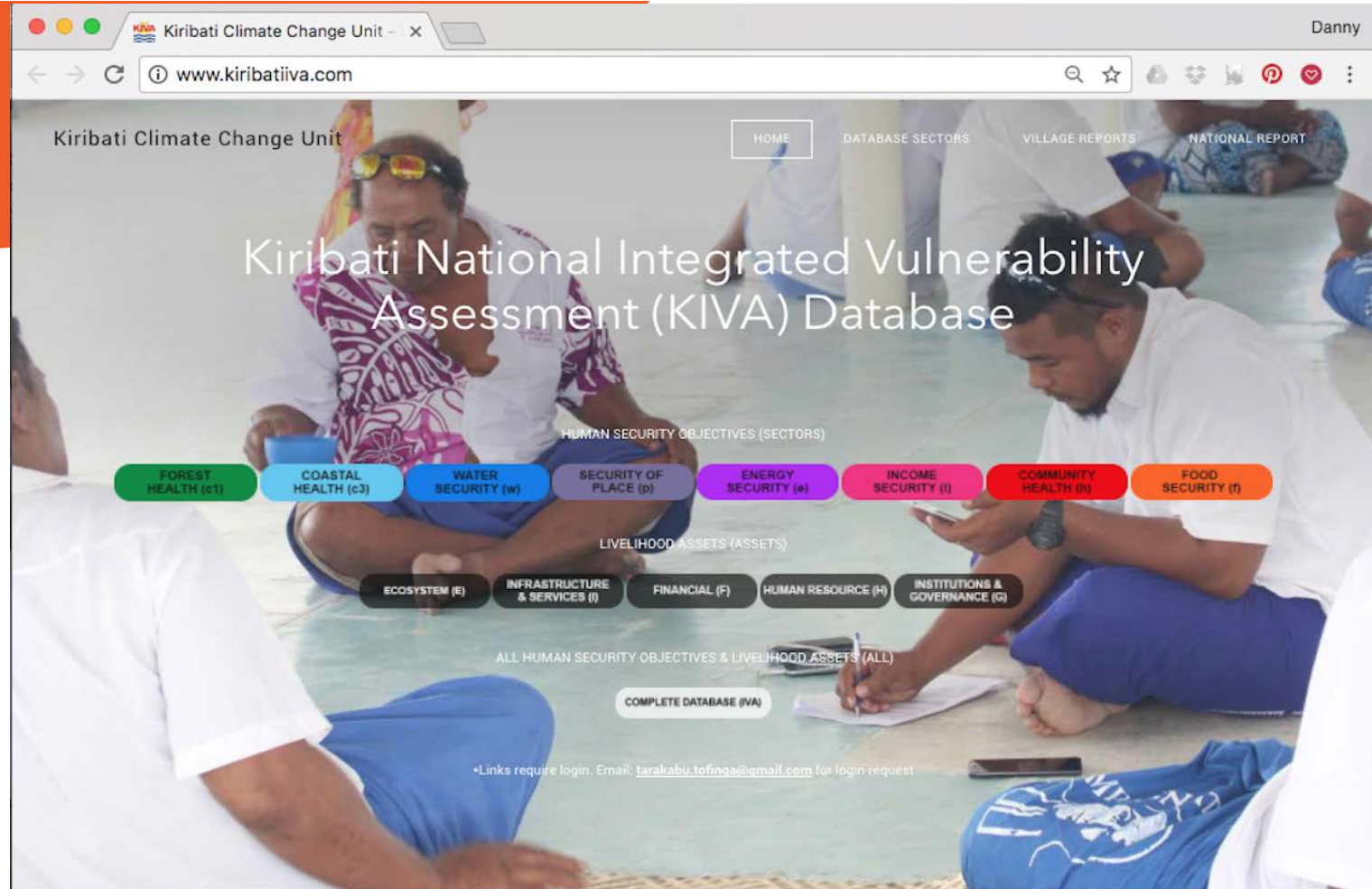
3=Okay

4=Good

5=Very Good



IVA Database



What is KIVA?

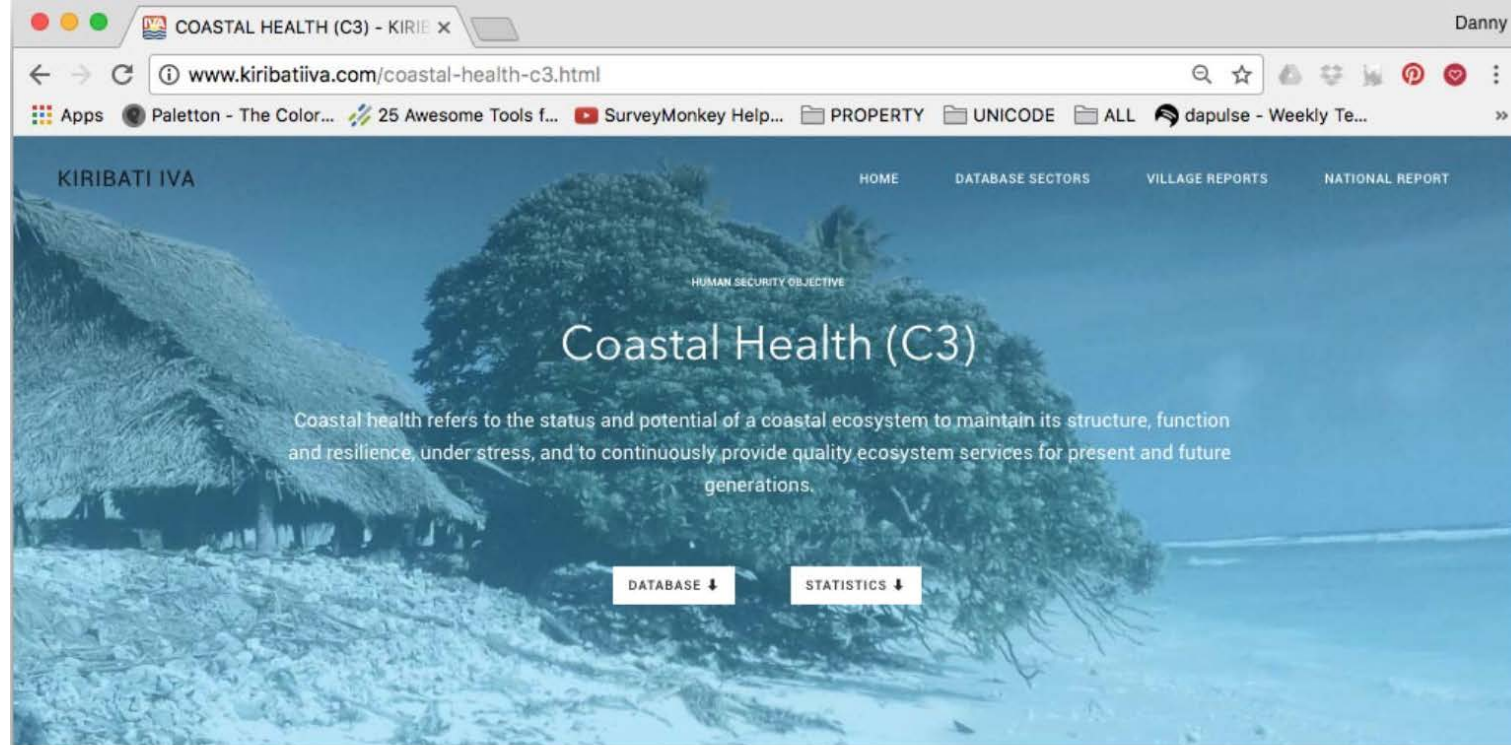
Kiribati's Integrated Vulnerability and Adaptation Assessment (KIVA) is a key instrument to identify and prepare a nation and its people to the risks posed by climate change and disaster.

The IVA recognises that climate change and non-climate change factors should be assessed in a multi-sectoral vulnerabilities framework. It focusses the assessment of exposure, sensitivities and adaptive capacity within a sustainable livelihoods framework.

This focuses on people's access to natural, infrastructural, human, finance resources to support their livelihood needs and the institutional structures and processes that influence resource access and use.

KIVA FRAMEWORK	LIVELIHOOD ASSETS					
HUMAN SECURITY OBJECTIVES	ECOSYSTEM (E)	INFRASTRUCTURE & SERVICES (I)	FINANCIAL (F)	HUMAN RESOURCE (H)	INSTITUTIONS & GOVERNANCE (G)	TOTAL
Forest Health (e1)	100	0	0	0	0	100
Coastal Health (e3)	100	0	0	0	0	100
Water Security (w)	0	100	0	0	0	100
Security of Place (p)	0	0	100	0	0	100
Energy Security (e)	0	0	0	100	0	100
Income Security (i)	0	0	0	0	100	100
Community Health (h)	0	0	0	0	100	100
Food Security (f)	0	0	0	0	100	100
TOTAL (by component)	300	100	100	100	400	1000

KIVA FRAMEWORK SCORE CARD



COASTAL HEALTH (C3) IVA SATELLITE MAP & SURVEY DATABASE

Map Satellite





Village: London

(C3) Score: 2.6

C3(e) No.#1 Issue: ■ Marine Resources -Fish > Decline in coastal/inshore fish stocks & other marine life (e.g. indicated by size of fish decreasing/or catch per unit decreasing)

C3(e) No.#2 Issue: ■ Protected/Endangered Species > Decline of endangered/protected species (e.g. sea cucumber/bone fish)

C3(e) No.#3 Issue: ■ Coastal Erosion > Coastal erosion by development (e.g. land reclamation causing erosion elsewhere/causeways/boat channels/groins/seawalls)

C3(e) Qualitative Response: 1. During 1990s school of fish easily seen around KUC London - ocean site, 2010 onwards, school of fish hardly seen. A 6 inches convict surgeon fish turns out to a 3 inches nowadays. The last 10 years, seacucumber found everywhere (lagoon and passage), now hardly seen around. 2. Natural erosion impact have taken away 3 meters of coastline - starting from Ministers residential toward Tabonteke. 3. Ikari guesthouse

Google

Sunset Horizon

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HUMAN SECURITY OBJECTIVE

Forest Health (C1)

Forest health refers to the status and potential of a forest ecosystem to maintain its structure, function and resilience, under stress, and to continuously provide quality ecosystem services for present and future generations.

DATABASE ↓

STATISTICS ↓

FOREST HEALTH (C1) IVA SATELLITE MAP & SURVEY DATABASE

Map Satellite

Village: Arabata
(C1) Score: 2

C1(e) No.#1 Issue: ■ Forest - Deforestation - Wood Extraction/Development > Deforestation due to community wood extraction/clearing land/infrastructure development

C1(e) No.#2 Issue: ■ Forest - Deforestation - Farming > Deforestation due to destructive farming practices (e.g. slash and burn/intended bush burning within coconut plantations)

C1(e) No.#3 Issue: ■ Forest - Climatic Impacts > Prolonged droughts affecting forest health

C1(e) Qualitative Response: 1. The community used to cut coconut for construction and never replant to replace 2. The community commonly practice slash & burn for cleaning. 3. Recent drought lasted about 7 months and this had caused trees to wither and die.

C1(i) No.#1 Issue: ■ Re/Afforestation Program > No reforestation/afforestation programs despite degraded forest

C1(i) No.#2 Issue:

Washington Island

Google

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Island/Atoll



KIRIBATI IVA

HOME

DATABASE SECTORS

VILLAGE REPORTS













NATIONAL REPORT

SEARCH: ALL ISSUES

SEARCH: PROPOSED ADAPTATIONS

SEARCH: SUCCESS ADAPTATIONS

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Island/Atoll	Village	PDF	(C1): Score	Village Panoramic Photo	(C1): Top Ranking Vulnerability Issue	(C1): Top Issue Photo	(C1): Top Ranking Qualitat
Teeraina	Kauamwemwe	PDF	2		Forest Health (C1) + Human Resource (h) > ■ Awareness/Information > No/Limited awareness on forest management		Community heavily rely on the timber and other uses but they any forest management skills t resource will be available in th is deforestation without refores
Teeraina	Abaiang	PDF	2.4		Forest Health (C1) + Infrastructure & Services (i) > ■ Re/Afforestation Program > No reforestation/afforestation programs despite degraded forest		Even with an increasing use of timber there are no reforestatik in place since villagers do not i responsibility to do so.
Tabuaeran	Tereitaki	PDF	2.2		Forest Health (C1) + Ecosystem (e) > ■ Forest - Climatic Impacts > Prolonged droughts affecting forest health		Trees and fruits are badly affect prolonged drought.
Teeraina	Uteute	PDF	1.8		Forest Health (C1) + Ecosystem (e) > ■ Forest - Deforestation - Wood Extraction/Development > Deforestation due to community wood extraction/clearing land/infrastructure development		Villagers clear the forest for wc and there is no reforestation pr place to alleviate this issue.
Tabuaeran	Aramari	PDF	2		Forest Health (C1) + Ecosystem (e) > ■ Forest - Climatic Impacts > Prolonged droughts affecting forest health		Prolonged droughts affecting fi their income from copra.
Tabuaeran	Betania	PDF	2.4		Forest Health (C1) + Ecosystem (e) > ■ Forest - Climatic Impacts > Prolonged droughts affecting forest health		Prolonged droughts affect fore drastically.

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Prospects for supporting future NAP Processes in the Pacific

- **Training of National IVA Facilitators**
- **Development of IVA database**
- **Training National IVA Knowledge Managers**
- **Development of institutional mechanisms to effectively incorporating IVA data into NAP development and M&E across sectors and multiple levels (community, sub-national, national)**
- **Provide gender-disaggregated vulnerability baselines for NAP processes**
- **Support Climate financing project proposal development and project M&E**





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