



**KJIP MONITORING, EVALUATION AND
LEARNING FRAMEWORK:**

**ANNEX 4: EXAMPLE 2: DRAFT SECTOR
SCORECARD FOR THE KEY POLICY
THEMES OF DISASTER RISK
MANAGEMENT**



Component 1: Risk and vulnerability context

How is Kiribati changing? Are we prepared?

Key Policy Theme	Disaster Risk Management	
Most relevant KJIP strategies	Strategy 8: Increasing effectiveness and efficiency of early warnings and disaster and emergency management. Strategy 1: Strengthening good governance, strategies, and legislation	
Key climate change impacts faced in this Policy Theme Please list impacts		
<ul style="list-style-type: none"> - Injury and death as a result of climate hazards - Damage to livelihood assets resulting in economic loss - Number of people affected - Damage to critical infrastructure 		
Vulnerability situation report for the sector (national level)		
Indicator	Data (and date)	Comment
		Tips for comments: Comments may cover: <i>Definitions</i> of the data including how it is <i>broken down</i> (disaggregated). It may include <i>assumptions</i> and/or <i>Interpretations</i> of data and/or discussions of its <i>relevance</i> to the Key Policy Theme. It may also cover the <i>availability</i> of the data, regarding either its current or future availability.
1) Number affected by climate-related natural disasters in period 2010-2020	1,720 (2020)	<i>Breakdown:</i> Coastal flood (220) & tropical cyclone (1,500). <i>Definition.</i> Source: Source: Centre for Research on the Epidemiology of Disasters (CRED) (n.d.)
2) Multi-hazard estimate of damage to built assets: % of replacement cost & total value per annum	8% per annum (2017) USD 71.6m per annum (2017)	<i>Definition.</i> Replacement/repair costs to residential, commercial, public, industrial buildings and infrastructure + emergency losses (debris removal, setting up shelters for those made homeless, or supplying medicine and food) <i>Source:</i> Pacific Catastrophe Risk Assessment and Financing Initiative (2017)
3) Prevalence of IVA issue: "Recent injuries from climate-related hazards, e.g., during cyclones/disasters"	7% of villages reporting this issue (2019)	<i>Definition.</i> This measure uses the data from the Kiribati IVA (15% of villages) as a proxy for Kiribati. <i>Source.</i> Kiribati Integrated Vulnerability Assessment (KIVA) (2019)
4) Prevalence of IVA issue: "Regular flooding of households (>5 households) due to king tides &/or storm surge"	52% of villages reporting this issue (2019)	<i>Definition.</i> This measure uses the data from the Kiribati IVA (15% of villages) as a proxy for Kiribati. <i>Source.</i> KIVA (2019) via the KIVA Database (2020)
5) Prevalence of IVA issue: "DRR System back up > No backup water supply from main supply"	26% of villages reporting this issue (2019)	<i>Definition.</i> This measure uses the data from the Kiribati IVA (15% of villages) as a proxy for Kiribati. <i>Source.</i> KIVA (2019) via the KIVA Database (2020)

6) Prevalence of IVA issue: “No safe place for residents during a natural disaster (e.g., no safe evacuation centre/higher ground)”	56% of villages reporting this issue (2019)	<i>Definition.</i> This measure uses the data from the Kiribati IVA (15% of villages) as a proxy for Kiribati. <i>Source.</i> KIVA (2019) via the KIVA Database (2020)
7) IVA Income security + ecosystem health score	66% of villages with below 3 IVA score (poor or very bad) (2019)	<i>Relevance/interpretation:</i> This section of the IVA measures whether livelihoods dependent on natural resources have been negatively impacted. <i>Definitions:</i> This measure uses the data from the IVA (15% of villages) as a proxy for Kiribati.
8) Household Income and Expenditure Survey result: Indicator to be defined, e.g., average household income	To be defined	<i>Availability:</i> Household income. To be defined when this data becomes available. <i>Relevance:</i> Household income can be a proxy for households' ability to recover from disasters. <i>Source:</i> Kiribati Household Income and Expenditure Survey (HIES) (2019). Analysis forthcoming.
National development indicators relevant to vulnerability context ¹ 9) Human Capacity Index (HCI) (combined health and education measure)	0.48 (on a scale of 0-1) (2017)	<i>Relevance/interpretation:</i> In 2017, Kiribati's HCI is lower than the average for the Pacific region but slightly lower than the average for its income group. <i>Definition:</i> measures the amount of human capital that a child born today can expect to attain by age 18. See definition below. ²

Vulnerability situation report for the sector (sub-national level)

Island grouping	Vulnerability situation (with evidence and sources)	Data	Comment and comparison with national picture
South Tarawa	Multi-hazard damage estimate to built assets: USD and % of total value Number of notified disasters on any island in last 10 years & % of islands	To be determined	
North Gilbert Group	Multi-hazard damage estimate Number of notified disasters on any island in last 10 years & % of islands	To be determined	
South Gilbert Group	Multi-hazard damage estimate Number of notified disasters on any island in last 10 years & % of islands	To be determined	
Line and Phoenix islands	Multi-hazard damage estimate Number of notified disasters on any island in last 10 years & % of islands	To be determined	

Sub-national vulnerability hotspots

Location	Reason for concern (consider exposure, sensitivity, and adaptive capacity)	Evidence
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¹ This covers 15% (n.27) of Kiribati's 180 villages selected for the IVA.

² The HCI measures the amount of human capital that a child born today can expect to attain by age 18. It conveys the productivity of the next generation of workers compared to a benchmark of complete education and full health. It is constructed for 157 countries. It is made up of five indicators: the probability of survival to age 5, a child's expected years of schooling, harmonized test scores as a measure of quality of learning, adult survival rate (fraction of 15-year olds that will survive to age 60), and the proportion of children who are not stunted.

Can be populated based on “Vulnerability situation report for the sector (sub-national data)” once indicators agreed.

Summary narrative report of key vulnerabilities for the sector

Consider:

- *Vulnerability assessment data and indicators (above)*
- *Underlying vulnerabilities (including social, economic or health issues that might affect climate-related vulnerability—e.g., is current economic situation likely to negatively affect food security responses?)*
- *Adaptive capacity – do government and/or communities have access to the knowledge, resources, and skills to reduce vulnerability?*

While much less affected by tropical cyclones than most Pacific Island Countries, the number affected by tropical cyclones in the last decade has been higher than from the existential threat of coastal inundation. However, these figures suggest that methods of both a) reporting natural disasters (e.g., including drought) and b) estimating loss and damage as a result of these events may need to be better developed. Annual estimates for infrastructure damage and emergency recovery are significant particularly in the context of a least developed country, and highlight the importance of systematic information on infrastructure hazard vulnerability. The KJIP reflects this need with several actions focusing on systematic asset vulnerability audits. These estimates also likely reflect major events that are less frequent (such as cyclones) rather than longer-term stressors such as sea level rise and inundation, which have different types of impacts. This is reflected by the comparatively low frequency of reporting in community-level vulnerability assessments of injuries from cyclones and disasters.

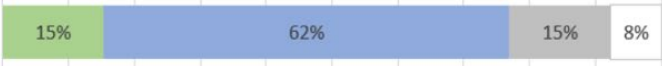
The country has high levels of water-borne diseases, which may be exacerbated by coastal inundation events and droughts. An increasing share of cash-crop production (primarily copra), may further expose livelihoods to disasters.

Outer island village-level data illustrates relatively high proportions (more than half) of villages reporting dwellings being flooded by king tides and/or storm surges and having no secure place during times of disaster. There are high reported prevalence of droughts or irregular/unpredictable rainfall affecting agricultural production (70%) and more than a quarter highlight that backup water storage is not sufficient. Importantly, two thirds of outer island villages self-report a “poor” or “very bad” vulnerability score in the sub-sector of “income security” and “ecosystems.”

On the outer islands, Kiribati has a substantial proportion of house construction from traditional local materials which, while making them more exposed to storms and strong winds, also makes reconstruction less reliant on imported materials.

Component 2: KJIP implementation progress

Are we implementing adaptation as planned?

Sector	Disaster Risk Management		
Most relevant KJIP strategies	Strategy #8 Increasing Effectiveness and Efficiency of Early Warnings and Disaster and Emergency Management		
Progress in implementing the KJIP			
Progress indicator for the implementation of relevant strategies (from progress report and status database)	62% of Strategy actions “commenced,” “ongoing,” or “completed” and as self-reported by the Responsible Lead Agencies. Strategy 08: Increasing effectiveness and efficiency of early warnings and disaster and emergency management		

Brief narrative report of KJIP implementation

This strategy has an above-average proportion of actions reported as having a plan in the pipeline (8% vs. 3% for the KJIP Strategy average). There is a much higher proportion of actions that are reported as being commenced (19%) compared to the KJIP Strategy average (4%), and a much higher proportion of actions that are reported as nearing completion (8% vs. 3%). Actions that are reported in the early stage of planning, underway/ongoing, complete, at the review stage, or in need of coordination, are generally consistent with the KJIP Strategy average.

High-level sectoral indicators (KJIP indicators and high-level indicators)				
Indicator	Source	Baseline and date (if available)	Measure and date	Change
1) Population, covered by Integrated Vulnerability Assessments	Kiribati Adaptation Program (KAP) III Completion Report	0% (2011)	31% of the national population in 2018. <i>Source:</i> World Bank (2019) Kiribati Adaptation Program (KAP) III Implementation Completion and Results Report, World Bank: Washington [online]. Available at: https://bit.ly/36xWgO6 (last accessed: 27/05/20)	+ve change
2) Functional plans (under the Disaster Management Plan) relevant to public health and potable water are established and operational (number)	KAP III Completion Report	0 (2011)	Three Sector Plans Operating in 2019	+ve change
3) Population for which Locally Managed Adaptation Plans are developed, finalized, and being implemented.	KAP III Completion Report	0% (2011)	12% of national population in 2018	+ve change
4A) n. & (%) of Island Disaster Committees (IDC) established.	OB records	In 2015: A) n.0 islands (0%) B) n.0 islands (0%)	In 2019: A) 21 islands (91%) B) 0 islands (0%) <i>Interpretation.</i> No disasters reported since establishment of IDCs.	+ve change
4B) n. & (%) IDCs providing post-disaster needs assessments.				

5) % of locations with the tools and capacities to act in an emergency	KNEG records	0% (2000)	<p>45% of locations in 2019</p> <p><i>Definition:</i> “Tools and capacities” refers to the presence of eight key early warning systems in target locations. This is a composite indicator compiled from eight sub-indicators identified as relevant by the Kiribati National Disaster Management Office (NDMO) in 2019.</p> <p><i>Early Warning System</i> is defined as (Adaptation Fund Board, 2014): risk knowledge (e.g., “water resources assessments completed”), monitoring and warning service (e.g., “tide charts disseminated”), dissemination and communication (e.g., “<i>Kiribati Get Ready</i> poster disseminated” (posters of what to do in case of emergency)), and response capability (e.g., “trainings delivered on disaster risk management,” “Water Safety Plans developed”).</p> <p><i>Definitions of locations</i> differ according to the tool and capacity in question. Locations include: “outer islands,” “islands,” “South Tarawa villages,” “South Tarawa.”</p> <p><i>Weighting is defined</i> according to the significance/impact of the individual “tool or capacity” according to a 3 point scale: 3 = high level of significance/impact, 2 = medium level, 1 = low level/less significant interventions. For example: “water resources assessments completed” = 3. “<i>Kiribati Get Ready</i> poster disseminated” = 1</p> <p><i>Source.</i> Data provided by NDMO (2019)</p>	+ve change
6) Prevalence of IVA issue: “No village disaster management plan (e.g., early warning system training)”	Kiribati IVA survey	44% of villages reporting this issue. (2019)	<p>X% (2025)</p> <p><i>Relevance.</i> Change in number of villages who have disaster plans can be a useful measure of change in DRM preparedness.</p> <p><i>Definition.</i> This measure uses the data from the Kiribati IVA (15% of villages) as a proxy for Kiribati.</p> <p><i>Source.</i> KIVA (2019) via the KIVA Database (2020)</p>	Target: +ve change
7) Prevalence of IVA issue: “No village drought management plan (e.g., water rationing/ alternative water source”	Kiribati IVA survey	33% of villages reporting this issue (2019)	<p>X% (2025)</p> <p><i>Relevance.</i> Change in number of villages who have drought management plans can be a useful measure of change in DRM preparedness for this hazard.</p> <p><i>Definition.</i> This measure uses the data from the Kiribati IVA (15% of villages) as a proxy for Kiribati.</p> <p><i>Source.</i> KIVA (2019) via the KIVA Database (2020)</p>	Target: +ve change

Narrative report of high-level sectoral indicators

What is the overall picture? What do the indicators tell us? What do they not tell us? Where is there insufficient data?

Vulnerability assessment and DRM action planning is certainly underway and being undertaken using a systematic approach. However, these still cover only a minority of the population and sectors. Localised and operational preparedness actions are, however, more advanced, with nearly complete setup of Island Disaster Committees and close to half of target locations being equipped with the skills and capacities to act in an emergency (measured by presence of early warning systems).

Future data may focus on the following: a breakdown of sectors that have sector-specific plans, perspectives on the effectiveness of Locally Managed Adaptation Plans and Island Disaster Committees, extent of awareness of key early warning systems within key population groups (e.g., specifically vulnerable households).