Celebrating the Pacific, Shaping its future

Are we sinking yet? Measuring effectiveness of climate change adaptation at the community in small island developing states

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Are we Sinking Yet? - Outline

- The Loss and Damage Agenda
- The Toolkit
- Examples of Application and Results
- Key Lessons
- Challenges and Way Forward

The Loss and Damage Agenda

PARIS AGREEMENT:

Article 8 (3) - **Parties** should enhance understanding, action and support, including through the **Warsaw International Mechanism**, as appropriate, on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change.

Towards climate change resilience: Minimising loss and damage in Pacific SIDS communities

Goal - to generate and share new knowledge and raise awareness on loss and damage caused by the adverse impacts of climate change in Pacific SIDS

- 5 countries (Cook Is, Fiji, Samoa, Solomon Islands, Timor-Leste)
- July 2014 to December 2016
- A particular focus on the complex interplay of factors leading to loss and damage at the community level

Pic Source: http://www.pireport.org/articles

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The Loss and Damage Agenda

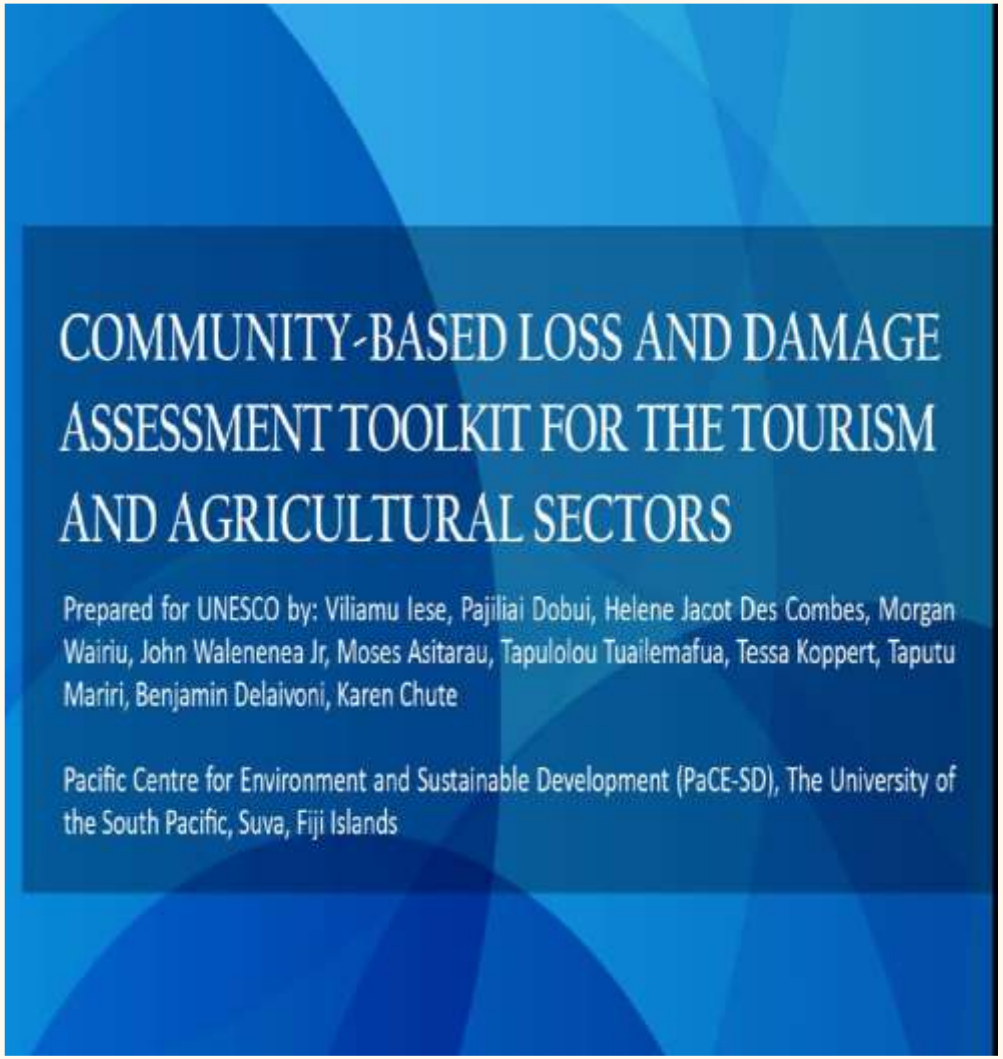
There is no common definition or understanding of
L & D

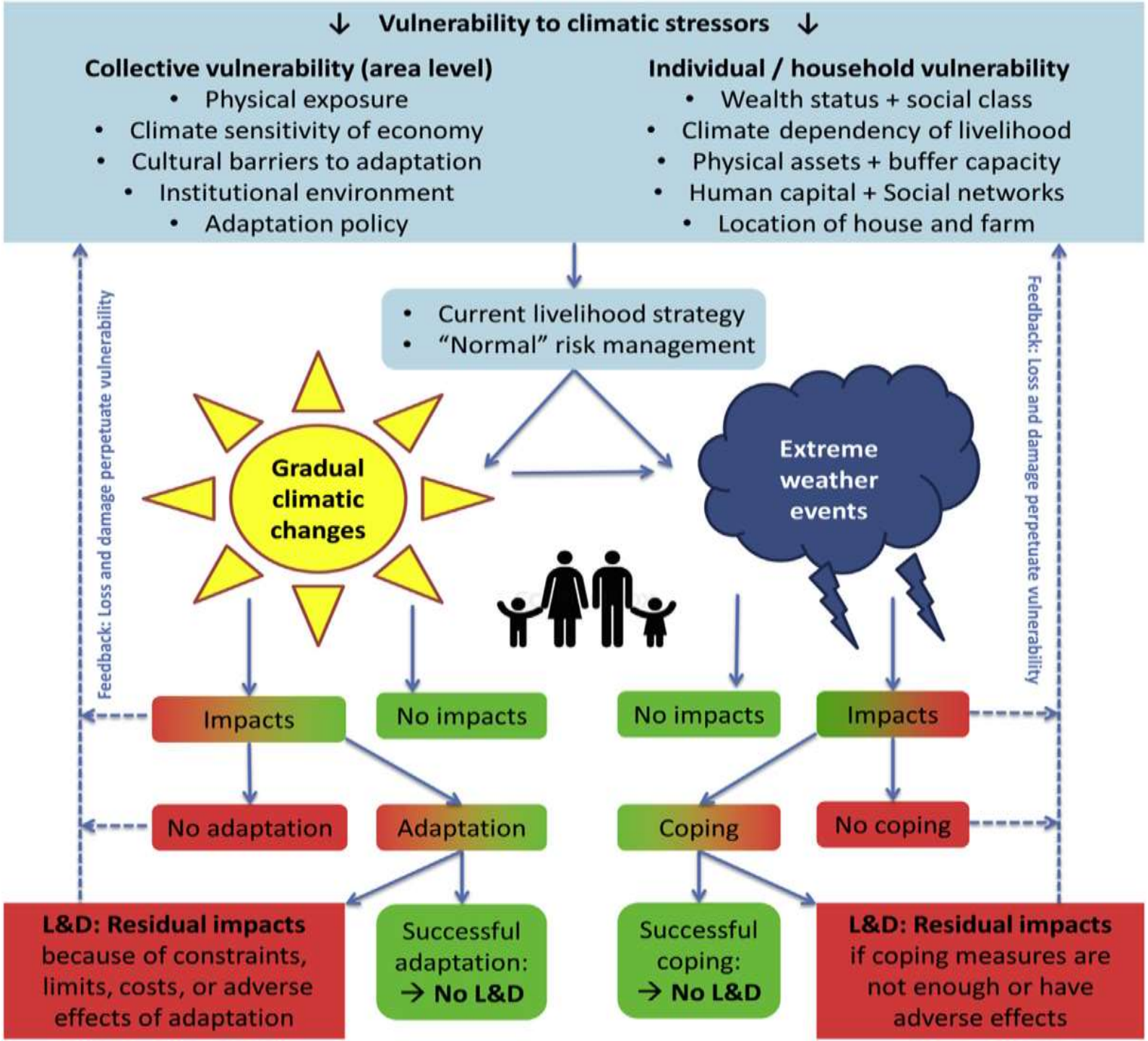
L & D can be understood as the negative effects of extreme weather events and slow-onset climatic changes that people have not been able to cope with or adapt to

Residual losses and damages from Climate Change impacts are inevitable.

The Toolkit

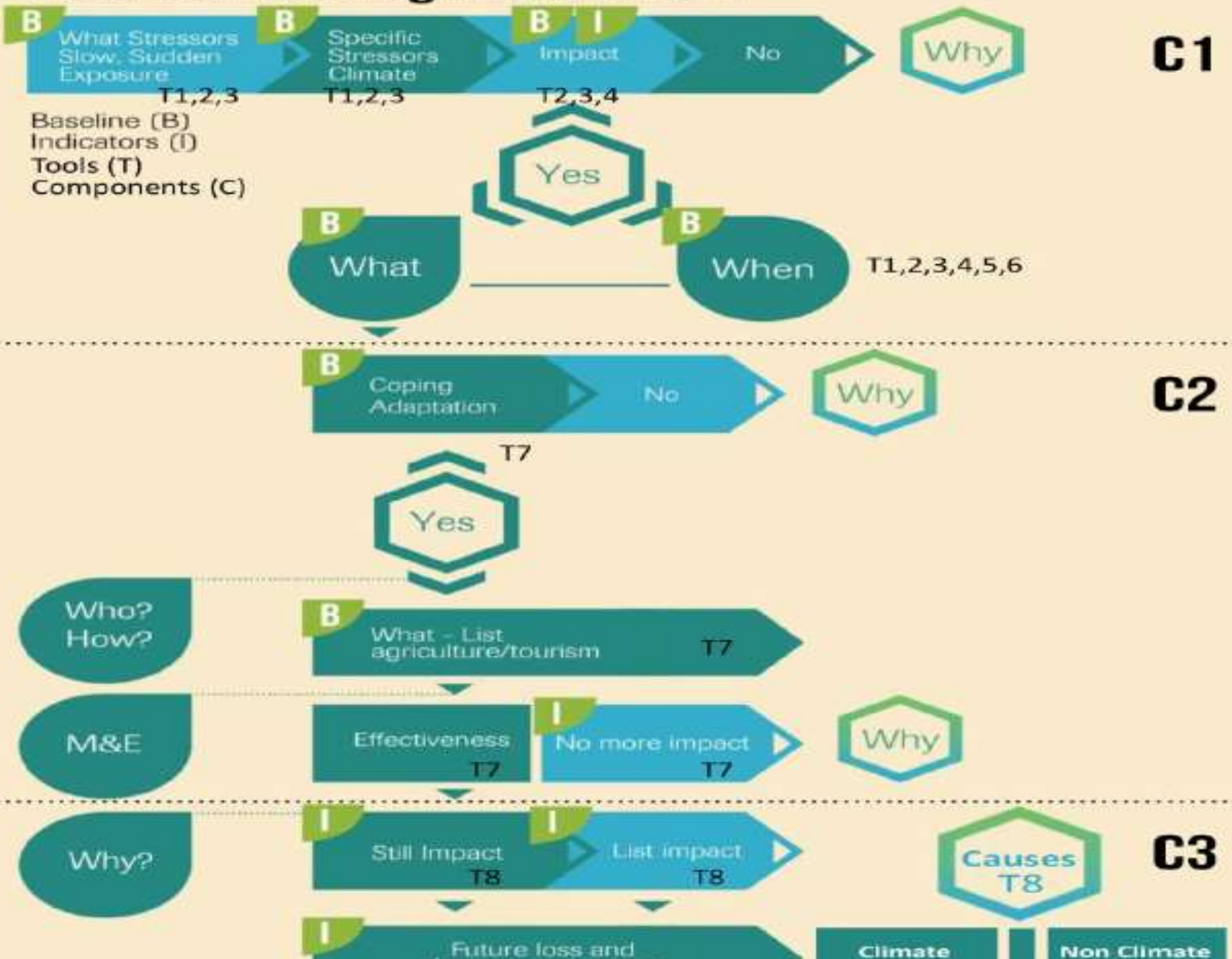
- Community based – Agriculture and Tourism Sectors (First Toolkit of its kind)
- Collect relevant information of depth and scope of Vulnerability, Exposure, Impacts, Coping and Adaptation, Evaluating impacts of Coping and Adaptation
- Identify limitations in coping and adaptation and where certain critical decisions must be taken to avoid further loss and damage
- Understand root causes for increasing and decreasing loss and damage for better informed decisions

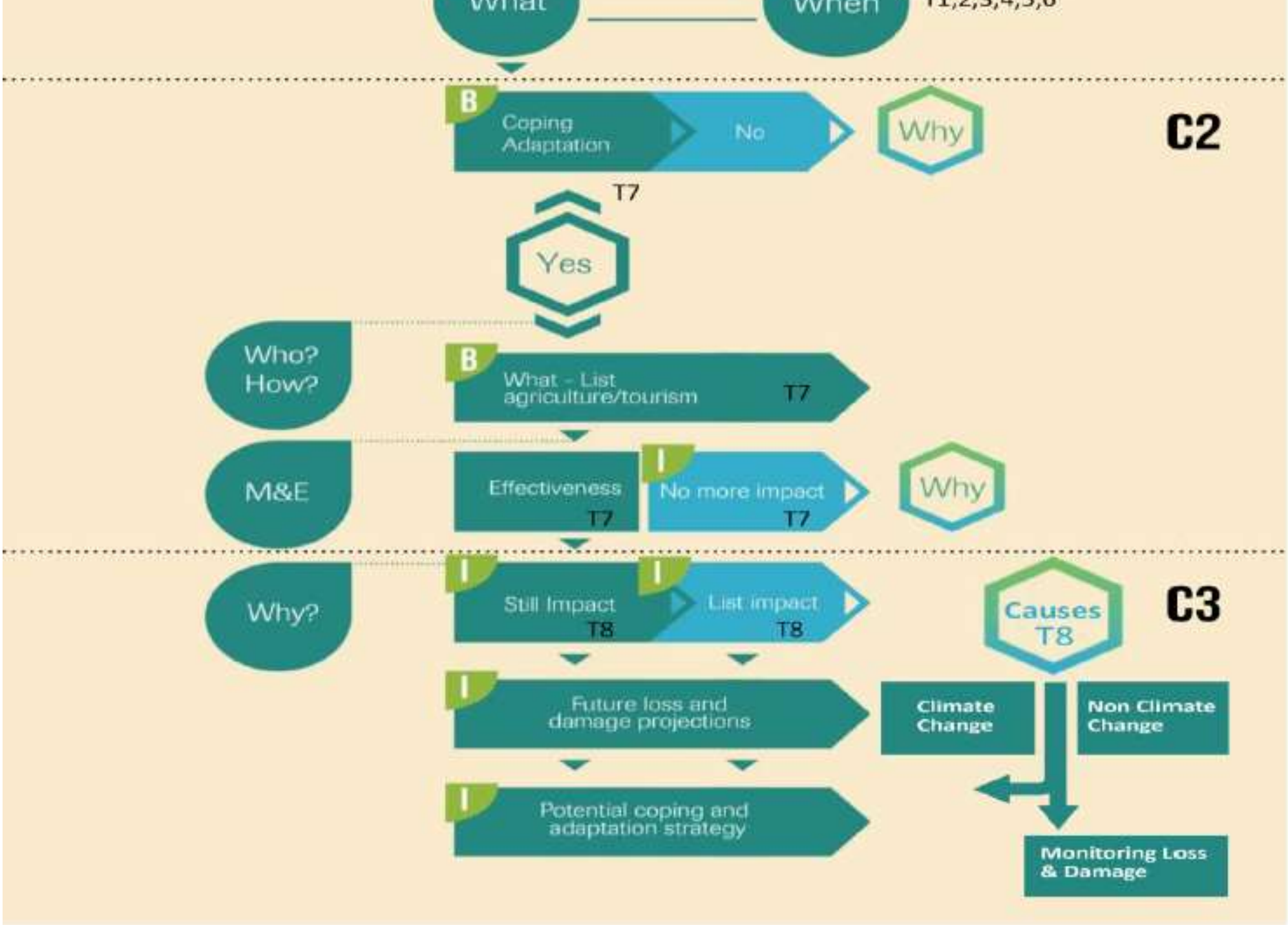




Warner, K. and van der Geest, K., 2015. *Vulnerability, Coping and Loss and Damage from Climate Events*, Elsevier,

Loss and damage flow chart




What
When
T1,2,3,4,5,6
B
Coping Adaptation
No
Why
C2
T7
Yes
Who? How?
B
What - List agriculture/tourism
T7
M&E
Effectiveness
T7
I
No more impact
T7
Why
Why?
I
Still Impact
T8
I
List impact
T8
Causes T8
C3
I
Future loss and damage projections
Climate Change
Non Climate Change
I
Potential coping and adaptation strategy
Monitoring Loss & Damage

Solomon Islands

Agriculture

Climate Stressors

- Cyclones
- Storm surges
- Saltwater inundation
- Coral bleaching
- Ocean acidification

Main L&D by sector

Agriculture

Production

- Loss of between 50–100% crops and livestock
- Less fish for sale and food
- Reduced arable land – due to coastal erosion and saltwater intrusion/inundation

Health

- Reduced food security

Social/cultural

- Loss of graves
- Loss of constructed islands

Coping/ adaptation strategies

Behavioural

- Change cultivation methods
- Stop farming and change to alternative livelihood

Ecosystem-based

- Plant new crop varieties
- Raise more tolerant livestock
- Plant new types of crops
- Improve crop management (e.g. irrigation)
- Change planting and harvesting times

Examples

Many of the coping and adaptation techniques fail due to a lack of local knowledge on how to manage new crops and livestock, or implement new techniques.

Lack of land is the main issue with these communities. One of their cultural adaptations is to marry people with lands in the main islands. This will be a "facilitated relocation" action for them.

Shifting from subsistence agriculture to new livelihood sources has resulted in new negative impacts such as overfishing and cutting down mangroves.

Examples – Tourism (Fiji)

Increased storm surges

Saltwater inundation

Tourism

Business operations

- Loss of income (e.g. reduced tourists)
- Loss of materials for certain cultural activities

Infrastructure

- Damage or loss of infrastructure (e.g. accomodation, boat garages)
- Longer time for rebuilding

Behavioural

- Money saving measures to survive loss of income due to temporary drop in visitor numbers (e.g. selling livestock for cash, buying less or cheaper food)

Ecosystem-based

- Plant mangroves

Infrastructure

- Build temporary seawall

Examples – Tourism (Samoa)

Tourism

Business operations

- Beach erosion
- Loss of income for tourism operators (e.g. reduced tourists)
- Reduced income (e.g. no electricity to operate tools, no vegetables for sale)

Infrastructure

- Damage or loss of beach houses

Behavioural

- Rebuild accommodation
- Relocate beach houses

Ecosystem-based

- Plant trees and lianas to reduce coastal erosion and provide shade during heatwaves

Infrastructure

- Build sea wall

For the last 30 years our village beach has been eroded tremendously without our knowledge. Suddenly we are confronted with less sand, as if it has been sucked out of our beaches. The coconuts on the beach have their roots exposed, thus telling us that something acting very slowly is gradually eating the sand away. As a beach fale [Samoan thatch hut] operator, I noticed that the sea has moved inwards eroding most of our old beach fales. Some time ago, work was conducted by a development project near us [at a nearby operator]: ever since that work, most of our beaches have been worse off.

Lessons

- Tools captured many stories of vulnerability, impacts, coping and adapting strategies at household and community levels
- About 90% of coping and adaptation strategies did not STOP the loss and damage of sudden and slow onsets (both sectors)
- Most (if not all) Adaptation Project Monitoring and Evaluation reports did not assess the adaptation against the “real reason” of the project – only assess “good times”
- Most coping and adaptation actions were ineffective due to increase intensity, frequency (shorter periods of time), unknown – lack of information, poor planning/resourcing/human collateral damage

Moving Forward

- Toolkit measured multi-hazards versus single hazard adaptation
- Add new sectors especially culture and ecosystem – “non-economic loss and Damage”
- Need to include Loss and Damage in Adaptation Planning (Climate Risk Management) implementation, Monitoring and Evaluation – communities and national levels – need for transformational adaptation (Shift from constant mode of recovery to more resilient)
- Attribution versus Contribution – Understanding both sides need constant monitoring, baseline and data collection, analysis and interpretation

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We are not sinking – we are transformed and adapting smarter everyday

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