



Reducing Vulnerability and Enhancing Resilience

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Solomon Islands

- Population: >650,000, about 60% below 25 years of age
- 6 large islands, more than 900 small islands
- Share common challenges with other Pacific countries
 - *Narrow economic base, volatile growth, limited private sector activities, limited employment opportunities, weak capacity*
 - *Infrastructure deficit, high cost of investment, large financing needs.*
 - *Vulnerability to disasters and climate change*



Future Climate Change in Solomon Islands

As per SI National Climate Change Policy

- Temperature will continue to increase and reach a range of 0.4-1.0°C in 2030
- An increase in the number of hot days and warm nights and less cooler weather
- Average annual and seasonal rainfall projected to increase however there is uncertainty in the projections
- Extreme rainfall periods will occur more often and be more intense
- There will be less frequent but more intense cyclones
- Sea level will continue to rise and increase impact of storm surges and coastal inundation
- Ocean acidification will continue to increase and affect health of reefs.

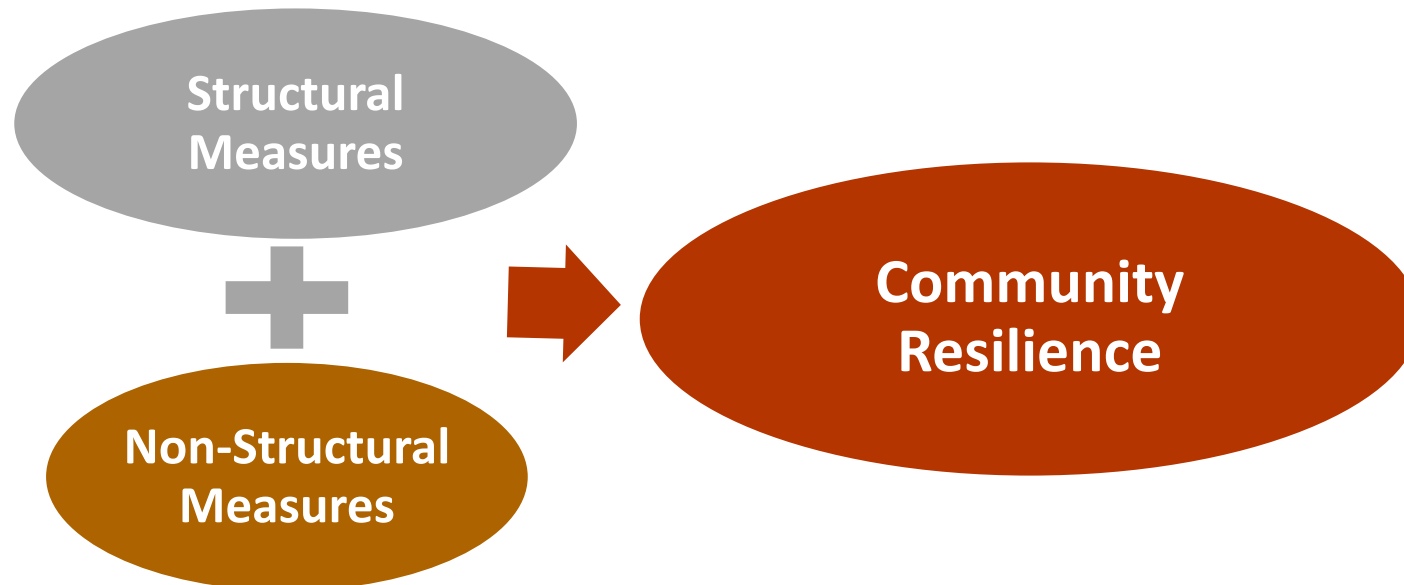
NDS Objective Four: Resilient and environmentally sustainable development with effective disaster risk management, response and recovery

NDS Objective Five: Unified nation with stable and effective governance and public order



Approach for Building Resilience

- Develop/update master plans incorporating climate resilient features
- Provide climate-resilient infrastructure. Consider climate change projections for infra. design
- improve local governance and service delivery
- Community awareness and capacity development to adapt to the climate related stresses





Approach for Building Resilience

Strengthen the ability of local governments and community to respond to climate related risks and disasters

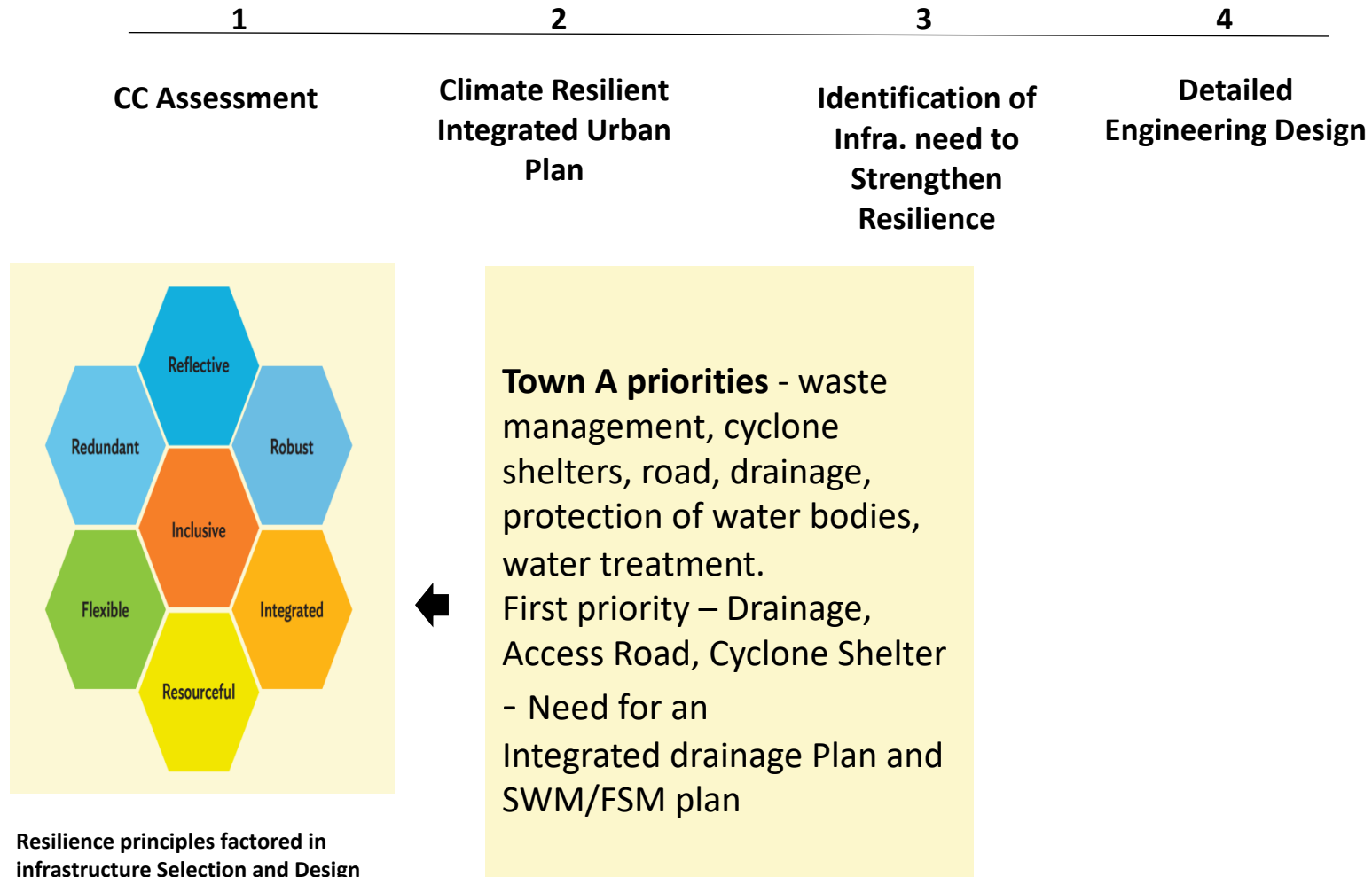
- Conduct Local Level CRVA and Community Hazard Mapping and incorporate them in developing and updating the development plans
- Through CRVA, identify the most critical interventions to improve the climate resilience and accordingly prioritize infrastructure need
- Develop building codes and engineering design standards
- Establish disaster management standing committee in each town/village and provide training
- Community awareness program on disaster risk and climate resilience





Local Level CRVA for selection and designing of Infrastructure

Town Vision and Master Plan





Estimating Incremental Costs of Adaptation

- *Engineers and climate experts to work together for engineering designs considering climate change impacts.*
- *Depending on the type of infrastructure, the incremental adaptation costs range from around 15%-30%.*

Roads

- Crest level raised with additional embankment protection and improved drainage considering increased rainfall
- Need for longer bridges and culverts
- Use of construction materials which can withstand climate events better

Cyclone Shelters

- Base level of first floor raised to avoid higher storm surges
- Structures strengthened to withstand stronger wind forces
- Additional alternate water supply options
- Sands sourced from non-coastal areas to avoid saline contamination

Drainage and Flood Control

- New and existing drains built with enhanced capacities considering future rainfall projections
- Open space and green area adjacent to river and sea



Resilience through Community Participation

Activities Undertaken by Central Government/Development Project

Structural Measures

- Provided/Improve climate-resilient infrastructures
- Develop engineering design standards and building codes
- Provide quality control support, O&M training



Activities performed by Local Government through Community Participation

- O&M of infrastructures (i.e. drain cleaning, water tariff, property tax, maintenance of WS system)
- Management and implementation of SWM and septage management through private sector and community participation
- Cyclone Shelter Management Committee
- Use revised design standards for future infra. Development



Challenges

- Low capacity of Local government for efficient O&M of infrastructure.
- Low capacity of planning staff and lack of support
- Central government needs to provide continuous support to improve climate resilience of local governments and community
- Involvement of private sector for municipal service delivery