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Supporting Long-term Climate Resilience in Canada through Planned Retreat

2020 Virtual CRHNet Symposium and DRR Roundtable - Thursday, October 29, 2020

Canada 

Canada's Climate Change Adaptation Platform Coastal Management Working Group (CMWG)

- **CMWG consists of representatives from federal, provincial and territorial governments, academia as well as professional and other organisations working to advance adaptation and increase resilience to climate change along Canada's coasts**
- **The CMWG is Co-chaired by: Natural Resources Canada and the Government of Prince Edward Island**
- **Alternative and Innovative Options to Hard Protection Infrastructure Solutions**



- ❑ **Relatively little is known about how retreat can best protect, preserve, and promote individual and community well-being.**
- ❑ **To address this gap, Natural Resources Canada contracted Gevity Consulting to conduct a scan and produce an Analysis Report of Canadian and global good practices.**
- ❑ **The report titled: “Planned Retreat Approaches to Support Building Long-Term Climate Resilience in Canada” will be made publically available on Canada's Climate Change Adaptation Platform webpage.**

Access Canada’s Climate Change Adaptation Platform web pages for information on Platform, Working Groups and Products at,

adaptation.nrcan.gc.ca

adaptation.nrcan.gc.ca



Photos Credit: Pete Zuzek



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Disclaimer



The views expressed herein are those of the Gevity project team and do not necessarily reflect those of Natural Resources Canada or the Government of Canada

Introduction

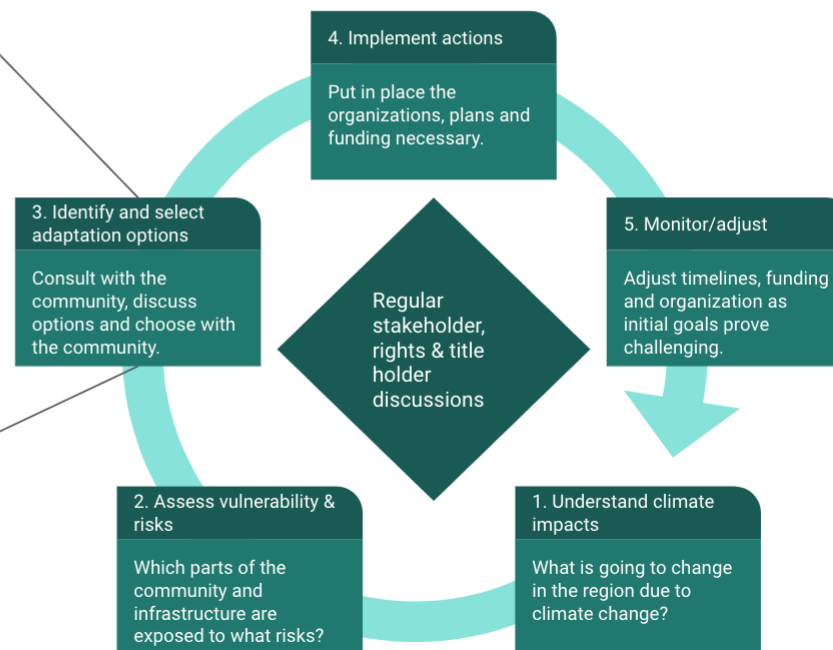
Planned retreat is the purposeful movement of people, infrastructure or land uses from areas at high risk of flooding, slope destabilization, storm surge, sea level rise and other risks made worse by climate change to areas that are at lower risk or that are more resilient.

The PARA adaptation options framework



The PARA adaptation options framework

The five stages of adaptation



APPROACH

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Current State of Planned Retreat in Canada



Reactive

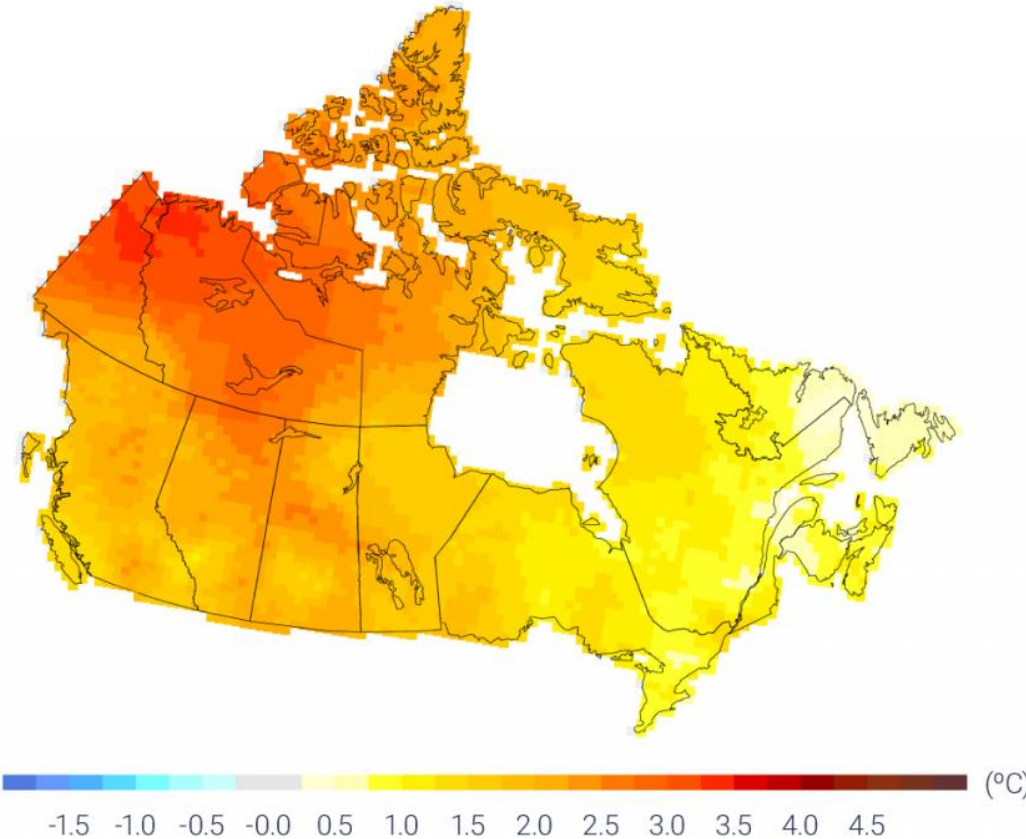
Non-standardized approaches

Governments not aligned

Long timeframes

Terminology challenges

Good practices scattered



Increased citizen awareness and support

Often inequitable

Driven by economics

Second disaster from bureaucracy

Health challenges

CASE STUDIES

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Gatineau, PQ

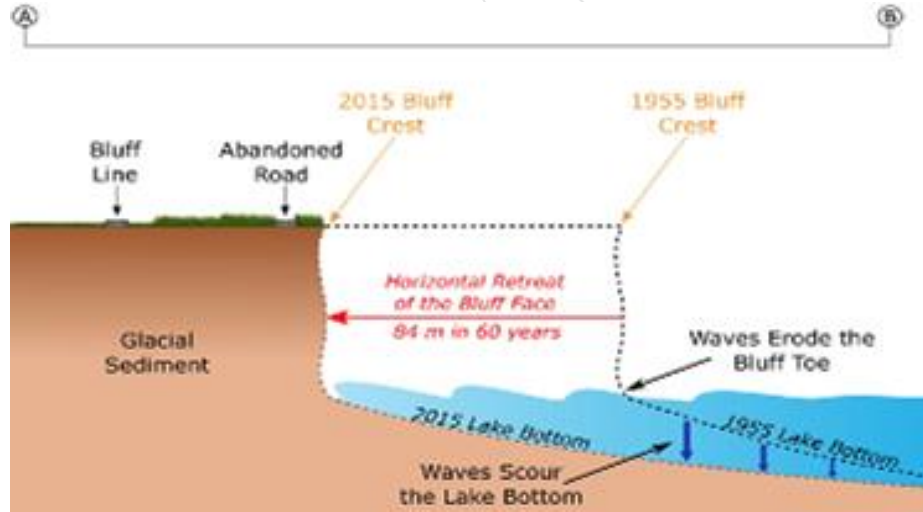
Geography	Interior rivers and lakes
Physical triggers	Recurrent riverine flooding
Timelines	Many flood instances. 2017 & 2019 major floods. PQ buyouts 2017 → 2019
Degree of choice	Low → medium. Banned reconstruction (1:20yr floodplain) + Voluntary buyouts.
Reactive vs Proactive	Reactive
Assets involved	1800 homes, neighbourhoods
Community types	French



Lake Erie, ON



Geography	Interior lakes. 70 km Rondeau Provincial Park to Point Pelee National Park
Physical triggers	Recurrent flooding and erosion
Timelines	High water since 2013. Zuzek/ Mortsch Report 2020. Implementation tbd.
Degree of choice	Low ← → High (multiple sites)
Reactive vs Proactive	Reactive & Proactive (multiple sites)
Assets involved	> 400 buildings, neighbourhoods, roads, farmland
Community types	Predominantly English & Caldwell First Nations

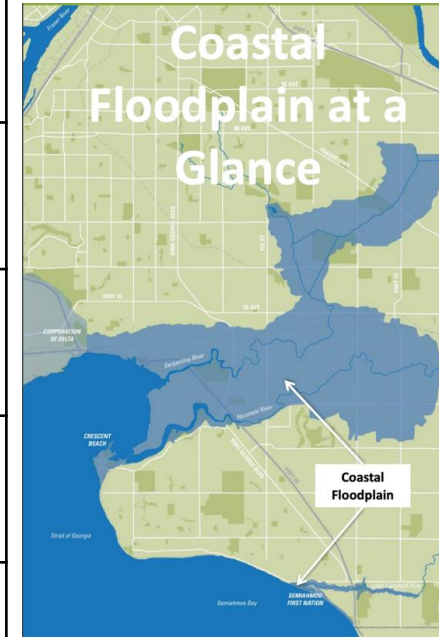


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Surrey, BC



Geography	Coastal British Columbia. 20% of city in floodplain. 3 main risk zones
Physical triggers	Recurrent coastal flooding/erosion enhanced by future sea-level rise
Timelines	CFAS 2016-2019 Implementation 2020 → 2100
Degree of choice	High. Survey of all city residents in consultative process.
Reactive vs Proactive	Proactive
Assets involved	Households, neighbourhoods, infrastructure
Community types	English, Semiahmoo First Nation

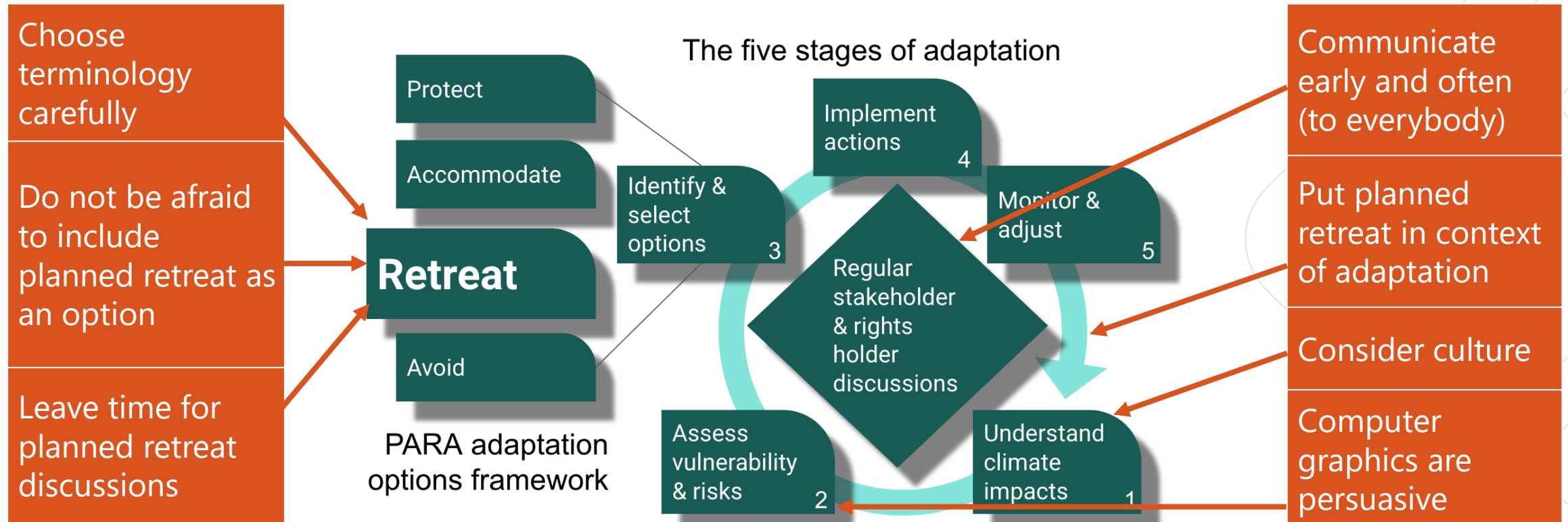


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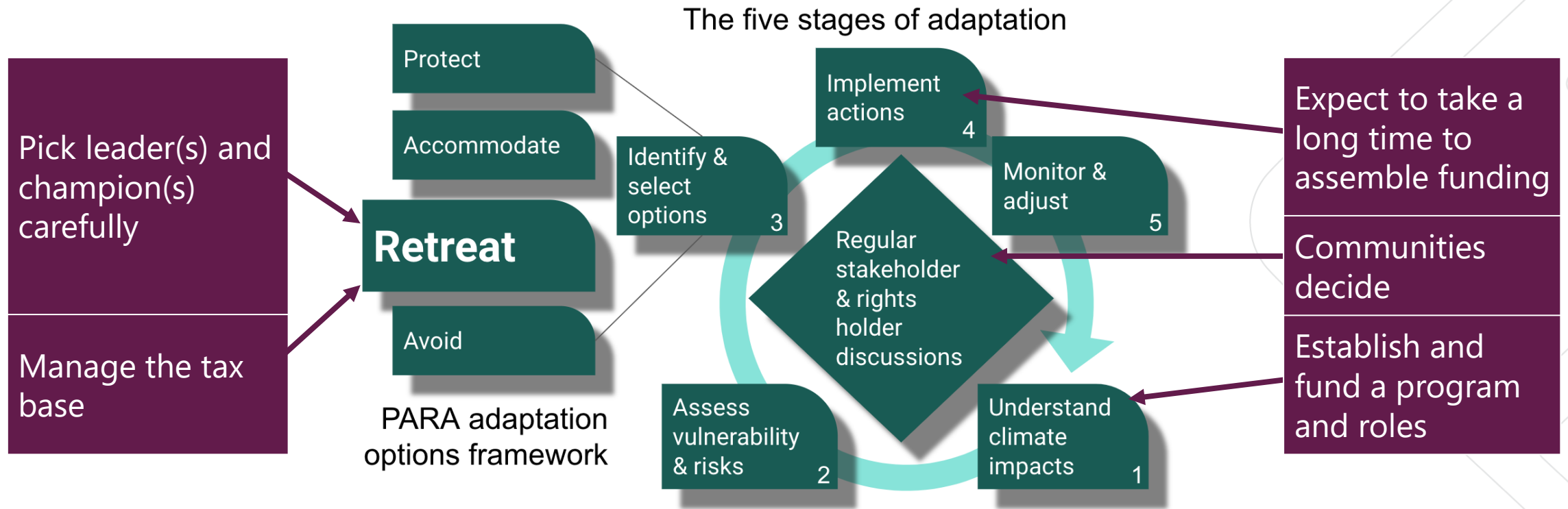
Good Practices

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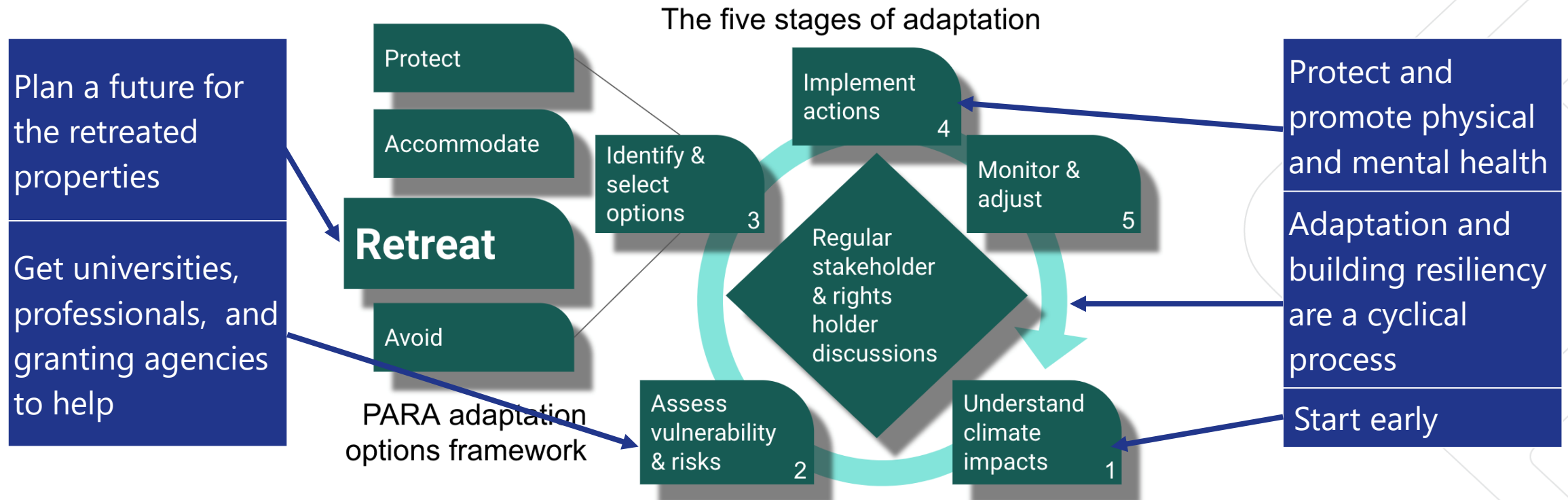
Good Practices: **Communication**



Good Practices: **Governance**



Good Practices: **Process**





Q & A



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Thank you!

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