



Presentation 1, slide 4

# Case studies: International adaptation pathways

## Miami, Florida (USA)

**Mitigation and adaptation strategy to prepare for sea level rise and coastal storms**



- In the region, average sea levels are expected to be 6 to 10 inches higher by 2030 than they were in 1992, 14 to 34 inches higher by 2060, and 31 to 81 inches higher by 2100.

- Guiding principles of the strategy:
  - Make us safer
  - Reduce environmental pollution
  - Be equitable
  - Build with nature
  - Be flexible
  - Align with other initiatives
- Recommended steps to best prepare for sea level rise over the next 10 years
- Considers a range of decision points and thresholds from 0.2ft of sea level rise up to 1.6ft.
- Includes alternative sea level rise scenarios from 2020-2060.

## Bangladesh Deltaplan 2100

**Long term plan for water resource management, climate change and environmental challenges, supporting long term development of Bangladesh**



- Develops short to medium term strategies and policy options under different assumptions about the external outcomes.
- Proposes risk reduction strategies for the period until 2050.
- Though the initial delta agenda covers the period until 2050, the plan has a long-term vision until the end of 2100.
- Includes quantitative indicators relevant to the Delta goals, objectives and targets which will be updated/adjusted with time especially due to climate change and future uncertainties (in 5 to 10 year intervals).

## Eyre Peninsula, Australia

**Regional climate change adaptation plan for farming, business, local government and natural resource management sectors**



- Includes decision points in 10, 15 and 50 years.
- Range of decisions across sectors with lifetimes ranging from 0-10 years up to 70-80 years.
- Recommends this plan is reconsidered periodically, every 2-3 years.
- Short term, planning, mapping and educational responses will provide some measure of adaptation to sea level rise.
- Within 2 to 3 decades, coastal retreat and protection initiatives will be required for existing development plus transformation of other industry sectors
- Planning is needed now for these longer-term actions given the complexity and cost involved in implementing them.

## The Dutch Delta Programme (The Netherlands)

**Long term risk management strategy for flood risk and fresh water supply**



- Programme aim: by 2050, the probability of fatality due to flooding must not exceed 1 in 100,000 p.a. (or 0.001 %) for every resident living behind the dykes.
- A 1-2m sea level rise by 2100 would require greater action between 2050 and 2100.
- Choices must be made well before 2050.
- Recommends systematic review of regional strategies every 6 years and a detailed review every 12 years.
- A group of experts (Signal Group) set up to detect relevant climate change and socio-economic signals.
- Utilises local physical measurements and models, but also factors in other effects and measures elsewhere in the world.



There are a number of other international adaptation pathways case studies available and the literature is growing all the time.  
Below are a number of links to additional useful case studies.

### **Mekong Delta Plan, Vietnam**

Long-term vision and strategy for a safe, prosperous and sustainable delta.

<https://www.mekongdeltaplan.com/>

### **Shanghai, China**

Adaptation pathways were developed to reduce the risk to the city from coastal, pluvial and river flooding.

[https://www.e3s-conferences.org/articles/e3sconf/abs/2016/02/e3sconf\\_flood2016\\_21002/e3sconf\\_flood2016\\_21002.html](https://www.e3s-conferences.org/articles/e3sconf/abs/2016/02/e3sconf_flood2016_21002/e3sconf_flood2016_21002.html)

### **The Philippines**

To reduce vulnerability to the impacts of climate change, by building adaptive capacity and resilience.

<http://mpmc.minda.gov.ph/climate-reports/national-adaptation-plan>

### **Hawkes Bay, New Zealand**

Framework for assessing coastal hazards risks and identifying options for the management of those risks from now to 2120.

<https://www.hbcoast.co.nz/strategy-development/>

### **New York City, USA**

Following the significant flooding caused by Hurricane Sandy in 2012 adaptation pathways have been adopted to increase the city's resilience.

<https://www1.nyc.gov/site/orr/challenges/nyc-panel-on-climate-change.page>

### **Los Angeles, USA**

Adaptation pathways used to manage the potential effects of sea level rise on coastal LA County.

<https://pubmed.ncbi.nlm.nih.gov/30230554/>

### **Prague, Czech Republic**

Reducing vulnerability to climate change effects and improving the environment for its inhabitants in future.

[http://portalzp.praha.eu/file/3034151/Climate\\_Change\\_Adaptation\\_Strategy\\_Prague.pdf](http://portalzp.praha.eu/file/3034151/Climate_Change_Adaptation_Strategy_Prague.pdf)

### **Ilhavo and Vagos Coast, Portugal**

Local adaptation strategy to deal with the medium to long term impacts of coastal erosion.

<https://climate-adapt.eea.europa.eu/metadata/publications/>

#### **Picture credits:**

Government of The Netherlands, 2020; Miami-Dade County, 2021; Embassy of Bangladesh in The Hague, The Netherlands, 2021; Eyre Peninsula Integrated Climate Change Agreement Committee, 2014

