

# Coastal Management an Insurance Industry Perspective

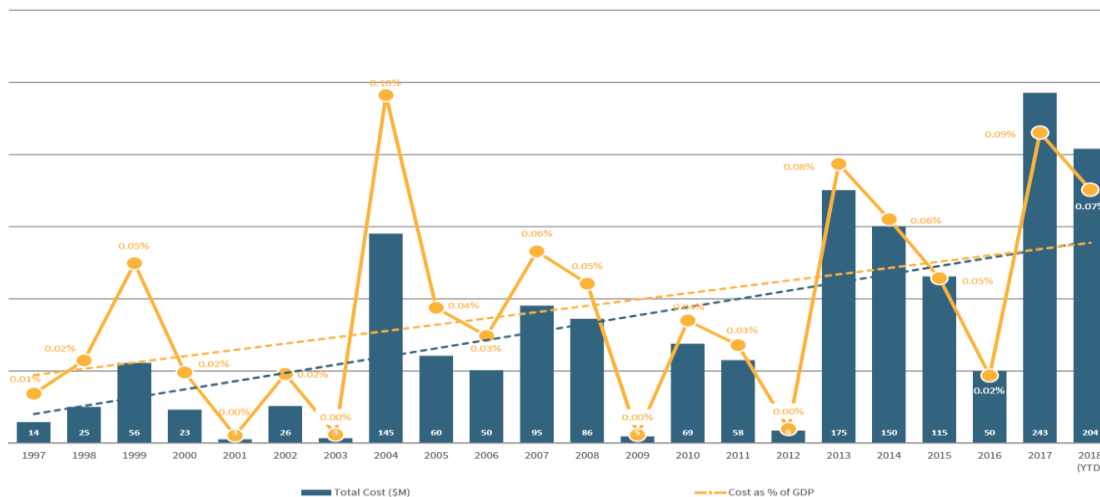
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# Recent New Zealand experience

## Flood, storm surge and sea level rise

- NZ generally well insured, so high % of property losses are insured
- 2017 was record year for weather related insured losses (\$243m) and 2018 also high (~\$220m thus far)
- As a coastal nation NZ is vulnerable to sea-level rise:
  - Replacement value of buildings within 0.5m of the spring high tide mark is \$3 billion and that of buildings within 1.5m is approximately \$20 billion.
  - Around 9,000 homes within 0.5m and 44,000 homes within 1.5m.



# Global as well as local



**2018, Typhoon Manghut**



**2018, Hurricane Florence**



**2012, Hurricane Sandy**



**2018, Typhoon Jebi, Kansai Airport**

- Insurance simply transfers risk from the insured to the insurer, it does not reduce the risk.
- Traditional insurance works well for potential events that are accidental and unlikely, by pooling risk and premiums so the many pay for the few who suffer losses.
- Traditionally premiums based on claims made (i.e. backward looking), but changing with predictive models to be more forward looking.
- Insurers also looking at greater risk-rating - technology, science and modelling enabling more granular assessment of risk.

# Implications

- Unless coastal risk exposures (from climate change or otherwise) are managed, insurers will respond through premiums, increasing excesses, exclusions or refusal to go on risk.
- Losses from sea-level rise are foreseeable and inevitable, and therefore un-insurable.
- Property (residential and commercial) purchase and development is generally funded by banks who depend on insurance to underwrite the risk on the assets they loan for/against.
- Insurance contract and premium signal only applies to the next 12 months – property owners and planners need to look beyond that to the long term risk-profile.

# Coastal planning/management: take the long view

- Manage risk over longer term by considering:
  - **where we build** in future - don't consent where adaptation can't work
  - **how we build** e.g. requirements placed on developers
  - **providing information on current and future risks**
  - **protecting existing infrastructure**
  - **upgrading existing infrastructure** to 21<sup>st</sup> century needs e.g. storm-water drains
  - **building new infrastructure** where appropriate (e.g. sea-walls)
  - **relocatable buildings/retreat** where risk is too high/doesn't make no sense to protect long term
  - **improving warning systems and public education** – so there is time to reduce the impact of storms etc
  - **taking** an ongoing and proactive approach to adaptation using tools such as adaptive pathways