



# **Economics of Climate Adaptation**

Shaping climate-resilient development

## **up to 60%**

of the currently projected GDP loss from climate change between now and 2030 can be averted through cost-effective adaptation measures

See the report "Shaping climate resilient development – a framework for decision makers" – co-authored by Swiss Re

→ [www.swissre.com/climatechange](http://www.swissre.com/climatechange)

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# Climate-resilient development needs to address total climate risk

## Objectives:

- Provide decision makers with the facts and methods necessary to design and execute a climate adaptation strategy
- Supply insurers, financial institutions, and potential funders with the information required to unlock risk prevention funding and deepen global risk transfer markets

## Key features:

- Developed a methodology to quantify **local total climate risks**, meaning it looked at the combination of
  - **today's climate risk**,
  - the **economic development** paths that might put greater population and value at risk
  - the **additional risks presented by climate change**.

## The team:

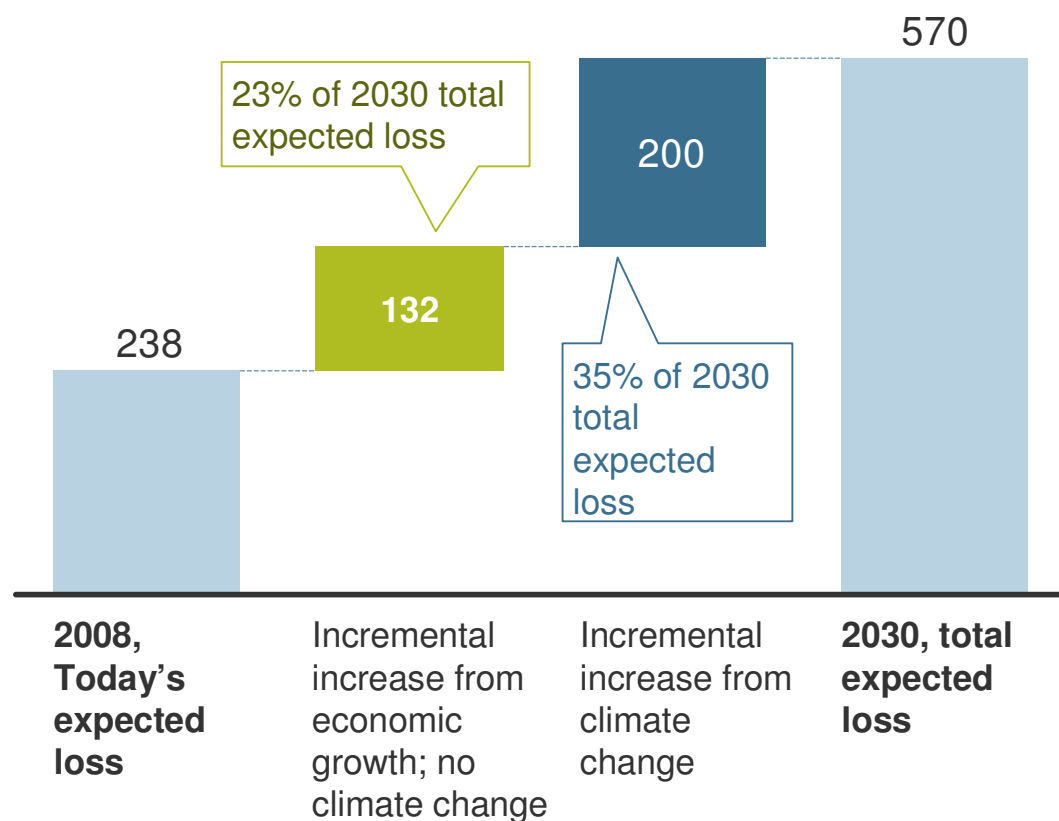
- Economics of Climate Adaptation Working Group, a partnership between the Global Environment Facility, McKinsey & Company, Swiss Re, the Rockefeller Foundation, ClimateWorks Foundation, the European Commission, and Standard Chartered Bank.

Please find the full study at [www.swissre.com/climatechange](http://www.swissre.com/climatechange)

# Loss assessment – driven by economic growth and climate change

## India, Maharashtra case study

Expected loss from exposure to climate  
High climate change scenario, 2008 USD millions



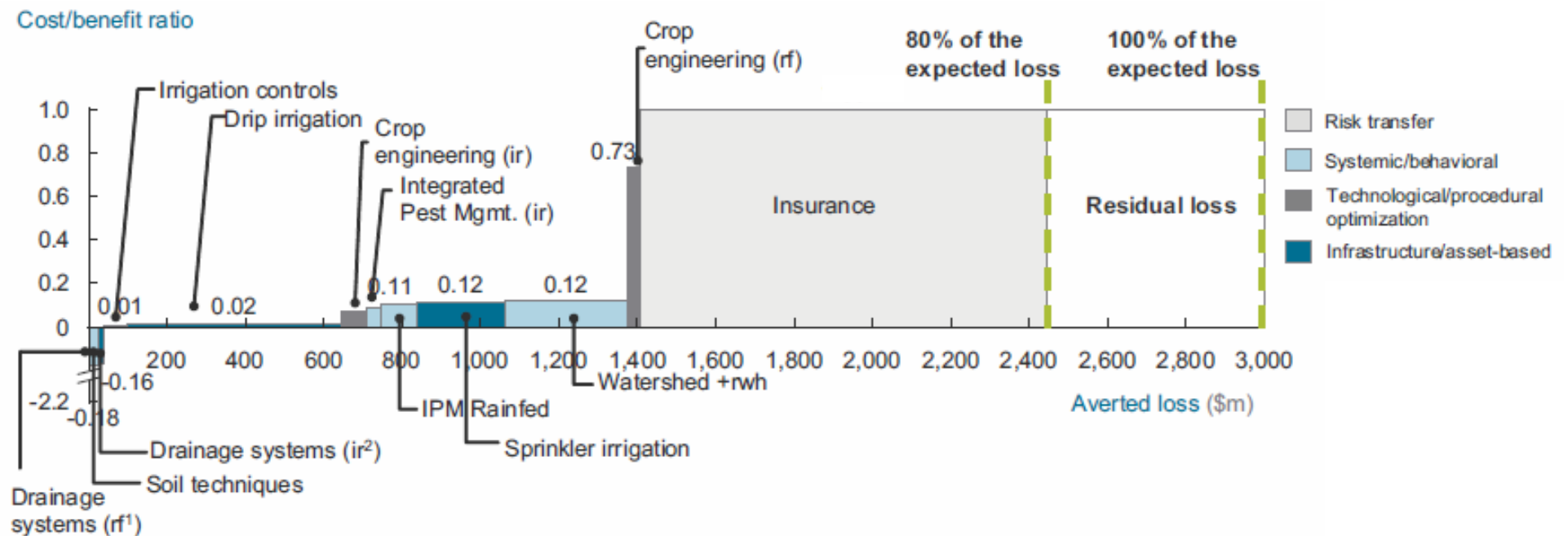
- Expected loss is driven by current risk, agricultural growth, and climate change
- Agriculture income growth would contribute to an additional **23% of 2030 upper bound loss**
- Climate change (occurring in combination with income growth) will **account for 35% of 2030 upper bound loss**

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# Managing total climate risk requires a cost-effective adaptation portfolio

In addition to agricultural 'best practice', index-based micro -insurance is a powerful tool

## India, Maharashtra case study

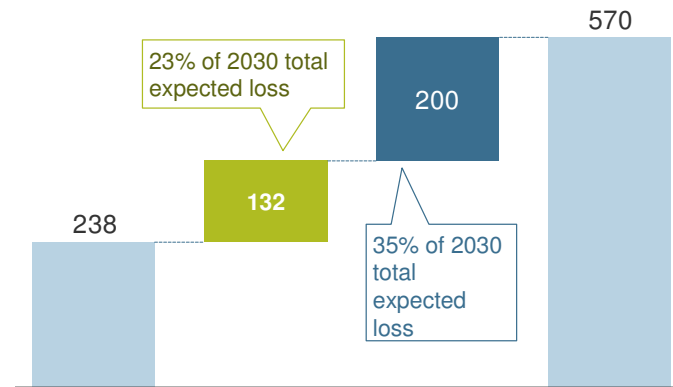


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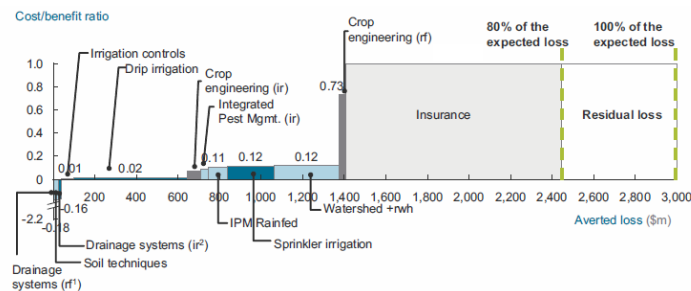
# Roadmap and business case for adaptation funding

## Output of ECA analyses

### Loss assessment



### Cost/benefit analysis



### What if we ...

- ... specify our 'risk appetite' in line with our development priorities
- ... incorporate further criteria relevant to us in addition to cost-benefit ratio
- ... (re-)prioritise risk mitigation and transfer measures based on our priorities
- ... calculate an adaptation business case incl. investment plan
- ... develop a roadmap incl. priority initiatives
- ... use roadmap and business case for funding discussions
- ... speed-up implementation with the additional funding and further increase resilience

Please find the full study at [www.swissre.com/climatechange](http://www.swissre.com/climatechange)

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