Innovation in insurance product development:
- climate resilience building
- de-risking investments

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Low income economies suffering most

- 850,000 Fatalities
- Overall losses US$ 3,300 bn
- Insured losses US$ 940 bn

Income Groups defined by World Bank (2014)
- High income economies (GNI ≥ 13,146 US$)
- Lower middle income economies (GNI 4,026 - 12,745 US$)
- Upper middle income economies (GNI 4,026 - 12,745 US$)
- Low income economies (GNI < 1,045 US$)

1) Number of fatalities without famine
2) Losses in 2014 values, adjusted to inflation based on individual country CPI

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Climate Risk Insurance
regional pools and satellite based risk analysis reduce insurance gaps

Regional Insurance Pools
Insureds: governments / institutions (focus on low income economies)

- African Risk Capacity (ARC; [http://www.africanriskcapacity.org/home](http://www.africanriskcapacity.org/home))
- G7 Project InsuResilience ([https://www.g7germany.de/Content/DE/_Anlagen/G8_G20/2015-06-01-g7-climate-risk-insurance.html](https://www.g7germany.de/Content/DE/_Anlagen/G8_G20/2015-06-01-g7-climate-risk-insurance.html))

Satellite based risk identification/analysis and parametric pay-out trigger
- e.g. African Risk View (UN World Food Programme)
- quick payout based on parametric risk definition (meteorological data)

Insurance: driver of investments in greener economies
de-risking low carbon investments through risk transfer solutions

- **New/innovative risk transfer solutions** along the value chain of e.g. renewable energy technologies: multi-year performance guarantees

  - **Photovoltaics**
    - Performance Guarantee for PV manufacturers
    - Project cover for operations
    - Project cover for investors
  - **CSP**
    - Performance Guarantee for CSP manufacturers
    - EPC and O&M cover for EPC contractors
  - **Wind**
    - Serial loss cover for manufacturers and suppliers
    - Defects, spoilage, delay
    - Maintenance cost overrun
  - **Geothermal**
    - Cover for Drilling success / exploration risk
  - **LED**
    - Performance Guarantee for manufacturers
    - Performance Guarantee for municipalities as co-insured
  - **Solar/Wind/Water**
    - Coverage of shortage of planned output in running a power plant due to insufficiency of average sunlight / wind wind

- **Insurance industry as investors**: Munich Re up to EUR 8 bn renewable energy/infrastructure investments
Key Takeaways

- People in low income economies suffer most from natural catastrophes
- Reduction of vulnerability and strengthening resilience is key to reduce humanitarian suffering and support sustainable economic development
- Know-how of global insurance industry with natural catastrophes, transfer of expertise and risks can contribute to resilience building
- Public-private-partnerships (PPP): governments-supranational organisations <-> private insurance sector are drivers of resilience in developing countries