# Peruvian Approach, Measures and Tools to address loss and damage in the context of climate change adaptation

**Philine Oft – GIZ Perú**

# Public Investments and Climate Change Adaptation

- In 2010, public investments in the country reached US$ 9 billion. A preliminary analysis of the Ministry of Environment (Minam) 2010 determined that only 1% of the public investment projects include aspects related to climate change
- Recent statistics show the number of projects declared viable per sector and level of government.


Source: MEF, 2011

# Public Investments and Climate Change Adaptation

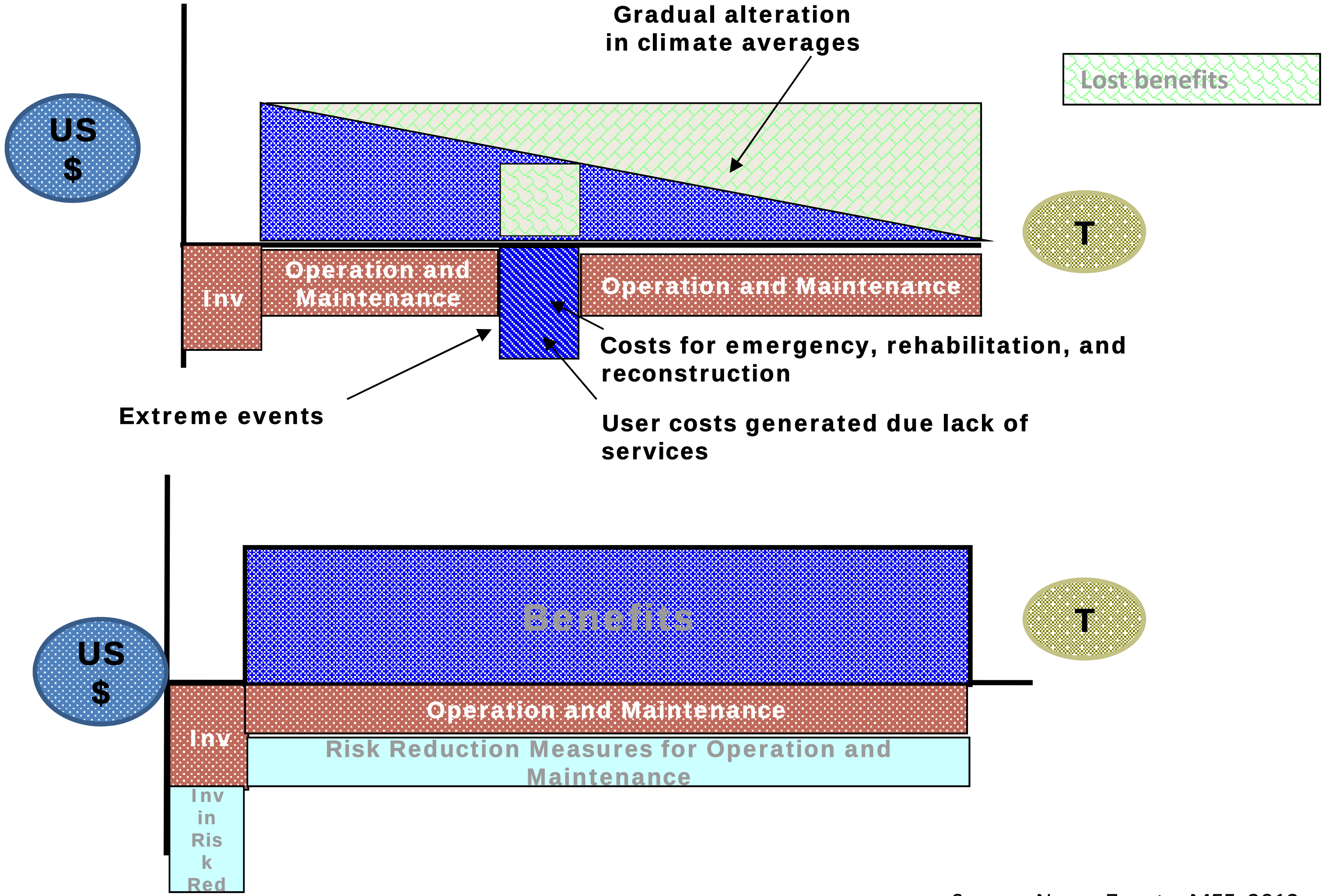
| Effects of Climate Change | Impacts in Public Investment Projects |
|---|---|
| Intensification of extreme weather events (heavy rains, droughts, hurricanes, freezes, etc.). | The scenarios of climate hazards are more severe, more frequent and intense. Consider scenarios in Integrated Risk Management |
| Changes in rainfall patterns. Reduction of water sources . | Less availability of water in the future for the provision of water for human use, irrigation and the production of energy. Need mechanisms of regulation and storage, better and new techniques for the use of water and energy. |
| Loss of glaciers. | Landslide movements due to thaw. In short to medium term, increased availability of water. Low water availability in the future due to loss of glaciers. Consider Risk Management scenarios in public investment projects. |
| Temperature rise. Changes in ecosystems and biodiversity. | New scenarios for irrigation projects (crop changes, greater need for water), tourism. |
| Temperature rise. Appearance of plagues and illnesses. | New scenarios for irrigation and health projects |
| Rise in sea-level | Port infrastructure could be affected. Rearrange actual infrastructure or plan new infrastructure in alternate zones. |

Source: Nancy Zapata, MEF, 2012

# Cost benefit of risk reduction and climate change adaptation measures

**Disaster risk and climate change impacts**

**With Disaster Risk Management and Climate Change Adaptation Measures**

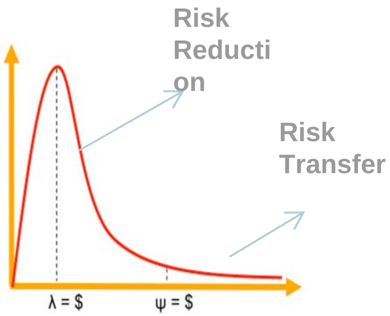



Source: Nancy Zapata, MEF, 2012

# Tools, Steps and Components for an integrated risk management framework

- Develop an inventory of assets
- Determine hazards and risks

**Identification of risk**




- Develop a vulnerability model
- Develop model of hazards and risks

**Risk analysis**

Prepare and maintain infrastructures for extreme events

**Risk reduction**

- Develop a financial risk management strategy
- Use a variety of financial instruments (retention and transfer)

**Risk financing**

# Institutional Context :
## Intersectoral Approach at international, national and subnational level

# Success factors, resource requirements and lessons learned

**LL 1**
- **It is important that financial instruments, the likes of weather insurance, become part of a comprehensive risk management and transfer strategy.**

**LL 2**
- **Small holders need a wide range of financial products, such as savings, credit, and insurance, to manage weather risks.**

**LL3**
- **To develop weather insurance, one must generate reliable information and data.**

**LL4**
- **It is not possible for the private sector alone to create an insurance market.**

**LL5**
- **It is important to develop a system of agricultural insurance that encompasses all types of risks and financial instruments that can be offered to the producers.**

**LL6**
- **To develop financial instruments, like weather insurance, the role of each sector and stakeholder must be clearly defined.**

**LL7**
- **It is necessary to adapt financial instruments to specific contexts and to develop different tools for different types of risk (trust funds, insurance, stocks, cat bonds, subsidies, derivatives).**

# Thank you for your attention

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Ministerio Federal de Medio Ambiente, Protección de la Naturaleza y Seguridad Nuclear

de la República Federal de Alemania

philine.oft@giz.de