CEDRIG
Climate, Environment and Disaster Risk Reduction Integration Guidance

Concept of DRR and CCA



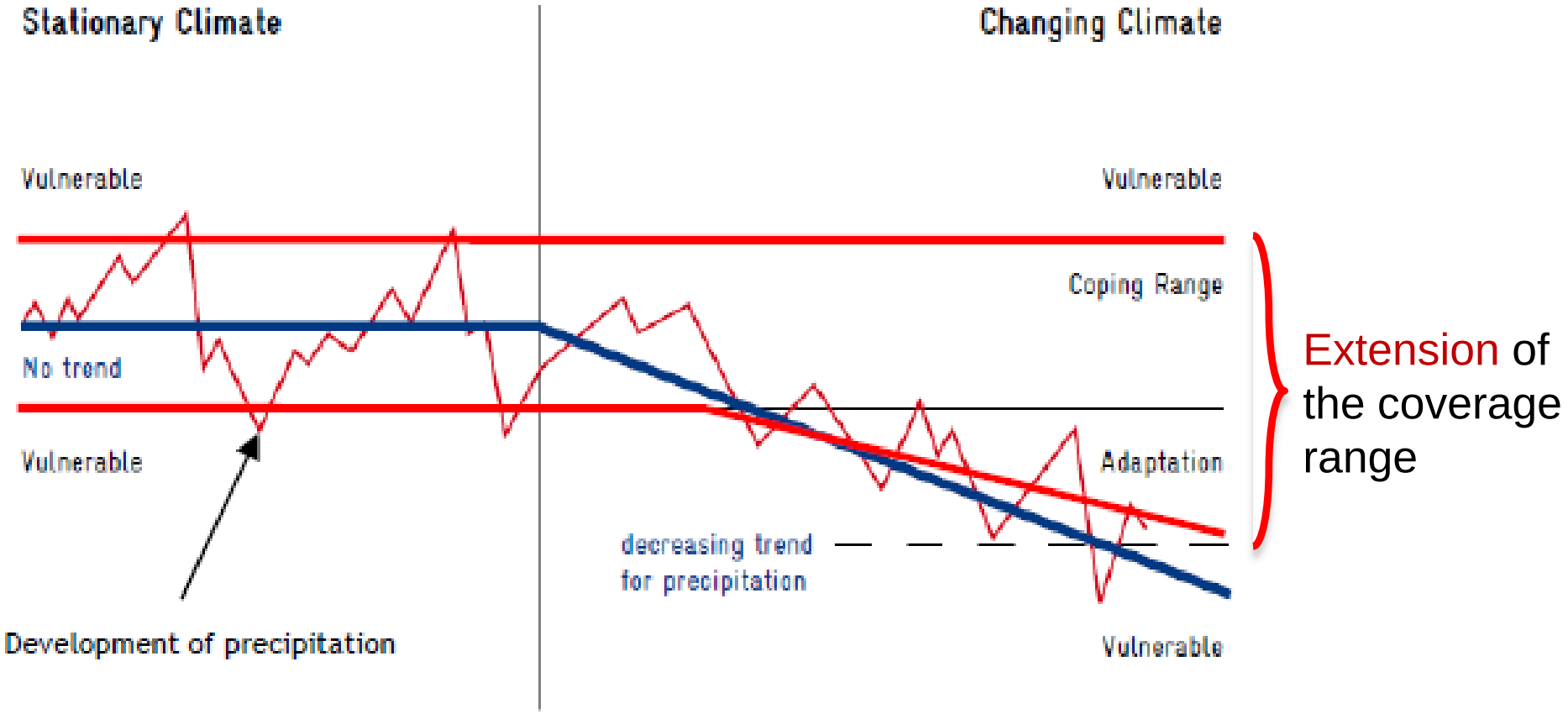

Outlook

1. Global scope of CEDRIG
2. Adaptation concept
3. What is risk
4. DRR cycle
5. Sustainability
6. Overlaps between DRR, CC and PCM

Global scope

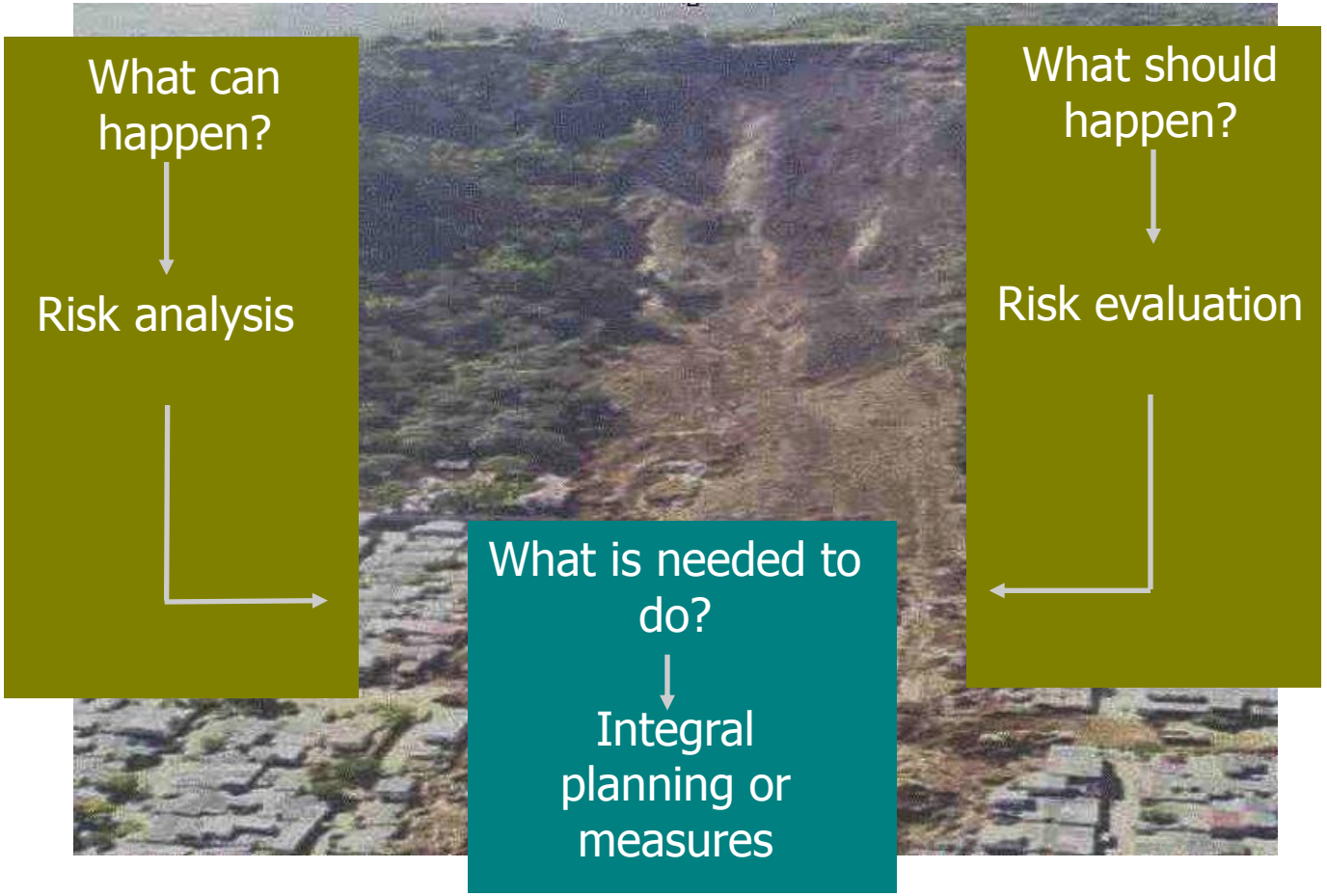
- Reduce existent risks and prevent new risks due to a inappropriate development or external factors (climate change)
- Adjust natural and human systems in response to actual or future risks and attenuate negative effects or benefit from potential opportunities

Adaptation concept

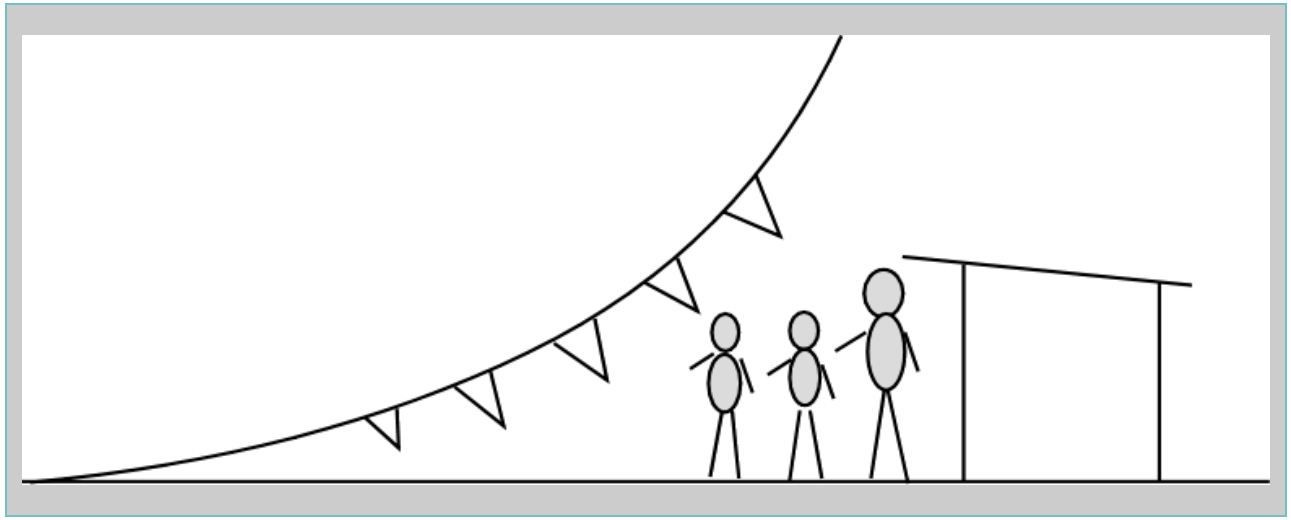


Source: GTZ 2009

Risks concept – 3 basic questions



What is risk



Is the probability to experiment a loss (✞, $) in a specific place at a given time

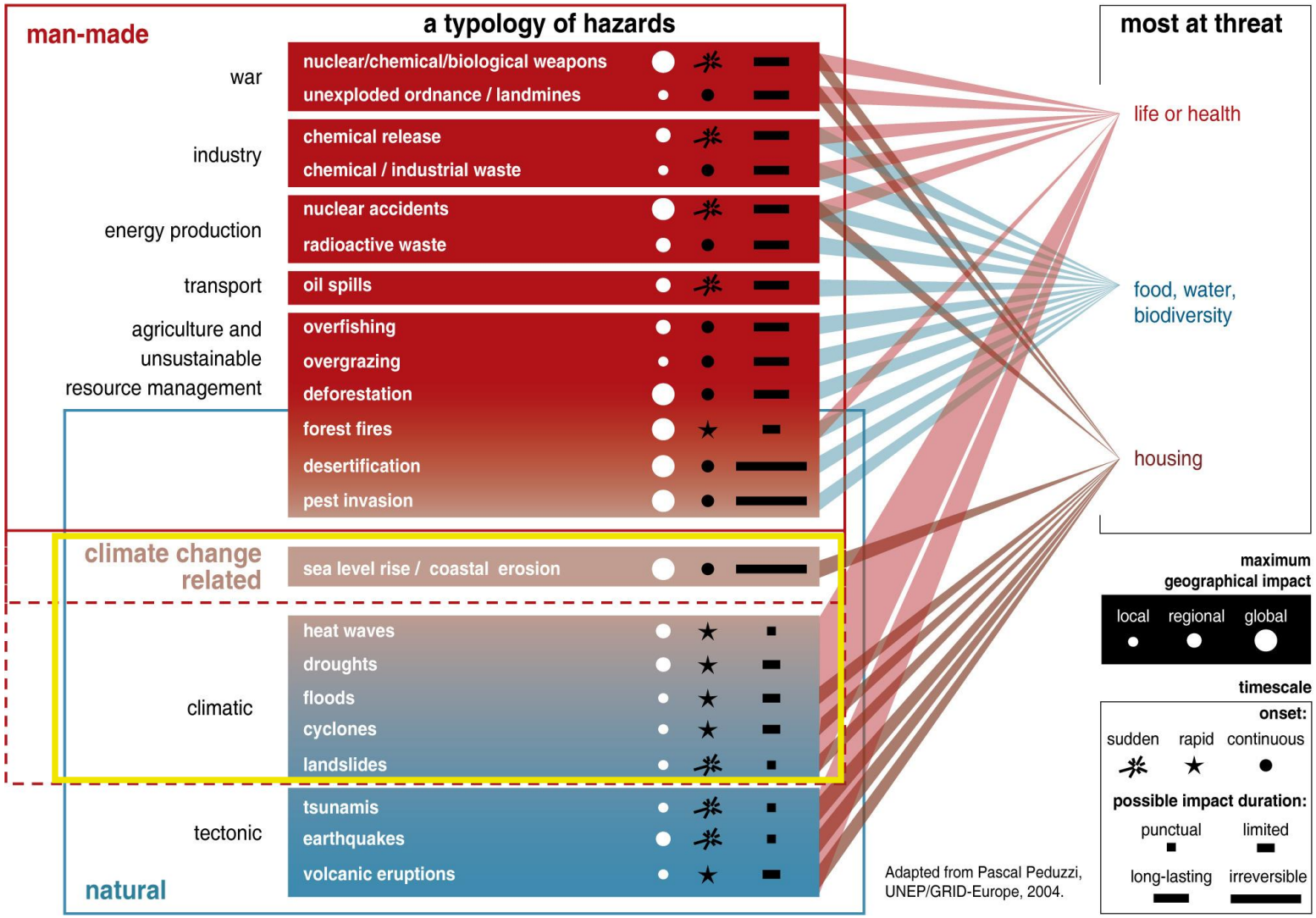
Risk = Hazard x Vulnerability

Hazard

In a specific place:

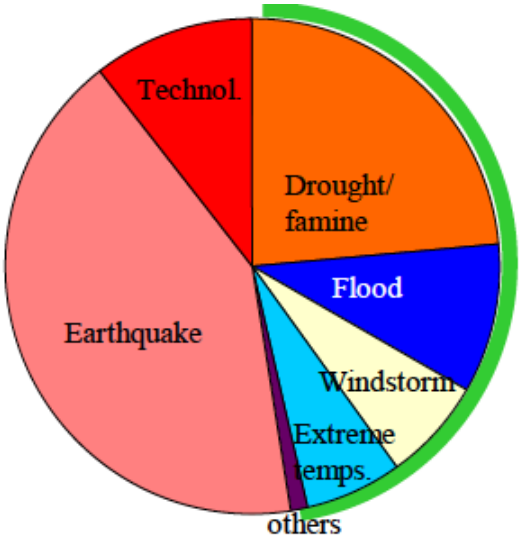
Type of phenomena, frequency, intensity

Hazards typology



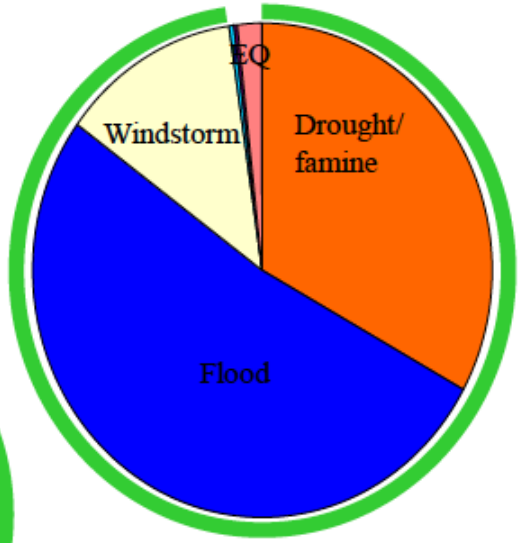
Convergence a the level of hydro-meteorological hazards

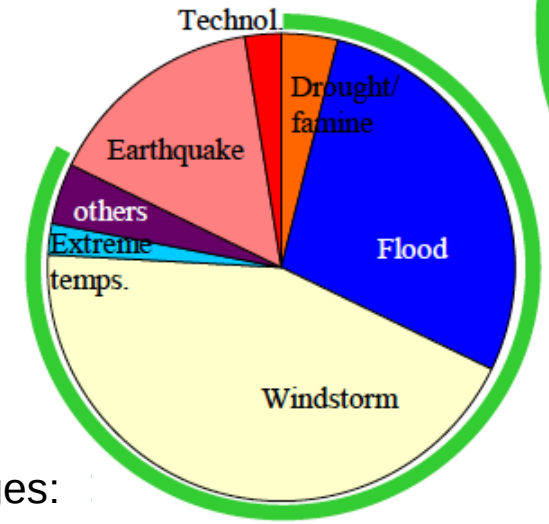
Climatic relevance for disaster risks



N° of casualties
93‘400/year

N° of affected
250‘000‘000/year



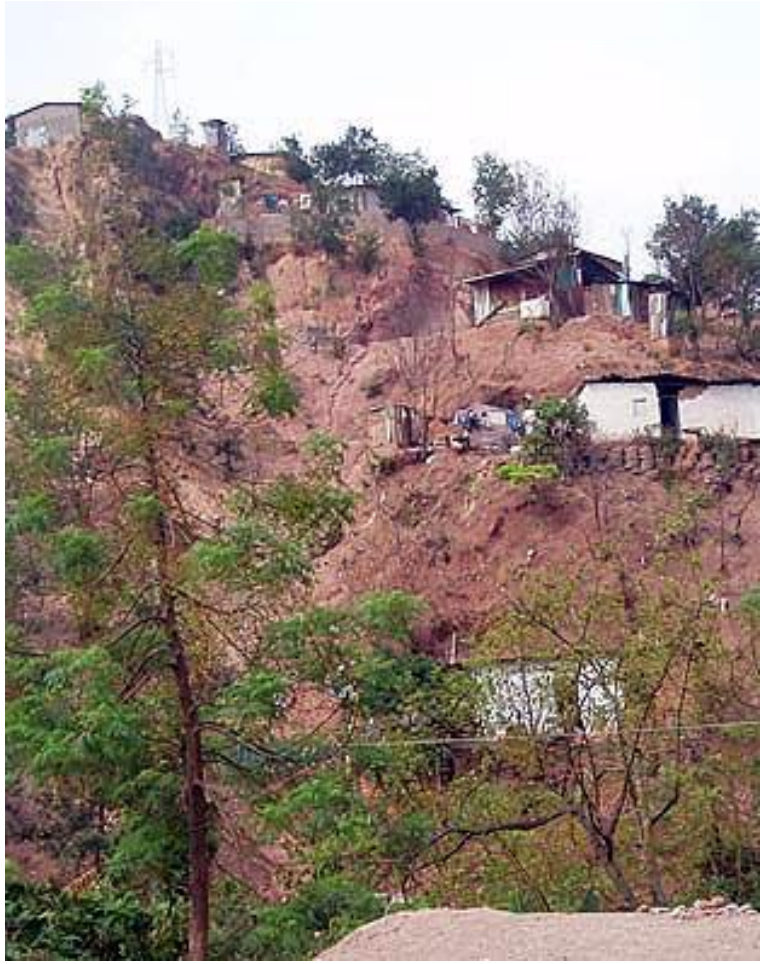


Estimated damages:
USD 73 b/year

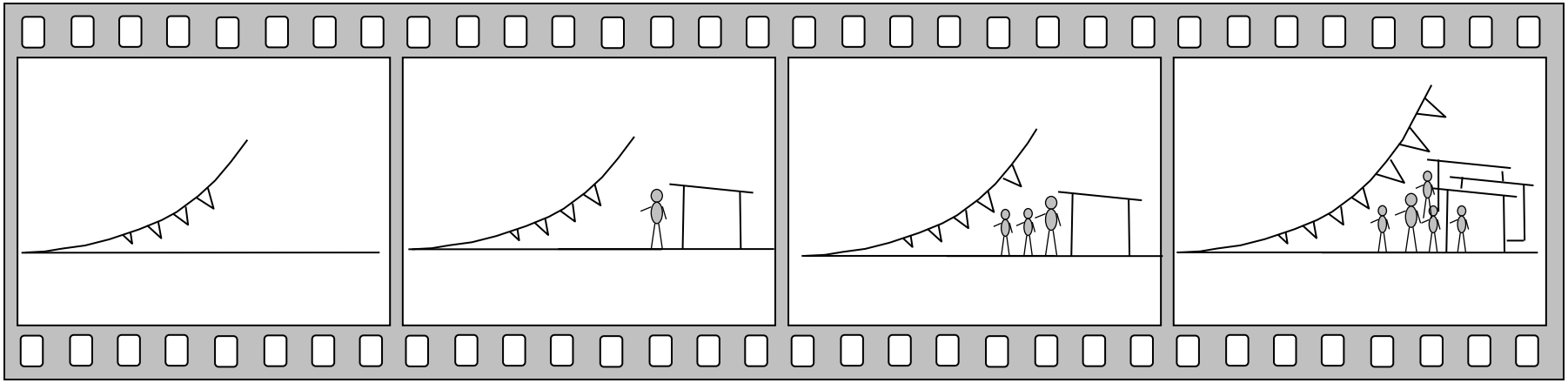
IFRC: WDR 2006

Vulnerability

- Physic, economic, social, environmental, institutional
- Reduced coping capacities



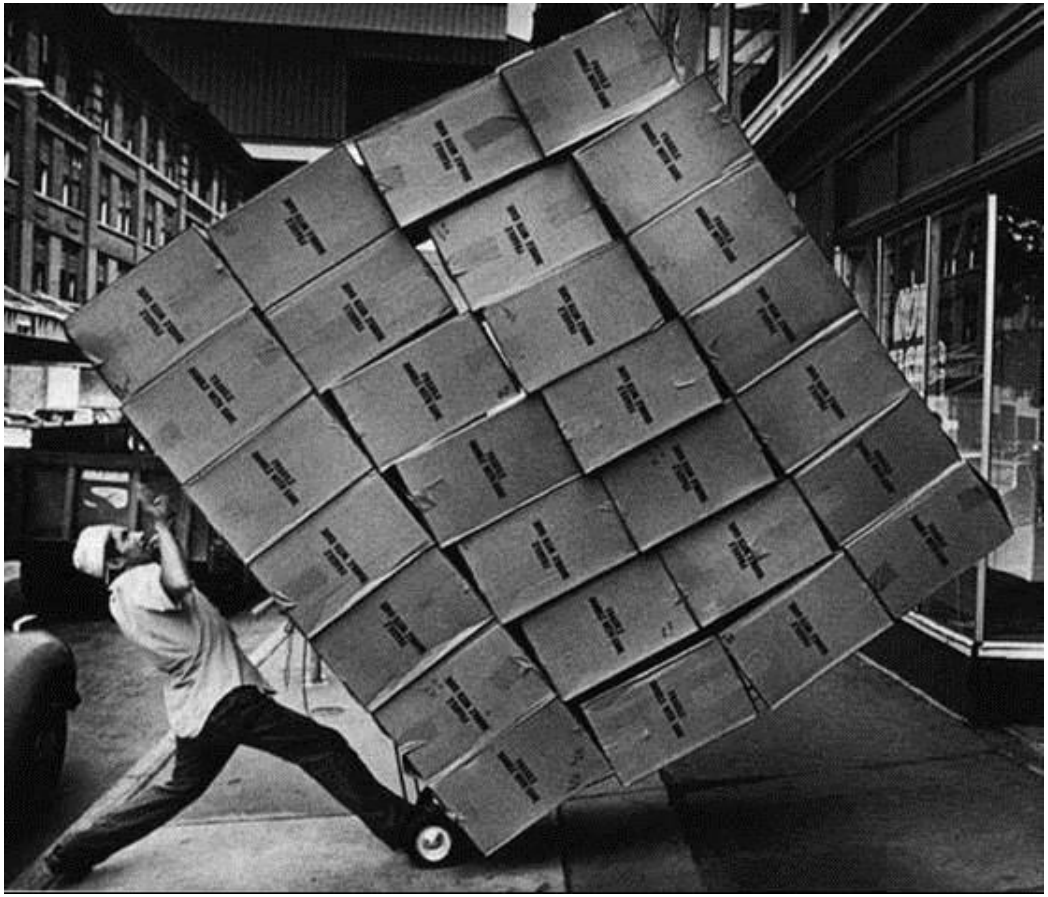
Risk factors change with time



- Hazard: climate change, deforestation, etc.
- Vulnerability: population growth, poverty, development, power changes, migration, etc.

Risk evaluation

- Possible losses vs possible benefits

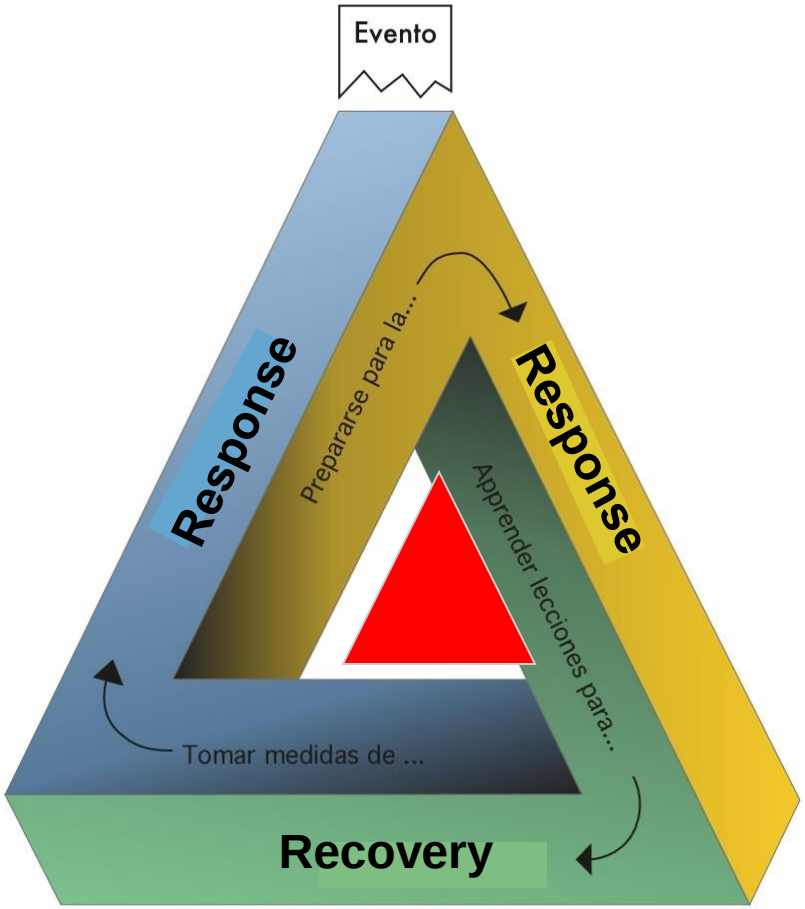


Risk evaluation

Do I accept this?

DRR cycle

Reduce Risks and avoid new risks through structural and non structural measures

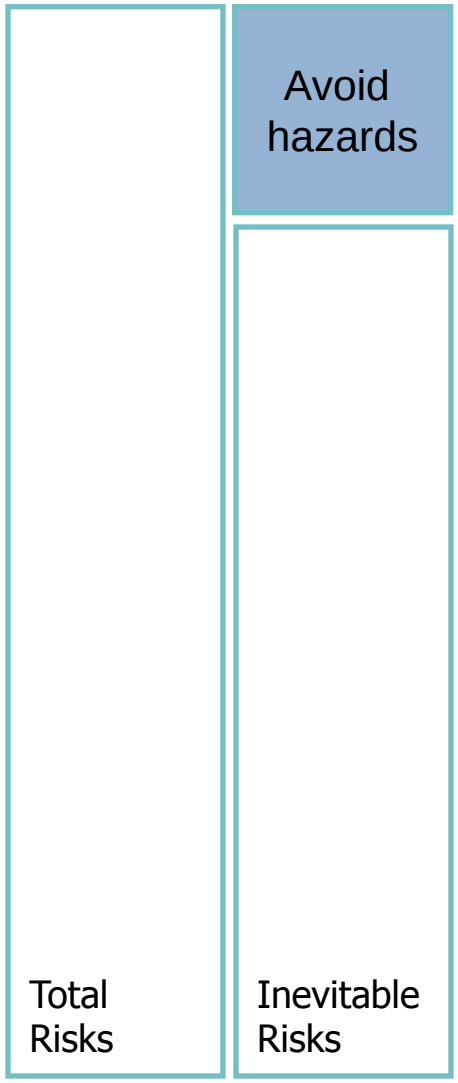


Reduce the disaster impact through emergency relief and rehabilitation

Risk analysis

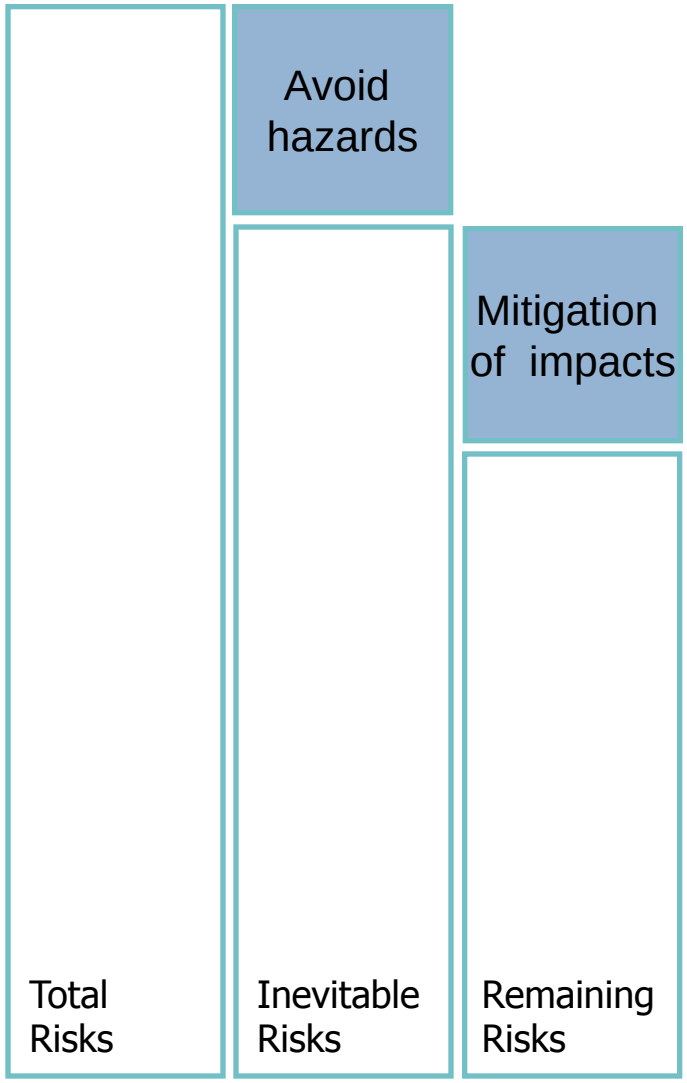
Reduce future losses through adapted reconstruction

Risk Reduction: measures



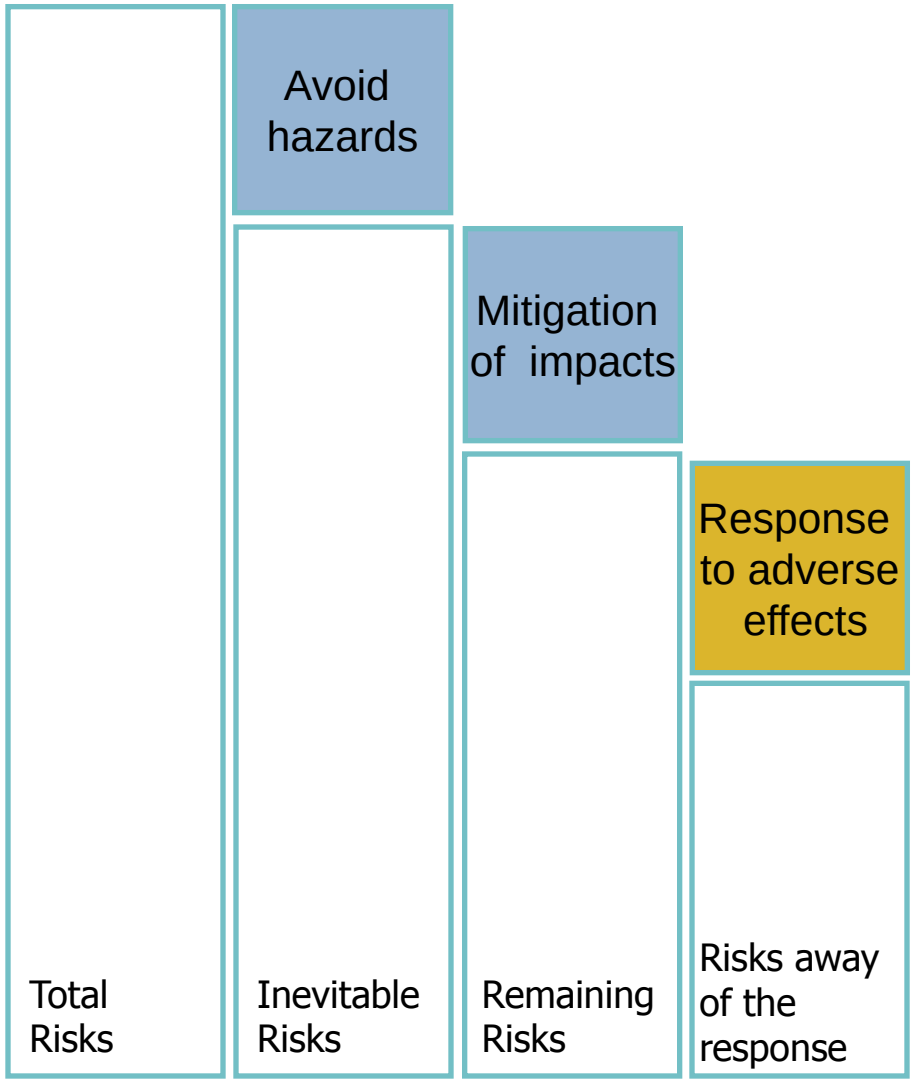
- Avoid hazardous zones
  - ✓ Through land use plans

Risk Reduction: measures



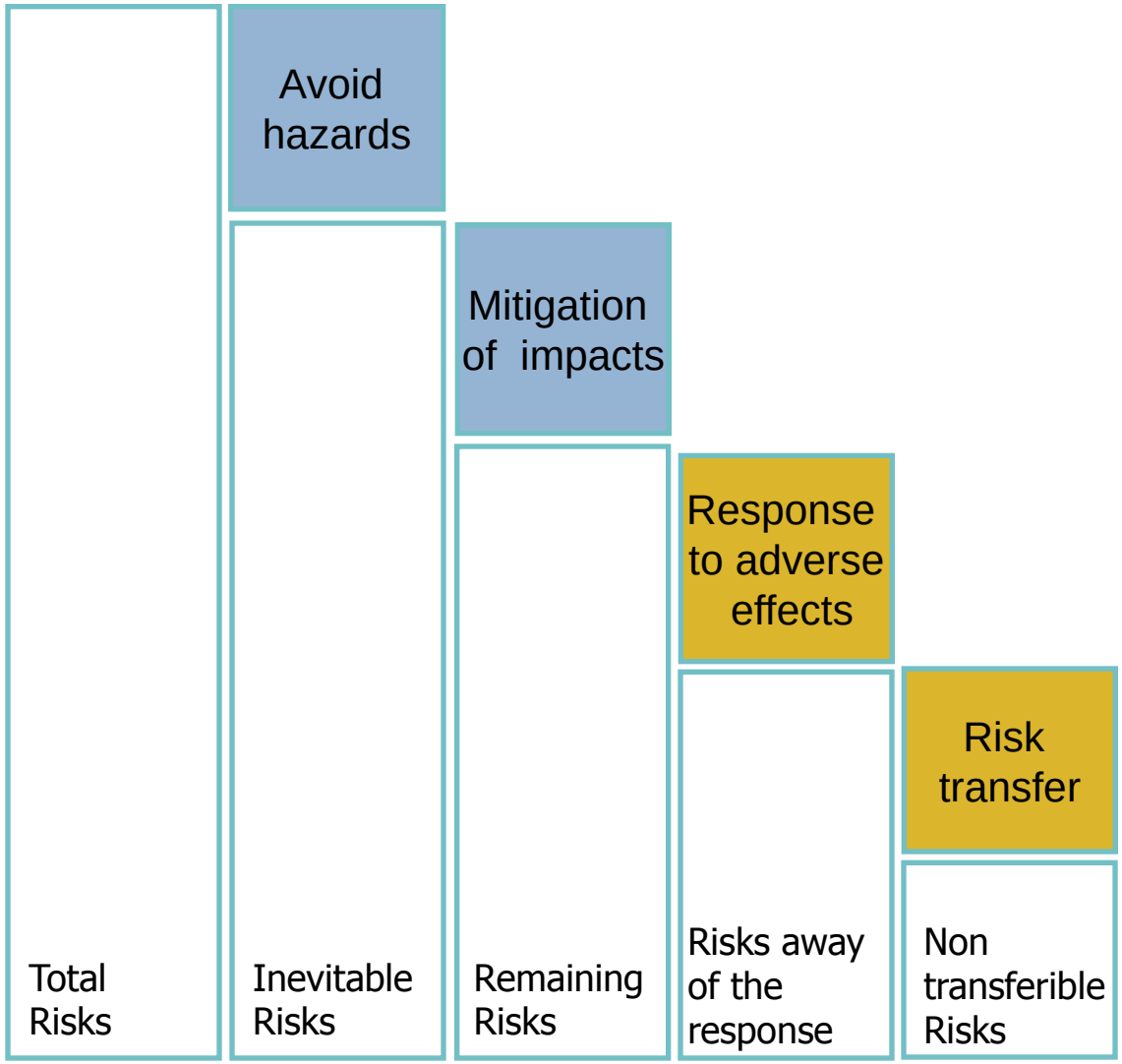
- Mitigate the effect of the event:
  - ✓Reducing hazards
  - ✓Reducing vulnerabilities

Risk Reduction: measures



- Reduce the adverse effects through response:
  - ✓Emergency relief, rehabilitation

Risk Reduction: measures



- Risks distribution to a bigger group
  - ✓ Insurance
  - ✓ Funds

Gebäude Versicherung Bern
Wenns drauf ankommt.

Chaîne du Bonheur |
Glückskette |
Catena della Solidarietà |
Swiss Solidarity |

Risk Reduction: measures

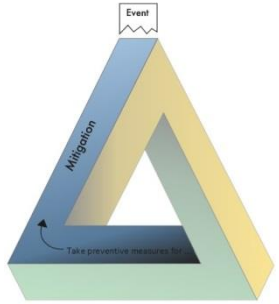
Total Risks

Avoid hazards

Inevitable Risks

Mitigation of impacts

Remaining Risks



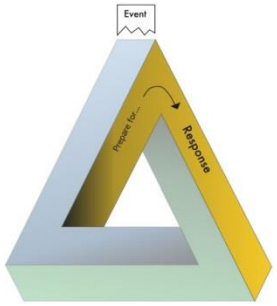
Prevention measures

Response to adverse effects

Risks away of the response

Risk transfer

Non transferible Risks

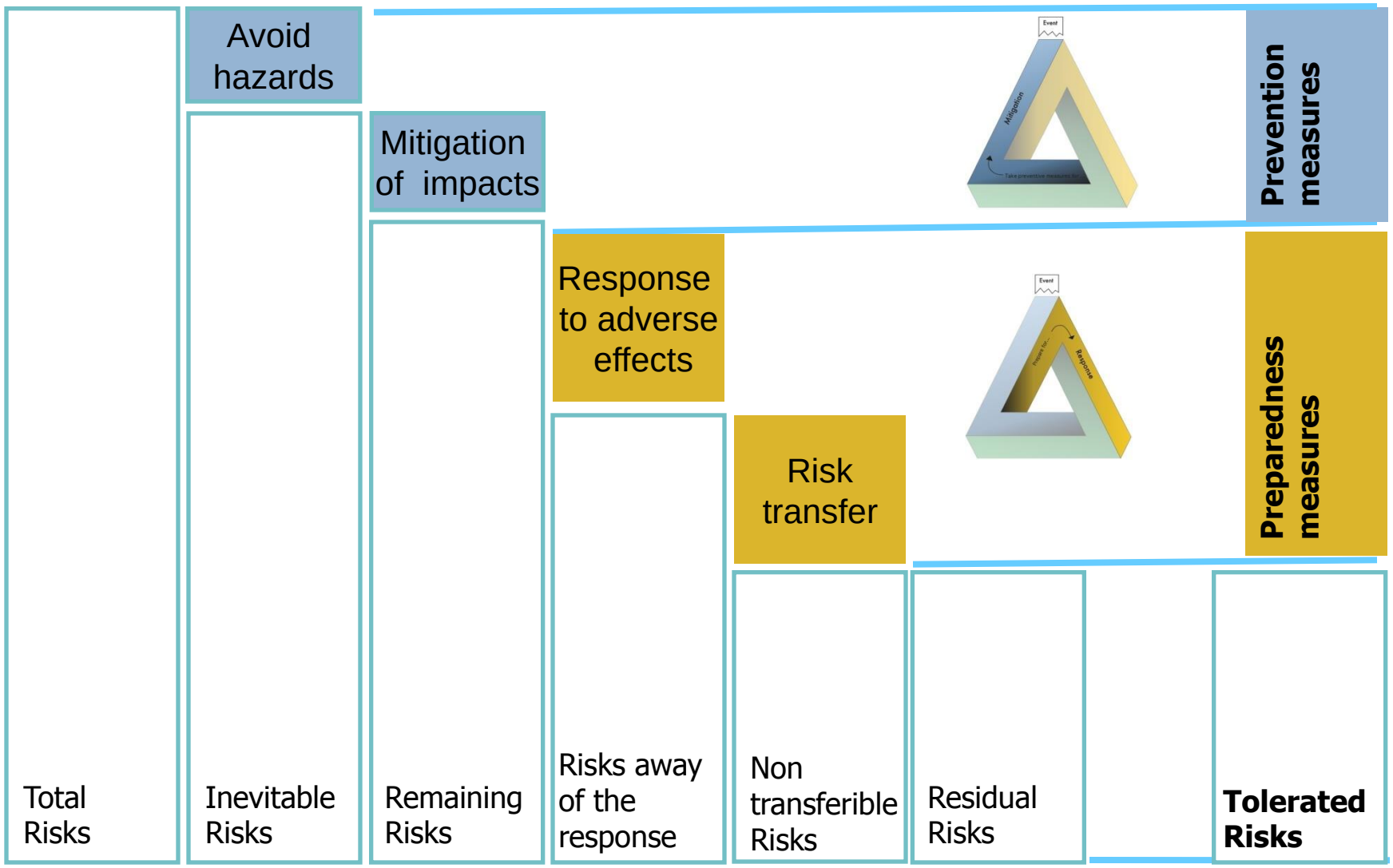


Preparedness measures

Residual Risks

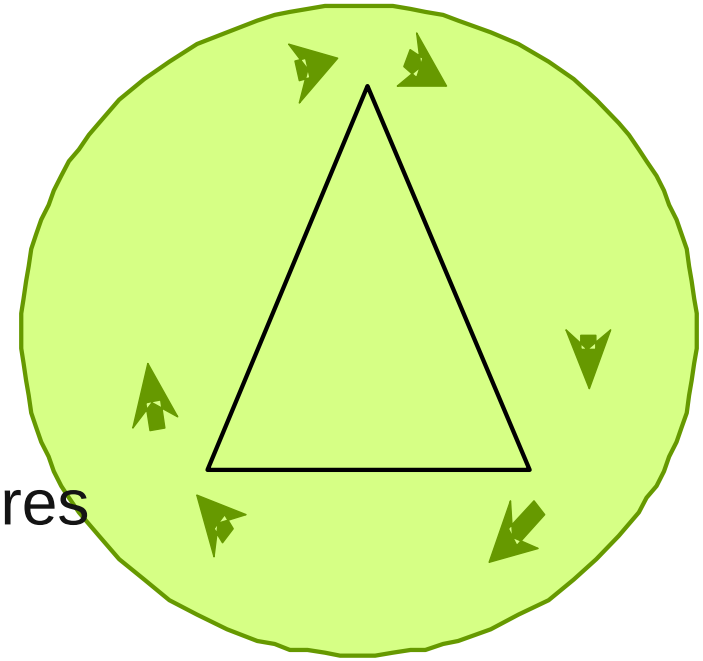
Tolerated Risks

Context in developing countries



Adaptation concept

Step I
Identification and evaluation of impacts and natural and social vulnerabilities



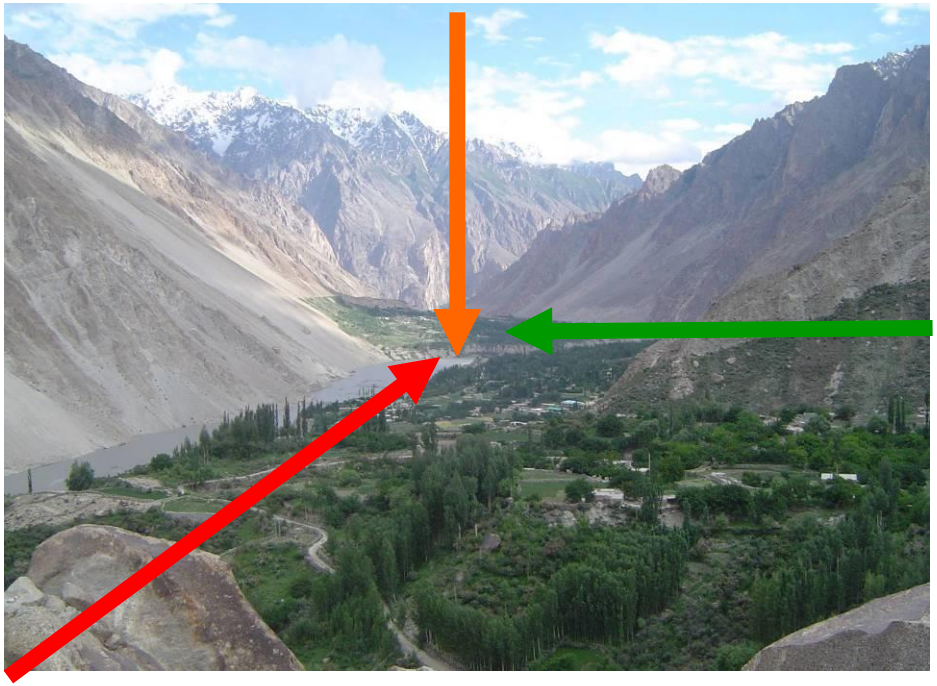
Step II
Develop capacities for adaptation

Step III
Adaptation measures

Sustainability

- Measures follow sustainability principles

Economically
efficient



Environmentally
friendly

Socially accepted

Multi-stakeholder and participative

- Governmental institutions
- Civil society and NGO
- Private sector
- Science and research
- Population (women and men)

Overlaps of DRR and CCA a risk level

Copping with climate induced risks

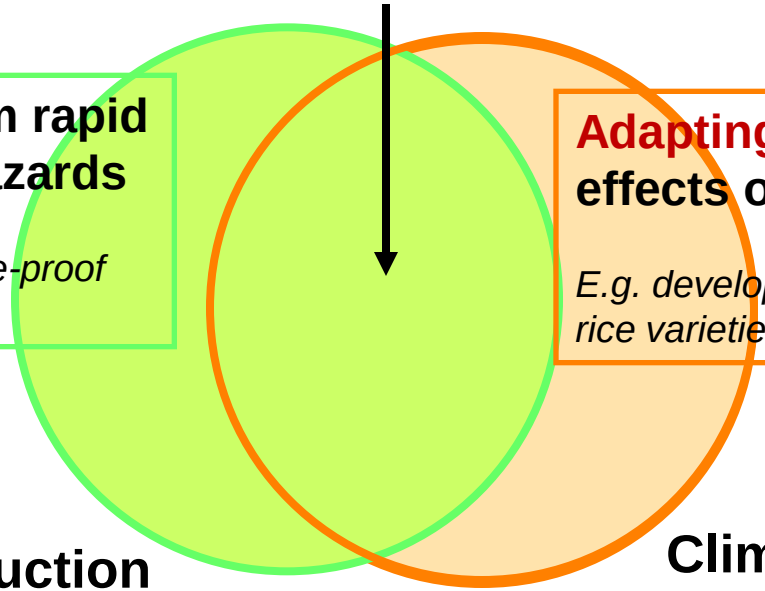
E.g. developing early warning systems for flood events

Reducing risks from rapid onset geological hazards

E.g. developing earthquake-proof infrastructure

Adapting to gradual, long-term effects of climate change

E.g. developing temperature resistant rice varieties

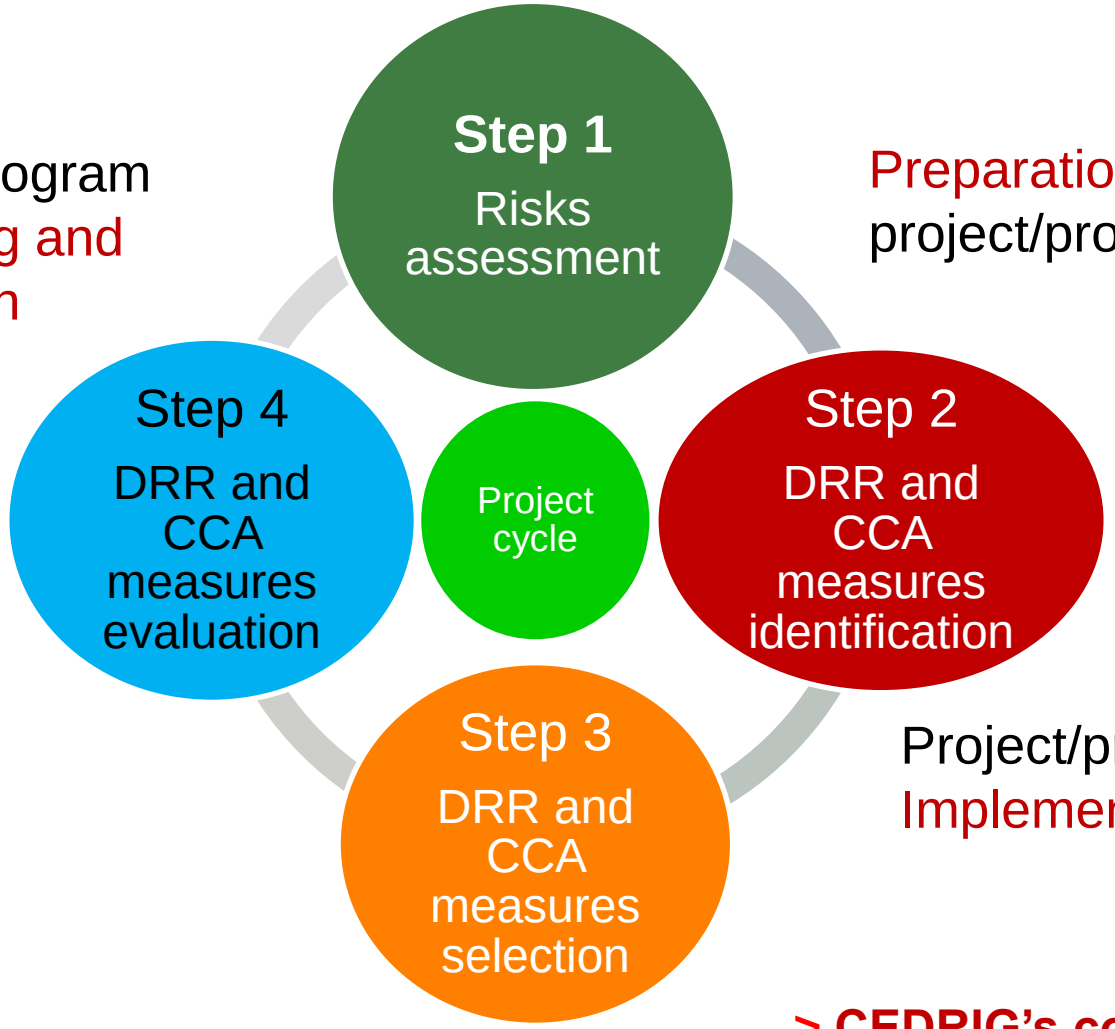


Disaster Risk Reduction
DRR

Climate Change Adaptation
CCA

DRR and CCA in the PCM

Project/program
Monitoring and
Evaluation

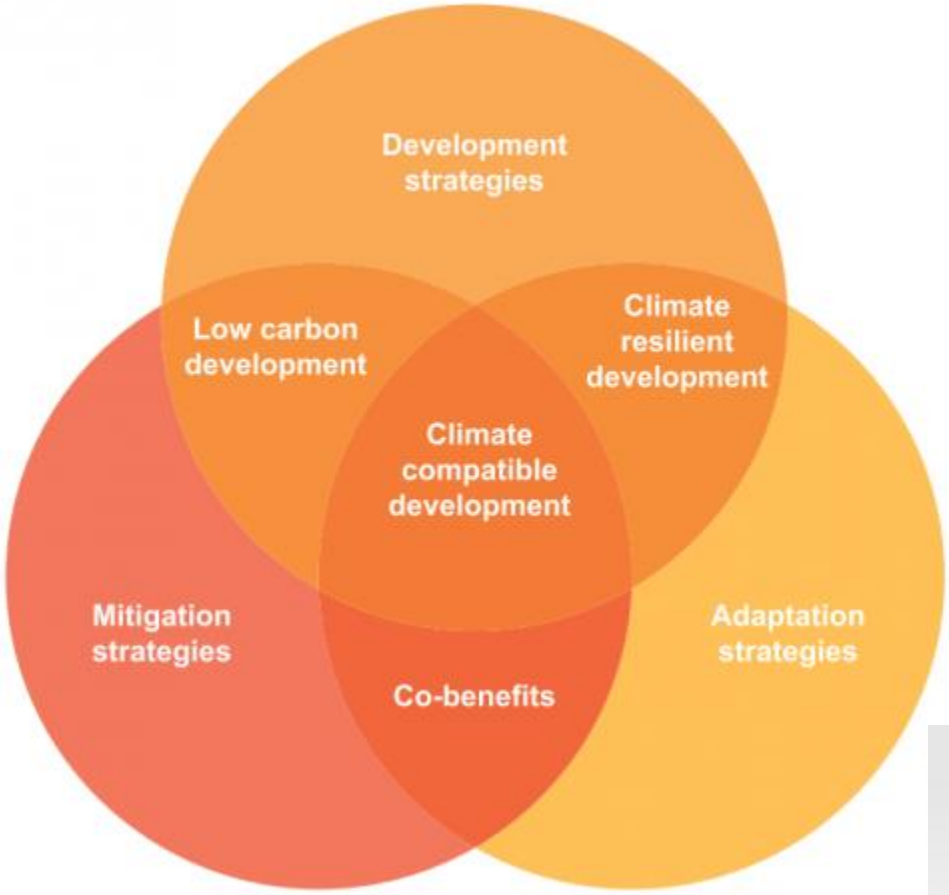


Preparation of the
project/program

Project/program
Implementation

> CEDRIG's concept

Climate Compatible Development



CDKN Climate & Development Knowledge Network

Key Concepts: CC, CCA & CCM

- Normative Framework: UNFCCC (IPCC)
- CC definition: ‚A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods.' (IPCC)
- CCA definition: 'The ability to respond and adjust to actual or potential impacts of changing climate conditions in ways that moderate harm or take advantage of any positive opportunities that the climate may afford.' (ADB 2003)
- CCM definition: 'Efforts to reduce or prevent emission of greenhouse gases.' (UNEP)

Key Concepts: CCA

- Goal: increase / strengthen / maximize adaptive capacities of actors (most relevant at the local and communal level)
- Objective: build / increase / improve resilience to allow coping with CC (strong link with DRR)
- Objective: reduce vulnerability to minimize the (potential) negative impacts of CC (strong link with DRR)
- Leitmotiv: ‘managing the unavoidable ‘
- Concern: avoid mal-adaptation
- Safeguard: promote low- / no-regret options
- National Adaptation Programmes of Action (NAPAs)

Key Concepts: CCM

- Goal: reduce greenhouse gas emissions at the global scale
- Objective: promote low carbon / emissions growth worldwide
- Objective: promote ‘green economy’ & ‘carbon neutral development’
- Leitmotiv: ‘avoiding the unmanageable ‘
- Concern: avoid global temperature increase below a problematic threshold (strong link to DRR – extreme events / changed weather patterns)
- Safeguard: promote innovative / alternative technologies
- Nationally Appropriate Mitigation Actions (NAMAs)

Thank you for your attention!

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