



COMPENDIUM ON COMPREHENSIVE RISK MANAGEMENT APPROACHES

Executive Committee of the
Warsaw International Mechanism
for Loss and Damage
(September 2019)

This compendium is aimed at enhancing the understanding of comprehensive risk management approaches (assessment, reduction, transfer, retention), including social protection instruments and transformational approaches, in building long-term resilience of countries, vulnerable populations and communities.

Practitioners, decision-makers and financiers face the challenge of identifying, planning and implementing solutions to multiple risks, including those needed to address loss and damage associated with the adverse effects of climate change.

Each of the categories of comprehensive risk management approaches is described using 349 case studies and technical reports from across five geographical regions, of which 37 are presented in the compendium. Drawing on good practices and lessons learned, the compendium identifies ways to address the needs of countries, vulnerable populations and communities with respect to loss and damage, including in relation to extreme and slow onset events.

This compendium serves as a guide to policies, standards, instruments such as insurance and social protection, and transformational approaches to facilitate comprehensive risk management.

RISK ASSESSMENT

To manage risks comprehensively, decision makers need to understand and characterize multiple and cascading risks.

Risk assessment provides information about the characteristics of hazards such as location, severity, frequency and likelihood of occurrence - and the exposure and vulnerability of communities to those hazards in terms of physical, social, health, economic and environmental impacts.

PRACTICES

- Undertake dynamic, timely risk assessment across multiple dimensions (social, economic, political)
- Determine the target audience clearly
- Communicate uncertainties clearly
- Innovate using comparable and scientifically rigorous risk information
- Garner political support, community consensus and active involvement.

RISK RETENTION

A country, community, or organization can explicitly or implicitly choose to absorb the impacts of a (climatic) hazard if it occurs.

Risk retention can take several forms, mostly in terms of organizational and financial planning, ranging from contingency financing, contingency funds, social protection, savings or ex ante reserve funds for the purpose of off-setting unexpected financial claims.

PRACTICES

- Employ a mix of risk reduction measures alongside risk financing and insurance instruments
- Use risk financing or insurance instruments
- Establish efficient rules and procedures to expedite flow of funds post-disaster
- Remittances facilitate disaster recovery
- Develop contingency planning with sound communication strategies.

RISK REDUCTION

Risk reduction can be achieved through a range of structural and non-structural measures.

Common structural measures refer to any resilience-enhancing physical construction or engineering technique; common non-structural measures include policies, laws, education. The appropriate mix of risk reduction, structural and nonstructural measures is achieved through planning, legislation, early warning systems and awareness.

PRACTICES

- Mainstream risk-reduction into development policies and strategies
- Develop risk-oriented national budgetary processes
- Formulate clear and enforceable regulations
- Use a combination of infrastructure-based and soft solutions
- Strengthen functional and timely early warning systems
- Inform decisions using complete information on weather, climate, historic losses and vulnerability

TRANSFORMATIONAL APPROACHES

Transformations refer to the altering of fundamental attributes (biological, technological, legislative, or of value) of a social-ecological system.

When the impacts of climate change are particularly extreme or rapid, vulnerability is high and adaptive capacity relatively low, it can be difficult for systems to adapt incrementally without transformational changes, for instance resettlement.

PRACTICES

- Focus on resilience in the context of changing climate extremes
- Integrate innovation, adaptive management, learning and leadership in risk management
- Undertake early stakeholders consultation to strengthen governance structures
- Use participatory approaches to address issues on rights, equity and justice
- Consider possible scenarios such as resettlement, relocation and migration.

RISK TRANSFER

(Financial) risk transfer is the process of shifting the financial consequences of particular risks from one party to another.

It can occur informally within family and community networks, as well as formally where governments, insurers, multi-lateral banks and other large risk-bearing entities establish mechanisms such as insurance and re-insurance contracts, catastrophe bonds, contingent credit facilities and reserve funds,

PRACTICES

- Use a mixture of different financial instruments
- Clearly allocate risk costs responsibility
- Use reliable and consistent data on hazards
- Foster an inclusive financial sector
- Build insurers' adequate operational capacity
- Consider private sector expertise and experience
- Undertake consultations and dialogue on risk transfer mechanisms among all relevant stakeholders.

ENABLING ENVIRONMENT

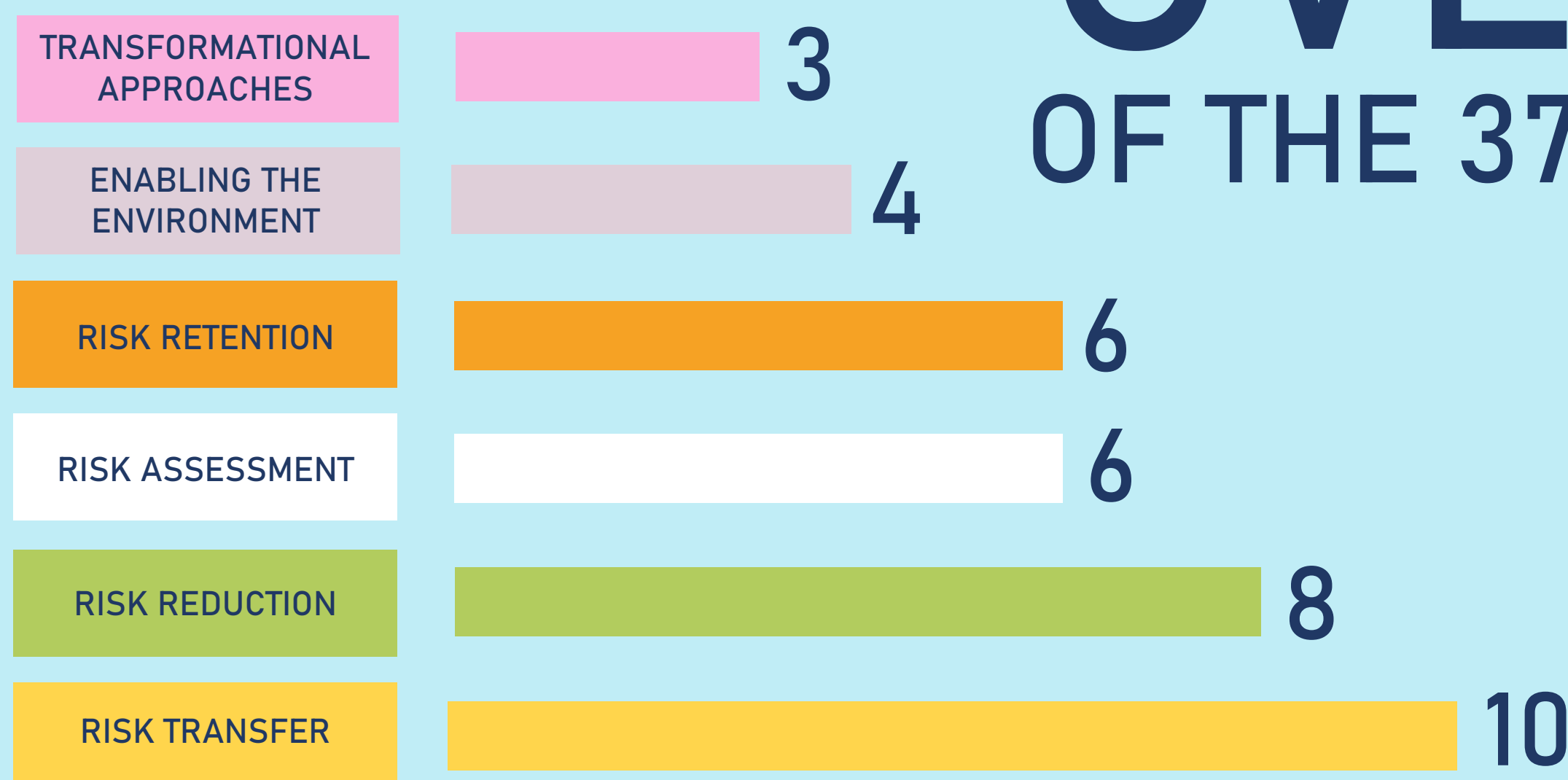
In order to effectively implement comprehensive risk management, certain conditions must be in place.

These include explicit adaptation strategies, long-term awareness and capacity building, legislative and regulatory frameworks, accessible scientific knowledge, effective risk communication, a participatory and decentralized decision making process, and efforts to reduce poverty and inequalities.

PRACTICES

- Foster leadership from the highest levels of national and local governments
- Share good practices across countries and regions
- Strengthen human resources and technical capabilities
- Empower vulnerable communities, inclusive of women, children and people living with disabilities
- Consider whole- of- government approaches to risk management that integrate key players

CASE STUDIES BY COMPREHENSIVE RISK MANAGEMENT APPROACH



OVERVIEW OF THE 37 CASE STUDIES



DESALINATION – A CALIFORNIA PERSPECTIVE
CLIMATE CHANGE RISK ASSESSMENTS UNDER THE SECURE WATER ACT

NORTH AMERICA

CONTINGENT CREDIT FACILITY (CCF) OF THE INTER-AMERICAN DEVELOPMENT BANK
MEXICO'S NATURAL DISASTER FUND (FONDO DE DESASTRES NATURALES - FONDEN)
CARIBBEAN HURRICANE EARLY WARNING SYSTEM
CENTRAL AMERICAN PROBABILISTIC RISK ASSESSMENT (CAPRA)
"FONDOS DE ASEGURAMIENTO" SELF INSURANCE FUNDS
LIVELIHOOD PROTECTION POLICY
MULTICAT BONDS
CARIBBEAN CATASTROPHE RISK INSURANCE FACILITY
URUGUAY HYDRO ENERGY INSURANCE

SOUTH AMERICA AND THE CARIBBEANS

EUROPE

THAMES ESTUARY 2100 PLAN
OPERATION OF THE PORTUGUESE CONTINGENCY HEATWAVES PLAN
CALCHAS – AN INTEGRATED ANALYSIS SYSTEM FOR THE EFFECTIVE FIRE CONSERVANCY OF FORESTS
IMPLEMENTATION OF THE INTEGRATED MASTER PLAN FOR COASTAL SAFETY IN FLANDERS
MULTI-HAZARD APPROACH TO EARLY WARNING SYSTEM IN SOGN OG FJORDANE, NORWAY
CLIMATE BOND FINANCING ADAPTATION ACTIONS IN PARIS

GLOBAL

GLOBAL INDEX INSURANCE FACILITY (GIIF)
VILLAGE SAVINGS & LOAN ASSOCIATIONS (CARE International)
CLIMATE BONDS INITIATIVE/ RESILIENCE BONDS

AFRICA

RE-GREENING THE SAHEL
R4 RURAL RESILIENCE INITIATIVE
MALAWI SPATIAL DATA PLATFORM (MASDAP) GEONODE
RADIO STATIONS FOR THE TRANSMISSION OF DROUGHT WARNINGS IN KENYA
PRODUCTIVE SAFETY NET PROGRAMME (PSNP) IN ETHIOPIA
AFRICAN RISK CAPACITY (ARC)

ASIA AND PACIFIC

PLANNED RELOCATION IN CARTERET ISLANDS IN PAPUA NEW GUINEA
COMMUNITY DISASTER RESILIENCE FUND (CDRF)
MARSHALL ISLANDS FUND
REMITTANCES IN SAMOA
COMMUNITY-BASED CLIMATE VULNERABILITY ASSESSMENT
PACIFIC CATASTROPHE RISK ASSESSMENT AND FINANCING INITIATIVE (PCRAFI)
NATIONAL PROGRAMME FOR COMMUNITY EMPOWERMENT IN URBAN AREAS IN INDONESIA
JOINT NATIONAL ACTION PLAN
DISASTER RISK MANAGEMENT LEGISLATION IN THE PHILIPPINES
PHILIPPINE CROP INSURANCE CORPORATION (PCIC)
MONGOLIA INDEX BASED LIVESTOCK INSURANCE PROJECT (IBLIP)