Climate Change Policy Brief

Implementing adaptation under the Paris Agreement: how can comprehensive climate risk management (CRM) support National Adaptation Planning (NAP) processes and NDC implementation

May 2017

This policy brief aims at ...

- presenting a comprehensive approach on how to integrate climate risk management into adaptation commitments (defined in NDCs and/or NAPs) to also account for residual climate risks related to extreme weather events and slow-onset changes.
- providing practical examples in order to illustrate how NAP and CRM can go hand in hand.
- contributing to the discussions on how CRM can serve the implementation of the Paris Agreement.

Climate risks: What do they mean for NAP processes and adaptation components of NDCs?

Impacts of climate change can already be felt today. Recent climate projections anticipate a significant increase in the frequency and/or intensity of extreme weather events such as storms and floods as well as slow-onset changes, like sea level rise and desertification. In particular, Least Developed Countries (LDCs) and Small Island Developing States (SIDS) are affected and vulnerable due to financial, technical, physical or social constraints.

Today's and future adaptation action aim to reduce climate-related risks to a degree which depends on the scale of risks and the scale of the adaptation action. A comprehensive analysis and management of climate risks can be helpful to identify the potential for risk reduction, for identifying the respective limits and assess the outstanding residual risk which cannot be mitigated by the specific measure. The National Adaptation Plan process (NAP), initiated by UNFCCC in 2010, could serve as first starting point to align comprehensive climate risk management and the implementation of adaptation commitments at country-level.

Comprehensive climate risk management – analysing risks, risk reduction opportunities and residual risk

Climate risk has become an important consideration in the current thinking around climate change: the International Panel on Climate Change (IPCC) has built on key concepts from the disaster risk management discourse and introduced the concept of climate risk in its Fifth Assessment Report (WGII AR5). Emphasising the link of climate change mitigation, adaptation and sustainable development the IPCC AR5 risk concept serves as a valuable complement to the previously used concept of vulnerability to climate change. It broadens the perspective to climate related impacts triggered by extreme events and slow-onset changes.

Comprehensive climate risk management aims to reduce and address the negative consequences of climate change along the entire risk continuum: averting climate risks through the reduction of greenhouse gas

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emissions, minimising climate risks through adaptation and risk management to managing residual climate risks. Against this background, climate risks have to be **continuously analysed, reduced, addressed and transferred.** The concept of comprehensive climate risk management encompasses the following mutually reinforcing steps and should build on the participation of stakeholders from different sectors and scales:

Climate risk assessments build the foundation to analyse risks and to encompass their potential consequences for people, assets and ecosystems. The magnitude of adverse impacts by climate change depends largely on the global level of emissions in the coming years and decades. In order to keep climate change manageable **mitigating greenhouse gas emissions is paramount.** Hence, keeping global warming below 2 degree, as agreed to in the Paris Agreement, is an important step for managing climate risk.

CRM proposes a **set of instruments for risk reduction and adaptation** that enable stakeholders to take timely action for enhancing preparedness to climate-related extreme events and for strengthening overall resilience (e.g. early warning systems and contingency planning).

Despite current efforts for mitigation and adaptation, **residual risks** of adverse impacts of climate change remain. Addressing residual risks is therefore another critical pillar of comprehensive climate risk management. **Risk transfer mechanisms** such as climate risk insurance (see Infobox below) and social protection schemes can foster resilience to climate change by spreading risks across different actors, geography and time. Furthermore, in post-disaster situations resilient recovery contributes to 'build back better' and prepare for future climate risks.

Implementing adaptation measures under the Paris Agreement: how to link CRM to NAP

NAP is a process to assess climate change impacts and to mainstream adaptation responses into overall development planning and, if appropriate, to implement adaptation commitments at the national level (e.g. NDCs). According to UNFCCC currently 85 countries are formulating and implementing NAPs[i]. Therefore this policy brief demonstrates that climate risk management and national adaptation policy processes can be linked.

The NAP process supports countries in integrating adaptation aspects into their development planning and public budgeting processes. NAP processes are inter-ministerial planning processes, set-up at the national level, covering and coordinating all sectors at all scales, as adaptation is a cross-cutting challenge. Hence, main-

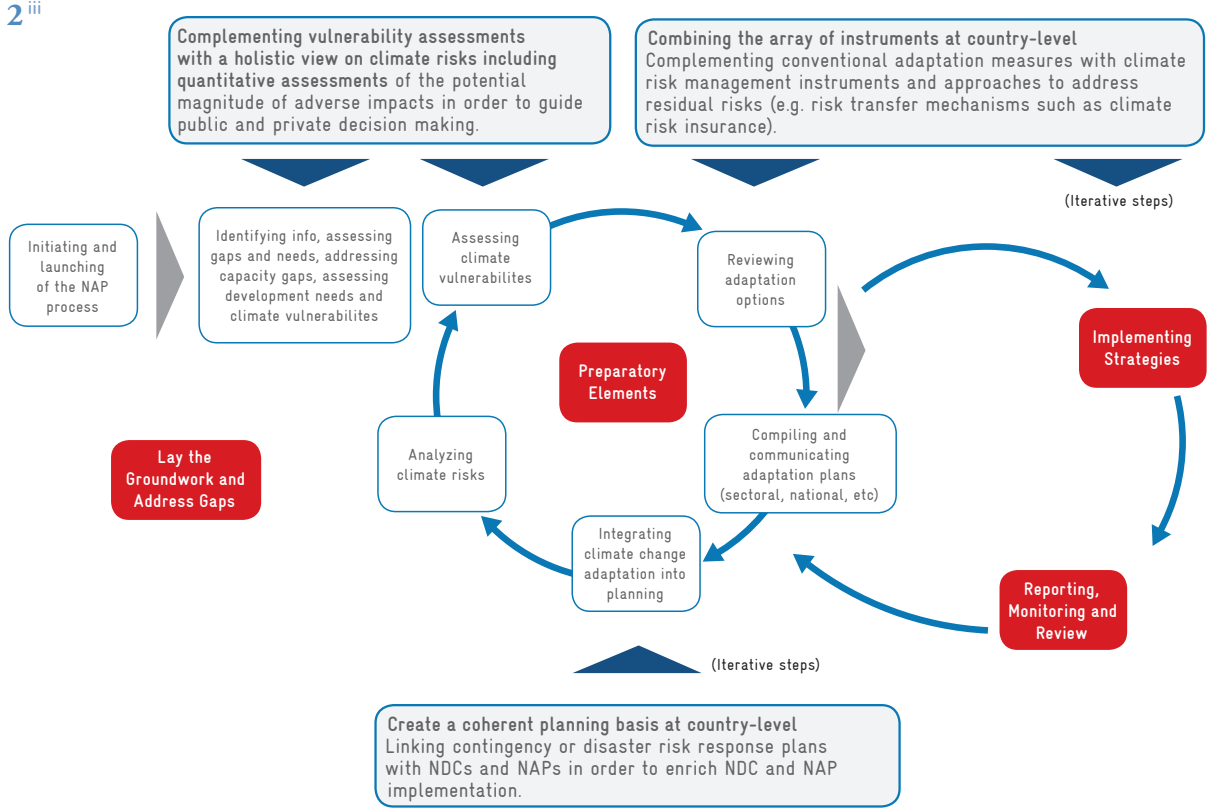
International Climate Risk Insurance Initiative InsuResilience

InsuResilience

Under Germany's G7 presidency, the Federal Government initiated the climate risk insurance initiative 'InsuResilience'. The initiative aims at offering insurance against climate risks to an additional 400 million poor and vulnerable people in developing countries by 2020. The initiative is based on a close partnership between the G7 and developing countries. Civil society, the insurance industry and development banks are also important partners.

Climate risk insurance can help in various ways to alleviate some of the impacts of extreme weather events by providing rapid assistance in the form of emergency aid packages to the people affected. Insurance instruments have an added value because they can buffer the adverse effects of extreme weather events. This way, climate risks are spread across many shoulders even before potential damage occurs. Direct insurance schemes insure households individually against risks such as harvest loss. In indirect insurance schemes, banks or states come together in risk pools. Such insurance instruments help to close a global equity gap since assistance is no longer an act of charity: the people affected are no longer petitioners but claimants, entitled to compensation for losses incurred. This safeguards the livelihoods of many people who are at risk from some of the impacts of climate change.

Figure 2 [iii]



streaming adaptation into political planning aims at structural changes in a country's public policy-making processes and decision-making cultures. Key sectors for adaptation and for reducing migration pressures are for instance the agriculture, the health and the water sector [ii].

The NAP process allows governmental entities to (1) identify and prioritise adaptation action in all sectors ('informed decision-making'), (2) to operationalise and implement preventive measures and (3) to plan public investments and allocate funds according to the climate risks the respective country faces. The overall aim is to develop a coherent national policy approach on adaptation, covering all sectors, coordinating all political levels and bringing the most relevant stakeholders together, rather than implementing 'stand-alone' adaptation measures. Such a coherent approach finally allows to incorporate adaptation measures into public budget lines and to mobilise additional private-sector or international finance for adaptation where needed.

Thus, **NAP can serve as an overarching process to promote a coordinated approach to climate risk management.** As governments currently face the challenge of translating their NDC commitments into national policies and budgets, there is a good momentum to link NAP and NDC implementation and to integrate CRM approaches. NAP offers an excellent opportunity to **analyse climate risks, risk reduction opportunities and resulting residual risks.** The general benefits of linking the implementation of a country's adaptation commitments to CRM are:

- raising **awareness among public decision makers** to demonstrate where there are residual risks that cannot be mitigated with the intended adaptation actions. This enables governmental entities to identify appropriate climate risk management instruments that can be used at the national, regional or local level **complementing conventional adaptation measures.**
- Proactive planning and preventive governmental action helps to avoid and reduce risks of **potential medium- to long-term damages** for instance on infrastructure **induced by climate impacts.**
- Because they get the 'full picture' on climate risks decision makers will be able to also take interrelated **non-climatic aspects across sectors and scales** into account (e.g. demographic changes, limited economic opportunities, urbanisation etc.). That can strengthen a country's resilience to climate change.

Building on the Technical Guidelines of the UNFCCC LDC Expert Group (LEG) Figure 2 demonstrates the added value of taking a comprehensive approach on climate risks within the NAP process.

Possible ways of aligning CRM and adaptation

1. Enhance policy coherence and institutional cooperation

Aligning institutions and negotiation tracks under UNFCCC: Due to the conceptual similarities, a comprehensive CRM approach can **contribute to linking and operationalising international work streams of UNFCCC** with regard to NDCs, NAP and the Warsaw International Mechanism for loss and damage (WIM), as well as the Sendai Framework for Disaster Risk Reduction. Institutional cooperation of the WIM's Executive Committee (ExCom) with UNFCCC bodies, especially the Adaptation Committee (AC) and the Least Developed Countries Expert Group (LEG), should be strengthened. Strengthening comprehensive risk management in the NAP process could for example be integrated in the ExCom's five-year rolling work plan that is currently being developed to NAP. It would use synergies as outlined above, link stakeholders, including the private sector actors and its information and expertise on risks and risk transfer solutions, and save resources due to joint efforts.

Creating coherent planning basis at country-level: Currently, contingency or disaster risk response plans as well as NAPs and NDC documents are often developed and operationalised in separate in-country processes. Linking contingency or disaster risk response plans with NDCs and NAPs and taking climate risks into account enriches NDC and NAP implementation, especially with regard to the management of extreme weather events and preventive risk management. Information and data will be combined, allowing to get the 'full picture'; policy coherence will be increased. Sharing data is extremely advantageous as assessing impacts of extreme whether events and of slow-onset changes is costly and time-consuming.

First regional framework aligning climate change adaptation and disaster risk management endorsed by Pacific leaders

Having had a long history of suffering from natural hazards such as cyclones and storm surges, the Pacific Platform for Disaster Risk Management and the Pacific Climate Change Roundtable joined forces and endorsed a common 'Framework for Resilient Development in the Pacific (FRDP)' in 2016. The development of the Framework was also supported by GIZ on behalf of the Federal Ministry of Economic Cooperation and Development (BMZ). It provides guidance to increase the region's resilience towards climate change and promotes an understanding of the links between climate change adaptation and disaster management.

Aligning climate risk and adaptation needs within Thailand's NAP process

On behalf of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) the GIZ project 'Risk based national adaptation plan – Risk-NAP' in Thailand aims at improving development planning processes by using national and regional climate risk assessments as basis for setting adaptation goals. Based on sector-specific impact chains climate risks are analysed and quantified. In doing so, the need for adaptation measures is clarified and ante planning is encouraged. Aligning climate risks and adaptation needs within Thailand's NAP process enhances cooperation between the Office of Natural Resources and Environmental Policy and Planning and the Ministry of Interior that is responsible for disaster risk management and regional planning.

2. Joint action: combining the array of instruments at country-level

Combining the array of instruments at country-level: Mainstreaming processes like the NAP process give an overview of a country's policy action across sectors. On that basis, most appropriate CRM instruments, including risk transfer mechanisms to address residual risk, can be selected and integrated into the given mix of policy instruments. Hence, conventional adaptation measures (e.g. land use planning, introduction of drought resilient crop types etc.) can be combined **with tools used for risk management** (e.g. risk assessments, early warning systems, contingency planning etc.) and **approaches to address residual risks** (e.g. risk transfer mechanisms such as climate risk insurance, transformational or resilient recovery approaches, migration strategies etc.).There are further possibilities to link risk pooling with additional financial protection instruments, including social protection and meso-level risk insurance solutions.

Insurance as part of climate risk management in Ghana

The African Risk Capacity (ARC) is one of the regional climate insurance facilities under the international Climate Risk Insurance Initiative 'InsuResilience'. It provides indirect insurance against droughts at state level for members of the African Union. It is supported by many multilateral institutions and bilateral donors, among them the BMZ. Ghana is in its accession process to the ARC. GIZ, on behalf of the BMUB, supports through the project 'Promoting Integrated Mechanisms for Climate Risk Management and Transfer' (ICRM) the Ghanaian National Disaster Management Organization in gathering data on climate risks for contingency planning (one of ARC's accession criteria). As insurance sets a price tag on risks for society, insurance literacy and risk awareness is incentivised among Ghanaian decision makers. Based on the pre-agreed contingency plan, an efficient use of payouts will be ensured.

To complement such sovereign risk transfer solutions, the development of the private Ghanaian insurance market is also supported. With German funding through the BMUB, GIZ supported the establishment of the Ghana Agricultural Insurance Pool (GAIP), offering weather index and multi-peril crop insurance products as direct risk transfer solutions for small-holder farmers in Ghana. The project mentioned above also supports the development of risk transfer solutions for commercial agricultural companies in selected value chains.

Making use of comprehensive climate risk management in Tanzania's NAP process

To initiate the process of vulnerability stocktaking within Tanzania's NAP process GIZ, on behalf of BMZ, conducted a combined NAP workshop and training event. Relevant modules of the GIZ training course 'Loss and damage as part of comprehensive climate risk management' were used to introduce the concept of climate risk and instruments of CRM among the members of the inter-ministerial NAP team. The objective of this combined event was to demonstrate a risk analysis approach along the entire risk continuum in order to respond appropriately using risk reduction measures and approaches to manage residual risks.

3. Methods: Risk analysis as a guide for public and private decision making

Complementing vulnerability assessments with an analysis of climate risks broadens the perspective on climate related impacts triggered by extreme events and on slow-onset changes. The GIZ Vulnerability Sourcebook is one example for a method that provides step-by-step guidelines to conduct vulnerability assessments and to monitor changes in vulnerability over time. Currently a risk supplement to the Vulnerability Sourcebook is developed to provide guidance on how to apply it in respect to the new IPCC AR5 concept of climate risks. For updated information please visit www.AdaptationCommunity.net (see Infobox below).

Adding quantitative assessments of the magnitude of the adverse impacts of climate change to vulnerability and risk assessment: Quantifying the costs of climate risk management action scenarios in comparison to the opportunity costs of non-action helps those responsible in the public and private arena to take informed decisions. It also spurs anticipatory planning and preventive action. On that basis, political will for investing/engaging in climate risk management instruments will be generated among public budget authorities (e.g. conflict of targets: Do I invest in education measures or in climate risk management? What are benefits and potential savings according to financial capacities?)

Methods: Better anticipatory planning by including quantitative aspects into climate risk assessments

Including quantitative assessments of the magnitude of the adverse impacts of climate change into risk assessments is intended to bring about two results: first, to demonstrate and quantify the magnitude of potential negative consequence of climate change (e.g. depending on different adaption measures that have been implemented). Second, to highlight how much different risk management options cost in order to identify the most cost-efficient and appropriate response.

To this end a risk assessment at local level in the Lake Rukwa Basin/Tanzania was conducted by using a 5-step approach, suggested by the GIZ 'Global Programme on Risk Assessment and Management for Adaptation to Climate Change (Loss and Damage)' on behalf of BMZ. The scale of potential climate risks and expected damages showed clearly that action is needed. Different stakeholders now discuss the proposed risk management measures in different fora to agree upon next steps.

4. Share experience

Generating and showcasing examples of good practice and sharing experiences and expertise nationally and internationally will stimulate discussion and contribute to managing climate risks along the entire risk continuum and thus strengthen resilience to climate change. The GIZ online platform AdaptationCommunity.net provides information on approaches, methods and tools for adaptation to climate change (see Infobox below). In the medium term AdaptationCommunity.net could be linked to the upcoming UNFCCC Clearinghouse Mechanism informing on all aspects of climate risks and solutions available.

An online platform to support adaptation to climate change: AdaptationCommunity.net offers insights into different topics:

- Mainstreaming & NAP
- Climate Information & Services
- Vulnerability and Climate Risk Assessments
- Loss & Damage
- Ecosystem-based Adaptation
- Monitoring & Evaluation
- Private Sector Adaptation

There are also publications and supplementary materials on adaptation, climate risk assessments and comprehensive climate risk management available. Detailed information on the training courses 'NAP country-level training' and 'Loss and damage as part of comprehensive climate risk management' can also be found online. AdaptationCommunity.net is continuously expanding its resources and offering new webinars to provide users with the latest on the debate and adaptation tools.

Endnotes

i. FCCC/SBI/2016/INF.11, Expanded table 1 of FCCC/SBI/2016/INF.11
ii. NDC Adaptation Navigator (forthcoming)
iii. Source: Figure based on Least Developed Countries Expert Group. 2012. National Adaptation Plans. Technical guidelines for the national adaptation plan process. Bonn: UNFCCC Secretariat. Available at http://unfccc.int/adaptation/workstreams/national_adaptation_programmes_of_action/items/7279.php

About the GIZ Climate Policy Support Programme

GIZ Climate Policy Support Programme aims at developing and mainstreaming innovative approaches to tackle the challenges of climate change in the context of German Development Cooperation. On behalf of the Federal Ministry for Economic Cooperation and Development (BMZ), it supports developing countries in their efforts to mitigate climate change and to adapt efficiently to its impacts. Through conceptual and practical activities, the Climate Policy Support Programme actively contributes to the implementation of the Paris Agreement and the UN Sustainable Development Goals.

About the GIZ Global Programme on Risk Assessment and Management for Adaptation to Climate Change

On behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) the programme aims to generate practical experience and recommendations in the field of comprehensive climate risk assessment and management to support the German development cooperation and its international partners in regions severely affected by climate change. The programme operates pilot activities in different regions, e.g. the Pacific Island Countries, South Asia (India), Central America and East Africa.

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