EVALUATION OF INTERVENTIONS FOR CLIMATE CHANGE ADAPTATION

Instruments for managing residual climate risks

Executive Summary

2021
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EXECUTIVE SUMMARY

Background

Climate change is causing increasing levels of loss and damage, particularly in developing countries. These threaten development results, especially in the poorest and most vulnerable countries such as the small island states (BMZ, 2019; UNISDR, 2018). Even after climate risks have been reduced through adaptation and mitigation, some risks remain – so-called 'residual climate risks'. Typical effects of residual climate risks are losses and damages. These can be of an economic nature and may be measurable in monetary terms, such as crop losses. Yet losses and damages are often difficult to quantify monetarily. This is the case, for example, with the loss of biodiversity, ecosystems or cultural assets. In combination with other factors, such as unsustainable land and resource use, climate change is exacerbating residual climate risks increasingly. This evaluation module focuses on residual climate risks. It is part of a DEval modular evaluation of climate change adaptation interventions.

The scientific and development communities are currently discussing the area of transition between adaptation to climate risks, and the limits to adaptation. Adaptation aims to moderate harm or exploit beneficial opportunities (IPCC, 2018a). For example, raising a dike can reduce climate-related losses and damages resulting from the rise in sea level. An intervention of this kind comes up against a limit to adaptation that is 'soft' – because it can be moved, inter alia by technological means. On the other hand, when intolerable climate risks cannot be reduced through further adaptation options, 'hard' limits to adaptation are reached. In our example, this means that new technologies can ensure that the dike is higher and safer. However, once the sea level has risen beyond a certain point, or once storm surges have reached a certain level of intensity, even if the dike is higher it will no longer be able to prevent flooding. When other flood management options also fail, and land becomes uninhabitable as a result of climate change, a hard limit to adaptation is reached.

One should also note that both 'soft' and 'hard' limits to adaptation are dynamic and context-specific. Consequently, both the scientific debate and this evaluation module use the term 'limits' in the fluid, extensional sense of an 'area of transition'. The limits to adaptation are a function of risk characteristics and effects, as well as various factors, trade-offs and barriers within the system in question. These include technological feasibility and subjective risk tolerance, but also economic, cultural, capacity-related, political and ecological factors. The limits are reached when intolerable risks can no longer be reduced, and either no further adaptation options exist, or these are not currently available to the affected system.

The theoretical discussion and knowledge of the limits to adaptation are highly relevant for the practical implementation of development cooperation. If climate risks have not yet reached the limits, they or the losses and damages caused by their occurrence can still be mitigated by risk reduction interventions. One example often used here is declining precipitation, which can be offset by sustainable agricultural irrigation systems that reduce crop losses. When climate risks do reach the limits, for instance through more frequent and more severe droughts, not even better irrigation systems and other accompanying measures can then prevent substantial crop losses. At this point, the climate risks become residual. This means that, in addition to risk reduction, additional interventions are needed to manage residual climate risks, such as monetary compensation for crop losses.

The instruments implemented in interventions to manage residual climate risks can be assigned to specific instrument groups based on a categorisation by Lal et al. (2012): risk finance, risk preparedness and transformative risk management. To better differentiate and reflect the breadth of the instrument group 'risk finance', this group can be further broken down into the subcategories 'third-party risk finance', 'risk pooling' and 'risk retention'.

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Adopting this categorisation, and based on Germany’s development cooperation portfolio, this evaluation module focuses on the following groups of instruments for managing residual climate risks:

- **Third-party risk finance**: This group includes instruments for emergency financing and financing of losses and damages such as loans, grants and equity (in some cases through funds) and bonds. Third-party risk finance involves third parties compensating losses and damages and providing finance for them. It also includes supporting these parties in providing and accessing financing instruments for managing residual climate risks. One example is the financing of technology companies, insurance companies and microfinance institutions along the value chain of climate risk insurance (CRI) through the InsuResilience Investment Fund (IIF). In the case of the IIF, financing through credits and equity supports the companies’ activities to develop and expand CRI.

- **Risk pooling**: This group includes the instrument of climate risk insurance, including its reinsurance. Climate risk pooling aims to transfer risks to international, regional or national risk pools. In risk pooling, the units of the risk pool (usually all the insured parties) transfer the risks to the joint risk pool. These units, which are located at the national, local or individual level, are usually exposed to the risk themselves. One example is the development of CRI for poor and at-risk households, and micro, small and medium-sized enterprises (MSMEs). The CRI enables them to pool their losses from climate risks such as storms and floods, in cooperation with private insurance companies. This is found in the intervention Regulatory Framework Promotion of Pro-Poor Insurance Markets in Asia III (RFPI III), which is included in the evaluation.

- **Risk preparedness**: This group includes tools for developing capacity to manage residual risks and deal with losses and damages. It also includes strategies for proactively and reactively managing climate-related natural disasters. These include contingency planning, early warning systems, evacuation, and preparedness for reconstruction and recovery. One example is the integration of residual climate risks into State Action Plans on Climate Change (SAPCCs) to increase response capacity for climate-related natural disasters. This is found in the intervention Climate Change Adaptation in Rural Areas of India (CCA-RAI), which is included in the evaluation.
• **Transformative risk management:** This group involves instruments designed to remove target groups from risk by facilitating systemic change. These include instruments for managing human mobility in the context of climate change, and for livelihood transformation. One example is improving the lives of climate migrants at their destination, as seen in the intervention Urban Management of Internal Migration due to Climate Change (UMIMCC), which is included in the evaluation.

In German development cooperation, the international frameworks form the basis for orienting the portfolio of instruments for residual climate risk management discussed here. These include the Paris Agreement, the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (WIM), the 2030 Agenda for Sustainable Development adopted by the United Nations (UN) and the Sendai Framework for Disaster Risk Reduction. When dealing with disaster- and climate-related risks, German development cooperation pursues a comprehensive risk management approach. This also includes managing residual climate risks and non-climate-change-related hazards.

However, DEval’s portfolio and allocation analysis clearly showed that German development cooperation still lacks a comprehensive strategy for climate change and adaptation (Noltze and Rauschenbach, 2019). The BMZ’s climate policy priorities currently remain embedded in a large number of sectoral and regional strategies. As part of the ‘BMZ 2030’ reform process, which aims to make German development cooperation more effective and efficient, the core area strategy ‘Responsibility for our Planet – Climate and Energy’ was recently published (BMZ, 2021). This also includes the area of adaptation to climate change. However, this is no substitute for a fully-fledged and ideally interministerial adaptation strategy.

The existing strategies make barely any explicit reference to managing residual climate risks. Nevertheless, German development cooperation is committed to the comprehensive risk management approach, which has implications for the design and implementation of relevant instruments (BMZ, 2019). It has increasingly addressed residual climate risks over the past decade, using several of the instruments mentioned above. In practice, development cooperation interventions to address residual climate risks often comprise several instruments – both from the same instrument group and from different instrument groups. For example, the IIF included in the evaluation implements third-party risk finance by providing credits and equity through an investment fund. At the same time it supports risk pooling by financing companies in the CRI value chain.

The topic has also gained in importance globally. This module identified a total of 46 German development cooperation interventions that implemented instruments for managing residual climate risks. Some of these implemented several instruments. Eleven of these instruments can be assigned to third-party risk finance, 32 to risk pooling, 27 to risk preparedness and seven to transformative risk management. However, it is not possible to distinguish unequivocally the German portfolio of interventions and individual instruments for managing residual climate risks. This is because the limits to adaptation fall within a fluid area of transition that is not shown separately in the reporting on the interventions.

As was also made clear in the DEval portfolio and allocation analysis, German development cooperation as a whole is increasingly focusing on the introduction and expansion of climate risk insurance as an important instrument in the adaptation portfolio (Noltze and Rauschenbach, 2019). Between 2011 and 2017, funding commitments for this risk pooling instrument amounted to some 623 million euros (Noltze and Rauschenbach, 2019). The BMZ also sees risk preparedness and transformative risk management as further important instruments (BMZ, 2019). Compared to insurance-based approaches, instruments for transformative risk management, for example to manage human mobility in the context of climate change, have so far only been implemented sporadically by German development cooperation. As the evidence of existential and irreversible climate impacts has increased, transformative risk management has become more of a focus for the scientific and development communities. To manage residual climate risks appropriately and effectively, long-term sustainable approaches to transformative risk management are needed. These are also required in order to operationalise transformation as an option for political decision-making and action. Synergies with the broader development cooperation portfolio and the overarching BMZ prioritisation of displacement and migration can support the development of sustainable and effective approaches for transformative risk management.
Residual climate risks have only been a prominent topic at the international level since 2007. Consequently, they remain a relatively new issue for German and international development cooperation. At present, only isolated evaluations are available that can be used to further develop the instruments and the portfolio. Also, due to very demanding methodological challenges, only few comprehensive scientific studies have become available so far. It is therefore highly important to generate more evidence on instruments for managing residual climate risks. This report aims to help fill the knowledge and evaluation gap on the relevance, effectiveness and impact of the instruments applied so far to manage residual climate risks. In so doing it will contribute to evidence-based decision-making and further strategic development of the German portfolio.

Object, purpose and objectives of the evaluation

The object of this module (module 3) is instruments for managing residual climate risks in German development cooperation, looked at systematically in line with the aforementioned instrument groups. The Federal Ministry for Economic Cooperation and Development (BMZ) and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) are largely responsible for the use of instruments within these instrument groups. The instruments are implemented through Germany's official implementing organisations, which in this case means primarily the KfW Development Bank (KfW) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. The purpose of this module, and of the evaluation as a whole, is to support the further strategic development of the climate change adaptation portfolio. Doing so is important, as this is one of the core areas for German and international development cooperation.

Due to the major importance of residual climate risks in the current international debate, this module – module 3 – was brought forward in DEval's overall evaluation on climate change adaptation, and completed before module 2. The modular structure of the evaluation as a whole is described below.

- **Module 1**: A portfolio and allocation analysis has already been published (Noltze and Rauschenbach, 2019). This addresses issues of the relevance and coherence of the adaptation portfolio at the overarching, strategic level. Issues of complementarity were also included when analysing relevance.
- **Module 2**: This evaluation module focuses on the effectiveness, impact and sustainability of adaptation interventions for risk reduction. It aims to support processes and structures in key sectors of German development cooperation that are relevant to adaptation.
- **Module 3**: The present module examines the relevance and effectiveness as well as the (potential) impact of instruments for managing residual climate risk.
- **Synthesis**: To conclude, a synthesis report will synthesise the findings, conclusions and recommendations of modules 1 to 3, and identify overarching conclusions and recommendations.

The aim of this module is to assess the relevance, effectiveness and impact of the instruments used by German development cooperation to manage residual climate risks. For this purpose, the evaluation uses the OECD-DAC\(^1\) evaluation criteria 'relevance', 'effectiveness' and 'impact':

- The criterion 'relevance' encompasses the development needs of the target groups\(^2\), and the policies and priorities of the development partners and the German Federal Government.
- The criteria 'effectiveness' and 'impact' involve measuring the outcomes and (potential) impacts of the instruments considered in the module.

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2. Referred to by OECD DAC as beneficiaries’ or users’ requirements and needs.
As part of the evaluation as a whole, this module on managing residual climate risks focuses on the above-mentioned OECD-DAC evaluation criteria. Some of the instruments for residual climate risk management looked at were at early stages of implementation. In these cases it is only possible to assess their potential impacts. This is also the reason why the evaluation module decided not to look at the criterion 'sustainability' separately.

This module evaluates development cooperation instruments. These instruments unfold their strengths for managing residual climate risks comprehensively particularly when different instrument groups are interlinked, when different instruments in the same instrument group are combined, and when the instruments are seen as complementary due to their different features. Since many instruments were at an early stage of implementation, which already posed challenges for impact analysis, the efficiency of some instrument groups was not a focus of the evaluation and was not examined in this module. On the other hand, the module does include aspects of the new 'coherence' criterion now added to the OECD-DAC criteria. This is the case particularly when evaluating the instrument groups for comprehensive management of residual climate risks in evaluation question (EQ) 2.

Residual climate risks are a relatively new area of development cooperation, and the implementation of some of the instruments began only recently. Consequently, this module aims to generate learning areas, insights and recommendations for future interventions and for portfolio development. All aspects of the module naturally also serve to provide accountability for German development cooperation.

Through the analysis and assessment it contains, this report helps to provide more evidence on the relevance, effectiveness and impact of instruments for managing residual climate risks. The overarching evaluation question (EQ) of the module is:

**How, and to what extent, do Germany's development cooperation instruments contribute to managing the impacts of residual climate risks?**

The overarching question is comprised of the following three specific questions:

**EQ1** To what extent are German development cooperation's instruments for managing residual climate risk relevant to partner countries and target groups?

**EQ2** To what extent do German development cooperation's instruments manage residual climate risks comprehensively?

**EQ3** How, and to what extent, are instruments for managing residual climate risks effective (in terms of their outcomes) and impactful?[^3]

### Methodology

The methodological approach and the selection of case studies are derived from the evaluation's focus of interest. This methodological design therefore has a formative focus, but also includes summative elements, for instance in the assessment of (potential) outcomes and impacts.

The evaluation followed a theory-based approach, applying a contribution analysis (Mayne, 2008). This means that comprehensive Theories of Change (ToCs) were reconstructed and verified on the basis of scientific literature, project documentation and empirical data. By identifying detailed impact pathways, the module is able to draw sufficiently robust conclusions on the contribution made by the interventions to the causal relationships and assess the effectiveness and impact of the instruments. The data collected along the impact pathways were systematically analysed, and triangulated by applying various methods and analyses.

[^3]: The measurement of effectiveness revolves around the outcomes of an instrument. According to the OECD, outcomes are defined as 'the likely or achieved short-term and medium-term effects of an intervention's outputs' (OECD, 2009, p. 28). In other words, they are defined as products, capital goods and services that result directly from a development intervention. The impact is measured at the impact level. Impacts are defined as 'positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended' (OECD, 2009, p. 24).
(method integration). This enabled the team to obtain general findings in relation to the evaluation questions, and assess the relevance of the instrument groups, how they work, and their (potential) outcomes and impact. This approach allows the analysis to then help generate conclusions and recommendations that are transferable to similar instruments in the same area, or beyond it.

To answer the evaluation questions, the team first of all analysed the German development cooperation portfolio. In a next step, based on processes and criteria eight case studies were selected that covered the four instrument groups: 'third-party risk finance' (RF), 'risk pooling' (RPo), 'risk preparedness' (RPr) and 'transformative risk management' (TRM):

<table>
<thead>
<tr>
<th>Case studies</th>
<th>RF</th>
<th>RPo</th>
<th>RPr</th>
<th>TRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Alliance GIZ and Allianz, Advancing Climate Risk Insurance+, Private Sector Adaptation to Climate Change (SAGA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulatory Framework Promotion of Pro-Poor Insurance Markets in Asia III (RFPI III)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African Risk Capacity (ARC)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projet Adaptation des chaînes de valeur agricoles au changement climatique (PrAda)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>InsuResilience Investment Fund (IIF) (including sub-case studies of two investees)</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climate Change Adaptation in Rural Areas of India (CCA-RAI)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Management of Internal Migration due to Climate Change (UMIMCC)</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Human Mobility in the Context of Climate Change (HMCCC)</td>
<td>x</td>
<td></td>
<td></td>
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</tbody>
</table>

Key: RF = third-party risk finance, RPo = risk pooling, RPr = risk preparedness, TRM = transformative risk management. Source: DEval, authors’ own graphic

In the case studies, qualitative and quantitative data collection methods were used, and subsequently integrated in the analysis. Qualitative data collection methods such as ToC workshops and semi-structured interviews were used. Here, various actors such as implementing organisations, policy-makers, beneficiaries and experts were interviewed. As part of the RFPI III case study, a quantitative standardised survey of households, micro-enterprises and other actors was also conducted in the Philippines. The primary data collected were complemented with secondary data from the scientific literature, strategy documents and project documentation, or secondary data from databases. In the Strategic Alliance GIZ and Allianz (SAGA) case study, flood modelling was also undertaken using meteorological and geographical data to determine the relevance of the risk pooling instrument. A literature review on human mobility in the context of climate change was conducted in order to investigate transformative risk management.

The totality of the data was used to answer the evaluation questions for each instrument group. Based on corresponding documents of the OECD and the BMZ, the guiding questions of the DEval guideline on the OECD-DAC criteria were applied. From each guiding question a benchmark was derived that enables the finding to be rated (see Annex 7.5 and the beginning of each section of the findings chapter). The benchmark indicates the conditions under which the evaluation team consider a development intervention to be appropriate and successful. The findings for each instrument group are then assessed using the DEval evaluation rating scale:
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<table>
<thead>
<tr>
<th>Category</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over achieved</td>
<td>The intervention clearly exceeds the benchmark for the evaluation criterion applied.</td>
</tr>
<tr>
<td>Achieved</td>
<td>The intervention meets the benchmark for the evaluation criterion applied.</td>
</tr>
<tr>
<td>Largely achieved</td>
<td>The intervention largely meets the benchmark for the evaluation criterion applied.</td>
</tr>
<tr>
<td>Partly achieved</td>
<td>The intervention partly meets the benchmark for the evaluation criterion applied.</td>
</tr>
<tr>
<td>Barely achieved</td>
<td>The intervention barely meets the benchmark for the evaluation criterion applied.</td>
</tr>
<tr>
<td>Not achieved</td>
<td>The intervention does not meet the benchmark for the evaluation criterion applied.</td>
</tr>
</tbody>
</table>

These ratings formed the basis for the general discussion on the conclusions to be drawn for German development cooperation.

Finally, based on these conclusions the team drew up recommendations for German development cooperation actors on managing residual climate risks.

The table below provides an overview of the volume and nature of the interventions:

<table>
<thead>
<tr>
<th>Case study abbreviation</th>
<th>Term</th>
<th>Volume (in EUR million)</th>
<th>Commissioned by, IO</th>
<th>FC/TC</th>
<th>Scale</th>
<th>Location of case study considered</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAGA</td>
<td>2015–2019</td>
<td>5.3</td>
<td>BMZ, GIZ</td>
<td>TC</td>
<td>global</td>
<td>Morocco</td>
</tr>
<tr>
<td>ACRI+</td>
<td>2019-2022</td>
<td>2.0</td>
<td>BMZ, GIZ</td>
<td>TC</td>
<td>regional</td>
<td>Philippines</td>
</tr>
<tr>
<td>PSACC</td>
<td>2014-2034</td>
<td>92.2</td>
<td>BMZ, KfW</td>
<td>FC</td>
<td>regional</td>
<td>multi-country</td>
</tr>
<tr>
<td>RFPI III</td>
<td>2017-2022</td>
<td>17.5</td>
<td>BMZ, KfW</td>
<td>FC</td>
<td>bilateral</td>
<td>Madagascar</td>
</tr>
<tr>
<td>PrAda</td>
<td>2013–2029*</td>
<td>74.8</td>
<td>BMZ, KfW</td>
<td>FC</td>
<td>global</td>
<td>multi-country, 2 investees</td>
</tr>
<tr>
<td>IIF</td>
<td>2015-2019</td>
<td>17.6 (IGEP-RA)</td>
<td>BMZ, GIZ</td>
<td>TC</td>
<td>bilateral</td>
<td>India</td>
</tr>
<tr>
<td>UMIMCC</td>
<td>2015-2022</td>
<td>20.0</td>
<td>BMZ, GIZ</td>
<td>TC</td>
<td>bilateral</td>
<td>Bangladesh</td>
</tr>
<tr>
<td>HMCCC</td>
<td>2017-2020</td>
<td>4.0</td>
<td>BMZ, GIZ</td>
<td>TC</td>
<td>global</td>
<td>Philippines</td>
</tr>
</tbody>
</table>

Key: IO = implementing organisation, TC = Technical Cooperation, FC = Financial Cooperation, * until 2017 known as the Climate Insurance Fund

The methodological approach is subject to some unavoidable limitations. The way interventions are currently coded, and the lack of information collection and reporting, made it difficult to reconstruct Germany’s development cooperation portfolio for residual climate risk management for all stakeholders. This made case selection more difficult. Some of the instruments included are at an early stage of implementation. In many instances, this means that as far as measuring outcomes and impacts is concerned, only potential outcomes and impacts can be studied. For the theory-based method of contribution analysis, mainly qualitative data were used. This enabled the team to work out how the instruments work, and to estimate both the contribution of German development cooperation and the (potential) outcomes and impacts. However, it was not possible to triangulate this with quantitative analyses in order to corroborate the qualitative results. Last but not least, the COVID-19 pandemic limited possible follow-up data collection. It will also significantly affect the future development and further implementation of the interventions considered.
Findings, conclusions and recommendations

The findings, conclusions and recommendations are presented below for each evaluation question and OECD-DAC criterion. The findings are assessed in relation to benchmarks derived from the guiding questions for the OECD-DAC criteria. For each evaluation question, the relevant benchmarks are presented at the beginning of the discussion. They are presented in the order indicated for the four instrument groups (third-party risk finance, risk pooling, risk preparedness and transformative risk management). The conclusions and recommendations apply to all the instruments.

Relevance to partner countries and target groups (EQ1)

The benchmarks for rating the findings on the relevance of the considered instruments and the instrument groups as a whole (which are derived from the guiding questions) are:

- The objectives of the interventions align with the objectives of relevant strategic frameworks and (global) agendas.
- The objectives of the interventions align with the needs of the target groups and the objectives of the partners.

Different ratings arise for the benchmarks regarding the two guiding questions on the relevance of the three third-party risk finance instruments considered in the ARC (African Risk Capacity), IIF and CCA-RAI case studies. The ARC and IIF meet the benchmark for alignment with relevant strategies and agendas by providing increased financing and global/regional outreach to finance residual climate risk management. The IIF’s mobilisation of private capital and private sector support also meet the benchmark for alignment with international agendas in order to achieve the Sustainable Development Goals (SDGs) and the goals of the Paris Agreement. The approach of implementation by national or local institutions of countries – in line with their agendas – is reflected in the case of ARC and CCA-RAI through a high level of alignment with national targets and meeting the benchmark. Only the IIF risk finance intervention is not designed to align with partner agendas, due to its private sector approach. Depending on the individual investee, the intervention is barely relevant as its activities are separate from those of the partner country. Hence it is unable to meet this benchmark. Furthermore, the IIF can only influence the benchmark of alignment with the needs of the final beneficiaries indirectly, because it finances private sector actors. Depending on the objectives of the individual investee, the instrument is thus only partially relevant to the final beneficiaries. Third-party risk finance is complemented by elements of capacity development in all three case studies. These play a key role in making the finance more relevant by improving knowledge on residual climate risks, CRI, contingency planning or administrative processes.

The objectives of the risk pooling cases considered in the SAGA, RFPI III, ARC, PrAda and IIF case studies meet the benchmark of alignment with relevant international agendas. The benchmark of alignment with national strategies of partner countries is also largely met, although risk pooling through climate risk insurance is not always the top priority instrument for partner country actors. Alignment with the development needs of the target groups varies widely; the rating here ranges between met and not met. This is due to the different contextual conditions surrounding the case studies, and the heterogeneity of the target groups. Some of the risk pooling instruments considered target actors in selected value chains such as agriculture (PrAda). Others do not focus on any specific sector, but on MSMEs in the respective region (SAGA and RFPI III) or on the poorest households and those at risk (RFPI III).
Through various investees, the IIF is able to support the promotion of CRI for very different target groups, such as small and medium-sized enterprises or agricultural borrowers. In the case of ARC, CRI is offered at the macro level for countries (regional risk pool) together with Technical Assistance (TA) for disaster preparedness and disaster risk management. These context-specific approaches can meet the benchmark of alignment with the development needs of target groups. At the same time, this benchmark could only be fully met in one case (RFPI III). Here, the target groups also rated risk pooling through CRI as their preferred instrument for managing residual climate risks. In other case studies, other instruments were seen as priorities. Many target groups prefer instruments such as risk preparedness or third-party risk finance, but also risk reduction instruments. In order to reach these target groups through risk pooling, complementary instruments are required such as incentives for risk reduction interventions, premium subsidies or other third-party risk finance interventions. Coverage by social security systems would be a further option.

All in all, German development cooperation thus has a broad repertoire of instruments at its disposal for achieving a high degree of context-specific relevance through risk pooling. However, the case studies examined show that the relevance of the instruments is often rated as low by the target groups. Hence the benchmark of alignment with the development needs of the target groups is only partially met.

The four risk preparedness instruments considered in the CCA-RAI, SAGA, ARC and PrAda case studies meet the benchmark of alignment with international agendas in support of the 2030 Agenda and the UNFCCC. In the case of CCA-RAI, PrAda and ARC, explicit relevant contributions are made to SDG 13 (Climate Action), particularly in terms of capacity building for climate change-related disasters. Furthermore, CCA-RAI and PrAda make relevant contributions in line with the Nationally Determined Contributions (NDCs) arising from the Paris Agreement. ARC is particularly relevant to Article 8 of the Paris Agreement (on loss and damage) and the WIM. One example of this is the support of early warning systems based on risk modelling using Africa RiskView software. Risk preparedness achieved through CCA-RAI and ARC meets the benchmark of alignment with the relevant priorities of partner countries. The risk preparedness instruments considered largely meet the benchmark of alignment with the development needs of the target groups. CCA-RAI largely meets the needs of stakeholders in terms of capacity development, planning and coordination for risk preparedness. As neither civil society nor the private sector were sufficiently involved in the piloting and implementation of risk preparedness instruments, the development needs of the target groups in this regard are only partially met. The need to replicate and scale up the implemented pilots more effectively is not met.

In the CCA-RAI, PrAda and ARC case studies, the needs of the target groups in the field of action 'data and analyses' are partially met. In the CCA-RAI case study, for example, there are gaps in the target group-oriented preparation and communication of climate risk assessments for policy-makers.

The two considered transformative risk management instruments for managing human mobility in the context of climate change (UMIMCC and HMCCC) meet the benchmark of alignment with international agendas, and partner country strategies, priorities and agendas. Mobility issues play an important role in these. The benchmark of alignment with the development needs of the target groups, as part of the 'relevance' criterion, is largely met, but at different levels. For example, the intervention to improve living conditions in Bangladesh (UMIMCC) is largely relevant to climate migrants, while in the case of the intervention to increase knowledge in the Philippines (HMCCC) this applies largely to government organisations. Climate migrants in the Philippines benefit indirectly from government organisations being better able to manage climate mobility. The benchmark of relevance to local civil society is partially met by the interventions, as civil society is only partially involved in planning and implementing them. Both interventions (UMIMCC and HMCCC) meet the benchmark of alignment with Germany's strategies and agendas.
Overall, the findings on the instrument groups for evaluation question 1 show that the ratings of the instruments’ relevance vary widely. The instrument groups meet the benchmark of alignment with global agendas and Germany’s strategies and agendas. While the benchmark of relevance to partner countries is met for the instruments of risk preparedness and transformative risk management, this also applies largely to risk pooling, even though risk pooling is often not a top-priority instrument. For the instruments of third-party risk finance, the findings are mixed. While the benchmark of alignment with partner country priorities is met for ARC, it is barely met for IIF due to the private-sector-based approach. The ratings for relevance to target groups vary widely: With risk preparedness and transformative risk management, the benchmark is largely met. For third-party risk finance, however, it is only partially met, and in the case of risk pooling ratings fall between achieved and not achieved.

The four instrument groups thus largely meet the benchmark of relevance. Challenges do exist in some cases, however. This is so particularly as regards alignment with the priorities of the partner countries and the needs and capacities of the target groups. This results firstly from the early commitment to climate risk insurance (risk pooling). The second reason is the sometimes insufficient combination with other instruments, especially those of risk preparedness and risk finance. One consequence can be the neglect of target-group-specific needs and local contextual factors. In the case of third-party risk finance, the challenge of aligning with the needs of the final beneficiaries and – in the case of investment funds – also partner-country priorities, became particularly apparent. These findings underline the importance of comprehensive risk management approaches. Relevance thus also depends heavily on the combined implementation of other instruments.

The investigation shows that climate risk assessments are not always carried out, and when they are, they are not always performed systematically. In some cases, they remain incomplete or have little effect on instrument use and implementation. However, climate risk assessments are an important basis for selecting relevant instruments to manage residual climate risks. This is because they provide basic information on climate risks (hazards, exposure and vulnerability) in the partner country concerned. In three case studies, the relevance of the applied risk pooling instrument was called into question. Coordination of the analyses with partners and other development cooperation actors was only partial. Furthermore, the results of climate risk assessments were not always prepared in a way that was appropriate for the target group, nor were they made available to local stakeholders and policy-makers. Moreover, the findings show that there is still little systematic discussion of the limits to adaptation in the interventions considered.

Based on the findings for evaluation question 1, the evaluation module makes the following recommendations:

**Recommendation 1**

The BMZ should work to ensure that GIZ and KfW align the use of instruments more systematically with climate risks (hazards, exposure and vulnerability), taking the limits to adaptation into account.

**Implementation guidance for recommendation 1:**

Given the findings of the analysis, when implementing the recommendation it would be preferable to observe the following points:

- Carry out climate risk assessments in all cases and in a coordinated manner, with the participation of partners, local stakeholders and other development cooperation actors; also integrate their results into programming and implementation to a greater extent. (BMZ, GIZ, KfW)
- In future programming and portfolio management, take into account the limits to adaptation in needs-based climate risk assessments, so that these have a stronger effect on the choice and combination of instruments for residual climate risk management. (BMZ)
**Recommendation 2**

The GIZ and KfW should align risk finance instruments (risk pooling and third-party risk finance) more closely with the priorities of the partner countries, and the needs of target groups that are relevant for achieving development objectives.

**Implementation guidance for recommendation 2:**

Given the findings of the analysis, when implementing the recommendation it would be preferable to observe the following points:

- Design and introduce climate risk insurance in a more target group-oriented and context-specific manner. (GIZ, KfW)
- When a new investment fund is set up, place greater emphasis on the target group's development needs, and coordination with the partner's climate risk management approaches. This applies to both the selection of investees, and the products offered. (KfW)
- When designing and proposing interventions, give greater consideration to (i) possible regional approaches to risk finance instruments (third-party risk finance and risk pooling), and (ii) managing the instrument through the partners (e.g. through NDCs and NAPs) in order to better integrate it into country-specific risk management approaches. (GIZ, KfW)

**Relevance and effectiveness for comprehensive residual climate risk management (EQ2)**

The benchmarks for assessing the relevance and effectiveness of the considered instruments and instrument groups for comprehensive residual climate risk management were derived from the guiding questions. They are defined as follows:

- The interventions are relevant to comprehensive residual climate risk management (including coverage of relevant residual climate risks, conduct of climate risk assessments and comprehensive coverage of climate risks).
- The interventions are effective for comprehensive residual climate risk management (including integration into overall climate risk management, and combination with other interventions).

The considered instruments for **third-party risk finance** (ARC, IIF and CCA-RAI) partially meet the benchmark of relevance for comprehensive residual climate risk management. In some cases, aspects of risk preparedness are not sufficiently integrated, only few climate risks are covered or climate risk assessments are not used comprehensively. Two case studies (IIF and ARC) show that risk finance instruments can be well combined with risk pooling instruments. In the case of ARC, this link is provided by international equity participation (as financing for the insurance company) and the regional risk pool it supports (for payouts in case of claims). In the case of the IIF, this link is created by providing funding for risk pooling instruments, including premium subsidies. In one case study (CCA-RAI), project proposals in (residual) climate risk management are supported through the State Action Plans on Climate Change (SAPCCs), and thus the NDCs. This enables access to national and international funds. The three risk financing instruments considered (case studies ARC, IIF, CCA-RAI) meet the benchmark for effectively covering relevant climate risks of the target groups and final beneficiaries (with the limitations mentioned). Overall, the IIF and ARC play an important role in the interplay of global approaches to comprehensive residual climate risk management. However, coordination of third-party risk finance instruments with other actors in the regional, national or local setting takes place only to a limited extent in the case studies considered. This mainly concerns coherence and coordination with other donors. Overall, it is clear that all the risk finance instruments considered can be improved with regard to comprehensive risk management.

The **risk pooling** instruments in the SAGA, RFPI III, ARC, PrAda and IIF case studies are partially relevant for comprehensive residual climate risk management. For a conclusive assessment of relevance, in some cases (e.g. SAGA and RFPI III) the figures for insurance coverage and level are still unavailable at present. In some cases, the focus of insurance providers has led to relevant weather and climate risks being only partially
covered. For example, drought risk was not included in RFPI III. Coordination with the climate risk management activities of partners and other donors can be considered partially met. Overall, both within an intervention and in coordination with other actors (partner countries, donors), more comprehensive approaches to climate risk management are not included to a sufficient extent in some cases.

Concerning risk preparedness two instruments (CCA-RAI and ARC case studies) are largely relevant and effective for comprehensive residual climate risk management. This is mainly achieved by combining several impact pathways of the instrument group. While CCA-RAI supports all impact pathways of risk preparedness, ARC addresses three. In the case of CCA-RAI, however, the instrument’s relevance to comprehensive residual climate risk management for the different impact pathways needs to be assessed in a differentiated manner. While planning is already comprehensive, empirical findings indicate that the piloted implementation would first need to be scaled up and replicated in order to sufficiently cover relevant residual climate risks. CCA-RAI risk preparedness is also combined with risk finance, which contributes to comprehensive management of residual climate risks. ARC also combines risk preparedness with risk pooling and risk finance. This too contributes to comprehensive residual climate risk management, because more target groups can be reached and relevant climate risks can be covered. Moreover, losses and damages can be reduced.

The considered transformative risk management instruments for managing human mobility in the context of climate change (UMIMCC and HMCCC case studies) cover two of five relevant fields of action (climatic factors and vulnerabilities at the place of origin, migration process, improvements at the destination, links between place of origin and destination, context). The activities in the HMCCC case to generate applied knowledge on 'human mobility in the context of climate change' are largely confined to field of action 5 ('context'). By contrast, the UMIMCC case largely relates to field of action 3 ('improvements at the destination'). The way the relevant fields of action are conceptualised, neither instrument is comprehensive and neither constitutes an integrated approach. If the fields of action for climate mobility were to be conceptualised more comprehensively and integrated, human mobility in the context of climate change could be better managed and expanded as a transformative approach. Synergies from combination with other groups of instruments for residual climate risk management, and combination with risk reduction interventions, could support the development of sustainable approaches to transformative risk management and human mobility in the context of climate change. Lessons learned from development cooperation interventions addressing migration more generally may be helpful here. However, their suitability for the specific case of human mobility in the context of climate change would need to be examined, and the lessons learned adapted. As interest in transformative approaches is growing among partner countries as well as bilateral and multilateral donors, options are emerging for a coordinated and coherent approach, and corresponding interventions.

Overall, the findings for evaluation question 2 show that the instrument groups partially meet the benchmark for comprehensive residual climate risk management. The breadth (coverage of relevant target groups), the level (reduction of losses and damages/impacts of climate risks, or of management/compensation of losses and damages) and the depth (coverage of relevant climate risks) are examined. In this respect, the instrument group 'third-party risk finance' is partially effective: While relevant climate risks are effectively covered (with some limitations), there is room for improvement regarding coordination with other actors and combination with the instrument groups 'risk pooling' and 'risk preparedness', with a view to more comprehensive residual climate risk management. For the most part, the risk preparedness instruments are largely relevant and effective for comprehensive residual climate risk management. Scaling up implementation could also increase effectiveness. Risk preparedness benefits from a combination of instruments, including with instruments from other instrument groups. With risk pooling, there is still potential for expansion in terms of the coverage of relevant climate risks and the relevant target groups. In terms of comprehensive risk management, risk pooling is therefore only partially effective. Transformative risk management instruments currently only partially meet the benchmark for comprehensive climate risk management, as they do not yet constitute integrated approaches. This means that the potential of all

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4 The impact pathways for the instrument group 'risk preparedness' are ‘capacity development’, ‘piloting and implementation’, ‘planning and coordination’ and ‘data and analyses’. 
instrument groups is not yet being used exhaustively. Therefore, the relevance and effectiveness of the instruments for comprehensive risk management can be further increased.

The findings also clearly demonstrate that the strength of the approaches results primarily from the combination and interlinking of groups of instruments. They also show that these opportunities are not yet being used exhaustively in order to achieve comprehensive risk management. German development cooperation’s approach to comprehensive risk management can also be enhanced in this respect. Above all, in the case of risk pooling instruments at the micro level, opportunities to freely choose instruments or combine them with third-party risk finance and risk preparedness instruments are not yet being used exhaustively. Furthermore, the findings show that there is some scope for further risk-reducing interventions in risk pooling instruments. Incentives for further investment in risk reduction interventions implemented by target groups or stakeholders could play a greater role.

The German development cooperation instruments for transformative risk management examined in the module do address relevant areas. However, they could be focused more on integrated and sustainable long-term solutions for human mobility in the context of climate change. German development cooperation’s long-standing experience in the field of ‘migration’ is to some extent transferable to the climate context. This can be helpful in developing sustainable approaches to human mobility in the context of climate change.

Based on the findings for evaluation question 2, the evaluation module makes the following recommendations:

**Recommendation 3**

The BMZ should further develop its existing approach to comprehensive risk management in order to achieve a stronger results orientation in the selection and combination of instruments. Building on this, the GIZ and KfW should operationalise this approach in the design and implementation of interventions.

**Implementation guidance for recommendation 3:**

Given the findings of the analysis, when implementing the recommendation it would be preferable to observe the following points:

- Create a strategic guiding framework for the selection and combination of the instrument groups 'risk pooling', 'third-party risk finance', 'risk preparedness' and 'transformative risk management' for programming and implementation. (BMZ)

- In risk finance interventions (risk pooling and third-party risk finance), increase incentives for actors and target groups to invest further in risk reduction through adaptation. (GIZ, KfW)

- Intensify cooperation and coordination of interventions with partner countries and other development cooperation actors, in order to achieve comprehensive risk management. (BMZ)

**Recommendation 4**

The BMZ should expand its portfolio for managing human mobility in the context of climate change as an important component of transformative risk management. It should also harness possible synergies with its migration portfolio. In light of current forecasts for climate risks, approaches to human mobility in the context of climate change that are sustainable in the long term should be (further) developed. To this end, approaches from migration interventions with a specific focus on climate change as a cause of mobility and migration can be used and further developed.
**Effectiveness and impact of the instruments (EQ3)**

The benchmarks for assessing the effectiveness and impact of the considered instruments and the instrument groups as a whole (which are derived from the guiding questions) are:

- The interventions achieve their objectives at outcome level.
- The intervention makes a clear contribution towards the achievement of objectives at outcome level.
- Wider impacts of the interventions can be identified and/or foreseen.
- The intervention makes a clear contribution towards the identifiable/foreseeable impacts.

The three third-party risk finance instruments considered in the ARC, IIF and CCA-RAI case studies do show positive results at the output level, but only partially meet the benchmark of achieving the objective at the outcome level. For example, the IIF's finance reaches a large number of actors who are further expanding the CRI sector in developing and emerging countries. It also raises the profile of climate risk insurance at the international level, and can thus promote its funding, implementation and further development. The ARC is also already able to achieve some outcomes thanks to a growing number of participating countries and an active process of further development. As well as having undergone the capacity development process and participating in the risk pool, nine countries have also been able to benefit from ARC payments totalling 64 million US dollars. As of September 2020, the IIF has been able to use its funding to support 21 investees in developing or scaling up CRI, reaching 25 million beneficiaries with the products. However, it falls short of its original target of 104 million beneficiaries receiving an improved product or coverage. Due to lack of prioritisation of the topic by the Indian federal states, and by the funds, only a few interventions involving residual climate risk management are funded under CCA-RAI. The benchmark of effectiveness at outcome level is thus partially met.

With regard to the general objectives, all third-party risk finance interventions overall have to some extent developed more slowly than expected. Thus outcomes have occurred, but not yet to the extent planned. Information on the impact of the finance at the level of the final beneficiaries is not yet available in the form of rigorous evidence, and can only be outlined qualitatively. The current estimate of direct and indirect beneficiaries reached by the IIF is of limited value in assessing the actual effectiveness and impact of the instrument. Investee reporting requirements do not extend to the impact for final beneficiaries. No impact evaluations are available for ARC yet either. Thus, although there is the potential to achieve impacts such as safeguarding the population against drought risks, there is not yet sufficient evidence for a conclusive evaluation.

Due to their early implementation status, the risk pooling instruments in the SAGA, RFPI III, PrAda and IIF case studies can be examined mainly for potential outcomes and impacts. Differences arise due to the heterogeneous target groups. For example, insured parties with higher incomes seem to be better reached by CRI. The interventions considered show that various factors can inhibit the effectiveness of CRI, such as lack of acceptance of the insurance by potential policyholders. It is important that risks are covered which are relevant to the target groups. Policyholders also need to know what triggers payments and what consumer protection measures are in place. The target groups' ability to pay is also an important factor in their decision to sign up with an insurance company. In some contexts, a lack of insurance culture makes it very difficult to reach target groups. For example, if the population is unfamiliar with the principle of insurance, where a fixed premium is paid but no payout is made without an insurance trigger, potential policyholders will not join the insurance scheme or will join only for an imminent event. Risk transfer for the poorest, poor and vulnerable target groups is barely possible without premium subsidies, and therefore without the involvement of third-party risk finance.
The anticipated impact of CRI for financial protection against climate risks therefore depends heavily on the context, and on its successful combination with other instruments. Interventions to raise target-group awareness meet the benchmark of achieving objectives if and when they are designed in a target-group-appropriate way. The promotion of regulatory and legal frameworks for CRI, the networking of private and public actors (especially at national level), and the building of capacities for using meteorological data and services, make an important contribution towards reducing relevant barriers to investment in CRI and private adaptation finance.

The four risk preparedness instruments considered in the CCA-RAI, SAGA, ARC and PrAda case studies meet the benchmark for effectiveness to varying degrees. At the national level, the capacity development objectives of two instruments (ARC and CCA-RAI) were largely achieved. In the case of CCA-RAI, capacity development at the subnational level was largely effective, but was insufficient for policy-makers. At the local level, capacity development in both the SAGA and PrAda case studies was also largely effective in contributing to risk preparedness. In other words, the perception of climate risks was effectively strengthened through awareness-raising measures.

In the case of CCA-RAI, German development cooperation has initiated the piloting and implementation of activities for residual climate risk management, and has partially met the benchmark for effectiveness in relation to these activities. However, empirical findings show that a developed strategy for scaling up implementation is lacking. They also indicate that piloting and implementation would need to be scaled up and replicated in order to increase effectiveness. Civil society and the private sector were insufficiently involved in the piloting. State and national planning and coordination for residual climate risk management were largely effectively improved in three case studies considered (CCA-RAI, ARC and SAGA). For example, support for national and international coordination processes was effective. Further improvements are needed, particularly in sectoral coordination and coordination between different donors.

The benchmark for effectiveness concerning the use of data and analyses for risk preparedness was largely met in all case studies (CCA-RAI, PrAda, SAGA and ARC). In some cases, however, the processed data and findings of the analyses did not reach all target groups. As a result, the private sector for instance is not yet better able to respond to early warnings. Risks exist with regard to the achievement of impact. This is due to the fact that partner responsibilities for continuing capacity development after the end of the intervention are not defined, or there are gaps in the transition from planning to implementation.

In the 'risk preparedness' instrument group, the lack of integration of lessons learned by other donors and the lack of coordination between the various development cooperation actors jeopardise the achievement of impact. Nonetheless, the benchmarks of relevance for partner countries and target groups, and of effectiveness at outcome level, were met. Consequently, the instruments considered can be expected to generate impact.

With regard to their effectiveness, it is foreseeable that the two investigated instruments of transformative risk management (UMIMCC and HMCCC case studies) will achieve their primary objectives at outcome level and thus meet the benchmark for achievement of objectives: The expansion of knowledge on human mobility in the context of climate change (HMCCC) and the improvement of the living conditions of climate migrants (UMIMCC) are foreseeable. In both cases, the instruments used largely meet the effectiveness benchmark in terms of capacity building, awareness raising and sensitisation. The benchmark for effectiveness in strengthening the institutional framework for human mobility in the context of climate change was largely met in the case of HMCCC, but barely so in the case of UMIMCC. However, local partners are increasingly addressing the issue of 'climate migration' (UMIMCC). Further capacity building is needed in order to strengthen administrative structures. This also includes enabling staff and management personnel to deal with human mobility in the context of climate change, for example by providing counselling and advisory services for climate migrants. It is still barely possible to assess the impact here – also due to the early implementation status. Risks that could jeopardise outcomes and impacts include the continuity of donor funding, and partner-country ownership and willingness to continue the activities. In the UMIMCC and HMCCC interventions, the instruments examined each address essentially just one field of action. Both integrated interventions that combine several fields of action, and coordination at the level of the instrument
group with the broader development cooperation portfolio, could enable synergies and thus contribute to impact.

In summary, third-party risk finance instruments are thus successful at output level, but only partially meet the benchmark for achieving the objectives at outcome level. There is potential for impact, but the methodology for estimating the number of beneficiaries is not sufficiently robust. The various components of the risk pooling instruments in some cases meet the benchmark for effectiveness, and in some cases are partially effective. In the case of risk pooling, both the effectiveness and the expected impact depend strongly on the context and on combination with other instruments. Impact measurement shows the same weaknesses as in the case of third-party risk finance. The benchmark for effectiveness of risk preparedness instruments is in some cases met and in some cases partially so, although this differs between the fields of action. Impact can be expected, but depends on the relevance of the interventions to partner countries and target groups. The benchmark for the effectiveness of the examined transformative risk management instruments is met to varying degrees, ranging from barely met to largely met for specific fields of action. Since implementation remains ongoing, it is not yet possible to assess the impact of the examined instruments of transformative risk management at this point in time.

Overall, the findings on the instrument groups for evaluation question 3 show that German development cooperation already has broad experience with implementing the four groups of residual climate risk management instruments examined in this evaluation module. In designing and implementing its development cooperation, Germany relies extensively on risk pooling. It also already has a broad array of risk preparedness instruments. The third-party risk finance instruments are innovative. However, so far German development cooperation has only partially exploited the opportunities offered by this group of instruments. There is major potential for further expanding these instruments and applying them more broadly.

Regarding coverage for residual climate risks, for example, there are gaps in the protection of high-risk groups and low-income groups, and coverage for uninsurable risks and high-cost events. Transformative risk management instruments are promising and innovative, but can only be sustainable in the long term if they are conceptually elaborated and scaled up for implementation. Overall, German development cooperation already has experience in designing, piloting and implementing residual climate risk instruments. The findings show that these instruments, which are already in use, have the potential to serve as models and to be scaled up for German development cooperation.

The evaluation module has shown that the instruments of third-party finance and risk pooling should focus more on impact among the target groups and final beneficiaries. There is a great deal of pressure to reach the InsuResilience Global Partnership’s target of 500 million (directly or indirectly) insured persons by 2025. Given the strong focus on expanding the number of insured persons, there is a risk that the much more complex tasks of reaching disadvantaged and marginalised groups, and building effective risk transfer for relevant climate risks, will take a back seat. The case study of the IIF investment fund clearly shows that global risk transfer instruments still face major challenges. Capacity development plays a pivotal and significant role in all instruments considered. The module shows that capacities were strengthened at national, subnational and local level.
Based on the findings for evaluation question 3, the evaluation module makes the following recommendations:

**Recommendation 5**

The BMZ should expand the portfolio of German development cooperation in the area of residual climate risks in terms of financial resources, the number of interventions and the instruments used. In cooperation with partner countries and other development cooperation actors, the BMZ should ensure that reliable findings on the effectiveness and impact of various instruments are generated and that the instruments used are selected on the basis of these findings.

**Implementation guidance for recommendation 5:**

Given the findings of the analysis, when implementing the recommendation it would be preferable to observe the following points:

- Consider how greater use can be made of risk preparedness options in order to reduce losses and damages. (BMZ)
- In cooperation with partner countries and other development cooperation actors, perform an inventory of proven residual climate risk management instruments. Then use these broadly, but context-specifically. Where there has been little experience with implementation to date, pilot the instruments strategically. (BMZ)
- Further enable German development cooperation’s residual climate risk management instruments to serve as a model. To do so, use accompanying rigorous impact evaluations to generate reliable findings on the impacts of the interventions and processes. (BMZ)

**Recommendation 6**

In order to take better account of the 2030 Agenda principle of 'leaving no one behind', the BMZ should issue directives to ensure a stronger focus on impact among target groups and final beneficiaries, especially vulnerable and marginalised groups. The GIZ and KfW should align their interventions for residual climate risk management accordingly.

**Implementation guidance for recommendation 6:**

Given the findings of the analysis, when implementing the recommendation it would be preferable to observe the following points:

- Revise the focus on the number of insured persons or the number of persons reached as the main indicator, as this could undermine the relevance and impact. Focus on indicators such as effective financial protection against residual climate risks. (BMZ)
- When designing interventions, place stronger emphasis on achieving impacts for disadvantaged and marginalised groups. This can be achieved for instance by using third-party risk finance instruments to integrate these groups into risk pooling instruments. (GIZ, KfW)
- In the case of capacity development approaches, focus on the outcomes and impacts, on enabling participants sustainably and on integrating these approaches into the partner institutions. (GIZ, KfW)