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Evaluation 2022/1

Independent Evaluation of SDC's Engagement in Climate Change Adaptation and Mitigation 2015 - 2020

Independent Evaluation of

SDC's Engagement in Climate Change Adaptation and Mitigation 2015 - 2020

Commissioned by the Evaluation and Corporate Controlling Division
of the Swiss Agency for Development and Cooperation (SDC)

Contents:

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Report title	Independent Evaluation of SDC's Engagement in Climate Change Adaptation and Mitigation 2015 - 2020
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Bern, August 2022

I Evaluation Process

Evaluations commissioned by the SDC's Board of Directors were introduced in the SDC in 2002 with the aim of providing a more critical and independent assessment of the SDC activities. These Evaluations are conducted according to the OECD DAC Evaluation Standards and are part of the SDC's concept for implementing Article 170 of the Swiss Constitution, which requires Swiss Federal Offices to analyse the effectiveness of their activities. The SDC's **Senior Management** (consisting of the Director General and the heads of SDC's departments) approves the Evaluation Program. The **Evaluation and Corporate Controlling Division**, which reports directly to the Director General, commissions the evaluation, taking care to recruit independent evaluators and manages the evaluation process.

The Evaluation and Corporate Controlling Division identified the primary intended users of the evaluation, and invited them to participate in a **Core Learning Partnership (CLP)**. The Core Learning Partnership actively accompanied the evaluation process. It commented on the evaluation design (Approach Paper); it validated the evaluation methodology (Inception Report); and it provided feedback to the evaluation team on their preliminary findings. During a capitalization workshop and a presentation on the Draft Evaluation Report, the Core Learning Partnership had the opportunity to comment on the evaluation findings, conclusions and recommendations.

The evaluation was carried out according to the evaluation standards specified in the Terms of Reference.

Based on the **Final Report of the Evaluators**, the **Senior Management Response (SMR)** was approved by the SDC's Board of Directors and signed by the SDC Director-General.

The SMR is published together with the **Final Report of the Evaluators**. Further details regarding the evaluation process are available in the evaluation report and its annexes.

Timetable

Step	**When**
Approach Paper finalized	March 2021
Implementation of the evaluation	July 2021 – April 2022
Senior Management Response in SDC	August 2022

II Senior Management Response

The Management Response states the position of the SDC Board of Directors on the recommendations of the Independent Evaluation of SDC's Engagement in Climate Change Adaptation (CCA) and Mitigation (CCM).

SDC commissioned an independent evaluation of SDC's Engagement in Climate Change Adaptation and Mitigation. The evaluation assessed the performance of SDC's programmes and projects along the OECD DAC criteria of relevance, coherence, effectiveness, impact, efficiency, and sustainability. In addition, the evaluation considered where and to what extent the engagement of SDC is transformational in nature. The evaluation aims to support SDC in achieving the objectives of Switzerland's International Cooperation Strategy 2021-2024, and in contributing to achieving the Sustainable Development Goals (SDGs).

The evaluation team had access to the full range of SDC documentation. It reviewed project documents and evaluations; it interviewed a large number of SDC as well as key stakeholders. Due to the COVID-19 pandemic, field visits were conducted by national consultants in Bolivia, India, North Macedonia/Kosovo, Peru and Zimbabwe.

This Senior Management Response was submitted to the Board of Directors for approval and signed by the Director-General of SDC. It sets forth concrete measures and actions to be taken, including responsibilities and deadlines.

Assessment of the evaluation

The evaluation was conducted by a team of independent experts in accordance with international standards. The evaluation process included close involvement of the Core Learning Partnership (CLP). The CLP comprised staff from all SDC departments both at head office and from the field, including from SDC's Global Programme Climate Change and Environment (GPCCE) and, for the purpose of cross-learning, SECO. The evaluation report provides a timely assessment of the activities SDC undertakes in the field of Climate Change Adaptation and Mitigation. The main objectives – assessing the relevance, coherence, effectiveness, impact, efficiency, and sustainability as well as gaining insights on the transformational potential of SDC's Engagement in Climate Change Adaptation and Mitigation have been met by the evaluators. SDC appreciates the comprehensiveness of the evaluation report and the sound analysis of key elements of SDC's Engagement in Climate Change Adaptation and Mitigation.

The report's analysis and resulting recommendations are considered to be useful for strengthening the strategic orientation of CCA/CCM within SDC. SDC's Senior Management thanks the evaluation team and SDC staff involved for their effort and for a substantial and comprehensive report. SDC's Senior Management is committed to implementing the measures set out in the Senior Management Response.

Main findings

The overall findings of the evaluation are as follows:

- **SDC climate change portfolio did not experience any fundamental changes.** There was no clear pattern of increasing climate-related expenditure by SDC during the period 2015-2020.
- **On average, SDC projects showed high standards of design and performance** (effectiveness, impact and sustainability). Average design quality and performance were higher than in portfolios of other donors assessed using similar methods. The evaluation found important transformational potential among projects that were intended to deliver climate change benefits, whether for CCA or CCM.

- **SDC's strength in delivering excellent projects** is mainly due to its effective presence in partner countries and target locations, and a long-term programmatic approach (which allows for learning and adapting interventions between phases). Opportunities for improvement, replication and sustained impact at the regional and global levels could however be leveraged better.
- **SDC's strengths also build on many strong and effective partnerships**, which (i) operate thematically at the global and regional level, and (ii) support project delivery, networking, replication and informed policy development at the national and local level.
- About half of the SDC projects examined involved empowering communities to manage local resources for their own long-term benefit. This **Nature- and Community-Based Solutions (NCBS) approach is recognised as key to addressing the 'triple challenge' of climate, biodiversity and poverty,** and hence the nexus of humanitarian assistance and sustainable development.
- **Weaknesses identified include** (i) isolated cases of weak project design linked to unfounded assumptions in the design process; (ii) ineffective knowledge management (including barriers to knowledge flow between projects and regions, weak systems for managing documents, and loss of institutional memory); (iii) undervalued project co-benefits, resulting in under-reporting of climate change interventions, and (iv) slowness to respond to rapid changes.

Key elements of the Management Response

SDC's Senior Management considers that the evaluation contains a substantial and in-depth analysis of SDC's engagement in climate change adaptation and mitigation, providing insightful conclusions to further strengthen SDCs climate action. The recommendations point to important issues, they do however remain on a rather high and generic level. Many recommendations (no 3, 4 and 5) are not specific to the SDC climate change portfolio. While the senior management agrees with the overall direction of the recommendations, the proposed concrete measures are not always considered to be the most promising avenue to achieve improvement. Consequently, several recommendations are partially agreed. Many of the recommendations are highly relevant for SDC's ongoing reorganization process (Fit-for-Purpose 2030), and need to feed into the respective sub-projects. Furthermore, the insights and recommendations should also feed into the independent evaluation of the SECO's economic cooperation division climate approach and portfolio 2013-2022

The evaluation had the objective to assess the entire SDC climate change portfolio, including climate change projects from the GPCCE as well as the bilateral development cooperation and the humanitarian aid. The portfolio study had a strong emphasis on the bilateral climate change projects. As a result, the insights with regard to the work of the GPCCE remain limited.

Out of the 6 recommendations, 2 are ‘fully agreed’ (green), 4 are ‘partially agreed’ (orange) and none are ‘disagreed’ (red). The key measures are summarised as follows:

1. **Seek maximum institutional complementarity**	
2. **Pay more attention to co-benefits**	
3. **Build capacity to handle thematic complexity**	
4. **Strengthen management of implicit knowledge**	
5. **Strengthen management of explicit knowledge**	
6. **In utrumque paratus: 'be ready for anything'**	

Bern, 15 August 2022

Patricia Danzi, SDC Director General

Annex: Overview of recommendations, management response and measures

Annex: Overview of recommendations, management response and measures

Fully agree	Partially agree	Disagree

Recommendation 1
SDC should consider reaching out to SECO, FOEN and the IFIs with a view to exploring ways to maximise complementarity among their climate change response strategies. Rationale. Climate aid is a complex subject, with multiple overlaps and uncertainties, especially in the areas of co-benefits and comparative value for money. It involves at least three main areas of work: (i) mitigation through ecosystem management and land use; (ii) mitigation through technological improvement in the main economic sectors other than land use; and (iii) adaptation through strengthening social and ecological systems against climate-related stresses and shocks. Conclusion 1 confirms the historical pattern to date that SDC has tended to focus on the first and third of these (and Conclusions 2, 4, 5 and 8 confirm its effectiveness in doing so), while SECO has tended to focus on the second. These are very different tasks that require distinct kinds of institutional capacity. There is increasing recognition of potential synergies between these approaches, however, and all must be integrated into a balanced approach if all the NDC priorities of each partner country are to be met. Thus there are clear grounds for the two institutions (and others, such as FOEN and the IFIs supported by Switzerland, which have their own set of key roles in the climate response) to seek to maximise complementarity and synergy. Dialogue on exactly how to define, measure and achieve maximum co-benefits (in SDG terms) and maximum value for money (in mitigation and adaptation terms) would therefore be appropriate and useful. This may only be possible with SECO after it completes its own strategic review, which is understood to be only just starting. Practical steps. The more clearly SDC can define its own positions on achieving CCA and CCM with maximum co-benefits, value for money and transformative influence, and with SECO observing this process, the more productive the partnership is likely to become. An inclusive and transparent process, supported by experts and facilitators within and perhaps from outside the SDC system, could be used to define the SDC way of doing things and to demonstrate its exceptional value in mitigation, adaptation and co-benefit terms. In the process, ways to do the same or progressively different things better would also be defined, and dialogue with other institutions would clarify sources of complementarity and synergy.
Management Response
Fully agree | **Partially agree** | Disagree
Complementarity among climate change response strategies of different concerned actors and harvesting possible synergies are key. Even more, given the limited size of development cooperation volume available in Switzerland - making it indispensable to define the most promising niches and setting clear priorities where Switzerland can actually make a difference. To this end, various **valuable tested instruments** are in place both within SDC and the Swiss Federal administration and have proven to function well: at a strategic level, the well-structured and participatory process for the elaboration of the international cooperation strategy that sets the overall direction and respective roles to achieve the overarching goals. And at operational level, different platforms that allow coordination at the level of the implementation of activities ('Committee de pilotage south / thematic / multilateral'); plus more specific bodies set up to coordinate for example climate and environment multilateral financing aspects (PLAFICO). And finally well-functioning coordination mechanisms within representations abroad and ad-hoc issues-based agreements.

The past work and collaboration among involved Swiss Federal offices – often complementary in terms of geographical focus and applied instruments - has shown that there is **potential for further coordination and harvesting of synergies** at both levels. The expected additional streamlining and priority setting shouldn't however lead to an artificial demarcation and 'boxing' regarding roles and responsibilities (avoiding lists) – and needs to continue to provide sufficient space for thematic intersections and areas of convergence. Even more, since different approaches on the same issue might mutually reinforce each other, and lead to additional joint impact.

SDC's senior-level management does share the view of the external consultants and sees an added value in (more) focused action, and concurs with the evaluation findings that **some more guidance** is beneficial. However, such rather at the level of more thematic coherence within the institution. As the most important measure to further contribute to sharpen the institution's overall approach in climate change adaptation and mitigation work, the senior management mandates the elaboration of an overarching and comprehensive CC/DRR/Env guidance applicable for the entire SDC. Considering the integration of the Disaster Risk Reduction (DRR) topic into the new thematic CC/DRR/Env section in the frame of the ongoing institutional reform, the institution-wide guidance to be elaborated shall also incorporate the respective broader thematic guidance on disaster risk reduction that was mandated by the external DRR evaluation conducted in 2020. This will ensure that that the comprehensive new thematic guidance will also serve to further anchor climate and environment considerations in humanitarian aid work.

Measures	Responsibility	Deadline
- The responsible thematic section in SDC is tasked to develop comprehensive SDC guidelines on CC/DRR/Env that will provide thematic guidance applicable for the entire institution (aggregated level), including disaster risk reduction aspects	SDC's thematic section CC/DRR/Env	Theory of Change (ToC)/Thematic guidance finalized in 2023
- Adherence to and use of established coordination mechanisms and procedures, in particular also in view of the process for the elaboration of the next international cooperation strategy	SDC Management at different levels	Continuously
- Systematically foster and engage in the coordination efforts of CC/DRR/Env with the government and among development partners	Representations and SDC offices in the field	Continuously

Recommendation 2
SDC should improve its own climate change response strategy by encouraging and enabling its staff to identify, document, plan for, quantify and monitor co-benefits arising from interventions in the target systems for which they are responsible
Rationale. This foresees SDC building on its established strengths in delivering adaptation with mitigation and other co-benefits, especially where ecosystems are involved that have multiple functions in providing carbon storage, environmental, food and water security, biodiversity protection and other goods and services. This is probably the single area where most potent and early mitigation gains are possible alongside adaptation gains and community benefits in the form of environmental and livelihood security, human rights and several other SDGs. There are, however, numerous other

strengths in the portfolio, all with potential co-benefits that should be explored and used, so the SDC strategy should also cover these. This would increase SDC's capacity to exploit synergies at the nexus of humanitarian affairs and sustainable development

Practical steps. Progress could be made by supporting research on co-benefits by SDC's university and NGO partners, defining how staff training and recruitment could be used to enhance SDC's sensitivity to co-benefits, and using policy dialogue and outreach to promote a wider understanding of co-benefits and how to obtain them.

Management Response

Fully agree	Partially agree	Disagree

The SDC's senior management fully agrees with this recommendation. An increased focus on co-benefits allows to increase the efficiency of international cooperation and is fully in line with the understanding of sustainable development reiterated in the 2030 Agenda for Sustainable Development, where environmental, social and economic processes are intrinsically connected.

The evaluation is an important piece of evidence that SDC's has developed a portfolio of **projects that benefit both people and the planet**. The evaluators highlighted in particular the suitability of initiatives building on locally adapted and owned solutions for sustainable development challenges (what the evaluators refer to as "nature and community based solutions" approach). This approach is not only considered to be highly effective, but also has a significant transformative potential. The SDC's senior management is committed to build on this strength and continue the investment in projects that apply a nature- and community-based solution approach, alongside with the continuation of selected regional and global endeavours. The significant potential of co-benefits is considered as an important insight that proves that investment decisions between poverty reduction and climate change adaptation/mitigation should not be seen as a zero-sum game.

Using the entire potential of such co-benefits requires addressing them in an explicit manner early on in the planning process and throughout the implementation. This involves increased attention for a more conscious climate change, disaster risk and environmental considerations mainstreaming. A continued leadership from the top management as well as increased knowledge and sensitivity of SDC staff and partners is needed. Furthermore, efforts are required to better capture co-benefits, through adequate reporting and monitoring tools, avoiding over-reporting.

Measures	**Responsibility**	**Deadline**
- Develop an operational/thematic guidance that supports operational staff to mainstream climate change, disaster risk and environmental consideration to leverage the full potential of co-benefits	New thematic section on CC/DRR/Env	End of 2023
- Increase training and advisory offer for SDC staff - with the support of external backstoppers - to increase capacity for climate change, disaster risk and environment awareness and mainstreaming (targeting NPOs, thematic advisors outside the Cluster Green)	New thematic section on CC/DRR/Env / together with RTA in geographic sections	End of 2023
- Integrate in the Field Handbook a mandatory environment check-list to support the correct setting of climate change, DRR and biodiversity related Rio-markers	New thematic section on CCE/DRR/Env	Mid 2023

Recommendation 3
SDC should consider options for strengthening its capacity to handle thematic complexity relevant to climate change, of which the one favoured here is to recruit additional regional advisers with advanced experience in complex thematic and cross-thematic disciplines. Rationale. Considering that climate change effects and responses are thematically complex and often require regional and cross-frontier cooperation and learning, the CC response needs consistent strength at the regional level. There are several ways in which this need can be met, including internal SDC staff training and deployment, hiring local advisers on climate change/water/DRR, assigning junior SDC staff to regional roles to learn on the job, or using consultants from regional or Swiss universities, NGOs or consulting firms. Also of merit is the idea of establishing an internal inter-thematic round table in each regional hub, with focal points in the national SDC offices and close relations with other donors, and with the role of steering a more forceful climate change response. An option favoured by several interviewees and the evaluators would be to ensure that more senior experienced regional advisers are deployed to support all aspects of programming and climate aid delivery with maximum co-benefits and value for money. Practical steps. These might include a thorough institutional and technical assessment on how to increase capacity to handle thematic complexity in ways relevant to climate change, including the advantages and trade-offs involved in each option for each region.

Management Response		
Fully agree	**Partially agree**	Disagree

The SDC's senior management considers capacities to handle thematic complexity and to address inter-related (global) challenges as key competence. This is true for issues related to climate change, and for many other themes SDC is working on. This is why the institution has continuously increased and put in place measures fostering such a way of thinking at the different levels in the institution: introductory courses provided in the frame of the trainee programme for young professionals touch upon the need to be able to handle complex issues, and there are a variety of more specific learning opportunities such as those offered by the thematic networks (learning journeys, network events, brown-bag lunches, etc.) for experienced professional staff. More specifically related to climate change, it is SDC's mainstreaming tool 'Climate, Environment and Disaster Risk Reduction Integration Guidance (CEDRIG)' that has been developed to foster a holistic approach handling the environmental challenges - which is being proactively spread throughout the entire institution, both in Switzerland and abroad. CEDRIG is mandatory for cooperation programmes. Despite being voluntary but recommended as working aid for projects, the requests for such training courses provided on an on-demand basis have greatly increased recently.

A particular opportunity further fostering a holistic approach in dealing with complex thematic issues is seen in the broader pool of regional thematic advisors that is currently pursued in view of the new structure of SDC, many of which will be deployed to the regions in the frame of the reform process. Ideally, these regional thematic advisors are co-financed and promote an integrated Swiss climate, environment and disaster risk reduction portfolio. Not only will they be tasked to handle a multitude of different multi-faceted thematic issues, but they are also expected to further champion such a way of thinking and working - and will thereby inspire others by means of 'leading by example'. They are thus predestined to become ambassadors for the way how thematic complexity is handled in the future institution. Regional thematic advisors abroad – the option particularly favoured by the external reviewers – is considered as one, but by no means the only, target group to further strengthen the ability to improve handling thematic complexity in the SDC. The F4P Sub-group 'topics' has come up with a detailed analysis

and valuable recommendations about the different modalities how thematic expertise can be imparted in the new setup.

Strengthening the capacity to handle thematic complexity is not a one-off issue, and needs to be considered with a long-term perspective. Only a thematic career planning will allow to systematically build up and maintain these key competences over time. Furthermore, options to better leverage the expertise of members of the Swiss Humanitarian Aid Unit (SHA) to the benefit of SDC should be analysed and discussed.

Measures	Responsibility	Deadline
- Resume discussions regarding promotion of a thematic career in SDC and communicate perspective regarding possibilities to allow for a respective career planning	Directorate	2023
- Step up training offer for SDC staff to increase capacity for CC awareness and mainstreaming and handling thematic complexity (with a specific focus on the pool of regional thematic advisors in geographical units)	Thematic network CC/DRR/Env	2023
- Implementation of thematic work in the new SDC structure according to the goals and guiding principles outlined in the vision document elaborated by the F4P sub- project 'themes'	Directorate	Continuous

Recommendation 4

SDC should improve its management of implicit knowledge (i.e. experience and insight), by encouraging and enabling its staff to seek Continuing Professional Development through: (i) sharing knowledge among those responsible for different projects and programmes; (ii) capturing lessons and best practices; (iii) deliberating on case studies and evaluations; and (iv) generating guidelines for baselining and good practice narratives for dissemination to staff and partners.

Rationale. Despite its strong field capacity to deliver good projects, there are lost opportunities due to weaknesses in SDC's ability to capture and use the implicit knowledge of its own staff. This is problematic as the complexity and urgency of the climate change response demands maximum learning from experience and insight in all its detail and diversity. It also requires that systems deliberately and effectively promote knowledge sharing between units on what works and what does not in various circumstances. This is a generic recommendation that may apply equally across SDC's entire field of operations. The content of the knowledge to be shared and distilled into guidelines and baselines would however be specific to the climate change response and its co-benefits.

Practical steps. These might include an inclusive and transparent process, supported by experts and facilitators within the SDC system (e.g. the Knowledge, Learning and Culture Division) and perhaps from outside it, to improve capture of implicit knowledge and articulate useful guidelines.

Management Response

Fully agree	**Partially agree**	Disagree

The SDC's senior management agrees with the assessment that there is a lot of implicit knowledge in the institution, and that there is scope to still better make use of the experiences available. Among other elements, this is a key aspect of the current restructuring the SDC as an institution is going through. The senior management would

however like to point out, that looping back experiences and insights into planning processes and bridging the perceived 'gap' is a general issue, and by no means limited to the topic of the environment or climate change.

Partnerships with selected centres of excellence have been – and will continue to be - key for evidence and thematic substance. In addition to that, the institution has developed a number of procedures that allow capturing the own experience made, making it available to others as well and feeding it back to improve the quality of internal planning processes. The **thematic networks** introduced after the last reorganization in 2008, the DNA of SDC as a learning institution, assume an important function when it comes to the horizontal flow of information – and they will continue to do so in the restructured SDC in the future. As external reviews have confirmed, they improve the quality of projects, contribute to evidence-based policy making, promote innovation and speed up and broaden access to knowledge and information. Overall, there is a need for a better recognition and appreciation of thematic work and participation in respective networks that foster the flow of relevant information.

Further, the new function of thematic advisors in the geographic units will hold a key position when it comes to translating operational experience into guidance and capturing lessons and best practices for a specific given region. In cooperation with the thematic networks, this information can then be compiled and aggregated, and made available for further use throughout the institution.

With the different 'ingredients' in place and new modalities shaped aiming towards a better use of implicit knowledge in the restructured institution, the primary focus now needs to be on implementing these elements. And keeping a close eye on whether they are in the position to deliver the expected improvements and results. Process support by external facilitators beyond the scope of assistance to the thematic networks as is current being provided in the frame of respective backstopping mandates is not deemed useful, as the experience gain needs to happen within the own institution in order to then feed into the relevant processes.

Measures	Responsibility	Deadline
- Superiors responsible for regional thematic advisors value an active participation and plan (e.g. in their annual plans) allocation of sufficient time for their staff members to participate in and co-shape the thematic network for ensuring a better horizontal information flow and capitalization	Heads of divisions/sections or HoC	Continuous

Recommendation 5
SDC should improve its management of explicit knowledge (i.e. documents and data), by investing in: (i) completing the project database and stronger cross-referencing between related projects; (ii) developing a single portal and search function to cover all SDC projects, regions and domains; and (iii) providing links and content for learning paths, case studies and contribution narratives on key topics relevant to thematic complexity.
Rationale. Despite its strong field capacity to deliver good projects, there are lost opportunities due to weaknesses in SDC's ability to manage the explicit knowledge generated through its own operations. This is problematic as finding documents swiftly and accessing advisory pathways, deep explanations of how complex systems work in a development and climate change context, and other sources of curated knowledge is the life-blood of a learning institution that seeks steady, rapid improvement in performance. This is a generic recommendation that may apply equally across SDC's entire field of

operations. The content of learning paths, case studies and contribution narratives would however be specific to the climate change response and its co-benefits.

Practical steps. These might include a study of internal management information systems and the design of improved procedures, portals and search engines, with specific content being developed with technical input from experts within and perhaps from outside the SDC system.

Management Response

Fully agree	Partially agree	Disagree

Managing knowledge products like documents and result data is of utmost importance for a learning organization like SDC. It is therefore an issue of institutional relevance, and not limited to a specific topic or sector. Digitalization has opened-up many new opportunities to better store, search, share and analyse documents and data.

The SDC senior management acknowledges that the management of explicit knowledge can and must be strengthened. This commitment is reflected in different efforts undertaken by SDC in recent years. In May 2022, the Directorate approved the Mission Statement for Digital Transformation at SDC, which sets out specific activities and projects needed to transform into a digital organization. For better results data management, the RDM process has been set up under the lead of the Quality Assurance Division. A process is underway to assess the current Sharewebs – a key tool for the information sharing within thematic networks – and develop a new platform that enables information sharing and collaboration. Furthermore, an exercise to map different forms of data currently collected at SDC (SAP, Acta Nova etc.) is underway and will serve as a basis to take further decisions.

Additional efforts are needed when it comes to the project database. The current project database is not always properly updated, and it contains only limited information that is made available publicly. Measures to ensure an effective and efficient search of key documents (Entry Proposals, Credit Proposals, Reviews, Evaluations, etc.) that allows for cross-referencing between related projects, should be developed.

While tools and systems matter for the proper management of explicit knowledge, the institutional culture that proactively feeds the knowledge management tools is equally important. Some of these work streams are currently addressed in a project logic, and particular attention needs to be given to integrate new tools and systems in the organizational structure, with clear attribution of roles and responsibilities. Additional studies or expert inputs can be considered in the respective work streams, but should not stand at the centre of the efforts to increase the management of explicit knowledge.

Measures	**Responsibility**	**Deadline**
- Continue existing efforts for better management of explicit knowledge, including on the Digital Transformation, RDM, new SAP and the Sharewebs.	Respective units	End of 2023
- Develop a proposal for better searchability and interoperability of data systems in the management of key project documents/data, including the assignation of clear roles, responsibilities and resources for proper management	New section 'Quality assurance & digitalization'	August 2023

Recommendation 6
SDC should anticipate and prepare for new expectations and pressures that may be placed on it due to: (i) accelerating deterioration in biophysical conditions at all scales in its partner countries and within Europe; (ii) intensification of more frequent natural disasters affecting its partner countries and within Europe; and (iii) reactive policy mandates to ramp up climate responses very steeply and quickly. Rationale. Recommendations 1-5 aim to increase SDC's technical and institutional capacity to promote CCA and CCM, but Recommendation 6 anticipates the need to plan for additional demands due to unprecedented environmental and policy change. This takes into account deteriorating global environmental conditions reported during the evaluation by the UN Secretary General and the IPCC, and the scale of public concern expressed before, during and after UNFCCC CoP 26. In these emerging circumstances, expectations on SDC (and all responsible Swiss and other agencies) for an adequate climate response will increase. The value of long-term, slow-acting development assistance may therefore be questioned, and new mandates may require new approaches. Additional funding to be spent quickly on high-impact, high-profile mitigation and adaptation actions might also be anticipated. SDC could consider, and perhaps discuss with its partner institutions everywhere, options for how to respond to such developments. The existing Interdepartmental Coordination Platform on International Climate and Environmental Finance (PLAFICO) may offer a vehicle for SDC use in communicating findings and sharing ideas. Practical steps. As well as initiating dialogue with other institutions that face similar challenges, practical steps might include a focused enquiry across the whole SDC portfolio to identify the best ways to slash GHG emissions quickly, at large scale and least cost, and with maximum co-benefits, and how to strengthen social and ecological systems likewise. Supported by experts within and perhaps from outside the SDC system, this could also involve the development of new methods for comparative assessment and decision making.

Management Response		
Fully agree	**Partially agree**	Disagree

The current International Cooperation Strategy 2021-2024 defined climate change as one of four strategic priorities, building on the insight that mitigating and adapting to climate change will play an increasingly important role in international cooperation. In line with this commitment, Switzerland decided to increase international cooperation funding in the area of climate change gradually from CHF 300 million a year (2017-20) to around CHF 400 million a year by the end of 2024 – about 15% of the total funds available for international cooperation.

In line with the mandate from the IC Strategy, the Senior Management remains committed to address climate change from a global perspective (through the GPCCE) as well as in its bilateral interventions (both as a dedicated domain or through CC mainstreaming). The Senior Management considers the approach to gradually increase its commitment related to climate change - combining targeted climate change interventions with an increased climate change mainstreaming in all programmes - as the most promising and appropriate avenue to achieve long lasting impact and be prepared for potential upscaling, should a respective political mandate arise. This approach is also in line with a key insight from the evaluation, namely the finding that SDC's characteristic long-term oriented programmatic approach is a key factor for the high performance and transformative potential of SDC interventions. If a significant increase in climate change funding is envisaged, a discussion about thematic and other prioritization within SDC's portfolio is indispensable.

SDC is willing to address the question of potential rapid increase in climate change investment with other institutions, both within the Swiss Government, as well as

multinational organizations. At the same time, any effort in this direction must remain within the legal framework and the mandate from the Swiss parliament.		
Measures	**Responsibility**	**Deadline**
- Assess the opportunities to include in the next international cooperation strategy climate change, disaster risk and environment as a third transversal theme (to strengthen CC/DRR/Env. mainstreaming)	Directorate	End of 2022
- Maintain a climate finance target value to serve as benchmark – in close collaboration with other concerned Federal departments	Directorate	End of 2022

III Evaluators' Final Report

Commissioned by the Evaluation and Corporate Controlling Division of the Swiss Agency for Development and Cooperation (SDC)

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Abbreviations and acronyms

ANFOR	Andean Forest and Climate Change (SDC project in the Andean region)
BEEP	Indo-Swiss Programme on Building Energy Efficiency (SDC project in India)
CALAC+	Climate and Clean Air in Latin American Cities Plus (SDC project)
CBD	Convention on Biological Diversity
CbS	Community-based solutions (an approach promoted by UNDP)
CC	Climate change
CCA	Climate change adaptation
CCAC	Climate and Clean Air Coalition
CCD	United Nations Convention to Combat Desertification
CDE	Centre for Development and Environment (University of Bern)
CCM	Climate change mitigation
CEDRIG	Climate, Environment and Disaster Risk Reduction Integration Guidance (tool)
CHF	Swiss Franc
CIF	Climate Investment Funds
CLP	Core Learning Partnership (of this evaluation)
CPD	Continuing professional development
CSO	Civil-society organisation
DAC	Development Assistance Committee (of OECD)
∆AGB	Change in aboveground net biomass
DRR	Disaster risk reduction
EbS	Ecosystem-based solutions (an approach promoted by UNEP)
E+C	Evaluation and Controlling Division (of SDC)
FALUPAM	Forest and Agricultural Land Use Planning, Allocation and Management
FDFA	(Swiss) Federal Department of Foreign Affairs
FFA	(Swiss) Federal Finance Administration
FOEN	(Swiss) Federal Office for the Environment
GCF	Green Climate Fund
GEN	Geneva Environment Network
GHG	Greenhouse gas
GLOF	Glacier-lake outburst flood
GMO	Genetically modified organism
GP	Global Programme
GPCCE	Global Programme Climate Change & Environment
HAFL	Hochschule für Agrar-, Forst- und Lebensmittelwissenschaften (School of Agricultural, Forest and Food Sciences, University of Bern)
ICIMOD	International Centre for Integrated Mountain Development
IFI	International Financial Institution (such as a development bank)
IGGE	Inclusive Green Growth in Egypt (SDC project)
IHCAP	Indian Himalayas Climate Adaptation Programme (SDC project)

IUCN	International Union for Conservation of Nature
IWRM	Integrated water resources management
LFMP	Landscape fire management programme (in the Western Balkans)
LNOB	Leave no-one behind
L-RUG	Living resource (e.g. pasture, community forest) user group
MASAP	Markets and Seeds Access Project (SDC project in Southern Africa)
NbS	Nature-based solutions (an approach promoted by IUCN)
NCbS	Nature- and community-based solutions (an approach combining CbS, EbS and NbS in recognition of the interdependence of ecological and social systems)
NCP	Nature Conservation Programme (SDC project in North Macedonia)
NDC	Nationally Determined Contribution (to UNFCCC Paris Agreement goals)
NGO	Non-gouvernemental (non-profit) organisation
NSIMA	Maize initiative in Southern Africa (SDC project)
ODA	Official Development Assistance[1]
OECD	Organisation for Economic Cooperation and Development
PABRA	Pan Africa Bean Research Alliance
PACC	Climate Change Adaptation Programme (SDC project in Peru)
PES	Payments for ecosystem services
PDR	People's Democratic Republic
PIA-ACC	Applied Research on Adaptation to Climate Change (SDC project in Bolivia)
PLAFICO	Interdepartmental Coordination Platform on International Climate and Environmental Finance
PRF	Pro-forma (or 'project review format')
PRRD	Disaster Risk Reduction Programme (SDC project in Bolivia)
R4	Rural Resilience in Southern Africa (SDC project)
RM	Rio Mark (indicates the intention to achieve adaptation and/or mitigation)
RVAA	Regional Vulnerability Assessment and Analysis (SDC project in Southern Africa)
SADC	Southern African Development Community
SAMP	Strengthening Seed and Output Markets (SDC project in Southern Africa)
SASA	Strengthening Agrobiodiversity in Southern Africa (SDC project)
SDC	(Swiss) Agency for Development and Cooperation
SDG	Sustainable Development Goal
SECO	(Swiss) State Secretariat for Economic Affairs
SFPD	(Swiss) Sectoral Foreign Policies Division
SKI	Seed and Knowledge Initiative (SDC project in Southern Africa)
SLCP	Short-lived climate pollutant
SMSE	Small and/or medium-sized enterprise
SSSN	SADC Seed Security Network (SDC project in Southern Africa)
SWPM	Sustainable water and pasture management
TABI	The Agro-biodiversity Initiative (SDC project in Lao PDR)
TP	Transformative potential (estimated ability to induce system change)
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

[1] Government aid that promotes and specifically targets the economic development and welfare of developing countries (source: OECD).

Executive Summary

a) Purpose and approach

The Independent Evaluation of SDC's Engagement since 2015 in Climate Change Adaptation (CCA) and Mitigation (CCM) is a backward- and forward-looking exercise that aims to support SDC in achieving the objectives of the Dispatch on Switzerland's International Cooperation 2021-2024, and in contributing to achieving the Sustainable Development Goals (SDGs).

The evaluation sought insights by comparing findings from several lines of enquiry while taking a system-level view on major patterns, lessons and opportunities. It involved the following activities: (i) a **Portfolio Study** to describe key patterns in SDC Climate Change (CC) expenditure; (ii) a **Design and Performance Study** to assess design quality, performance (effectiveness, impact and sustainability) and transformative potential among a sample of 31 CC projects (including a desk study and interviews by the core team, a field study by national consultants in Bolivia, India, North Macedonia/Kosovo, Peru and Zimbabwe, and an e-mail survey of small projects); and (iii) a **Capacity and Partnership Study** to examine the strengths and weaknesses of SDC's key delivery mechanisms, using interviews with a range of knowledge holders.

b) Specific findings

The following major patterns were identified in the SDC climate response portfolio. Total Swiss ODA was CHF 3.343 billion in 2020, including both bilateral and multilateral flows, of which about CHF 300 million per year in 2017-2020 went to CCA and CCM. More detailed figures for Swiss bilateral climate aid in 2018 show that about 60% of a total of CHF 221 million was for adaptation and 40% for mitigation. Almost all was spent via SDC (64%) and SECO (36%), but the expenditure profile differed between them. **SDC spent about 73% of its share on CCA**, and SECO spent about 65% of its share on CCM.

Almost two-thirds of the SDC total was spent in the **agriculture**, **environmental protection**, and **water** sectors. Climate-relevant investments in these sectors include promoting organic, climate-smart and catchment-friendly agriculture, conserving and restoring carbon-rich and service-providing catchment and wetland ecosystems, and related themes of policy development, resource management and river basin development. These various **patterns changed little in 2013-2020**, although the overall share of ODA going to climate change is now being increased.

The projects examined by the evaluation team adopted **valid** ways to seek CCA and CCM outcomes and were **relevant** to targeted problems. Also, their average **design quality** and **performance** were higher than in other portfolios assessed using similar methods.

Assessing the projects' **transformative potential** (TP) required each target system to be considered as a whole. It involved judging whether the project was likely to result in system-wide changes in its strength (for CCA) or GHG emissions (for CCM). Three distinct findings were that: (i) where SDC intended a project to achieve CCA and/or CCM, projects had an average TP equivalent to 'high' for adaptation, and on the high side of 'moderate' for mitigation; (ii) some projects were assessed as having TP for mitigation or adaptation despite being Rio Marked as 'not targeted' for these respective intentions; and (iii) some projects showed strong signs of inducing major system change. The transformative potential of the SDC CC portfolio was generally good, but not fully expressed using Rio Marks, especially for mitigation.

The institutional **capacity** of SDC was found to be 'moderate to good' and improvable in the areas of knowledge management, learning, and strengthening capacity to handle thematic

complexity relevant to climate change. The institutional **partnerships** used by SDC were found to be excellent.

c) Conclusions

Conclusion 1, on high standards of design, performance and transformative potential. On average, the SDC projects showed higher standards of design and performance (effectiveness, impact and sustainability) than other portfolios assessed using similar methods. Criteria for assessing Transformative Potential (TP) had not previously been used, but in this evaluation, important TP was found among projects that were intended to deliver CC benefits, whether for CCA or CCM. The 14 best-designed and best-performing projects all had major effects in safeguarding strategic ecosystem services, empowering local communities over land use, promoting agroecological and resilient farming, and/or promoting a culture and practice of resilience. These positive findings were attributed to: (i) the content of the projects themselves, which responded to local needs, conditions and opportunities; (ii) the strong and effective institutional partnerships within which the projects were designed and implemented; and (iii) the characteristic programmatic approach, with opportunities for lessons to be learned and adjustments made between each phase.

Conclusion 2, on weaknesses in design and performance. Only two projects were assessed as being fundamentally weak, but others also showed isolated shortcomings that could be traced to flaws in design processes. They included: (i) reliance on unfounded assumptions that reflected inadequate prior study and analysis; (ii) ineffective knowledge management, including on the monitoring of carbon capture and storage and the sharing of knowledge on payments for ecosystem services; (iii) key missing elements, including on aspects of agrobiodiversity, payments for ecosystem services, agroecological farming, ecosystem restoration, GHG emission baselines and records, and arrangements for operation and maintenance; (iv) weak coordination between countries, project sites, stakeholders and institutional partners; and (v) a lack of clarity on key complex issues such as gender, synergies with other projects, and potential in-migration to project areas.

Conclusion 3, on TP and high performance linked to the 'Nature- and Community-based Solutions' (NCbS) approach. About half of the SDC projects examined involved encouraging and enabling local people to organise and empower themselves and manage local resources for their own long-term benefit. These resources include natural, harvested, grazed or farmed ecosystems, so these solutions often protect, restore and strengthen those systems and therefore contribute to environmental security (CCA) and carbon storage (CCM). The NCbS approach is recognised by the UK's Joint Nature Conservation Committee and others as key to addressing the 'triple challenge' of climate, biodiversity and poverty, and hence the nexus of humanitarian assistance and sustainable development.

Conclusion 4, on TP and high performance linked to other approaches. Strategically effective projects were found among the SDC projects that did not specifically involve an NCbS approach and may be more appropriate in many contexts. These were based on approaches that included: (i) selecting, developing and distributing germplasm resources that enhance on-farm resilience and food security; (ii) improving water system management holistically, including catchments, springs, rivers and floods; (iii) sharing and reducing environmental risk through insurance and knowledge exchange on grassroots resilience; (iv) hardening rural infrastructure and adaptive changes to building codes in rural and urban settings; and (v) mobilising communities and civil authorities in rural or urban settings to promote self-defence against floods, fires, air pollution and other threats.

Conclusion 5, on under-appreciated project co-benefits. There was evidence from eight of the 31 projects examined that the full transformative potential of SDC's climate change portfolio is not being fully expressed using Rio Marks, especially for mitigation and including several projects with strong TP. An implication is that the SDC CC portfolio is performing

much more strongly than is currently being reported. This could be corrected by SDC paying more attention to reporting on the mitigation co-benefits of CCA projects and the adaptation co-benefits of CCM projects.

Conclusion 6, on institutional weaknesses. SDC's strength in delivering excellent projects is mainly due to its effective presence in partner countries and target locations, but opportunities for improvement, replication and sustained impact at the regional and global level are being missed. This is due to weaknesses that include: (i) barriers to knowledge flow, both laterally between projects and regions, and between domains, aggravated by decentralisation, and vertically as a reported consequence of excessive hierarchy; (ii) proliferation of thematic platforms, making it hard for staff to know where to find useful information; (iii) a partial reliance on digital tools which cannot substitute for pre-existing knowledge and in-person advice in many contexts; (iv) weak systems for managing documents and data ('explicit knowledge'), which make it hard for SDC to mobilise complete records even for quite recent projects; and (v) loss of institutional memory, due to staff rotations and limited capture of experience and insights ('implicit knowledge') from staff as they move.

Conclusion 7, on strong institutional partnerships. SDC's many strong and effective partnerships: (i) operate thematically at the global and regional level, and (ii) support project delivery, networking, replication and informed policy development at the national and local level. These are typically with well-chosen institutions and are frequently sustained over many years with a 'light touch' that allows partners to fulfil their missions with little interference, leading to complementary innovative and transformative outcomes.

Conclusion 8, on reacting to rapid change. SDC's long-term programmatic approach is excellent in delivering high-quality development cooperation but is also very slow relative to the pace of environmental change. Existing knowledge within SDC and elsewhere can be used to accelerate and improve targeting for maximum overall value for money in delivering CCA (i.e. stronger systems), CCM (i.e. reduced system-wide net GHG emissions), and co-benefits (of CCA and CCM for one another, and for gains in other SDGs). This conclusion takes into account: (i) global and regional tipping points that could commit the biosphere to a mid-century (2050 ± 10 years) climate breakdown; (ii) that for CCM, early GHG savings are worth far more in mitigation terms than later ones; and (iii) that for CCA, system-strengthening measures are urgently needed. These considerations can profoundly affect calculations of value for money and decisions on what to invest in. They also imply that it would be desirable to build quickly on SDC strengths in CCA and CCM (including previously under-appreciated co-benefits) and accelerate their replication.

d) Recommendations

The evaluation's conclusions led to **six recommendations**. These aim to target specific areas where incremental improvements are possible with leadership and judicious, targeted investment. All are directed to SDC senior management, in the expectation that other levels will also be involved in their consideration and implementation.

Recommendation 1 ('seek maximum institutional complementarity'). SDC should consider reaching out to SECO, FOEN and the International Financial Institutions (IFIs) to explore ways to maximise complementarity among their climate change response strategies. Practical steps might also include an inclusive and transparent process, supported by experts and facilitators within and perhaps from outside the SDC system, to define the SDC way of doing things and to demonstrate its exceptional value in mitigation, adaptation and co-benefit terms.

Recommendation 2 ('pay more attention to co-benefits'). SDC should improve its own climate change response strategy by encouraging and enabling its staff to identify, document, plan for, quantify and monitor co-benefits arising from interventions in the target systems for which they are responsible. Practical steps might include supporting research

on co-benefits by SDC's partners, defining how staff training and recruitment could be used to enhance SDC's sensitivity to co-benefits, and using policy dialogue and outreach to promote a wider understanding of co-benefits and how to obtain them.

Recommendation 3 ('build capacity to handle thematic complexity'). SDC should consider options for strengthening its capacity to handle thematic complexity relevant to climate change, of which the one favoured here is to recruit additional regional advisers with advanced experience in complex thematic and cross-thematic disciplines. Practical steps might also include a thorough institutional and technical assessment on how to increase capacity to handle thematic complexity in ways relevant to climate change, including the advantages and trade-offs involved in each option for each region.

Recommendation 4 ('strengthen management of implicit knowledge'). SDC should improve its management of implicit knowledge (i.e. experience and insight) by encouraging and enabling its staff to seek Continuing Professional Development through: (i) sharing knowledge among those responsible for different projects and programmes; (ii) capturing lessons and best practices; (iii) deliberating on case studies and evaluations; and (iv) generating guidelines for baselining and good practice narratives for dissemination to staff and partners. Practical steps might also include an inclusive and transparent process, supported by experts and facilitators within the SDC system (e.g. the Knowledge, Learning and Culture Division) and perhaps from outside it, to improve implicit knowledge capture and articulate useful guidelines.

Recommendation 5 ('strengthen management of explicit knowledge'). SDC should improve its management of explicit knowledge (i.e. documents and data) by investing in: (i) completing the project database and stronger cross-referencing between related projects; (ii) developing a single portal and search function to cover all SDC projects, regions and domains; and (iii) providing links and content for learning paths, case studies and contribution narratives on key topics relevant to thematic complexity. Practical steps might also include a study of internal management information systems and the design of improved procedures, portals and search engines, with specific content being developed with technical input from experts within and perhaps from outside the SDC system.

Recommendation 6 ('be ready for anything'). SDC should anticipate and prepare for new expectations and pressures that may be placed on it due to: (i) accelerating deterioration in biophysical conditions at all scales in its partner countries and within Europe; (ii) intensification of more frequent natural disasters affecting its partner countries and within Europe; and (iii) policy mandates to ramp up climate responses very steeply and quickly. In addition to initiating dialogue with other institutions that face similar challenges, practical steps might include a focused enquiry across the whole SDC portfolio to identify the best ways to reduce net GHG emissions quickly, at large scale and least cost, and with maximum co-benefits, and how to strengthen social and ecological systems likewise. Supported by experts within and perhaps from outside the SDC system, this could also involve the development of new methods for comparative assessment and decision making.

1 Introduction

This is the final report of the Independent Evaluation of SDC's Engagement in Climate Change Adaptation (CCA) and Mitigation (CCM) since 2015. It is described in the Terms of Reference (ToR) as a backward- and forward-looking evaluation that aims to support SDC in achieving the objectives of the *Dispatch on Switzerland's International Cooperation 2021-2024* and contributing to the achievement of the Sustainable Development Goals (SDGs). As the ToR also observe, all the development gains achieved in the past - including progress towards the SDGs, the Sendai Framework for Action, and the eradication of poverty, particularly among rural and vulnerable populations - are threatened by climate change and its impacts.

The extent to which this threat is recognised increased during the evaluation because of a succession of natural disasters - all fuelled by global heating - before, during and after the UNFCCC CoP 26 in Glasgow in November 2021. This point was further made in December 2021, when it was noted that 2021 was the sixth year in which natural catastrophes had crossed the USD 100 billion insured loss threshold, that all six had happened since 2011, and that 2021 was the fourth in five years (Kramer & Ware, 2021). Moreover, in February 2022 the Intergovernmental Panel on Climate Change released its Working Group II Report on Impacts, Adaptation and Vulnerability (IPCC, 2022). This was described by UN Secretary-General António Guterres as "an atlas of human suffering and a damning indictment of failed climate leadership." (quoted in Mizutori, 2022).

Against this background, Switzerland has continued to be active on the global stage. It signed the Leaders' Pledge for Nature in 2020, the Global Methane Pledge and the Glasgow Leaders' Declaration on Forests and Land Use in 2021. It also increased the share of its international cooperation funding allocated to CCA and CCM, from CHF 350 to 400 million per year by the end of 2024 (up from CHF 300 million per year in 2017-2020) (FDFA, 2020). This affects SDC and SECO, which share responsibility for official development assistance (ODA), since the government requires adjusted spending plans from both. In SDC's case, this prompted a review (or 'strategy cascade') to identify where ODA was already being spent on climate and where there was scope to increase expenditure. This adjustment was challenging because SDC's projects typically involve a series of four-year phases, often agreed in principle long in advance. This is a system that resists sudden changes in spending priority. Moreover, an SDC decision to close the Latin America programme in the same time frame meant that the Asia and Africa programmes had to account for most of the changes going forward.

A consequence of the spending and planning review at SDC is that attention became focused on the Rio Marks given to projects. These use a three-point scale[2], according to the project's aims on CCA and/or CCM. They are of three-fold importance for SDC and for the evaluation. First, they determine how each project's budget is counted against ODA climate change commitments. Second, they offer a way to examine projects for relevant targeting, consistent with efforts to "systematically include climate change in all its activities and support effective climate action across its entire portfolio" (P. Danzi in SDC, 2020). And third, they allow the portfolio to be disaggregated into projects that focus more or less strongly on CCA and/or CCM. This disaggregation was used in the Portfolio Analysis here, and also shaped the choice of projects for the Design and Performance Study (see Section 2).

Another consequence of new expectations being placed upon SDC was a 'Fit for Purpose 2030' review by the SDC Directorate. This commenced in early 2021 and overlapped entirely with the evaluation. Few interviewees had much knowledge of its purpose or

[2] NOT TARGETED (0), SIGNIFICANT (1) or PRINCIPAL (2). See: https://www.oecd.org/dac/environment-development/rioconventions.htm

workings. It is understood, however, to be addressing perceived weaknesses: (i) in working at the nexus of humanitarian affairs and sustainable development; (ii) in capacity to apply thematic or global expertise to engage with operational and field activities; (iii) in communication; (iv) arising from subsidiarity[3] and bureaucracy; and (v) in capacity to retain good staff.[4] These topics overlap with the interests of the evaluation, but the latter was not integrated with the review so its findings may be most useful as an independent view based on different methods and sources.

The evaluation followed the ToR in Annex 1, using the team profiled in Annex 2, according to the methods outlined in Section 2. Key findings are presented in Section 3, which is structured around an analysis of the SDC CC project portfolio (Section 3.1), and findings relevant to the six evaluation questions (EQs; Sections 3.2-3.7). Conclusions and recommendations are given in Sections 4.1 and 4.2, respectively. Annexes 3-12 present supporting materials, and Annex 13 in Volume 2 contains evidence on project design, performance and transformative potential.

2 Methods

The SDC CC project portfolio is large and diverse, and the limited evaluation resources were deployed to gather as much information from it as possible[5]. In handling this material, the evaluation sought insights through triangulation among findings from different lines of enquiry. It also sought to identify major patterns, lessons and opportunities. It used methods and sources of information appropriate to the following strategic elements.

Portfolio Study. This was based on SDC commitment and expenditure records provided in the spread-sheet form on 20 Jul 2021, which contains only SDC projects that were given a Rio Mark of 1 (PRINCIPAL) or 2 (SIGNIFICANT) for CCA and/or for CCM.

Design and Performance Study. This examined design quality, effectiveness, impact, sustainability and transformative potential of a sample of SDC projects. The following data collection and analysis approaches provided triangulation opportunities.

- **Desk study**. A pro-forma (PRF) was filled in for each project or programme based on design and reporting documents, evaluations and publications, using criteria and indicators as explained in Annex 4 and Annex 5, and supplemented by interviews with knowledge holders listed in Annex 6 Part A. Brief descriptive summaries for each project are given for ease of reference in Annex 7 Part 1 in this volume.

[3] Subsidiarity is the principle that all decisions should be made at the lowest level of a hierarchy that is consistent with them being effectively implemented.

[4] These map approximately onto seven 'common denominators' identified by senior SDC managers, these being: 1. Exploiting synergies and working in the nexus; 2. Working in fragile contexts where the need is greatest; 3. Emergency relief (Rapid response); 4. Effectiveness and efficiency; 5. Thematic expertise; 6. Lean processes and structures; and 7. Continuing to seek scalability of themes and projects and exerting more influence on development policy at home and abroad. An internal SDC consultation memorandum reported SDC staff opinions received as part of the review up to 14 Oct 2021, these being on: (i) 'Simplification of administrative processes and subsidiarity'; (ii) 'Human resources' (flexibility, job-sharing, up-grading, re-balancing); (iii) 'One SDC' (or 'breaking the silos' between the instruments of international cooperation); (iv) SDC senior management (reform); (v) 'Thematic expertise' (involving regional advisers and other arrangements); (vi) 'Communication' (content and visibility); and (vii) 'Utilise the work already done' (i.e. implementing the recommendations of previous studies).

[5] Over 220,000 words of evidence are compiled in Annex 13, supported by 434 specific literature citations. A total of 129 individuals from some 65 institutions were interviewed (Annex 6), of whom about 40% were women and about 40% were employed by institutions other than national or subnational governments.

- **Field study**. Five national consultants were employed in Bolivia, India, North Macedonia/Kosovo, Peru and Zimbabwe respectively (Annex 2). Their role was to check and correct the relevant PRFs, and to interview local knowledge holders (Annex 6 Part B), so as to deepen the team's understanding of the projects concerned.
- **Data presentation**. Scored judgements on the design quality, effectiveness, impact, sustainability and transformative potential for 31 projects are presented in summary form and considered alongside their Rio Marks in Section 3, with further details of the mean, median and average[6] calculations given in Annex 8.
- **Contribution narratives**. Key themes are explored using groups of related projects and phases to highlight and explain their collective contribution to CCA and/or CCM in ways that could not be done only by looking at individual projects. These narratives can serve as technical and learning resources for development professionals and others (see Section 3.5.2, with details in Annex 9).
- **Small projects study**. An e-mail survey of SDC field officers sought further information on some of the diverse entries known as Small Action Global Credit in SDC's internal list of projects on CC (see Section 3.5.3, with details in Annex 10).
- **Thematic analysis**. A review of findings in Annex 13 led to some clear themes being recognised. Among them was a large group of diverse projects that showed clear signs of having applied a 'nature- and community-based solutions' (NCbS) approach (Section 3.6.4 and Annex 11). Other important themes were identified as well, and their details also contributed to discussions on design, performance and transformative potential in Sections 3.4-3.6.
- **Operational analysis**. Finally, observations reported in Annex 13 were used to identify operational weaknesses in project design and implementation. These are diverse and context-specific, but they draw attention to areas where improvements are possible. Highlights are given in Section 3.4 with details in Annex 7 Part 2.

Capacity and Partnership Study. This examined the strengths and weaknesses of SDC's key delivery mechanisms, using semi-structured interviews with a range of knowledge holders (see Annex 6) within and outside SDC, to deepen understanding of the processes and partnerships involved (see Section 4.6).

3 Findings

3.1 Overview of the SDC CC portfolio

The Portfolio Study used data provided by the SDC Statistics Unit to describe SDC's funding of CC-relevant actions. The focus was on: (i) **CC projects managed by SDC through all its domains** (South Cooperation, Global Cooperation, Humanitarian Aid and Cooperation with Eastern Europe), including bilateral, multi-country and global projects but excluding funding to multilateral organisations such as the Climate Investment Funds; and (ii) **CC commitments and disbursements made in the years 2013 to 2020**. Highlights of the findings are summarised as follows, with details in Annex 3.

- **Swiss ODA overview (2020 and 2018 snapshots)**. Total Swiss ODA was CHF 3.343 billion in 2020 (SECO, 2021), including both bilateral and multilateral flows, of which about CHF 300 million per year in 2017-2020 went to CCA and CCM (FDFA, 2020: 14). More detailed figures for Swiss bilateral climate aid in 2018 show that about 60% of a total of CHF 221 million was for adaptation and 40% for mitigation (FOEN, 2020: 133). Almost all was spent via SDC (64%) and SECO (36%), but the expenditure profile

[6] 'Mean' = arithmetic mean, 'median' = the mid-point of a range of cases ordered from highest to lowest; 'average' = 'mean' plus 'median' in each case divided by two, as an illustration for communication and discussion purposes.

differed between them. According to these data, SDC spent about 73% of its share on CCA, and SECO spent about 65% of its share on CCM.

- **SDC expenditure on CCA and CCM (2013-2020)**. According to the detailed expenditure data analysed by the team, about 76% of SDC climate expenditure in 2013-2020 was on CCA. CCA represents 69% of disbursements to projects Rio Marked 'principal' (i.e. with one of the CC markers marked as 'principal' [7] and 80% of disbursements to projects Rio Marked 'significant'. The overall dominance of CCA in SDC expenditure was most marked in country-level programming, at about 79% (Table 3 in Annex 3), and least in regional and global programming, at about 70% (Table 4 in Annex 3). This excess of CCA over CCM expenditure, which is reduced but retained if both SDC and SECO are considered, is unusual among OECD donors, where the opposite is generally the case.
- **Thematic focus of SDC climate expenditure (2013-2020)**. The agriculture, environmental protection, and water sectors accounted for 67% of SDC climate spending. The first two sectors include CC-relevant promotion of organic, climate-smart and catchment-friendly agriculture, conservation of carbon-rich ecosystems (including REDD+) and restoration of ecosystem services. The third sector includes the management of upstream (catchment) and downstream (riverine and wetland) ecosystems, which can have consequences for environmental security (i.e. CCA) and net GHG emissions (i.e. CCM). These, along with related water sector policy, water resources, water conservation, and river basin development themes in the water sector, are often very CC-relevant.
- **Variation in volume of SDC climate expenditure (2013-2020)**. There is no clear pattern of year-by-year change in climate-related expenditure by SDC during 2013-2020 (see Figure 4 Annex 3). This may reflect the interaction of more than one influence: for example, the Paris Agreement, which called for greater overall CC funding, and decisions internal to the Swiss administration.

3.2 Answering EQ 1: Validity of projects

EQ 1 asked about the extent to which SDC CC projects use valid approaches in seeking mitigation or adaptation outcomes. The approach used here was to review projects against criteria of CC relevance (see Annex 4 Part B5, and Annex 5 Note A), to check them against the Rio Markers that SDC is using (and partly to support the selection of projects for the Design and Performance Study). On close inspection of projects, the following anomalies were found between their classification by validation criteria (cell B5 for each project in Annex 13) and SDC Rio Mark (cell B6 for each project in Annex 13).

- **Key information was sometimes missing**, as in project 7F-09849 (Integrated Water Resources Management in Kosovo), where "The Rio Mark of PRINCIPAL (2) by SDC for mitigation is notable since there is little in the project design or early implementation that suggests mitigation to be a key aim of this project, which is primarily an adaptation initiative." (Annex 13:19, cell E1).
- **Key assertions were sometimes unjustified**, as in project 7F-07817 (Water and Energy Security through Microhydels in the Hindukush), where "No adaptation significance was found in the preliminary assessment or in the detailed review, on why SDC classified the project as a 'principal' adaptation project (i.e. with adaptation as the primary design objective), and why as a water sector project with 'water security' in its title, is unknown." (Annex 13:10, Part C).

[7] Projects Rio Marked 'principal' represented 38% of total CC disbursements during 2013-2020.

- **Errors sometimes occurred, possibly from changing Rio Marker definitions**, as in project 7F-09837 (NDRMF Consultant Disaster Risk Financing in Pakistan), in which an adaptation project had been mis-classified as principally a mitigation project[8].
- **Differences were attributable to divergent understanding between the evaluation and SDC** of how adaptation and mitigation effects were likely to be obtained from the projects (see Section 3.6).

Thus there were sufficient irregularities to make it unwise to rely on Rio Marks alone to characterise the SDC portfolio, but there was enough convergence to confirm that the approaches used by SDC to seek CCA and CCM outcomes are generally valid *in principle*. This was confirmed *in practice* by findings presented in the following sections. On average, SDC delivered well-designed and strategically effective projects that often had high transformative potential, while the Rio Marks (indicating SDC intention) proved to be a good predictor of transformative potential. It should be added that SDC generally takes a human-rights based approach to development, which, combined with its community orientation, means that SDC is near the forefront of the Climate Justice agenda. The latter typically incorporates the three pillars of distributive, procedural and transformative climate justice and builds on the awareness that the most effective interventions are usually those in which design and delivery are informed and led by communities. The answer to EQ 1, therefore, is that the SDC projects generally use valid approaches in seeking CCA and/or CCM outcomes.

- **Overall assessment of validity: good.**

3.3 Answering EQ 2: Relevance of projects

EQ 2 asked about the extent to which SDC CC projects are relevant to the CC policies of all the partners involved. Among the 25 projects for which full data are available, all project documents and credit proposals aligned explicitly with Swiss objectives. There was also explicit relevance to the defined needs of beneficiaries in their biophysical circumstances, particularly across southern and eastern Africa, and in the Andean and Himalayan regions. Strong relevance was also found to:

- **the Nationally Determined Contributions (NDCs)** of Peru, Laos, India, Myanmar, Mongolia, Egypt, Honduras, Bosnia and Herzegovina, North Macedonia, and Montenegro, while in Bolivia, Colombia, Ecuador and Peru the project supported NDC preparation;
- **national and sub-national development plans and policies**, in Malawi, Pakistan, Ethiopia, Myanmar, Mongolia, Egypt, India and Honduras, Laos, Peru, Bolivia, Zambia, Zimbabwe, Lesotho, and Swaziland; and
- **other key national priorities**, as expressed: (i) in national biodiversity strategies of Laos and North Macedonia; (ii) in the Plurinational Constitution and Law on the Rights of Mother Earth in Bolivia; (iii) in the National Missions on Energy Efficiency, Sustaining the Himalayan Ecosystem, and Himalayan Studies (and State Action Plans on Climate Change) in India; and (iv) in EU accession ambitions of North Macedonia and Kosovo.

Thus, almost all projects were clearly aligned with the relevant NDC (although seldom specifically with national adaptation communications to the UNFCCC) and at least one key national planning or policy document. However, other international treaties were seldom

[8] This project was excluded from PRF analysis in Annex 13 not because of this error, but because it proved to be an add-on to a larger intervention (7F-09718: ADB, National Disaster Risk Management Fund contribution) that was peripheral to the ToR. Written sources were also judged to be controversial and/or unreliable, SDC had withdrawn from Pakistan, and the evaluation had insufficient resources with which to develop a credible analysis.

mentioned, including the conventions on biodiversity and desertification and their associated targets. Similarly, the project design documents do not always relate the projects completely to SDGs or their targets. The evaluation team added relevance to international treaties and to the SDGs[9] and their respective targets for each project (see Annex 13). Hence, the answer to EQ 2 is that the projects were relevant to national needs and priorities, but there was room for improvement in how the case for this was made.

- **Overall assessment of relevance: good.**

3.4 Answering EQ 3: Design quality of projects

EQ 3 asks about the extent to which SDC CC projects are designed with clarity and logic supported by evidence. Design quality was assessed against three main criteria (see Annex 4 Part D). The first was that the theory of change should make sense in the context of its relevance by explaining specific needs and what response would be appropriate to meet them. The second was more complex, as it involved spelling out the explicit and implicit assumptions of cause and effect underlying the theory of change and checking that they were all plausible and the links between them supported by evidence. The third was that the whole design should have been clearly presented and supported by adequate stakeholder participation and risk analysis. Assessed in this way, design quality among the projects received mean scores rounded to 5 on a seven-point scale, meaning 'good' (Table 1).[10] This is a very positive result by comparison with other portfolios examined using similar methods (see Section 3.5.4).

But average scores conceal important details, and these can illuminate specific weaknesses that can lead to lessons being learned and future improvements. All such weaknesses can, in principle, be traced back to design since it is the design process that seeks to match intention with intervention and anticipate and avoid problems. Project weaknesses linked to design issues are summarised in Annex 7 Part 2. They cluster around the following issues:

- **Unfounded assumptions**, for example: (i) that stable institutional frameworks, shared understanding of objectives and methods, and supportive public policies were in place or soon likely to be; (ii) that assurances by partners, proponents and consultants on local capacities, willingness to participate, and likely results were reliable; (iii) that available information was adequate to support sound decisions; and (iv) that risks had been adequately understood and provided for.
- **Ineffective knowledge management**, for example: (i) in monitoring effects on carbon capture and storage, in the household-level appreciation of added value from integrated risk management, and in the capacity of target institutions to manage knowledge; (ii) in weak capture and sharing of knowledge on payment for ecosystem services (PES), from field research activities, and with steering committee members; and (iii) in not correcting information gaps that undermined capacity building and mainstreaming in host country institutions, and that acted as barriers to scaling up.

[9] The most frequent occurrences in declining order were: SDG 13 (Climate Action), SDG 15 (Life on Land), SDG 2 (Zero Hunger), SDG 1 (No Poverty), SDG 17 (Partnerships for the goals); SDG 6 (Clean water and sanitation), SDG 4 (Quality education), SDG 8 (Decent work and economic growth), and SDG 11 (Sustainable cities and communities). All other SDGs had 1-3 occurrences.

[10] The median score (i.e. the mid-point of a range ordered from highest to lowest) was consistent with the mean.

- **Key missing elements**, for example: (i) on important aspects of agrobiodiversity among productive or drought-tolerant plant species; (ii) on arrangements to promote PES, agroecological farming and the restoration of protective ecosystems; (iii) on GHG emission reduction aims, baselines, records and planned outcomes; (iv) on environmental education and social mobilisation; (v) on essential works and repairs during projects and arrangements for sustained operation and maintenance after them; and (vi) on correcting low institutional capacity due to high staff rotations and political barriers to collaboration between levels and institutions.
- **Other weaknesses**, for example: (i) on coordination between countries, project sites, stakeholders and institutional partners; (ii) in evidence to support claims of policy development, legislative and institutional change, financial leverage, value for money and ecological improvements; and (iii) due to over-ambition and lack of clarity on key complex issues (such as gender, value chains, synergies with other projects, costs and benefits, and potential migration drawn in by local improvements to income and environmental security).

Such a list can give the impression of serious weakness across the portfolio, but this would be misleading as only two projects were assessed as having notably weak designs (7F-07817: Microhydels in Pakistan, and 7F-09862: Golfo Fonseca in Honduras). The rest are isolated cases that are given here because they can be corrected relatively easily in future projects. The answer to EQ 3, therefore, is that the SDC projects were generally designed to a high standard.

- **Overall assessment of design quality: good**.

3.5 Answering EQ 4: Performance of projects

3.5.1 Strategic effectiveness, efficiency and coherence

Strategic effectiveness

EQ 4 asks about the extent to which SDC CC projects are implemented to high standards of performance. The implications of considering projects from the different points of view of CCA and CCM are explained in Annex 4 Parts E and F, and Annex 5 Note C. The focus was on 'strategic effectiveness', composed of effectiveness, impact and sustainability. Effectiveness means the delivery of results by the project; impact means the consequences of the results during the project; and sustainability means durable change induced by the project and likely to survive it. Thus, for example, the delivery of a training workshop is a *result*, enhanced skills obtained from that workshop are its *impacts*, and the application of those skills afterwards is a sign of *sustainability*. Especially in a long or multi-phase project, effectiveness, impact and sustainability blend into one another as results generate impacts, and impacts change systems over time. With this in mind, the evaluation examined each project from these points of view and made judgements based on the evidence in Annex 13. These three key dimensions of performance received mean scores for all projects that rounded to 5 on a seven-point scale, meaning 'good' (Table 1).[11] This is a very positive result by comparison with other portfolios examined using similar methods (see Section 3.5.4).

Table 1 shows where strengths in performance (indicated by scores of 5-7) are concentrated. Good design is associated with good performance (see Section 3.5.4), and the two co-vary in Table 1. The weaknesses in design (and therefore performance) listed in Section 3.4 shed light on details that would otherwise be invisible in the scores, since each identified weakness has the effect of reducing its corresponding score. A reader wishing to

[11] Median scores were consistent with the means.

understand the strengths of any particular project is directed to Section 3.6.4, to Annex 7 Part 1, and to the relevant PRF in Annex 13. To illustrate the strategic effectiveness revealed by this scoring system, the 14 best-scoring projects were isolated[12] and their major thematic effects were identified as follows:

- **Safeguarding strategic ecosystem services**: (i) 7F-05409 PACC in Peru; (ii) 05448 Biocultura in Bolivia; (iii) 7F-06872 NCP in North Macedonia; (iv) 7F-07368 ANFOR in the Andes; (v) 7F-08037 IHCAP in India; and (vi) 7F-09849 IWRM-K in Kosovo.
- **Empowering local communities over land use**: (i) 7F-05448 Biocultura in Bolivia; (ii) 7F-05450 TABI in Lao PDR; (iii) 7F-06872 NCP in North Macedonia; and (iv) 7F-09484 Green Gold in Mongolia.
- **Promoting agroecological and resilient farming**: (i) 7F-08780 SASA in Southern Africa; (ii) 7F-08781 SKI in Southern Africa; and (iii) 7F-01324 PABRA in Africa.
- **Promoting a culture and practice of resilience**: (i) 7F-07312 PRRD in Bolivia; (ii) 7F-05409 PACC in Peru; (iii) 7F-05448 Biocultura in Bolivia; (iv) 7F-07368 ANFOR in the Andean region; (v) 7F-08037 IHCAP in India; (vi) 7F-09439 Malteser in Myanmar; (vii) 7F-06524 BEEP in India; and (viii) 7F-08531 RVAA in Africa.

Considering all factors, and in awareness that mean scores can conceal important details, the answer to EQ 4 is that SDC projects are generally delivered to a high standard of strategic effectiveness.

- **Overall assessment of effectiveness, good.**
- **Overall assessment of impact, good.**
- **Overall assessment of sustainability, good.**

[12] These comprise all projects where there were complete data for all four design and performance attributes, and where the mean value of all four of these scores was higher than 5 (i.e. in the range 'better than good' to 'excellent').

Table 1: Design and performance assessments of SDC projects.

	Design and Performance (1-7 scale)				TP[13] (0-4 scale)		RM[14] (0-4 scale)	
	Design quality[15]	**Effect-iveness**	**Impact**	**Sustain-ability**	**Adaptation (CCA)**	**Mitigation (CCM)**	**Adaptation (CCA)**	**Mitigation (CCM)**
Part A: Projects with prominent NCbS features.								
7F-05409: PACC (Perú, Annex 13.2)	5	6	6	6	4	2	4	0
7F-05448: Biocultura (Bolivia, Annex 13.3)	6	6	6	6	4	3	4	0
7F-05450: TABI (Lao PDR, Annex 13.4)	5	6	6	6	4	3	2	2
7F-06872: NCP (N. Macedonia, Annex 13.6)	6	6	5	5	4	3	2	2
7F-07368: ANFOR (Andes, Annex 13.8)	6	6	6	5	3	3	4	2
7F-08037: IHCAP (India, Annex 13.11)	5	5	5	6	3	0	4	0
7F-08632: PIA-ACC (Bolivia, Annex 13.13)	5	5	4[16]	5	3	1	4	2
7F-08780: SASA (Southern Africa, Annex 13.1)[17]	6	6	5	5	3	1	2	0
7F-08781: SKI (Southern Africa, Annex 13.1)	6	6	5	5	3	1	2	0
7F-09038: SWPM (Ethiopia, Annex 13.14))	4	5	5	4	3	1	2	2
7F-09439: Malteser (Myanmar, Annex 13.16)	5	6	6	4	4	3	2	2
7F-09484: Green Gold (Mongolia, Annex 13.15)	7	6	6	6	4	3	2	0
7F-09849: IWRM-K (Kosovo, Annex 13.19)	6	5	4	6	4	2	4	4
7F-10341: LFMP (W. Balkans, Annex 13.21)	6	-	-	-	3	3	4	2
7F-07807: R4 (Southern Africa, Annex 13.9)	6	5	4	4[18]	3	0	2	0
Part B: Projects without prominent NCbS features.								
7F-00404: NSIMA (Southern Africa, Annex 13.1)	4	4	5	4	3	0	4	0

[13] TP = Transformative potential as estimated by the evaluation, on a 0-4 scale (0 = NIL; 1 = LOW; 2 = MODERATE; 3 = HIGH; 4 = VERY HIGH).

[14] RM = Rio Mark in the SDC project spreadsheet, converted from the original 0-2 scale to a 0-4 scale (0 = NOT; 2 = SIGNIFICANT; 4 = PRINCIPAL).

[15] Scores for design quality, effectiveness, impact and sustainability are based on evidence in Annex 13, and follow a seven-point scale where 7 = 'perfect; 6 = 'excellent'; 5 = 'good' (positive balance); 4 = 'moderate' (or satisfactory); 3 = 'weak' (negative balance); 2 = 'very weak' (dominantly negative); 1 = 'extremely weak' (no merit found).

[16] PIA-ACC phase 1 (score 4), phase 2 (score 6).

[17] Rio Marks for 7F-08780 (SASA) are taken to be the same as for similar projects 7F-08781 (SKI), 7F-07646 (SAMP), 7F-01324 (PABRA) and 7F-10511 (MASAP).

[18] R4 sustainability was estimated to range from 2 (very weak) in Zimbabwe to 5 (strong) in Malawi and Zambia.

7F-01324: PABRA (Africa, Annex 13.1)	6	6	6	6	3	0	2	0
7F-03316: SSSN 2 (Southern Africa, Annex 13.1)	4	-	-	-	3	0	4	0
7F-06524: BEEP (India, Annex 13.5)	5[19]	5[20]	5[21]	6[22]	2	3	0	4
7F-07312: PRRD (Bolivia, Annex 13.7)	5[23]	6	6	5	4	1	4	0
7F-07646: SAMP (Southern Africa, Annex 13.1)	5	5	5	5	2	0	2	0
7F-07817: Microhydels (Pakistan, Annex 13.10)	2	3	2	2	1	1	4	2
7F-08531: RVAA (Southern Africa, Annex 13.12)	5	6	6	4	2	0	4	0
7F-09567: Resilience (Myanmar, Annex 13.16)	4	5	5	3	2	0	4	0
7F-09699: CALAC+ (S. America, Annex 13.17)	5	4	4	5	0	2	0	4
7F-09748: IGGE (Egypt, Annex 13.18)	5	5	5	5	2	2	2	2
7F-09862: Fonseca (Honduras, Annex 13.20)	3	4	3	3	1	0	2	2
7F-10511: MASAP (Southern Africa, Annex 13.1)	5	-	-	-	2	0	2	0
Part C: Additional projects investigated through interviews.								
7F-07194: Blue Peace (C. Asia, Section 3.7.2)	-	-	-	-	3	0	2	0
7F-08933: CCAC support (global, Section 3.7.2)	6	-	-	-	0	3	0	4
UR-01115: Polog (N. Macedonia, Section 3.7.2)	5	-	-	-	3	2	4	0
Sample size (Parts A-C)[24]	30	25	25	25	28	14	28	14
Mean score (Parts A-C)	5.1	5.3	5.0	4.9	-	-	-	-
Mean score (Part A only)	5.3	5.6	5.2	5.2	-	-	-	-
Mean score (Part B only)	4.5	4.8	4.7	4.4	-	-	-	-
Average TP or RM (Parts A-C)	-	-	-	-	3.0	2.3	3.0	2.3
Average TP or RM (Part A only)	-	-	-	-	3.3	2.7	2.5	2.2
Average TP or RM (Part B only)	-	-	-	-	2.2	1.8	3.6	2.4

[19] Design quality for Phase 3 (2017-2021).

[20] Effectiveness scores for Phase 3 outputs: range 4-6, mean 5.2, median 5.

[21] Impact scores for Phase 3 outputs: range 5-6, mean 5.4, median 5.

[22] Sustainability scores for Phase 3 outputs: range 5-6, mean 5.6, median 6.

[23] Design quality was assessed for PRRD as moderate (score 4) for Component 1, good (score 5) for Component 2, and excellent (score 6) for Component 3.

[24] Missing data and cases where RM = 0 ('not targeted') are excluded from sample sizes for the purposes of calculating means, medians and averages. See Annex 8 for details.

Efficiency

Notes on efficiency were made from all relevant sources in completing the PRF for each project. Satisfactory (moderate to excellent) levels of operational efficiency were stated or inferred for 24 of 27 projects and several showed evidence of high value for money. One (7F-08037: IHCAP) was considered to have remarkably high efficiency considering the complexity of the project. Three of the 24 projects had delayed starts, and all projects that were operative in 2020 and 2021 were impacted to some extent by the Covid pandemic, but all reacted appropriately to these circumstances. One (7F-06524: BEEP in India) made slow progress due to its reliance on government processes. Another (7F-07646: SAMP in Southern Africa) seemed patchy both in efficiency and value for money. Finally, two projects experienced significant security difficulties: 7F-09567 (Resilience in Myanmar), which was closed early, and 7F-07817 (Microhydels in Pakistan). Portfolio-wide value for money is thought to be high overall but could not be estimated reliably.

- **Overall assessment of efficiency: good**.

Coherence

Notes on coherence were made from all relevant sources in completing the PRF for each project. Satisfactory (moderate to very high) levels of coherence were described for 18 of 25 projects. More limited (weak, late or questionable) levels of coherence were described for the others, but without any pattern being visible in their distribution by theme or geography.[25]

- **Overall assessment of coherence: moderate**.

3.5.2 Contribution narratives

One way to make use of the details available in several related projects or in multiple phases of an evolving project is to fold them into a contribution narrative. This approach can help to explain how all the contributing efforts add up to a real change in environmental or social conditions over the years. The narratives can also be used to communicate the value of aid expenditure to a general audience[26]. Highlights from three[27] of these narratives follow, with details in Annex 9.

- **Mongolian pastoralists and grasslands**. These projects[28] add up to an excellent example of community-based resource management for sustainable and locally-beneficial outcomes in partnership with government. Together they showed very high design quality, excellent effectiveness, impact and sustainability, and high transformative potential, especially for adaptation but also for mitigation.
- **African smallholders and farming systems**. These projects [29] accelerated improvements to crop plants and their ability to cope with environmental change. They also promoted climate-smart cultivation, sustainable agroecology systems, risk-

[25] An earlier study of the Finnish aid portfolio concluded that donors found it rather hard to collaborate closely in identifying, formulating and managing interventions routinely, which was reflected in low scores for this aspect of performance (Caldecott *et al*., 2010).

[26] Annex 11 contains information on project partners, purpose, relevance (to partners, to the SDGs, to the CC response and to other development objectives), narrative overviews, and observations on efficiency, coherence, replicability, partnerships, connectedness (factors largely beyond project control, such as the impact of Covid-19), cross-cutting themes (such as gender and social inclusion), capacity building, and related projects, studies and context, plus a full bibliography. These would reward attention as a resource for other analyses and contribution narratives, and for adding content to training courses and help systems.

[27] The maximum number that could be done with available evaluation resources.

[28] 7F-09484, 7F-03461, 7F-06231.

[29] 7F-03316, 7F-00404, 7F-08780, 7F-08781, 7F-01324, 7F-07646, 7F-10511, 7F-07807, 7F-08531.

sharing, and marketing arrangements to reward innovation and promote replication. Their design quality, performance and transformative potential for adaptation were high overall, and together they illustrate the application of important experimentalist governance and integrated risk management approaches.

- **Biocultura and 'Mother Nature' in Bolivia**. The several phases of this project[30] promoted sustainable use of ecosystems with peasant and indigenous communities. They also: (i) contributed to a framework law that defined national climate policy; (ii) validated traditional Andean knowledge systems for adaptation, biodiversity conservation and poverty reduction; (iii) helped to improve household incomes, food security and nutritional diversity; (iv) promoted sustainable management of natural resources in community territories and national parks; and (v) helped improve governance of natural resources. Its design and performance were excellent, and many of its effects were empowering and irreversible.

3.5.3 The utility of small actions

The Small Action Global Credit budget lines add up to only 0.1% of total SDC expenditure on climate change. They were nevertheless of interest because previous studies of other aid portfolios[31] had concluded that small grants managed by local offices or embassies can be beneficial in the following ways: (i) for piloting, testing and demonstrating new ideas, (ii) for training and networking, and (iii) for reacting to unexpected local opportunities.

Few details on these small actions were available in the documents provided to the evaluation. Enquiries were therefore sent to SDC offices responsible for some of the largest clusters of these small actions[32]. The responses received are summarised in Annex 10 and showed that small actions usefully complement larger-scale action with the following examples:

- 23 distinct and diverse actions each fitted into the GP CCE programme in India and Bhutan, the grants steadily increasing in size between phase 1 and 4 as the effectiveness of the mechanism was proven;
- training was delivered on how to build CCA and DRR measures into SDC projects in the Asian region, along with support for specific conferences, workshops and hazard mapping exercises;
- important anti-desertification studies were conducted in Mongolia on glacial cryosphere and surface/groundwaters, landscape fire monitoring, GHG emission reporting and wetland conservation;
- a CEDRIG-based process was launched in Zimbabwe to support SDC's policy cascade on CC and DRR, including HIV/AIDS and food security;
- a call for proposals in Tajikistan proved a successful model for mobilising diverse initiatives on irrigation, climate-smart farming, ecosystem restoration, bioremediation and household energy efficiency; and
- a strategically important study was commissioned on how resource-rich low- and middle-income countries can align their development goals with the global need to phase out fossil fuels.

In addition, small projects were noted as having important roles in several large SDC projects. For example, in project 7F-06872 (NCP in North Macedonia), 35 small projects were implemented by local communities, saving energy costs, raising awareness on

[30] 7F-05448.

[31] e.g. Finnish (Caldecott *et al*., 2010); Norwegian (Caldecott *et al*., 2013), Danish (Caldecott *et al*., 2021).

[32] 7F-09271 (India), 7F-10002 (Asia regional), 7F-04319 (Mongolia), 7F-02102 (SADC), 7F-01791 (Tajikistan), 7F-09656 (unspecified developing countries), 7F-08113 (Myanmar), 7F-00805 (Pakistan), 7F-02233 (Chad), and 7F-03132 (Nepal).

sustainability, and organising organic farming cooperatives. Additionally, in project 7F-05450 (TABI in Lao PDR), small projects were used to develop options and systems for agrobiodiversity-based livelihoods and viable value chains. Although funded from project budgets, these tend to confirm the utility of small and responsive funding arrangements in delivering effective support at the grass-roots level.

- **Overall assessment of the role of small projects: high value for experimentation, rapid response and delivery to grass-roots beneficiaries.**

3.5.4 Comparison with other portfolios

Previous studies have shown that effort invested in achieving good design quality tends to be rewarded by better performance[33]. In the SDC case, overall design quality received average scores rounded to 5, while the three key dimensions of performance (effectiveness, impact and sustainability) for all projects also received average scores rounded to 5. For comparison, using similar techniques to evaluate 35 projects in the climate change mitigation portfolio of Danida, the aid arm of the Danish Ministry for Foreign Affairs, average design and performance scores rounded to 4, meaning 'moderate'. In that case, comparing the findings with a 25-year Danida programme in Nepal and a previous review of 50 diverse non-Danish (mostly Finnish, UK and EU) aid interventions worldwide, "the whole portfolio was found to be designed and implemented to higher than global standards and about as well as would be expected of a set of Danish interventions." (Caldecott *et al*., 2021: 34). Yet here it was found that the SDC CC portfolio since 2015 was, on average, designed and implemented to even higher standards. This finding is broadly consistent with the appreciation of partners expressed during interviews, but as noted in Section 3.4, there is some variation within this positive macro-level picture.

- **Overall comparative assessment: the SDC portfolio had higher average design and performance scores than other portfolios assessed using similar methods**.

3.6 Answering EQ 5: Transformative potential of projects

3.6.1 Intended transformative potential

EQ 5 asks about the extent to which SDC CC projects contribute to potential system transformation. As noted in the Inception Report, this can be defined as anywhere between complete system change ('hard' transformation) and moderate reform ('soft' transformation). There is wide-ranging literature on the subject. Some papers explore the leverage points where interventions can influence system change (Abson *et al*., 2017), and others call for re-thinking of all relevant evaluation criteria (Patton, 2020). It is at least clear that *complete* system change requires many things to happen in a connected way, resulting in sustainable relationships among people and with nature. To reach this high bar requires a concentration of informed insight and design effort, appropriate technical input, trust and influence, adequate resources, and consistent purpose among all actors.

The Climate Investment Funds (CIF) tried to define ways to evaluate the transformative effects of CCA and CCM interventions (CIF, 2020, 2021). They created a hierarchy of early, interim and advanced signals of system change[34] that help define the evidence used here

[33] "It would be reasonable to expect design quality to affect performance, even though other factors will also do so. If the scores for design quality and performance are compared across all the 43 components for which both are available, they are indeed positively and significantly correlated ($\sum di2 = 2{,}661.5$, $rs = 0.995$, $t = 11.137$, $p > 0.001$). These findings help confirm that the performance of aid portfolios can be enhanced by applying sound design principles [and] implies that it is feasible through better design to improve aid performance per unit cost to the public." (Caldecott *et al*., 2017: 50).

[34] CIF (2021) defines a transformation' as "a fundamental change in systems relevant to climate action with large-scale positive impacts that shift and accelerate the trajectory of progress towards climate neutral, inclusive, resilient, and sustainable development pathways". The same source offers generic signals for system change:

in assessing sustainability. Assessing transformative potential (TP) takes this one step further and beyond the project itself. It does so firstly by considering the whole target system, such as an economic sector or populated landscape. It then considers whether changes induced by the project would tend to result in system-wide changes in its strength (for CCA) or GHG emissions (for CCM). [35] Thus, signs (or outcome indicators) were sought of measures such as systemic, policy and capacity changes that would be expected to contribute to CC-relevant transformative outcomes. It is only reasonable to assess this for projects in which SDC intended to achieve CCA and/or CCM, as indicated by the Rio Mark. These SDC projects were estimated to have an average TP equivalent to 'high' for adaptation, and on the high side of 'moderate' for mitigation.

- **Overall assessment: SDC projects have good transformative potential where the Rio Marks indicate that this was intended, especially for adaptation**.

3.6.2 Unintended transformative potential

The following projects were assessed by the evaluation as having TP for mitigation, even though they had been Rio Marked as 'not targeted' for this.

- **Project 7F-05409: PACC in Peru**. This pioneering, exemplary project laid the foundations for Peru to recognise the climate change threat by promoting legislative change and developing national strategies to safeguard strategic ecosystem services through catchment management and enhanced nutritional and food security through agroecology. Promoting ecosystem protection and agroecological farming implies net carbon capture recognised in **moderate** TP for mitigation.
- **Project 7F-05448: Biocultura in Bolivia**[36]. This helped strengthen laws, accountable governance and planning at all levels, in favour of adaptation and mitigation by excluding open-access regimes of exploitation and encouraging more accountable decision-making, especially in the vulnerable Andean region. It is recognised as having shaped key parts of the Bolivian position on climate change. Promoting ecosystem protection in line with local interests implies net carbon capture that was recognised in **high** TP for mitigation.
- **Project 7F-09484: Green Gold in Mongolia**[37]. This consolidated two long-running multi-phase projects on animal health (7F-06231) and pasture health and governance (7F-03461). It enabled pastoralists to manage and monitor their own herds and rangelands and become stronger in protecting and advancing their own collective interests in ways that are strongly adaptive to changing biophysical circumstances. Promoting pasture ecosystem protection and restoration in line with local interests implies net carbon capture that was recognised in **high** TP for mitigation.
- **Project UR-01115: Polog in North Macedonia** (Annex 7, Part 1). In this project, SDC, SECO and UNDP cooperate to set up a resilience network of ten municipalities, to engage with studies of sediments and landslides, flood risk management planning, restoring river beds and landslide-prone areas, developing policy, building early warning systems and public awareness, and seeking inter-ministerial cooperation on

(a) early signals include the adoption of systems approaches, the identification of barriers to system change, and the integration of programming areas; (b) interim signals include progress on overcoming barriers across relevant arenas, enhanced governance structures, and new policies, regulations, planning processes, financing structures and infrastructure; and (c) advanced signals include major changes in planning decisions, uptake of incentives, budgetary allocations, levels of awareness, consumption patterns, and the availability of improved technology.

[35] Note D in Annex 5 specifies ways to identify and assess TP for adaptation and mitigation, and highlights issues of speed, scale and institution in the transition from transformative *potential* to transformation itself.

[36] The contribution narrative *Biocultura and 'Mother Nature' in Bolivia* (Annex 9 Part C) explores the project's transformative influence and its roles in CCM by promoting forest conservation and the Rights of Mother Earth.

[37] The contribution narrative *Mongolian pastoralists and grasslands* (Annex 9 Part A) explores the project's significance for CCA and the importance and replicability of the 'living resource user group' approach.

flood risk. Promoting riverine ecosystem protection and restoration in line with local interests implies net carbon capture that was recognised in **moderate** TP for mitigation.

- **Project 7F-07312: PRRD in Bolivia**. This systematically built capacity for emergency response at national and departmental levels, promoted understanding and preparation for climate change and other risks at all levels of society, and promoted a 'culture of resilience' at all government levels and across the university system. **Some** TP for mitigation was recognised because PRRD strengthened Bolivian understanding of the link between anthropogenic climate change and the disasters to which it is exposed, and therefore strengthened the country's voice in demanding CCM action at the global and regional level.
- **Project 7F-08780: SASA in Southern Africa**. Implemented by the African Centre for Biodiversity, this promoted policies favouring small farmers. Such policies ensure their representation, and open policy spaces for seed diversity and agroecology through farmer-managed seed systems, farm input subsidy programmes and networks across the SADC region to build capacity, awareness and confidence in agroecological farming. Promoting agroecological farming implies scalable carbon capture that was recognised in **some** TP for mitigation.
- **Project 7F-08781: SKI in Southern Africa**. Implemented by Biowatch in consortium with other African NGOs, this promotes informal seed systems and improving those preferred by farmers through agroecological farming. It is an approach to sustainable and restorative farming that marries traditional land husbandry with the introduction at community level of modern ecological understanding and new techniques and crop mixtures. Promoting agroecological farming implies scalable carbon capture that was recognised in **some** TP for mitigation.

In addition, there was one project (**7F-06524 BEEP in India**) where **moderate** TP for CCA was detected, even though it was Rio Marked as 'not targeted' for adaptation. This project developed and disseminated knowledge and technology to improve building design and thermal management systems among sector professionals and institutions. It contributed to new government building codes and developed compliance tools while also delivering public outreach activities nationwide. TP for adaptation was recognised because design principles and technologies introduced by BEEP increased the resilience of built environments and their occupants to heat waves and power cuts, which is an adaptive system change.

- **Overall assessment: the full transformative potential of SDC's climate change portfolio is not being fully expressed using Rio Marks, especially for mitigation**.

3.6.3 Complete system change

Regardless of the intention expressed in their Rio Marks, five SDC projects showed complete system change to be well under way according to descriptive criteria in Section 3.6.1:

- **Project 7F-05448: Biocultura in Bolivia** (see Section 3.6.2).
- **Project 7F-09484: Green Gold in Mongolia** (see Section 3.6.2).
- **Project 7F-05450: TABI in Lao PDR**. This explored livelihood options using the rich resources of agrobiodiversity, non-timber forest products and traditional knowledge of the Lao uplands, while engaging local people in clarifying tenure and planning the use of their village lands and forests in ways recognised by the state. It stabilised shifting cultivation systems and was quickly upscaled to exert a wide influence.
- **Project 7F-09439: Malteser in Myanmar**. This built capacity among local disaster management authorities and communities through training and participatory exercises in disaster risk assessment, planning and emergency preparedness, while also promoting community adaptation planning and mangrove restoration activities.

- **Project 7F-06872: NCP in North Macedonia**. This promoted innovative training and knowledge management at a sub-national planning institution and among associated municipalities. At the same time, it promoted sustainable agriculture, ecotourism, nature conservation research, education, pilot projects and Natura 2000 protected areas, integrated forest management for climate change, water and biodiversity values, and public awareness.

Three others were thought to be showing early signs of similar transformative effect:

- **Project 7F-07312: PRRD in Bolivia** (see Section 6.3.2).
- **Project UR-01115: Polog in North Macedonia** (see Section 6.3.2).
- **Project 7F-09849: IWRM-K in Kosovo**. This focuses on building capacity among all relevant institutions through engagement with leadership, planning, technical innovation, legislation, training and public participation to implement the 'gold standard' EU Water Framework Directive by paying holistic and effective attention to surface and sub-surface water systems throughout Kosovo.

In all eight cases, local people were being encouraged and enabled to empower, organise, and educate themselves, have increased confidence in their traditional knowledge, and manage resources for their own benefit. Moreover, local and national governments were supporting or at least consenting to these changes. It is easy to imagine that the target systems would be irreversibly altered by a few years or phases of this kind of support. The fact that this can be said of so many of the projects sampled is a strong endorsement of the portfolio.

- **Overall assessment: SDC is achieving complete system change in a significant proportion of its portfolio**.

3.6.4 Sources of transformative potential

As noted in Section 2, the thematic analysis of findings in Annex 13 led to some clear themes being recognised. Among them was a large group of projects which, although diverse, showed clear signs of having applied an NCbS approach. This is defined in Annex 11, along with details of its relevance to CCA and CCM, private sector engagement and poverty reduction. These projects typically involve collaborating with communities in taking charge of and protecting, restoring or otherwise managing the ecosystems upon which they depend for environmental, food and water security. Projects with these features are described as nature-based solutions (NbS) or community-based solutions (CbS).[38] Taken together, they are now widely recognised as key to addressing the 'triple challenge' of climate, biodiversity and poverty. They are seldom easily divided in practice, however, because communities depend on ecosystems and must usually be involved if ecosystems are to be managed sustainably. This is why the evaluation uses NCbS to describe the overall approach, key points of which are as follows.

- It can take many forms but always treats ecosystems with respect and knowledge, appreciates the benefits that they bestow on people, and seeks to understand, protect and restore them in line with the interests of people who depend on them.
- It can be used in CCM because natural, managed, and farmed ecosystems absorb carbon from the air and store it in a dynamic way.
- It is particularly important in CCA because ecosystems with strong vegetation cover and root systems can enhance environmental, food and water security.
- It offers opportunities for private sector engagement across various scales, from village

[38] Both NbS and CbS can be applied to CCA and CCM (IUCN, 2021; UNDP, 2021; Miles *et al*., 2022; UNEP, 2022). Applied to adaptation, NCbS approaches are increasingly common in developing country NDCs (Caldecott, 2021).

enterprises in ecotourism, farming or fishing to the largest continental risk-sharing mechanisms that buffer investors against climate-related shocks.

- It offers enabling conditions for poverty reduction by enhancing physical security, ensuring the uninterrupted supply of food, water and raw materials, and creating new opportunities among the SMSEs that are the primary vehicles for poverty relief.

As noted, many of the projects were assessed as having 'high' or 'very high' transformative potential. Many also seemed to have taken what could be described as an NCbS approach. A question that arose during analysis, therefore, was whether the two observations were related to one another. This was examined by separating the projects with obvious NCbS features (Part A in Table 1) from those without (Part B in Table 1). The latter group included projects focused on seeds and germplasm, disaster preparedness, or risk-sharing. These made use of 'nature' (e.g. in the form of genetic material) and were important complementary approaches, but they lacked a strong element of on-farm ecosystem management. Hence, for the purpose of analysis, they were considered as community-based but not ecosystem-based and therefore not 'nature-based'.

Having made the distinction in this way, the projects in Part A and Part B in Table 1 were compared. It was found that:

- **the 'NCbS' group had slightly higher mean design and performance scores than the 'non-NCbS' group**, with all rounded to 'good' except for sustainability, where the difference was between 'moderate' (Part B) and 'good' (Part A); and also that
- **the 'NCbS' group had notably higher average transformative potential for CCA and CCM than the 'non-NCbS' group**, being 'high' rather than 'moderate' for both.

The slightly higher design and performance scores for NCbS projects, and the notably higher ones for TP, probably reflect the evaluation team's stronger appreciation of NCbS values in CCA and CCM than prevails within SDC itself. In other words, the CC role of the projects was being under-reported by SDC staff, a similar conclusion to that reached in Section 3.6.2.

Other significant sources of high performance and/or high transformative potential were identified in the sample and are therefore considered to represent strengths in the SDC portfolio. Taken together, they are as important as the NCbS approach and may be more appropriate in many contexts. In addition to strengthening the capacity of urban centres to absorb people displaced by environmental change, which was mentioned by interviewees but was not found in the project sample, these other portfolio strengths especially concern:

- **Examples involving selecting, developing and distributing germplasm resources that enhance on-farm resilience and food security:**
  - **Project 7F-05450: TABI in Lao PDR** (see Section 3.6.3).
  - **Project 7F-08780: SASA in Southern Africa** (see Section 3.6.2).
  - **Project 7F-08781: SKI in Southern Africa** (see Section 3.6.2).
  - **Project 7F-01324: PABRA in Africa**. This brought beans, micronutrient fortification and nitrogen fixation to the seed and small-farming initiative, supporting crop diversification and improved productivity and nutrition, with a strong emphasis on gender equity. It produced system-wide strengthening effects at the community level and at the continental scale by way of replication and amplification through policy influence and partnerships.
- **Examples involving improving water system management holistically, including catchments, springs, rivers and floods**:
  - **Project 7F-09849: IWRM-K in Kosovo** (see Section 3.6.3).
  - **Project 7F-08037: IHCAP in India**. Addressing destabilised glacial and permafrost systems across the Himalayas, the project promoted knowledge exchange on climate change and adaptation between states and with the national government,

built state government capacity for vulnerability assessment and adaptation planning, and facilitated training in glaciology and groundwater catchment management.
    - **7F-09038: SWPM in Ethiopia**. This rehabilitated degraded rangelands, restored aquifers and water sources, and diversified pastoralists' sources of income, while promoting cooperation between customary and government institutions and NGOs. It improved environmental and food security in various ways, but also attracted in-migrants that compromised its sustainability.
- **Examples involving sharing and reducing environmental risk through insurance and knowledge exchange on grassroots resilience**:
    - **Project 7F-07807: R4 in Southern Africa**. This offered small farmers integrated risk management in insurance, credit, savings, and market and climate information. It increased beneficiaries' biophysical resilience by promoting conservation agriculture, crop diversification and use of adapted seeds, and their livelihood resilience by encouraging and enabling savings and risk sharing, while lowering barriers to careful investment.
    - **Project 7F-08569: African Risk Capacity** (see part H3.4 in Annex 13.9). This is an established disaster risk mitigation and transfer system with a built-in private sector reinsurance element covering 13-14 African Union countries. Its drought insurance and new insurance products for flood and tropical cyclones enhance the safety nets of smallholder households and thus contributes to food security in Africa. It synergises with the approach explored by project 7F-07807 (R4), and offers scaling up to continental level, which is already underway through projects 7F-10890 and 7F-10484.
    - **Project 7F-08531: RVAA in Southern Africa**. This encouraged SADC member countries to share knowledge and prepare standardised national vulnerability assessments while creating platforms to support responses to acute food insecurity crises. The focus was on the analysis of vulnerability and threat, rather than promoting adaptation through climate-smart farming or community-based security improvements.
- **Examples involving promoting the hardening of rural infrastructure and adaptive changes to building codes in rural and urban settings**:
    - **Project 7F-06524: BEEP in India** (see Section 3.6.2).
    - **Project 7F-09439: Malteser in Myanmar** (see Section 3.6.3).
- **Examples involving mobilising communities in rural or urban settings to promote self-defence against floods, fires, pollution and other threats**:
    - **Project 7F-10341: LFMP in the Western Balkans**. This has an excellent design and represents growing regional cooperation to promote community-based landscape fire management. The aim is to slow the degradation of forests so that people, wild species and ecosystems can adapt to new environmental conditions, while safeguarding ecological service functions and reducing the net rate of forest loss and GHG emissions.
    - **Project UR-01115: Polog in North Macedonia** (see Section 6.3.2).
    - **Project 7F-09699: CALAC+ in Latin America**. Partnered with the Climate and Clean Air Coalition CCAC (see project 7F-08933 in Annex 7 Part 1), this mobilised authorities, public opinion, investment and technologies to reduce soot pollution from public bus fleets (through filters and substitution by electric vehicles) and other diesel engines in Santiago, Bogotá, Lima and Mexico City.

3.6.5 The role of co-benefits

One important factor in all the above is the idea of **co-benefits**. These are sometimes thought of as being secondary, relatively minor, 'bonuses' that come with an intervention where 'real' benefits are sought. But it is better to think of them as **co-equal benefits** that just happen to be measured in different units. It is not possible to measure mitigation meaningfully in the same units as adaptation, or either in the same units as biodiversity or human rights. Hence it is necessary in decision making to list all those that are important to existing policy aims, such as the SDGs, and at least rate them as more or less 'important' to those aims.

The evaluation team considers that deliberate targeting of multiple 'important' aims for each project should be the norm, and that no project should proceed if only one benefit is measurable and all the others are ignored. Rather the default should be a balanced appreciation of all the benefits available. In a climate change response portfolio, if significant mitigation benefits can come from a project that offers important and diverse adaptation benefits, that should be preferred unless there are clear reasons why not. The idea of **multiple co-equal benefits being at the forefront in all decisions** is key to: (i) addressing thematic complexity, (ii) exploiting synergies in the nexus of humanitarian affairs and sustainable development, and (iii) appreciating the role of the NCbS approach in meeting the 'triple challenge' of climate, biodiversity and poverty. This principle should be central to all SDC operations, however, not just to the CC portfolio.

3.6.6 The role of the GPCCE

A final point is that the evaluation was not able to explore the whole SDC CC portfolio. There are gaps in coverage that were only partially corrected by interviews. One such is the full scope of the GPCCE, which can be seen as the lead mechanism for SDC's specific climate response. This has been developing its mitigation portfolio on the reasonable grounds that 'the best kind of adaptation is mitigation'. Thus, in 2015-2020 GPCCE spent at least CHF 34.4 million on a number of initiatives that were primarily focused on mitigation. These included: (i) **global energy efficiency projects** (e.g. 7F-08543); (ii) **national energy policy projects** (e.g. 7F-10053 in India); (iii) **clean air and low-carbon city projects** in Latin America (7F-10220, and 7F-09699 CALAC+ - Section 3.6.4), India (7F-10093) and China (7F-09802, 7F-08226); (iv) **global clean air and climate actions** (e.g. 7F-08933: Support to CCAC - Annex 7 Part 1); and (v) **construction sector energy efficiency projects** (7F-09918, 7F-08527, 7F-10301 in China, 7F-08527 in Cuba and India, and 7F-06524 BEEP in India - Section 3.6.2). Few of these are assessed in detail here, and all such investments can be assumed to be vital tools in the overall climate change response, generating benefits in terms of SDG 13 (CCM) as well as other SDGs including 1 (poverty), 3 (health), 7 (energy), 8 (employment) and 9 (industry).

3.7 Answering EQ 6: Capacity and partnerships

3.7.1 Mainstreaming and capacity

EQ 6 asks about the extent to which the institutions and instruments used by SDC are conducive to the well-planned delivery of strategically-effective CC response projects. Since the strategically effective use of aid instruments is largely covered under EQs 1-5, EQ 6 was interpreted to focus on the capacity of SDC and its partner institutions to achieve CC-relevant changes. Thus, the partnerships that SDC uses to deliver, develop, conceptualise and learn from some of its projects, and also to go far beyond the project modality, are considered in more depth below.

Since a policy priority of SDC is to mainstream CC-relevance and purpose within its portfolio, it was necessary to consider the fact that mainstreaming and capacity are deeply connected. This is because mainstreaming can support the design and delivery of

strategically effective projects. The European Commission defines mainstreaming as “the process of systematically integrating a selected value/idea/theme into all domains of the EU development cooperation to promote specific (transposing ideas, influencing policies) as well as general development outcomes.” (EC, 2016). This evaluation similarly defined it as building attention to an issue or approach into all the standard operating procedures of an institution so that it cannot easily be neglected in anything that the institution does.

The issue of mainstreaming was investigated through interviews in the Capacity and Partnership Study, which were designed to capture relevant implicit knowledge with which to help shape the recommendations. A key issue was revealed concerning access to useful knowledge (strategies, guidelines, digital resources, help desks, advisers, etc.) by those designing and implementing projects. The need to maintain the confidentiality of sources and the qualitative nature of interview data means that the evaluation relies on anonymous findings, as given in Box 1. These are indicative but serve to highlight areas where attention might usefully be focused.

Some suggestions for potential ways forward are also given in Box 1. As noted in Section 1, SDC's Fit for Purpose 2030 review has paralleled this evaluation and has been addressing overlapping areas of concern and interest. To judge from the internal SDC memoranda seen by the evaluation, these include the ideas of: (i) convergent and synergistic action; (ii) much improved communication and cooperation among different SDC departments and actors; (iii) stronger thematic expertise to advance work at the nexus of humanitarian aid and sustainable development; and (iv) more complete human resources at the regional level, in line with the principle of enhanced subsidiarity. Many, if not all, of the issues noted and suggestions made in Box 1 will be familiar to those undertaking the Fit for Purpose 2030 review.

Box 1: Issues of SDC Capacity

1) Barriers to knowledge flow. SDC has adopted 'knowledge generation and management' as a pillar of its cooperation strategy, but there seems to be no consensus on how to do it most usefully. Barriers to horizontal flow are reported to include a persistent tendency to work in specialist 'silos', which blocks lateral communication and stifles initiative. Barriers to vertical flow are also described in the sense that much of the knowledge generated by the valuable interchange between SDC staff, project partners and outside institutions like universities cannot filter upwards, slowing the institution's development and strategies. Further complicating the matter is that SDC is frequently described as both very hierarchical and very decentralised.

- **Comments and suggestions**. There is a need for the institution's leadership to embrace a culture of learning and sharing, including finding ways to encourage and enable staff to record and share their own mistakes and learning experiences without prejudice.

2) Understanding of systemic and thematic complexity. Some observers noted an excessive reliance on digital platforms without adequate attention to a deeper understanding of systemic **and thematic** complexity (i.e. the political economy and biophysical interlinkages among all the SDGs and their practical implications).

- **Comments and suggestions**. An educational process may be needed, involving the transfer of core knowledge on unfamiliar topics (including ecology in the case of climate change), the deliberation of implicit knowledge (i.e. experience, insight and considered opinion) and a case study approach.

3) Knowledge products, platforms and networks. Numerous thematic platforms and networks have developed knowledge products. Some observers find that there are too many such platforms to be helpful and advocate a consolidation and streamlining process around some key over-arching priorities.

- **Comments and suggestions**. Digital platforms need a user-friendly portal with a powerful search function that covers all SDC projects, regions and domains, and that provides access to explanatory learning paths on key topics relevant to thematic complexity.

4) CEDRIG. Comments by interviewees included: "CEDRIG is good for projects once they have been designed, but could be upgraded to support improved design."; "There is no monitoring framework to

ensure that whatever is decided upon using CEDRIG is actually implemented."; "Its chief strength is that it forces you to think about the project more than you would otherwise. Its chief weakness is that you can only go through the analysis if you already know the project."; "CEDRIG is good for project identification and due diligence on vulnerability and impact, but wasn't designed for implementation."; "CEDRIG helps one think; it helps one not to forget anything. It flags issues for further study, help and/or consultation. It isn't perfect and must be improved and there are topics missing from the start."; "Integrating best practices with CEDRIG without creating additional work could be a way forward."; "Last time I used CEDRIG you could kill it with the first question: is the project relevant?"; "CEDRIG did not ask us to think in new ways or do something new ... We already knew the answers."; "We are very appreciative of SDC for developing CEDRIG.".

- **Comments and suggestions**. At the start of the evaluation, it was hoped that this tool would offer an excellent platform that could be enriched with more organised knowledge on ecology, climate, project design, case studies, etc. and become the go-to automated help-desk for all questions that might arise. Mixed reviews by diverse users do not rule out this possibility but do not encourage expectations that it can be done easily. The balance of opinion seems to be that an improved CEDRIG would be useful, but mainly as a check-list to complement knowledge available from other sources, notably regional thematic advisers.

5) Promoting informed policy dialogue and decision-making within programmes. SDC has a strong capacity to integrate knowledge in support of informed dialogue and decision-making, especially at the sub-national level. Transfer to the national level is often constrained, however, as seen in Peru and Bolivia due to political ignorance and instability, resource and capacity issues, and weak long-term planning.

- **Comments and suggestions**. Information sharing between projects within countries and regions is not always happening enough to allow ways around blockages to be found. This suggests that effective regional advisers are needed to ensure maximum flow, flexibility and synergy across each regional programme (see point 13).

6) Collaborating with permanent institutions. SDC is committed to promoting university research activities that encourage the linking up of Swiss and local universities. This collaboration helps retain and deepen knowledge at permanent institutions in the country. It also promotes triangular cooperation, which is crucial to training. Excellent examples of partnerships with Swiss universities include those with Bern (CDE and HAFL), and strong relationships with university systems in developing countries are noted in Annexes 13.1 (7F-08781 SKI in Southern Africa), 13.2 (7F-05409 PACC in Peru), 13.3 (7F-05448 Biocultura in Bolivia), 13.6 (7F-06872 NCP in North Macedonia), 13.7 (7F-07312 PRRD in Bolivia), 13.8 (7F-07368 ANFOR in the Andes), 13.11 (7F-08037 IHCAP in India), 13.13 (7F-08632 PIA-ACC in Bolivia), and 13.12 (7F-10341 LFMP in the Western Balkans).

- **Comments and suggestions**. University-SDC partnerships are of high quality and should continue to be a key part of SDC's activities. A focused assessment of the unique role, policy relevance and practical utility of university research and inter-university cooperation may be helpful to these relationships.

7) Document and data management. Notably, SDC has no internal system that requires SDC staff to upload reports and publications with protocols to facilitate effective searches. A result is that SDC finds it hard to mobilise complete records even for quite recent projects, so it is often easier to find documents through internet searches instead. Combined with an incomplete project database and weak cross-referencing between related projects in the documents provided, the evaluation struggled to obtain timely and reliable information on the portfolio and its projects, undermining its efficiency.

- **Comments and suggestions**. Targeted investment in improving SDC management of explicit knowledge would be desirable: (i) to improve knowledge capture for learning purposes (e.g. to enrich the content of digital platforms and search engines in point 3 above); (ii) to facilitate reporting on and explanation of SDC actions to interested parties (e.g. through contribution narratives); and (iii) to improve the efficiency of future evaluations.

8) Baseline, indicators and targets. Baselines on such features as deforestation and soil degradation rates, emissions of GHGs and SLCPs, and institutional capacity, are needed to justify investments and to allow monitoring and reporting on their effects.

- **Comments and suggestions**. Baselines relevant to CCA and CCM are seldom established in project documents, and provisions for doing so during the early months of a project are not always made (points also noted by SDC & SECO, 2014). These weaknesses may be addressed through guidelines that require suitable baselining.

9) Knowledge sharing between programmes. Several observers noted that not enough inter-programme learning is being conducted to compare and contrast findings, results, lessons and good practices across the portfolio through which synergies can be identified and duplication avoided.

- **Comments and suggestions**. Greater attention is needed to promote inter-programme learning, including those relevant to suggestions in points 1, 3, 4, 5, 6 and 13.

10) Developing regional capacity. SDC seeks to develop long-term partnerships within each region. They involve international and national staff, Swiss and local NGOs, national and subnational public agencies, civil society organisations (at the grass-roots and second level) and Swiss and local universities and research institutions.

- **Comments and suggestions**. These arrangements are often very effective and are to be encouraged. Facilitating them would be an important role of regional advisers (see point 13).

11) Regional institutional memory. Since SDC staff are rotated frequently (relative to the duration of multi-phase projects), institutional memory is in practice largely retained in the form of implicit knowledge by local staff who work in the country offices on long-term contracts, and whose expertise naturally evolves over time.

- **Comments and suggestions.** These arrangements are often very effective and are to be encouraged. Facilitating them would be an important role of regional advisers (see point 13).

12) Flexible approach to regional partnerships. Rather than pressuring partners to meet rigid timelines and budget deadlines, SDC applies a flexible approach to its regional partnerships.

- **Comments and suggestions**. This approach possibly has a cost to short-term efficiency, but has the merits of: (i) allowing the counterpart gradually to take ownership of the programme; (ii) adjusting the programme to changing policies, strategies and plans; (iii) committing all partners to achieve results in line with their capacities and needs; and (iv) ensuring mutual accountability for results. These features align with the principles of 'smart aid' as prescribed by the 2005 Paris Declaration. These arrangements are often very effective and are to be encouraged. Facilitating them would be an important role of regional advisers (see point 13).

13) Responding to thematic complexity at regional level. Regions have many 'moving parts' and human boundaries, as well as complex biophysical features and processes. Interviewees and other sources indicated room for further improvement in SDC capacity at the regional level.

- **Comments and suggestions**. Meeting the need for projects to call upon adequate thematic expertise at the regional level would add value and ensure that all key political, economic, ecological, institutional or procedural factors are responded to in all the processes of design and reporting. Such a role is also needed in trouble-shooting during implementation and in higher-level coordination of projects among donor and partner governments. The implication is that senior regional advisers are vital resources in terms of combining thematic, site and policy knowledge with a mentoring and coaching role to support all the actions within an SDC region.

A key point emerging from the capacity review was what seemed among interviewees to be a recognised need for additional senior regional advisers. Alternatives were discussed, and interviewees saw several as 'steps forward' or as useful 'stop-gap' measures. These options include junior SDC staff being assigned to regional roles and 'growing into them', country offices hiring local advisers on the connected themes of climate change, water and DRR, or using consultants from regional or Swiss universities, NGOs or consulting firms. Also of merit is the idea of establishing an internal inter-thematic round table in each regional hub, with focal points in the national SDC offices and close relations with other donors, and with the role of steering a more forceful climate change response. Any of these would require a thorough institutional and technical assessment focused on this particular issue to clarify options and the advantages and trade-offs involved in each option for each region.

Meanwhile, triangulating among various sources, this evaluation concluded that the fuller development of the regional adviser role would be important for the following reasons. First, with sufficient experience and seniority, regional advisers can bring knowledge of global practice and SDC priorities and procedures; they would understand and be able to provide support on thematic complexity; they would possess credibility, experience and understanding of local and regional conditions; their role would be to answer questions,

mentor, coach and advise field staff throughout project identification, formulation and implementation. And second, they would have a key role in ensuring that field experience informs global policies and policy dialogues and vice versa. Hence, they would be just as necessary to the global level as to the national and sub-national levels, being responsible for coherence between all of them. Regional advisers would also have an important role in maintaining the flow of knowledge between countries and potentially (if in contact with one another) between regions, thus also relieving barriers to lateral knowledge flow identified in this evaluation.

- **Overall assessment of SDC capacity: moderate to good; improvable in the areas of knowledge management, learning, and strengthening regional capacity**.

3.7.2 Mainstreaming and partnerships

SDC uses partnerships to amplify the impact and sustainability of its investments, whether directly (through projects), indirectly (through institutional support), or in combination. The evaluation sampled a range of project partnerships (Table 1) and institutional ones (Box 2), and identified many strengths. From the SDC side, the selection of partners and the working relationships with them appear to be exemplary. Several outstandingly powerful arrangements were noted, including those with the Pan-Africa Bean Research Alliance (PABRA), the International Centre for Integrated Mountain Development (ICIMOD), the Centre for Development and Environment at the University of Bern (CDE), the African Centre for Biodiversity (ACB), the Climate and Clean Air Coalition (CCAC), and the extraordinarily ambitious Blue Peace initiative. Partners characterise these relationships as positive and flexible arrangements that allow their strengths to be expressed to the full without undue interference by SDC, but with a high level of mutual respect and shared learning.

- **Overall assessment of SDC partnerships: excellent**.

Box 2: Notes on a sample of SDC's institutional partnerships.

Biowatch (7F-08781). Biowatch is an environmental and social justice NGO based in Durban, South Africa. In 2013 it collaborated with the University of Cape Town to prepare a policy brief on seed sovereignty and farmers' rights. SDC picked this up as it seemed to complement their work with SADC. Biowatch perceives SDC: to be interested in their work; to share a view on the CC crisis for the Earth in general and for Africa in particular; to have been thinking about CC for many years; and to support the promotion of resilience, which is critical in the face of catastrophic shocks.
ICIMOD (7F-10208, 7F-08037, 7F-09915). ICIMOD is based in Kathmandu and represents the shared interests of eight Hindu Kush Himalaya countries (Afghanistan, Bangladesh, Bhutan, Chiman, Myanmar, Nepal, India, Pakistan). It was founded in 1983 with the help of Switzerland, Germany and UNESCO. All its work concerns CCA, including on water, climate-smart agriculture, green economy, transboundary biodiversity, glaciers and GLOFs, and currently a 'Mountains of Opportunity' framework for private sector engagement in CCA. In the opinion of ICIMOD informants, SDC's consistent support of the mountain sustainable development agenda is justified by the economic and ecological importance of mountain systems but has yet to bear as much fruit as it deserves.
CDE (7F-05450). The Centre for Development and Environment at the University of Bern perceives SDC as by far the most flexible of its partners. This flexibility was vital in the TABI project, which developed Laos's wholly new community-based land-use planning process (FALUPAM). Being highly participatory and based on continuous dialogue, it was slower than more imposed settlements, and without SDC's support informants believed that it would not have been possible. CDE is now developing participatory land use-based value chains for agrobiodiversity in ASEAN that it hopes to standardise as a way to facilitate ethical investment.
HAFL (7F-06872, 7F-09038, 7F-10341). The School of Agricultural, Forest and Food Sciences at the University of Bern has long advised SDC on international forest development matters, especially in co-developing initiatives and identifying local partners, while training generations of African and Asian environmental managers. HAFL was also a key natural resources management partner of projects in North Macedonia (nature conservation), Ethiopia (pastoralist food security), and planning for

landscape fire management in the Western Balkans. It perceives the partnership with SDC as very efficient and mutually beneficial.

Swissaid (GP Food Security). Swissaid focuses on seed varieties, biodiversity, adaptation and neglected species in the context of agroecological development (to the principles of which Swissaid adds gender equality). SDC is its main institutional partner, with its core contribution funding 36% of its south cooperation. It has been working with partners in nine countries (Chad, Colombia, Ecuador, Guinea-Bissau, India, Myanmar, Nicaragua, Niger, Tanzania) for 40 years, and much trust has been built up. The partnership with SDC is based on agreed objectives and a high degree of flexibility in how they are attained, and SDC has always fulfilled this role in an exemplary manner. The partnership's agroecological approach is seen as key to CCA, and Swissaid requires all projects to formulate a CCA outcome that increases resilience. This means different things in different places, however. In India it means participatory assessment of risk and vulnerability. In Colombia it means a more ecosystem-based approach, development of new (or rediscovery and validation of old) lifeways, species, agroforestry, water management and governance systems. And in Niger, it means working on community seed banks in collaboration with academe.

CCAC (7F-08933). The CCAC was set up in 2012 to share information on short-lived climate pollutants (SLCPs), i.e. black carbon (soot), methane (CH_4) tropospheric ozone (O_3) and hydrofluorocarbons (HFCs) outside UNFCCC channels. For Switzerland, FOEN was a secondary and SDC the primary contact point (with interests in the transport sector, heavy diesel, black carbon, brick manufacturing and contributions to the Trust Fund). The CCAC Secretariat sees the strengths of collaboration with Switzerland as being that: (i) it is an active partner in helping to shape initiatives; (ii) it is willing to respond to small and specialised technical proposals; and (iii) it had a key leadership role up to 2021 in managing the difficult process of forging a new strategy agreed by over 100 members, the extension of the Coalition's mandate from 2022 to 2030, and the hand-over of the Chair to the USA. The Coalition's over-riding priority now is to implement the Global Methane Pledge.

PABRA (7F-01324). PABRA was set up with Swiss and Canadian support in 1996 (building on Swiss bean research from the mid-1980s). It is based in Nairobi and is directed by an Alliance of Biodiversity International and the International Centre for Tropical Agriculture. It is owned by countries across East and West Africa and SADC, and has the unique role of bringing research to the field through national ownership. The key feature is that the donors have created a country-led framework into which other investors can be drawn, with member countries free to determine their own priorities based on their own needs. One observer described PABRA as "a fantastic cooperation between national governments, local people and science, with equal sharing of information and equal access to materials and knowledge - like a huge non-profit market system for valuable germplasm". PABRA welcomes the fact that SDC appreciates that good research to develop investable products requires long-term partnership and also that micro-management is unhelpful. Until 2021 the SDC relationship was essentially bilateral, but SDC support is now directed via CGIAR.

African Centre for Biodiversity (7F-08780). ACB was established in 2003 to focus on biosafety, but it later broadened its approach. It undertakes research and analysis, often through participatory research with farmers' associations, and produces policy studies to support advocacy coalitions throughout southern Africa. It helps build the capacity of partner organisations and social movements for research, knowledge-sharing and advocacy for policy change. Its own advocacy work targets national, regional and international levels. It communicates its findings and opinions effectively, thus raising awareness and influencing policy decisions. Its successes have included the growth of movements (such as the Alliance for Food Sovereignty in Africa), which challenge corporate interests that threaten the livelihoods, intellectual property and self-determination of small farmers through GMOs or changes to seed diversity agroecology and traditional knowledge systems. ACB informants describe SDC as "an ideal partner: hands-off, generous, positive, and respectful".

Blue Peace (7F-07194, 7F-07689, 7F-07810, etc.). This is a diplomatic initiative to promote water cooperation across borders, sectors and generations, enhancing dialogue, using technical exchanges to leverage high-level discussion, and building capacity long-term. It has developed chapters in Central Asia, the Middle East, West Africa and globally. Each works in different ways and at different levels, and each spins off other projects (e.g. in Central Asia, 7F-08114, 7F-07833, 7F-10092 and 7F-07194 to promote cooperation on the mountain cryosphere, a core determinant for water and disaster risk management). The approach seeks engagement with complex and dynamic systems at the continental and global scale, while also addressing the lived experience of people and communities. For SDC to facilitate progress despite this complexity is exceptionally demanding.

Interviewees noted, however, that Blue Peace may be a model for development cooperation, raising the need to find partners and advisers that can deal with thematic complexity at extreme scales.

3.8 Answers to the Evaluation Questions

EQ 1: Validity. To what extent do SDC CC projects use valid approaches in seeking mitigation or adaptation outcomes?

> **Answer**. The approaches used by SDC to seek CCA and CCM outcomes are valid in principle and also in practice since, on average, they deliver well-designed and effective projects that often induce transformative changes. **Overall assessment:** good.

EQ 2: Relevance. To what extent are SDC CC projects relevant to the CC policies of all the partners involved?

> **Answer**. Projects were strongly relevant to national needs and priorities, although there was room for improvement in how the case was made in terms of alignment with international treaty commitments**. Overall assessment:** good.

EQ 3: Design Quality. To what extent are SDC CC projects designed with clarity and logic supported by evidence?

> **Answer**. Projects were designed on average to a higher standard than the global mean obtained using similar assessment methods. The use of averages conceals important detail, however, and although only two projects were found to have notably weak designs, isolated weaknesses were found in several others. They included reliance on unfounded assumptions, ineffective knowledge management, and key missing elements. These and other problems are traced to imperfections in design, most of which are easily correctable. **Overall assessment:** good**.**

EQ 4: Performance. To what extent are SDC CC projects implemented to high standards of performance?

> **Answer.** Projects delivered on average higher levels of effectiveness, impact and sustainability than the global mean obtained using similar assessment methods. Again, averages conceal important detail, and weaknesses in performance were seen that can be traced to design issues. But prevailing strengths within the portfolio are indicated by the major thematic effects of the 14 best-scoring projects, which lay: (i) in safeguarding strategic ecosystem services; (ii) in empowering local communities over land use; (iii) in promoting agroecological and resilient farming; and/or (iv) in promoting a culture and practice of resilience. **Overall assessments:** effectiveness (good); impact (good); sustainability (good).

EQ 5: Transformation. To what extent do SDC CC projects contribute to potential system transformation?

> **Answer 1**. Where SDC intended a project to achieve CCA and/or CCM, as indicated by its Rio Mark, projects were estimated to have an average transformative potential equivalent to 'high' for adaptation, and on the high side of 'moderate' for mitigation. **Overall assessment**: SDC projects have good transformative potential where this was intended, especially for adaptation.
>
> **Answer 2**. Seven projects were assessed as having transformative potential for mitigation, and one for adaptation, even though they had been Rio Marked as 'not targeted' for these respective intentions. **Overall assessment**: the full transformative potential of SDC's climate change portfolio is not being fully expressed using Rio Marks, especially for mitigation.
>
> **Answer 3**. Eight projects (including four in Answer 2) were assessed as showing strong signs of major system change because local people were being encouraged and enabled: (i) to empower, organise and educate themselves; (ii) to have more confidence

in their traditional knowledge; (iii) to manage and restore ecosystems for their own benefit; and (iv) to take advantage of the fact that local and national governments supported or consented to these changes. **Overall assessment**: SDC is achieving complete system change in a significant proportion of its portfolio.

Answer (overall). The answer to EQ 5 is that a substantial portion of the sampled portfolio contributed strongly to system transformation. **Overall assessment**: good.

EQ 6: Capacity and partnerships. To what extent are the institutions and instruments used by SDC conducive to the well-planned delivery of strategically-effective CC response projects?

Answer. The institutions and instruments used by SDC are conducive to the well-planned delivery of strategically-effective CC response projects, but there are some areas where further improvements are possible.

Overall assessment of SDC capacity: moderate to good; improvable in the areas of knowledge management, learning, and strengthening regional capacity.

Overall assessment of SDC partnerships: excellent.

4 Conclusions and recommendations

4.1 Main conclusions of the evaluation

Conclusion 1, on high standards of design, performance and transformative potential (EQs 3-5).

On average, the SDC projects showed higher standards of design and performance (effectiveness, impact and sustainability) than other portfolios assessed using similar methods. Criteria for assessing Transformative Potential (TP) had not previously been used, but in this evaluation important TP was found among projects that were intended to deliver CC benefits, whether for CCA or CCM. The 14 best-designed and best-performing projects all had major effects in safeguarding strategic ecosystem services, empowering local communities over land use, promoting agroecological and resilient farming, and/or promoting a culture and practice of resilience. These positive findings were attributed to: (i) the content of the projects themselves, which responded to local needs, conditions and opportunities; (ii) the strong and effective institutional partnerships within which the projects were designed and implemented; and (iii) the characteristic programmatic approach, with opportunities for lessons to be learned and adjustments made between each phase.

Conclusion 2, on weaknesses in design and performance (EQs 3 and 4).

Only two projects were assessed as being fundamentally weak, but others also showed isolated weaknesses that could be traced to flaws in design processes. They included: (i) a reliance on unfounded assumptions that reflected inadequate prior study and analysis; (ii) ineffective knowledge management, including on the monitoring of carbon capture and storage and the sharing of knowledge on payments for ecosystem services (PES); (iii) key missing elements, including on aspects of agrobiodiversity, PES, agroecological farming, ecosystem restoration, GHG emission baselines and records, and arrangements for operation and maintenance; (iv) weak coordination between countries, project sites, stakeholders and institutional partners; and (v) a lack of clarity on key complex issues such as gender, synergies with other projects, and potential in-migration to project areas.

Conclusion 3, on TP and high performance linked to the NCbS approach (EQ 5).

About half of the SDC projects examined involved encouraging and enabling local people to organise and empower themselves and manage local resources for their own long-term benefit. These resources include natural, harvested, grazed or farmed ecosystems, so these solutions often protect, restore and strengthen those systems and therefore contribute to environmental security (CCA) and carbon storage (CCM). The NCbS approach is

recognised as key to addressing the 'triple challenge' of climate, biodiversity and poverty, and hence the nexus of humanitarian assistance and sustainable development.

Conclusion 4, on TP and high performance linked to other approaches (EQ 5).

Strategically effective projects were found among the SDC projects that did not specifically involve an NCbS approach, and may be more appropriate in many contexts. These were based on approaches that included: (i) selecting, developing and distributing germplasm resources that enhance on-farm resilience and food security; (ii) improving water system management holistically, including catchments, springs, rivers and floods; (iii) sharing and reducing environmental risk through insurance and knowledge exchange on grassroots resilience; (iv) hardening rural infrastructure and adaptive changes to building codes in rural and urban settings; and (v) mobilising communities and civil authorities in rural or urban settings to promote self-defence against floods, fires, air pollution and other threats.

Conclusion 5, on under-appreciated project co-benefits (EQ 5).

There was evidence from eight of the 31 projects examined that the full transformative potential of SDC's climate change portfolio is not being fully expressed using Rio Marks, especially for mitigation and including several projects with strong TP. An implication is that the SDC CC portfolio is performing much more strongly than is currently being reported. This could be corrected by SDC paying more attention to reporting on the mitigation co-benefits of CCA projects and the adaptation co-benefits of CCM projects.

Conclusion 6, on institutional weaknesses (EQ 6).

SDC's strength in delivering excellent projects is mainly due to its effective presence in partner countries and target locations, but opportunities for improvement, replication and sustained impact at the regional and global levels are being missed. This is due to weaknesses that include: (i) barriers to knowledge flow, both horizontally between projects and regions, and between domains, aggravated by decentralisation, and vertically as a reported consequence of excessive hierarchy; (ii) proliferation of thematic platforms, making it hard for staff to know where to find useful information; (iii) a partial reliance on digital tools which cannot substitute for pre-existing knowledge and in-person advice in many contexts; (iv) weak systems for managing documents and data (explicit knowledge), which make it hard for SDC to mobilise complete records even for quite recent projects; and (v) loss of institutional memory, due to staff rotations and limited capture of experience and insights (implicit knowledge) from staff as they move.

Conclusion 7, on strong institutional partnerships (EQ 6).

SDC's many strong and effective partnerships: (i) operate thematically at the global and regional level, and (ii) support project delivery, networking, replication and informed policy development at the national and local level. These are typically with well-chosen institutions and are frequently sustained over many years with a 'light touch' that allows partners to fulfil their missions with little interference, leading to complementary innovative and transformative outcomes.

Conclusion 8, on reacting to rapid change.

SDC's long-term programmatic approach is excellent in delivering high-quality development cooperation but is also very slow relative to the pace of environmental change. Existing knowledge within SDC and elsewhere can be used to accelerate and improve targeting for maximum overall value for money in delivering CCA (i.e. stronger systems), CCM (i.e. reduced system-wide net GHG emissions), and co-benefits (of CCA and CCM for one another, and for gains in other SDGs). This conclusion takes into account: (i) global and regional tipping points that could commit the biosphere to a mid-century (2050 ± 10 years) climate breakdown; (ii) that for CCM, early GHG savings are worth far more in mitigation terms than later ones; and (iii) that for CCA, system-strengthening measures are urgently needed. These considerations can profoundly affect calculations of value for money and

decisions on what to invest in. They also imply that it would be desirable to build quickly on SDC strengths in CCA and CCM (including previously under-appreciated co-benefits) and accelerate their replication.

4.2 Recommendations

The evaluation's findings and conclusions imply that SDC has important strengths in delivering well-designed, well-implemented learning projects that often generate major co-benefits and induce transformative change. It is also notable that SDC often engages in effective partnerships with well-chosen educational, research, campaigning and other institutions. All these strengths should be recognised, appreciated and invested in further. The following recommendations aim to target specific areas where incremental improvements are possible with leadership and judicious, targeted investment. All are directed to SDC senior management, in the expectation that other levels will also be involved in their consideration and implementation.

1. Seek maximum institutional complementarity (based on Conclusions 1-6).
Recommendation 1. SDC should consider reaching out to SECO, FOEN and the IFIs with a view to exploring ways to maximise complementarity among their climate change response strategies.
Rationale. Climate aid is a complex subject, with multiple overlaps and uncertainties, especially in the areas of co-benefits and comparative value for money. It involves at least three main areas of work: (i) mitigation through ecosystem management and land use; (ii) mitigation through technological improvement in the main economic sectors other than land use; and (iii) adaptation through strengthening social and ecological systems against climate-related stresses and shocks. Findings of the Portfolio Study confirmed that SDC has tended to focus on the first and third of these (and Conclusions 1, 3, 4 and 7 confirm its effectiveness in doing so), while SECO has tended to focus on the second. These are very different tasks that require distinct kinds of institutional capacity. There is increasing recognition of potential synergies between these approaches, however, and all must be integrated into a balanced approach if all the NDC priorities of each partner country are to be met. Thus there are clear grounds for the two institutions (and others, such as FOEN and the IFIs supported by Switzerland, which have their own set of key roles in the climate response) to seek to maximise complementarity and synergy. Dialogue on exactly how to define, measure and achieve maximum co-benefits (in SDG terms) and maximum value for money (in mitigation and adaptation terms) would therefore be appropriate and useful. This may only be possible with SECO after it completes its own strategic review, which is understood to be only just starting. **Practical steps**. The more clearly SDC can define its own positions on achieving CCA and CCM with maximum co-benefits, value for money and transformative influence, and with SECO observing this process, the more productive the partnership is likely to become. An inclusive and transparent process, supported by experts and facilitators within and perhaps from outside the SDC system, could be used to define the SDC way of doing things and to demonstrate its exceptional value in mitigation, adaptation and co-benefit terms. In the process, ways to do the same or progressively different things better would also be defined, and dialogue with other institutions would clarify sources of complementarity and synergy.

2. Pay more attention to co-benefits (based on Conclusions 3-5).
Recommendation 2. SDC should improve its own climate change response strategy by encouraging and enabling its staff to identify, document, plan for, quantify and monitor co-benefits arising from interventions in the target systems for which they are responsible.
Rationale. This foresees SDC building on its established strengths in delivering adaptation with mitigation and other co-benefits, especially where ecosystems are involved that have multiple functions in providing carbon storage, environmental, food and water security, biodiversity protection and other goods and services. This is probably the single area where most potent and early mitigation gains are possible alongside adaptation gains and community benefits in the form of environmental and livelihood security, human rights and several other SDGs. There are, however, numerous other strengths in the portfolio, all with potential co-benefits that should be

explored and used, so the SDC strategy should also cover these. This would increase SDC's capacity to exploit synergies at the nexus of humanitarian affairs and sustainable development

Practical steps. Progress could be made by supporting research on co-benefits by SDC's university and NGO partners, defining how staff training and recruitment could be used to enhance SDC's sensitivity to co-benefits, and using policy dialogue and outreach to promote a wider understanding of co-benefits and how to obtain them.

3. Build capacity to handle thematic complexity (based on Conclusions 6-8).
Recommendation 3. SDC should consider options for strengthening its capacity to handle thematic complexity relevant to climate change, of which the one favoured here is to recruit additional regional advisers with advanced experience in complex thematic and cross-thematic disciplines.
Rationale. Considering that climate change effects and responses are thematically complex and often require regional and cross-frontier cooperation and learning, the CC response needs consistent strength at the regional level. There are several ways in which this need can be met, including internal SDC staff training and deployment, hiring local advisers on climate change/water/DRR, assigning junior SDC staff to regional roles to learn on the job, or using consultants from regional or Swiss universities, NGOs or consulting firms. Also of merit is the idea of establishing an internal inter-thematic round table in each regional hub, with focal points in the national SDC offices and close relations with other donors, and with the role of steering a more forceful climate change response. An option favoured by several interviewees and the evaluators would be to ensure that more senior experienced regional advisers are deployed to support all aspects of programming and climate aid delivery with maximum co-benefits and value for money. **Practical steps**. These might include a thorough institutional and technical assessment on how to increase capacity to handle thematic complexity in ways relevant to climate change, including the advantages and trade-offs involved in each option for each region.

4. Strengthen management of implicit knowledge (based on Conclusion 6).
Recommendation 4. SDC should improve its management of implicit knowledge (i.e. experience and insight), by encouraging and enabling its staff to seek Continuing Professional Development through: (i) sharing knowledge among those responsible for different projects and programmes; (ii) capturing lessons and best practices; (iii) deliberating on case studies and evaluations; and (iv) generating guidelines for baselining and good practice narratives for dissemination to staff and partners
Rationale. Despite its strong field capacity to deliver good projects, there are lost opportunities due to weaknesses in SDC's ability to capture and use the implicit knowledge of its own staff. This is problematic as the complexity and urgency of the climate change response demands maximum learning from experience and insight in all its detail and diversity. It also requires that systems deliberately and effectively promote knowledge sharing between units on what works and what does not in various circumstances. This is a generic recommendation that may apply equally across SDC's entire field of operations. The content of the knowledge to be shared and distilled into guidelines and baselines would however be specific to the climate change response and its co-benefits. **Practical steps**. These might include an inclusive and transparent process, supported by experts and facilitators within the SDC system (e.g. the Knowledge, Learning and Culture Division) and perhaps from outside it, to improve capture of implicit knowledge and articulate useful guidelines.

5. Strengthen management of explicit knowledge (based on Conclusion 6).
Recommendation 5. SDC should improve its management of explicit knowledge (i.e. documents and data), by investing in: (i) completing the project database and stronger cross-referencing between related projects; (ii) developing a single portal and search function to cover all SDC projects, regions and domains; and (iii) providing links and content for learning paths, case studies and contribution narratives on key topics relevant to thematic complexity.
Rationale. Despite its strong field capacity to deliver good projects, there are lost opportunities due to weaknesses in SDC's ability to manage the explicit knowledge generated through its own operations. This is problematic as finding documents swiftly and accessing advisory pathways,

deep explanations of how complex systems work in a development and climate change context, and other sources of curated knowledge is the life-blood of a learning institution that seeks steady, rapid improvement in performance. This is a generic recommendation that may apply equally across SDC's entire field of operations. The content of learning paths, case studies and contribution narratives would however be specific to the climate change response and its co-benefits.

Practical steps. These might include a study of internal management information systems and the design of improved procedures, portals and search engines, with specific content being developed with technical input from experts within and perhaps from outside the SDC system.

6. In utrumque paratus: 'be ready for anything' (based on Conclusion 8).
Recommendation 6. SDC should anticipate and prepare for new expectations and pressures that may be placed on it due to: (i) accelerating deterioration in biophysical conditions at all scales in its partner countries and within Europe; (ii) intensification of more frequent natural disasters affecting its partner countries and within Europe; and (iii) policy mandates to ramp up climate responses very steeply and quickly.
Rationale. Recommendations 1-5 aim to increase SDC's technical and institutional capacity to promote CCA and CCM, but Recommendation 6 anticipates the need to plan for additional demands due to unprecedented environmental and policy change. This takes into account deteriorating global environmental conditions reported during the evaluation by the UN Secretary General and the IPCC, and the scale of public concern expressed before, during and after UNFCCC CoP 26. In these emerging circumstances, expectations on SDC (and all responsible Swiss and other agencies) for an adequate climate response will increase. The value of long-term, slow-acting development assistance may therefore be questioned, and new mandates may require new approaches. Additional funding to be spent quickly on high-impact, high-profile mitigation and adaptation actions might also be anticipated. SDC could consider, and perhaps discuss with its partner institutions everywhere, options for how to respond to such developments. The existing Interdepartmental Coordination Platform on International Climate and Environmental Finance (PLAFICO) may offer a vehicle for SDC use in communicating findings and sharing ideas. **Practical steps**. As well as initiating dialogue with other institutions that face similar challenges, practical steps might include a focused enquiry across the whole SDC portfolio to identify the best ways to reduce net GHG emissions quickly, at large scale and least cost, and with maximum co-benefits, and how to strengthen social and ecological systems likewise. Supported by experts within and perhaps from outside the SDC system, this could also involve the development of new methods for comparative assessment and decision making.

Annex 1: Terms of Reference

Section 3 of the ToR, on goals, background, independence, objectives, scope and deliverables.

3. Goal and content of the mandate

The Evaluation and Corporate Controlling Division (E+C) of the Swiss Agency for Development and Cooperation (SDC) conducts independent thematic evaluations to gain evidence of SDC's contribution to international cooperation results. E+C is outside the operational line and submits its reports to the Directorate of SDC. This backward and forward-looking evaluation shall thereby support SDC in achieving the **objectives of the Dispatch on Switzerland's International Cooperation 2021-2024** (with the title: International Cooperation Strategy 2021-2024) and in contributing to the achievement of the **Sustainable Development Goals** as set out in the **Agenda 2030**. Ultimately, the evaluation shall formulate recommendations on how programmes and projects in Climate Change Adaptation and Mitigation may be addressed in future by SDC.

The evaluation will adapt, as necessary, to the circumstances and challenges created by the COVID-19 pandemic. That includes, but is not limited, to the following:

Evaluation object: In its analysis, the evaluation will also consider, to the degree appropriate, impacts of the pandemic on planning, implementation, management, and outcomes as well as response of the programmes and projects to the pandemic.

Evaluation implementation: Dual approach of planning for virtual and in-person interaction. The evaluation will replace in-person interactions (interviews, focus groups, field visits, target population interviews...) wherever necessary through other means, including virtual meetings and local consultants.

3.1 Background

Climate change and its impacts threaten to undo the developmental gains achieved in the past, including progress towards the Sustainable Development Goals (SDGs), the Sendai Framework for Action, and eradication of poverty (Hallegatte *et al*., 2016). The threat is particularly pronounced to disadvantaged and vulnerable segments of society, several indigenous peoples, and populations depending on agriculture as a primary source of income ([*IPCC, 2018*]).

Climate change has figured prominently in the Dispatches on Switzerland's International Cooperation from the federal council to parliament. The Dispatch on Switzerland's International Cooperation 2013–2016 listed climate change (adaptation, forest, energy) as one of nine focus areas of SDC's programmes. Climate change was not only to be integrated into the traditional bilateral cooperation but also supported by a dedicated global programme. The dispatch 2017–2020 defined climate change and environment as one of eight thematic priorities. Climate Change and the environment was also addressed through a global programme. The dispatch 2021–2024 (also referred to as International Cooperation (IC) Strategy) defines four goals, one of which is combat climate change and its effects as well as sustainably manage natural resources (environment) [Note 1]. Climate change has been prominent in all dispatches under consideration.

On the institutional level, on April 30, 2019, SDC's director general issued a memo[39] addressed to all SDC staff underlining the importance of climate change for all SDC programmes and projects. The following three specific measures were listed:

1. Foresight information about the impacts and risks of climate change, with a focus on the regions in which SDC is active, will be issued once a year for the attention of the Directorate. This information will be shared with the organisational units. It is scheduled for September for the first time and will include recommendations as the context evolves.

2. The four networks Climate Change & Environment, Res'EAU, Disaster Risk Reduction, and Agriculture and Food Security form a common cluster. The aim is to increase knowledge about the risks of climate change and about the implementation of appropriate measures. Each organisational unit at the head office will nominate representative to participate in the cluster, also with the aim of facilitating implementation of point 3. Staff from field offices are encouraged to participate as well.

[39] Message from Manuel Sager to SDC staff "Integration des Klimawandels in die DEZA / Intégration des changements climatiques à la DDC / Integrazione dei cambiamenti climatici nella DSC / Integration of climate change into SDC"

3. In the future, climate risks will be systematically incorporated into cooperation strategies. Consequently, the SDC will use the CEDRIG tool ('Climate, Environment and Disaster Risk Reduction Integration Guidance' – www.cedrig.org) when drafting the cooperation strategies (the Field Handbook and the relevant guidelines will be updated accordingly). A focal point of the cluster will participate in the Operations Committees (SC, GC, HA, CEE) to ensure the inclusion of climate risks in the entry proposals for projects and programmes.

The COVID-19 pandemic also affected climate change related activities. After disasters, often the term 'build back better' [Note 2] is used to describe a stimulus that will serve not only the goal of getting economic activities back to pre-disaster trajectories, but to use the crises as an opportunity to advance on the achievement of other goals. Similar proposals are currently advanced regarding the COVID-19 pandemic response. This approach is advocated, among others, by international institutions such as the World Bank (World Bank, 2020). The immediate response to COVID-19 is focusing on the control of the virus and dealing with the health, economic and social consequences of it. The focus is on responding to the situation, mobilising the necessary funds and directing them to those most in need. In a second phase, countries will turn to stimulate economic activities and recovery from the pandemic (Hallegatte & Stephen, 2020).

During the period 2015-19 SDC's expenditures for projects (marked as principal or significant according to the OECD-DAC terminology) in climate change (which SDC steers or co-steers) were on average 118 million per year. Around 58% of the expenditure was through the South Cooperation Domain, 31% through the Global Cooperation Domain. Figure 1 [*Climate Change Expenditures by Domain (SC = South Cooperation; GC = Global Cooperation; HA = Humanitarian Aid; CEE = Cooperation with Eastern Europe)*] provides a graphic representation of these expenditures. The highest relative expenditure in the South Cooperation Domain with respect to the overall portfolio (around 25%) was in Latin America, followed by West Africa (around 15%).

3.2 Prior involvement

No potential tenderers were involved in preparing the invitation procedure or drafting the invitation documentation. All tenderers that meet the criteria set are invited to submit a bid.

Independence from the evaluation subject: Please see Eligibility Criteria 10. Proven independence (absence of linkage, close relation or any other issues that might bias the evaluation process or result) from the SDC.

3.3 Objectives

The dispatch on international cooperation 2021–2024 has the following four objectives:

a. Contributing to sustainable economic growth, market development and the creation of decent jobs (economic development)

b. Addressing climate change and its effects and managing natural resources sustainably (environment)

c. Saving lives, ensuring quality basic services, especially in relation to education and healthcare, and reducing the causes of forced displacement and irregular migration (human development)

d. Promoting peace, the rule of law and gender equality (peacebuilding and governance)

In order to support the achievement of these objectives, SDC's directorate has decided to prioritize evaluations related to these four goals. These evaluations have high strategic importance for the directorate and its steering of the institution and are hence carried out at the beginning of the dispatch in order to inform its implementation.

The evaluation shall identify 1) successes, difficulties / challenges (including failures) as well as good practices of how programmes and projects in Climate Change Adaptation and Mitigation are being implemented within SDC and assess to which extent and how 'good practices' could be systematically applied within SDC. 2) A comparison or benchmarking of SDC's performance compared to international practices is a second, important element of the evaluation. 3) The evaluation shall assess the effectiveness and rate of achievement of projects and programmes.

Accordingly, the evaluation shall assess, along the OECD-DAC evaluation criteria [*url provided*], the relevance, coherence, effectiveness, efficiency, impact and sustainability of SDC's programmes and projects in climate change adaptation and mitigation of all four SDC domains (South Cooperation, Cooperation with Eastern Europe, Humanitarian Aid, and Global Cooperation). The evaluation shall duly take into consideration that the different domains have differing mandates, priorities and modes of interventions. It shall assess how these mandates and instruments are employed in synergy and mutually enhancing or as silos. In addition, the evaluation shall consider where and to what extent SDC's engagement is transformational in

nature. In doing so, the evaluation shall consider established methodologies such as the ones proposed by the Climate Investment Funds (CIF) [*url provided*] or by M. Q. Patton (Patton, Evaluation Criteria for Evaluating Transformation: Implications for the Coronavirus Pandemic and the Global Climate Emergency, 2020).

The evaluation shall assess to which extent SDC's operationalisation (and institutional processes) of the climate change adaptation and mitigation approach ensure that:

I. SDC's activities are relevant and anticipate challenges in partner countries / globally;

II. SDC's programs/projects are consistent with and inform partner countries' development priorities / global priorities, country and global cooperation programmes / instruments and Dispatches on Switzerland's International Cooperation;

III. SDC has the appropriate instruments at both operational and institutional levels to scale its engagement in climate change;

IV. The expected results are being achieved and the areas of success or in need of improvement are being identified and appropriately addressed;

V. The supported activities have multiple benefits beyond climate change adaptation or mitigation, i.e. contribute to poverty alleviation, resilience, inclusion of target populations, and targeting the vulnerable, including the poor and women (leave no one behind);

VI. The activities are assessed and monitored for potential negative impacts; and

VII. The activities are (likely to be) sustainable (socially, economically, and

environmentally) and reach scale or scope beyond SDC's support and best practices from SDC CCA and CCM approaches being disseminated and adopted at partner, country and global levels.

VIII. The interplay, collaboration, coordination, and information and knowledge exchange between humanitarian aid, south cooperation, cooperation with Eastern Europe, and global cooperation, in particular also the global programme climate change.

The evaluation will provide **findings, conclusions and recommendations** on whether and how SDC's approaches can be strengthened from a **strategic** and **operational** point of view.

3.4 Content of the mandate

3.4.1 Scope

The framework for this evaluation is set by the Dispatches on Switzerland's international co-operation (2013-16, 2017-20 and for the forward-looking part 2021-2024). The evaluation shall cover those activities implemented during a period of six years (2015-2020) from all domains of SDC (i.e. South Cooperation; Global Cooperation; Humanitarian Aid; and Cooperation with Eastern Europe). It will concentrate on projects in the area of climate change adaptation (CCA) and climate change mitigation (CCM) that SDC steers or co-steers. This includes direct implemented projects, mandates and contributions to trust or basket funds, etc. It excludes core contribution and core contribution-like contributions to multilateral organizations, large Funds (GCF, IDA, etc.) and NGOs.

The evaluation will distinguish in its analysis between CCA and CCM. It will separate and specify findings, conclusions and recommendations, where necessary and useful, accordingly. The evaluation will be mindful of the interface, intersection and interplay with other, related areas, such as the environment, DRR or agriculture. Some of these areas have been evaluated, such as DRR, Nexus humanitarian aid / development cooperation, Market System Development in Agriculture or Social Protection. For the forward-looking part, these interface / interconnection must be explicitly treated.

3.4.2 Indicative evaluation questions

The question catalogue below is a first draft and has been developed by E+C and reviewed by the CLP. It mainstreams the transformational/systemic change aspect into the OECD-DAC criteria, in particular in relevance, impact and sustainability. Transformational/systemic change refers to self-sustaining changes in the functioning of a system. In evaluating transformational/systemic change, the evaluation must clearly state to which system it is referring. The evaluation should distinguish according to the context in which a project is implemented (e.g. fragile context, LIC, etc.). The evaluations should consider how projects affected (positively or negatively) different segments of the population (e.g. IDPs, women, youth, LNOB).

During the inception phase, the appointed evaluation team will further refine and prioritize the questions in consultation with E+C and the CLP. [*The indicative questions are included in the Methodological Matrix in Section 2.2.*]

3.4.3 Methodology

The independent evaluation team will assess the evaluation objectives and questions in a **neutral and objective** way. The overall evaluation approach should represent an adequate mix of **formative and summative elements**. Selected steps from within developmental evaluation (Patton, 20[2]0) are to be considered, where appropriate. Developmental evaluation is tailored to complex environments and sees the evaluator as combining the rigour of evaluation (evidence-based and objective) with the role of enhancing a programme's capacity, by means of using evidence in reflective thinking on its work. SDC's staff should learn during the entire evaluation process - not just at the end.

The evaluation team shall review and assess existing facts, processes, tools and instruments. The evaluation team shall use or develop adequate rubrics and instruments for assessing all information, interviews etc. within the evaluation. Their findings, conclusions and recommendations shall be evidence based and formulated in an open, constructive, and non-judging manner. The findings and recommendations are expected to inform SDC's strategic and operational decision making, to enhance institutional learning, and to inform SDC's constituency, the Swiss parliament and the public. The evaluation is expected to make use of a series of **different methodological instruments**, such as the following:

- Portfolio Analysis of SDC's engagement in climate change adaptation and mitigation;
- Review of relevant documents from SDC (e.g. evaluation reports; credit proposals; end of phase reports; guiding documents), from SDC's partners (programme and evaluation reports, case studies, etc.), and from other donors (for comparison), as well as research;
- 8-10 case studies with 3 to 5 fields (can be virtual, if necessary), including interviews with SDC's field staff, with projects and programmes staff, policy stakeholders, and strongly recommended where feasible with target population;
- Interviews and/or focus group discussions with SDC staff in Berne (or virtual if necessary) from all operational domains (humanitarian aid, south cooperation, cooperation with Eastern Europe, global cooperation) and with selected cooperation offices (virtual communication);
- Interviews with other relevant persons, especially from implementing partners, knowledge partners, and other donors;
- Online surveys as assessed relevant.

The evaluation team will develop a **rigorous and appropriate methodology** during the inception phase, together with a **Theory of Change**, which will set the framework for the evaluation. It is important that the methodology is appropriate for assessing both the operational and institutional aspects of the evaluation. The indicative key questions are only suggestions and shall be reviewed and further developed by the evaluation team during the inception phase.

The **Core Learning Partnership** (CLP) shall provide inputs when the evaluation team is drafting the recommendations – while the responsibility remains within the evaluation team. Therefore, elements of **participatory/developmental evaluation** can be integrated. Including such an approach will not only increase the usefulness of the evaluation, but will also support SDC's on-going commitment to develop stronger analyses, program designs, as well as capacities in monitoring and evaluation.

3.4.4 Deliverables

The evaluation will produce the following deliverables:

3.4.4.1 Inception Report

An Inception Report is prepared by the evaluation team - after an initial review of relevant documentation and some initial interviews. It shall present:

- the results of a first round of interviews and the desk review;
- conceptual framework(s) to be used in the evaluation (including a draft Theory of Change which presents SDC's logic regarding the thematic priority areas);
- the key evaluation questions and methodology;
- an analytical framework for answering the evaluation questions with rubrics or assessment scales that will be used for assessing the information, data sources and collection, sampling and key indicators;
- selection and rationale for selection of case studies, respectively countries that will be visited based on purposeful sampling or similar;
- first draft list of interviewees.

The Inception Report also includes a **timeline for the evaluation process**. It shall explain the **strengths, weaknesses and limitations** of the proposed process and methodology and list the **means used to address** these limitations. The evaluation team should suggest a **tentative structure** of the final report.

The Inception Report will be written in English and should **not exceed 20 pages**, excluding annexes. It will be addressed to E+C and will be discussed with the CLP in Bern.

3.4.4.2 Evaluation Report

- A fit-to-print evaluation report in English containing findings, conclusions and recommendations. The conclusions must be clearly derived from the findings and the recommendations must be clearly based on the conclusions. The report should distinguish between operational and strategic recommendations and indicate the intended user of each recommendation.
- The evaluation report should not **exceed 30 pages** (including an executive summary; excluding annexes), and must be coherent with the formatting guidelines of E+C. The report should contain clear references to important information / data available in the annexes. The executive summary should correspond to the DAC-Standards and should not exceed 2 to 3 pages.
- **Readability**. The executive summary of the evaluation report should score 50 or above on the Flesch–Kincaid readability test. The evaluation report (excluding the executive summary should score 30 or above on the same readability test.
- Additionally, a short and concise presentation (PowerPoint) shall be prepared by the evaluation team for SDC's use.
- The quality of the evaluation report (and process) will be assessed based on quality criteria as detailed in the 'Evaluation Quality Assessment'.

3.4.4.3 Communication

Communication is key – both for institutional learning within SDC and accountability towards the Parliament and the public. The following **deliverables** with regard to communication are required:

- Meetings with the Core Learning Partnership (CLP) at key moments of the evaluation;
- Regular exchange with E+C;
- Presentation of the Final Report to the Directorate of SDC (and potentially prior to that: presentation of intermediate results to the Directorate);
- Key messages for external communication, which are clear, concise and easy to understand. These key messages will be used for the production of a fact sheet for external communication. In addition, the consultant shall produce an infograph that conveys main messages from the evaluation such as main conclusions and most important recommendations on maximally 2 pages.

Notes:

[1] Switzerland's other development agency, SECO, which is part of the Federal Department of Economic Affairs, Education and Research, had the following goals mentioned in the dispatches. 2013-2016: stimulating climate friendly growth (goal number 5 (of 5)); 2017-2020: low emission and climate resilient economy (impact goal IV (of 4)); and 2021-2024: the dispatch does not formulate separate goals per agency, hence SECO has the same goals as SDC.

[2] The original, narrower definition was limited to disaster risk reduction measures, such as per the UNISDR terminology: “The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies and the environment. (Annotation: The term “societal” will not be interpreted as a political system of any country.)” https://www.undrr.org/terminology/build-back-better

Annex 2: The Evaluation Team

Julian Caldecott. An ecologist who spent the 1980s and 1990s working in equatorial countries on wildlife, rainforest and biodiversity conservation, he later focused on climate change mitigation and adaptation efforts through ecosystem protection and restoration. As Director of Creatura Ltd, he has evaluated several billion euros' worth of aid for sustainable development: globally (for Finland and the EC), in Nepal (for Denmark and Finland), in Thailand, Indonesia and China (for the EC), in Nicaragua, Tanzania and Kenya (for Finland), in México, Indonesia and Guyana (for the UK); and on REDD+ in Indonesia (for Norway on three occasions), biodiversity in ASEAN (for the EC), and global climate portfolios (for Switzerland and Denmark). He has written books on conservation project design, great ape conservation, water and aquatic ecosystems, as well as *Aid Performance and Climate Change* (2017), and *Surviving Climate Chaos by Strengthening Communities and Ecosystems* (2021).

Warren Olding. An environmental consultant with 20 years of experience in implementing and evaluating projects in Asia and Latin America. He specialises in climate change adaptation, sustainable rural development, conservation and sustainable use of natural resources, biodiversity (including agrobiodiversity), and disaster risk management. As a consultant, he has worked with a range of international organisations in development cooperation, including the European Commission (ASEAN); the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture; the FAO – secretariat of Globally Important Agriculture Heritage Systems (Chile, China, Colombia, India, Peru and Costa Rica); IFAD - panel for integrating adaptation to Climate Change in programmes of the Climate and Agriculture Division (Argentina, Bolivia, Nicaragua, Paraguay and Venezuela); and Norad and Norwegian International Climate Initiative (Brazil, Indonesia, Peru). He is also well-versed in local, national and regional capacity building for inclusive, sustainable development and the enhancement of resilience of vulnerable communities.

Sunungurai Dominica Chingarande. A professor of sociology with over 20 years of experience in Zimbabwe and the SADC region. She works as a researcher and an evaluation expert on gender mainstreaming, climate governance and adaptation, social inclusion and development issues on sustainable resource management. As a senior evaluation consultant, she has worked with various international and regional organisations such as UN Women, UNDP, African Development Bank, African Centre for Technology Studies. She recently authored a case study analysis on gender mainstreaming in adaptation planning and implementation in Sub-Saharan Africa as part of the CGIAR climate change programme for submission to the UNFCCC Adaptation Committee.

Lidija Fajdiga. An ecologist with more than 20 years of experience in resource management, specialising in environmental legislation, nature conservation and water management, the implementation and evaluation of EU environmental standards. She has worked as an independent evaluator for projects on waste management, ecosystem and biodiversity conservation, and climate change SME support. As an environmental consultant, she earned a wide range of experience with public and private institutions, international organisations, and other implementing partners in North Macedonia, including the European Commission, US Department of State, GIZ and SDC. She is an active contributor to policy dialogue on transboundary environmental issues and sustainable development in North Macedonia.

Pankaj Kumar. Environment and climate change professional with over 17 years of relevant experience in climate change (mitigation & adaptation), environmental due diligence, disaster risk reduction, climate finance, capacity building. He has provided technical support, consultation and evaluation on environmental projects involving air, water and soil, waste management, environmental impact assessment, and environmental compliances and worked on more than 200 projects under various GHG mechanisms

(CDM, VERRA, GS and SCS). His broad portfolio includes working as an environmental specialist for the Bihar Government on World Bank & Asian Development Bank-funded projects, a climate adaptation expert with Deloitte Touche Tohmatsu India LLP, as well as leading state projects in Bihar for the South Asia Climate Proofing and Growth Development (CPGD) Project.

Marina Marill. A legal expert highly experienced in providing legal advice, assessments, and analysis on human rights, constitutional and environmental law. As a consultant, she has applied environmental law to evaluate disaster management and post-disaster economic rehabilitation, as well as environmental impact assessments relating to mining and transport projects. She has led field missions on the topic of pollution of water, air and climate change effects on the health of people at the *barriadas* (squatter settlements) of Lima. Finally, she has worked to evaluate the application of indigenous peoples' rights to free, prior and informed consent to environmental projects affecting them and their territories in Peru.

Mario Zenteno. As an expert in natural research management, he has 20 years of experience implementing and evaluating Bolivian projects on rural development, food security, water resources conservation and the environment. He has proven experience leading multidisciplinary teams on climate change, conservation and nature-based solution projects in Bolivia, working on projects with several UN agencies and the Belgian Development Agency Enabel. He was formerly the executive director of Bolivia's National Authority of Mother Earth and director of Tunari National Park. As both an academic and a practitioner, his evaluation areas include climate change adaptation, value chains development, agriculture, water irrigation systems, community development, and strategic planning.

Annex 3: Findings of the Portfolio Study

Introduction

This Annex presents details of the portfolio mapping exercise, in which the following financial disbursements were considered[40]:

- **Scope:** Disbursements managed by SDC from all its domains (South Cooperation, Global Cooperation, Humanitarian Aid and Cooperation with Eastern Europe).
- **Projects:** SDC's bilateral and global programmes and projects, but excluding core funding to NGOs and funding to multilateral organisations such as the Climate Investment Funds.
- **Timeframe:** Swiss funding disbursements to CCA/CCM marked 'principal' and 'significant' between 2013 and 2020, regardless of the project start date.

The method used by SDC to calculate financial disbursements to CCA and CCM, which is based on the Rio Marker distinction between 'principal' (primary) and 'significant' (secondary) purpose with respect to climate change, is shown in Table 2. Most DAC members assign 100% of funding when a project is marked 'principal'[41], while SDC assigns a maximum share of 85%. For analytical purposes these markers were transposed into scores ('principal' = 2; 'significant' = 1, not targeted on or relevant to CC = 0).

Table 2: Formula for calculating financial disbursements to CCA and CCM based on the Rio Markers

Projects Rio Marked for CCA	Share applied to CCA (% CHF)	Projects Rio Marked for CCM	Share applied to CCM (% CHF)	Total share to CC (% CHF)
'Not targeted'	0%	'Not targeted'	0%	0%
'Not targeted'	0%	'Significant'	50%	50%
'Not targeted'	0%	'Principal'	85%	85%
'Significant'	50%	'Not targeted'	0%	50%
'Significant'	25%	'Significant'	25%	50%
'Significant'	35%	'Principal'	50%	85%
'Principal'	85%	'Not targeted'	0%	85%
'Principal'	50%	'Significant'	35%	85%
'Principal'	42.5%	'Principal'	42.5%	85%

Disbursements - Geographical distribution

Table 3 details disbursements to CCM and CCA by country in 2013-2020. Data shows that:

- Bolivia was the main beneficiary both of CCM and CCA disbursements, totalling CHF 58 million – i.e. about 10 % of all CCM and CCA disbursements at the country level.
- The three highest CCM disbursements were to India (CHF 21 million), Bolivia (CHF 11 million) and China (CHF 10 million).
- The three highest CCA disbursements were to Bolivia (CHF 47 million), Chad (CHF 39 million) and Nicaragua (CHF 36 million).

[40] Data were selected with the following criteria: Agency = SDC; Bi/Multi = bilateral funding; CC Disbursed amounts = 2013-2020.

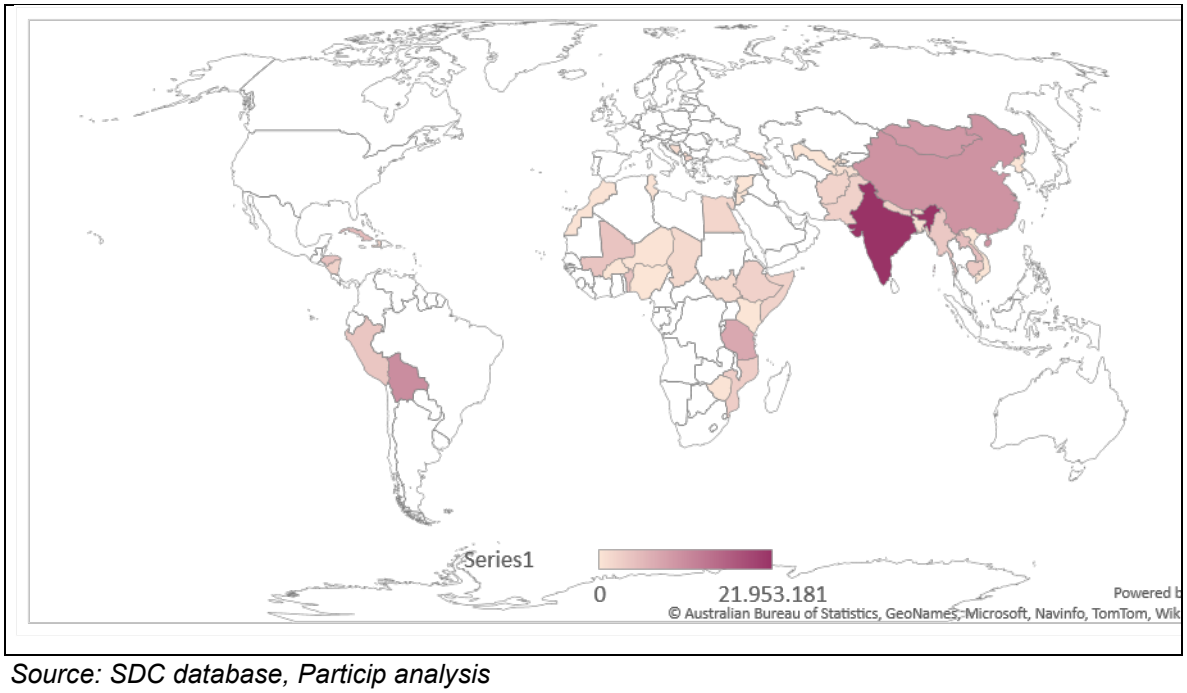
[41] OECD (2011).

Table 3: CCM and CCA country-level funding by country (disbursements in CHF, 2013-2020)

Country (top 20)	Mitigation	Adaptation	CC (total)
Bolivia	10.865.770	47.283.982	58.149.752
Chad	1.527.538	38.937.280	40.464.818
India	21.953.181	16.501.330	38.454.511
Nicaragua	2.349.720	35.669.214	38.018.934
Chine	10.122.066	19.701.501	29.823.567
Honduras	4.288.827	20.001.945	24.290.773
Mongolia	9.494.503	12.185.256	21.679.759
Cuba	5.055.974	15.784.263	20.840.237
Mali	4.109.074	16.509.705	20.618.778
Afghanistan	2.185.229	17.769.942	19.955.170
Peru	3.861.978	15.767.271	19.629.250
Pakistan	2.415.348	15.754.411	18.169.759
Myanmar	3.606.989	13.857.017	17.464.006
Nepal	2.487.398	14.150.233	16.637.631
Niger	194.711	15.368.354	15.563.065
Laos	4.794.053	10.396.827	15.190.880
Bangladesh	647.963	14.386.950	15.034.913
Mozambique	2.965.992	11.748.945	14.714.937
Benin	4.299.917	10.048.521	14.348.438
Tajikistan	645.952	13.564.207	14.210.160

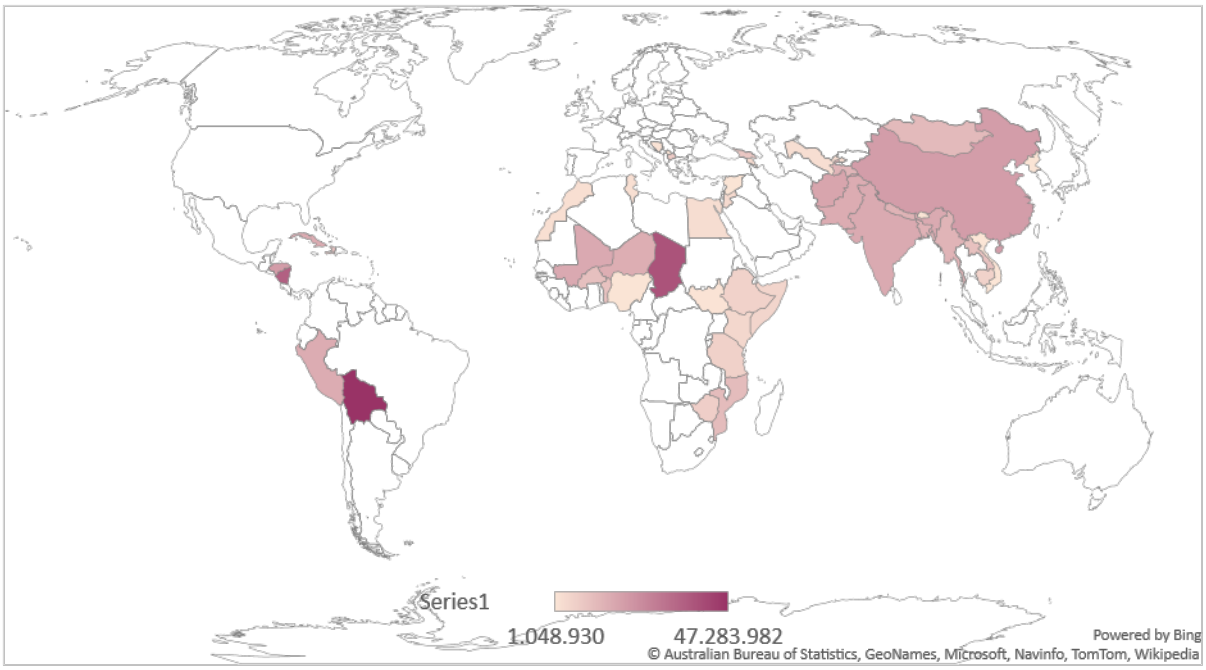
Figure 1 and Figure 2 present the geographical distribution of CCM and CCA disbursements in a map.

Figure 1: CCM disbursements by country (CHF, 2013-2020)



Source: SDC database, Particip analysis

Figure 2: CCA disbursements by country (CHF, 2013-2020)



Source: SDC database, Particip analysis

Table 4 summarises financial disbursements to global/regional projects (e.g. to the Resilience to Climate Change thematic programme of the Global Facility for Disaster Reduction and Recovery - GFDRR)[42] that are marked as 'principal' and 'significant'. Projects at the global/multi-region level received by far the highest amount, a total of CHF 134 million.

[42] Other examples include: Adaptation for Smallholder Agriculture Programme (CHF 8.5 million); Energising Development - Support to the Energising Development (EnDev) Partnership (CHF 6.0 million); GLO - Linking Science, Policy, Action SPA (CHF 4.3 million).

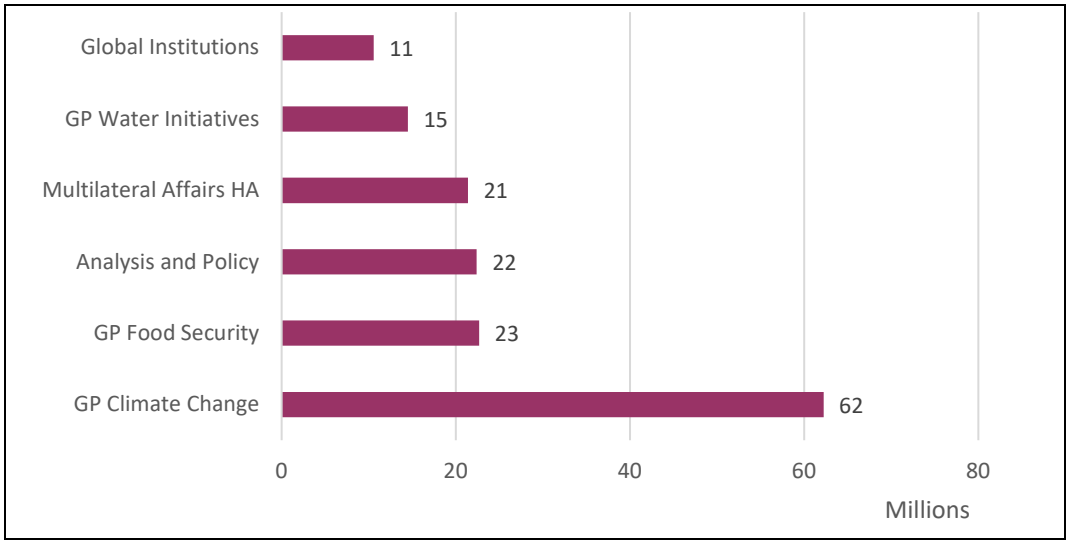
Table 4: Disbursements to global/regional CC projects (CHF, 2013-2020)

Global & regional	Mitigation	Adaptation	Climate Change
PED, non-specific	53.597.063	103.501.907	157.098.969
SADC	3.901.364	26.817.947	30.719.311
Africa, regional	1.553.962	28.870.916	30.424.878
Latin America	10.271.557	9.554.239	19.825.796
Great Lakes (Africa)	10.260.887	41.103	10.301.990
West Africa	343.433	9.460.798	9.804.231
Central America (with Mexico)	672.446	8.505.928	9.178.374
South Caucasus	4.830.698	3.577.386	8.408.084
East Africa	280.099	7.666.298	7.946.397
Asia, Regional	1.827.943	5.838.087	7.666.031
Far East	212.500	6.450.806	6.663.306
Central Asia	2.448.551	4.139.954	6.588.505
Mashrek (SAP)	3.073.819	3.280.356	6.354.175
South Africa	0	4.557.064	4.557.064
Andean Region (SAP)	4.083.105	0	4.083.105
Mekong (SAP)	1.224.388	2.119.626	2.583.755
South Asia (not broken down)	532.955	1.387.785	1.920.740
East and South Africa	715.587	965.800	1.681.387
Americas, regional	0	579.697	579.697
Pacific/Oceania (SAP)	37.504	37.504	75.007

Source: SDC database, Particip analysis.

Regarding the main SDC 'funds centres' (i.e. SDC teams managing the funds), Figure 3 indicates that around 42% of these disbursements were linked to the GP Climate Change (CHF 56 million).

Figure 3: Disbursements to global/regional CC projects by SDC funds centre (CHF, 2013-2020)

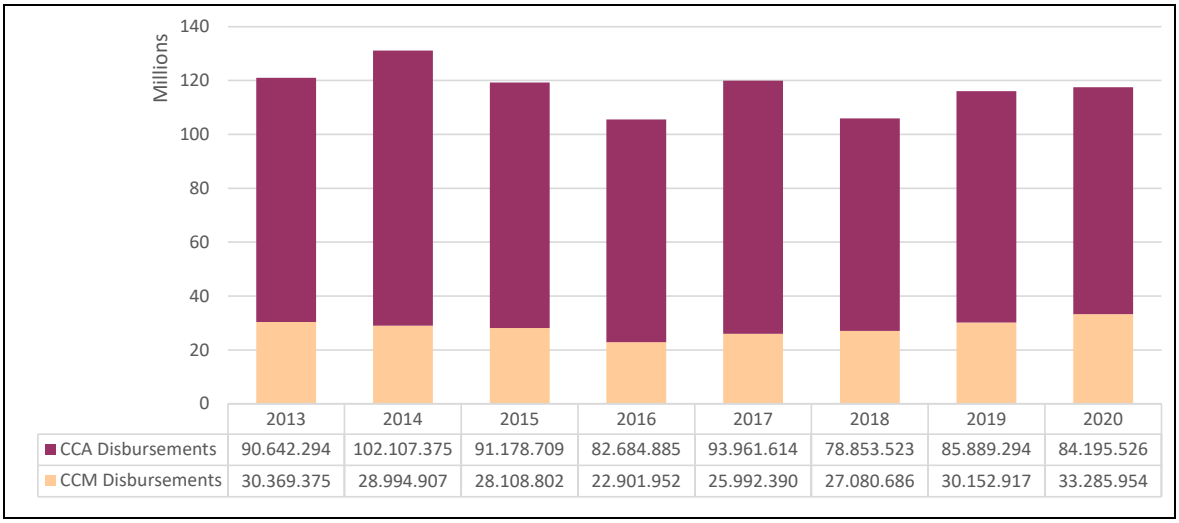


Source: SDC database, Particip analysis.

Changes in disbursements over time

Figure 4 shows the evolution of CC funding by year of disbursement. It shows that, while slight yearly fluctuations of funding can be observed, CC disbursements have not followed any upward or downward trend during the period under review. In particular, following the entry into force of the Paris Agreement in November 2016, there has been a relatively stable level of CCM and CCA disbursements over the years 2017-2020. None of the recent funding levels has surpassed the one of 2013 or 2014.

Figure 4: Changes CCM and CCA disbursements over time (CHF, 2013-2020)

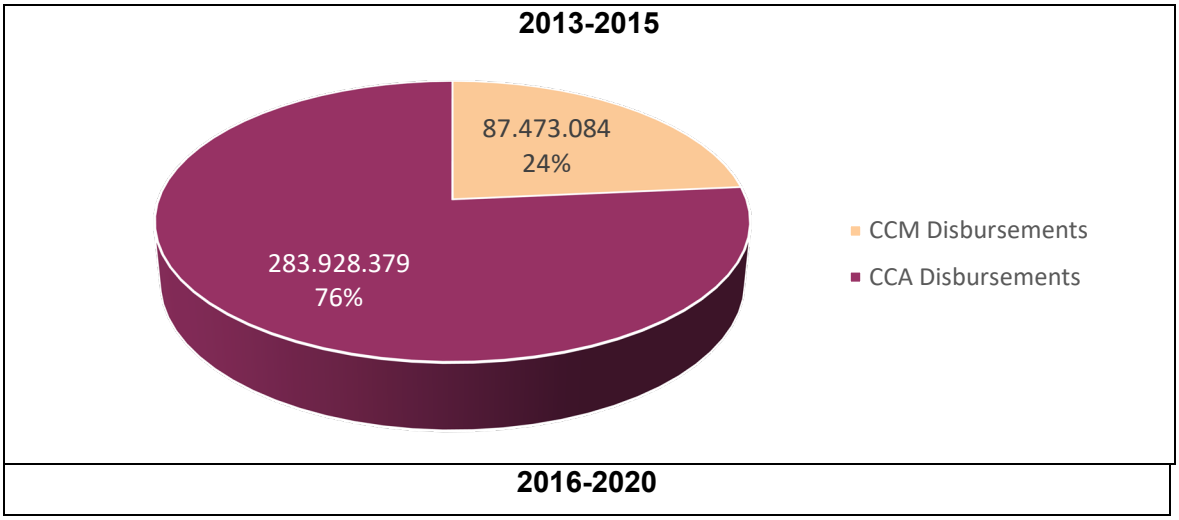


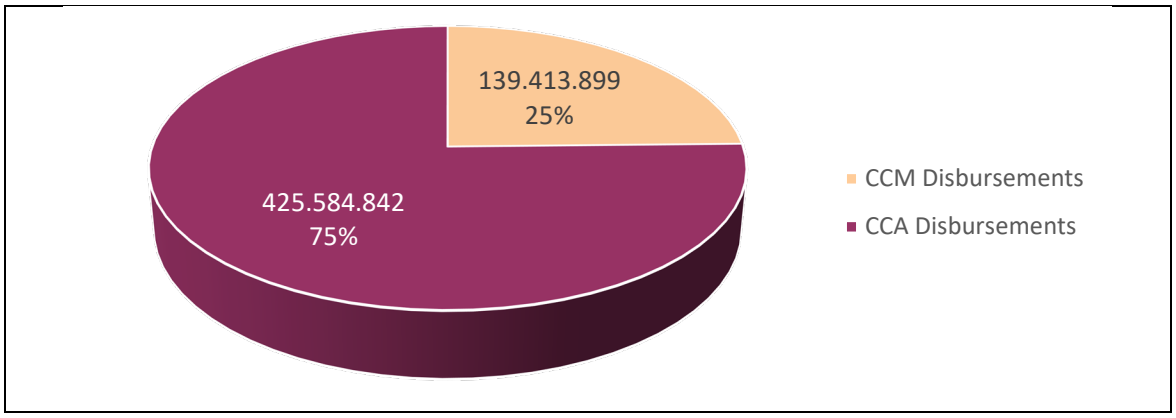
	2013	2014	2015	2016	2017	2018	2019	2020
CCA Disbursements	90.642.294	102.107.375	91.178.709	82.684.885	93.961.614	78.853.523	85.889.294	84.195.526
CCM Disbursements	30.369.375	28.994.907	28.108.802	22.901.952	25.992.390	27.080.686	30.152.917	33.285.954

Source: SDC database, Particip analysis.

Figure 5 shows that the split between CCA and CCM funding has been relatively stable between/after the entry into force of the Paris Agreement, with CCM representing 23-24% of the portfolio and CCA 76-77% of it.

Figure 5: Share of CCA and CCM funding in total CC disbursements (CHF, 2013-2015 and 2016-2020)



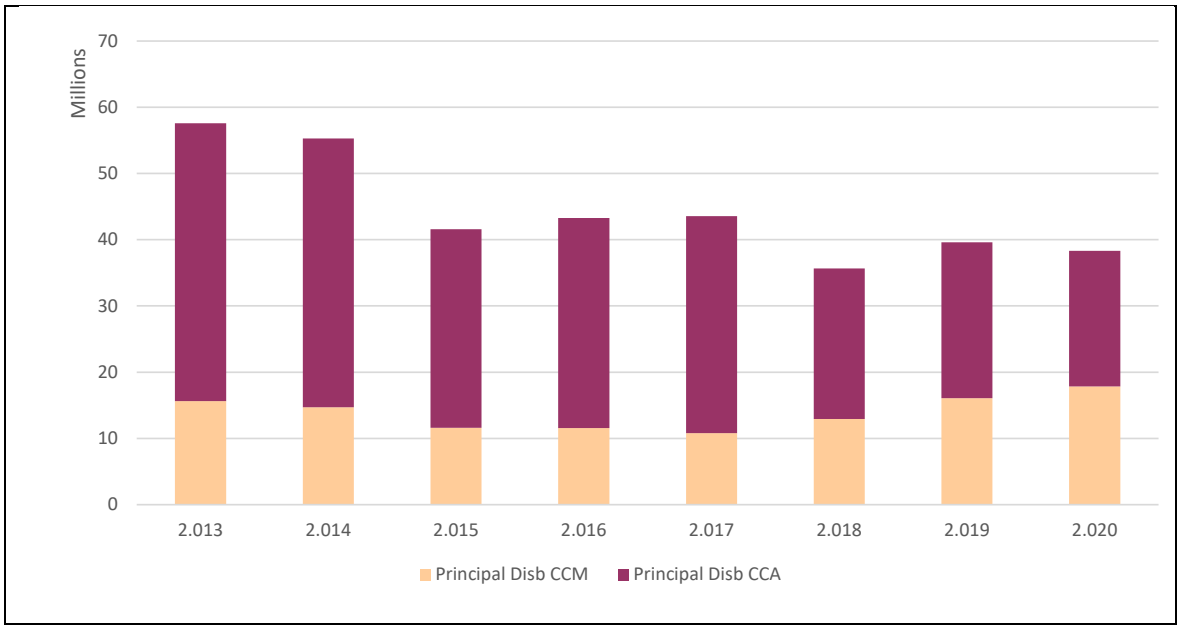


Source: SDC database, Particip analysis.

Disbursements marked as 'principal'

Figure 6 and Figure 7 depict disbursements for CCM and CCA for 'principal' projects for the period 2013-2020. Figure 7 shows that, although disbursements made to 'principal' projects were stable during the period 2015-2020, the level of these disbursements is lower than before 2015.

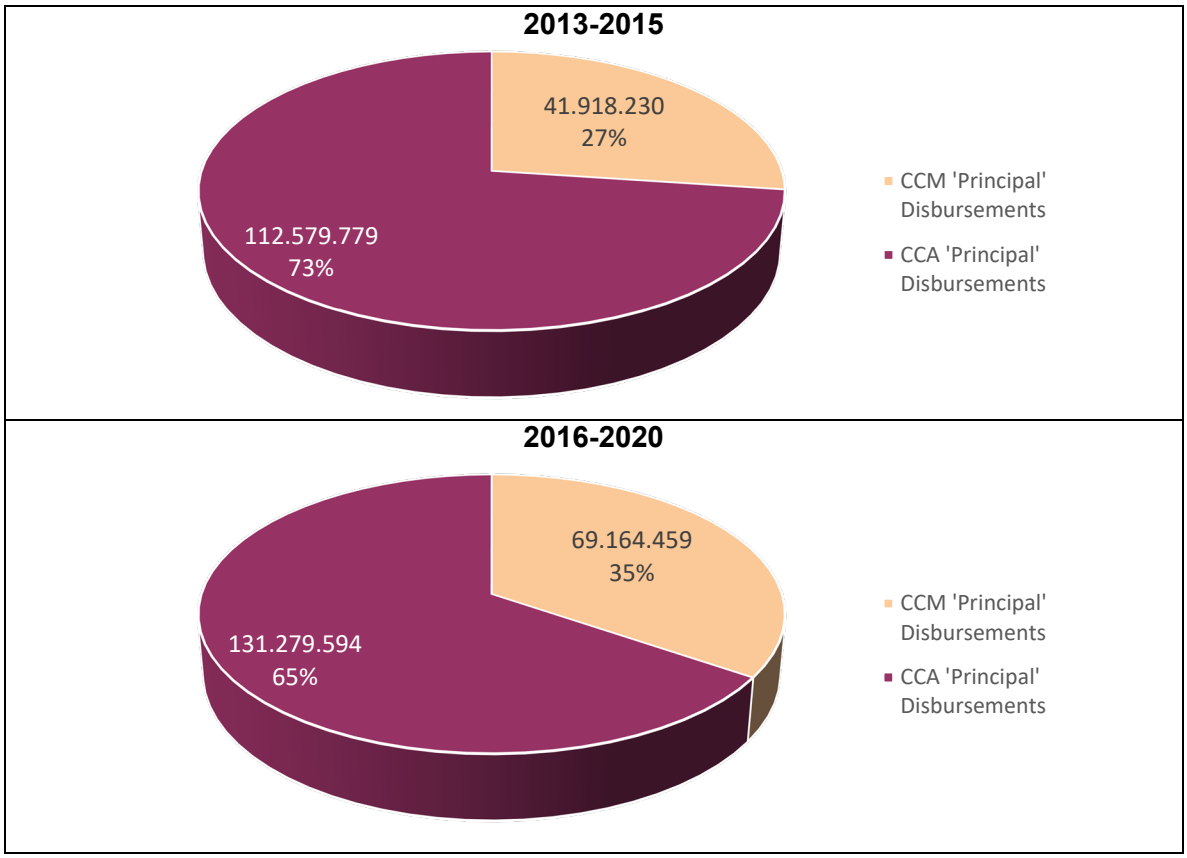
Figure 6: Disbursements to RM 'principal' projects (CHF, 2013-2020)



Source: SDC database, Particip analysis.

Figure 7 illustrates the change in the share of CCA and CCM for 'principal' projects between 2013-2015 and 2016-2020. It shows a small, but significant, increase in the share of CCM disbursements in 'principal' projects.

Figure 7: Share of CCA and CCM in disbursements marked as 'Principal' (2013-15 and 2016-20)

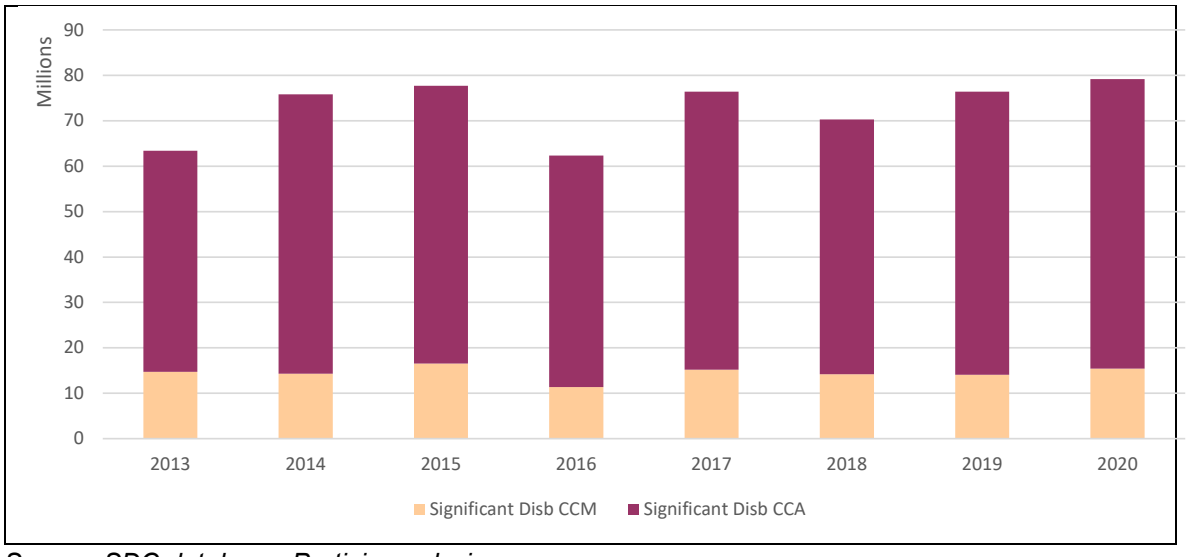


Source: SDC database, Particip analysis.

Disbursements marked as 'significant'

Figure 8 depicts disbursements for CCM and CCA for 'significant' projects. The level of yearly disbursements fluctuated during 2013-2020 but without following a clear trend.

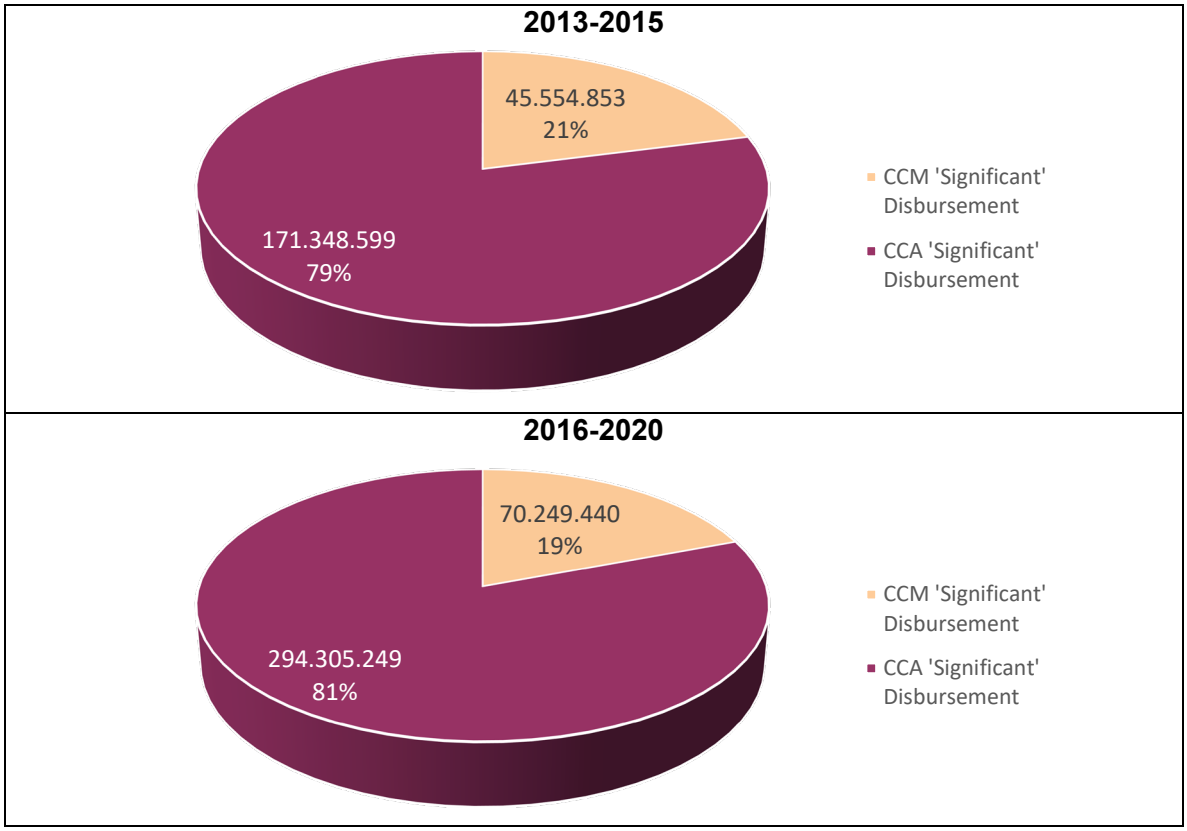
Figure 8: Disbursements to RM 'significant' projects (CHF, 2013-2020)



Source: SDC database, Particip analysis.

Figure 9 illustrates the change in the share of CCA and CCM disbursements for 'significant' projects between 2013-2015 and 2016-2020. It shows a small decrease in the share of CCM disbursements in 'significant' projects.

Figure 9: Share of CCA and CCM in disbursements marked as 'Significant' (2013-15 and 2016-20)



Source: SDC database, Particip analysis.

Disbursements by sector

Table 5 provides details on the sectors that CCM and CCA disbursements targeted between 2013 and 2020. It shows that, after the sector 'general environment protection' (CHF 254 million), the 'agriculture' sector represents the highest level of disbursements (CHF 249 million) followed by the sector 'water and sanitation' (CHF 128 million).

Table 5: Disbursements to CC projects by DAC Cat. 1 sector (CHF, 2013-20)

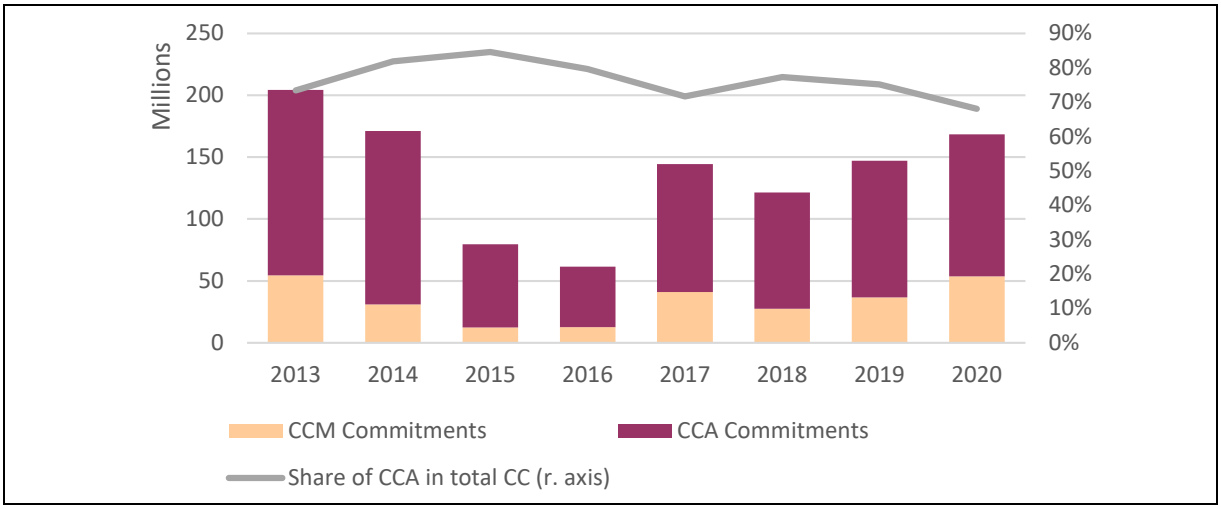
Country (top 10)	Mitigation	Adaptation	CC (total)
Environmental protection, general	97.863.293	156.628.824	254.492.117
Agriculture	28.383.502	220.453.163	248.836.666
Water and sanitation	7.323.187	120.875.178	128.198.365
Other multi sectors	8.192.640	59.100.980	67.293.620
Disaster prevention and preparedness (DRR)	3.949.315	41.209.515	45.158.830
Government and civil society – general	12.743.106	19.716.012	32.459.119
Forestry	8.875.644	13.165.687	21.281.071
Emergency response	1.592.536	19.680.359	21.272.895
Energy: production, distribution and efficiency – general	17.394.755	1.256.354	18.651.109
Social infrastructure and services - Miscellaneous	8.176.796	6.476.144	14.652.941

Source: SDC database, Particip analysis.

Changes in commitments over time

Figure 10 presents the yearly changes in commitments since 2013. It shows that, while commitments have increased overall during the period 2015-2020, none of the total yearly commitments has exceeded pre-2015 levels. It also shows that, although the share of CCA in total commitments may have slightly decreased, the overall composition of the portfolio has remained stable in terms of commitments. On average, CCA represented 76% of total yearly commitments during the period 2013-2020.

Figure 10: Changes in CC commitments and share of CCA and CCM over time (CHF, 2013-2020)

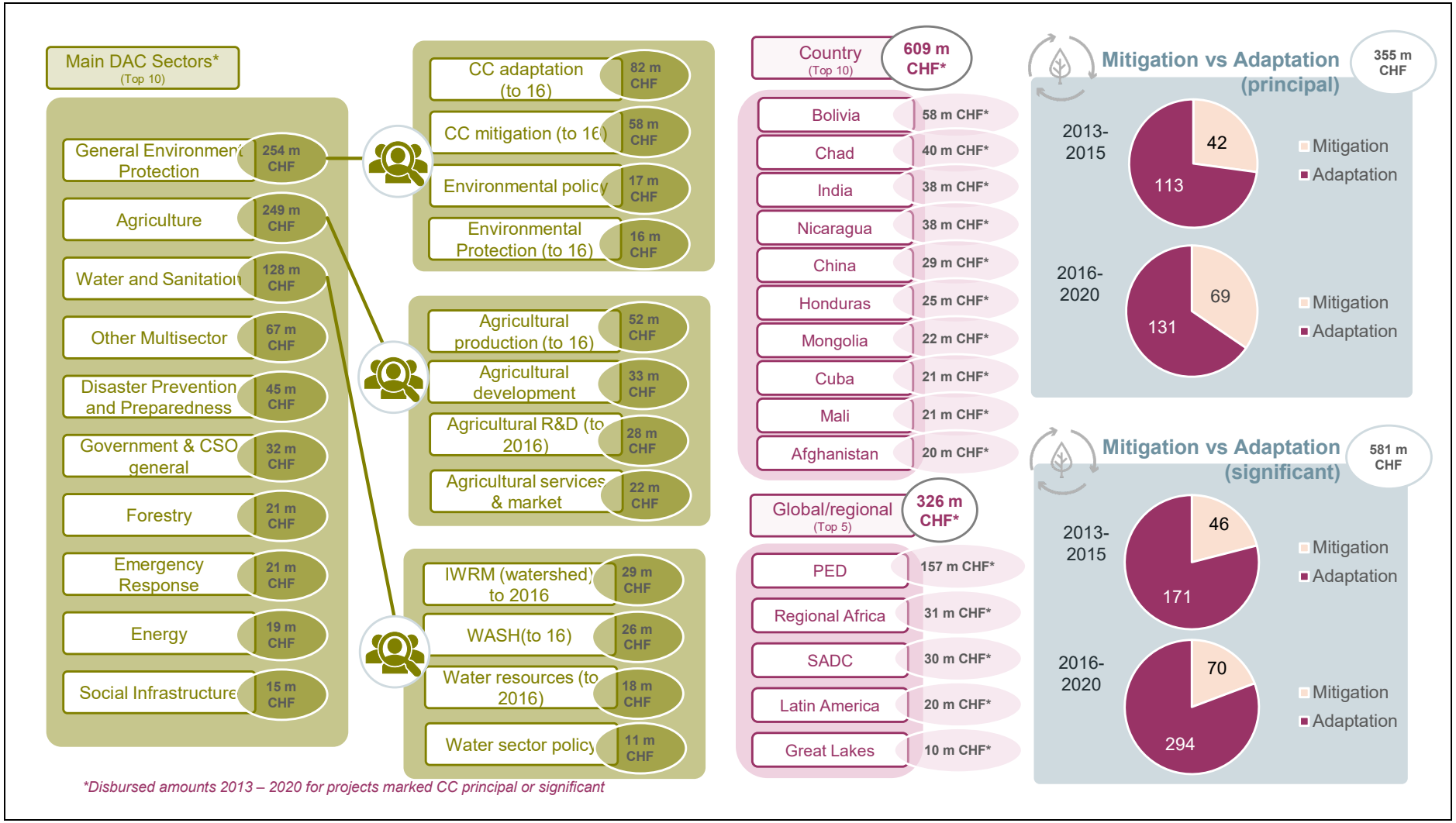


Source: SDC database, Particip analysis.

Concluding overview

Figure 11 provides a summary of the mapping exercise, displaying SDC's financial disbursements to CCM and CCA by sector, sub-sector, country/region and volume over the period 2013-2020 and sub-divided for mitigation and adaptation in 2013-2015 and 2016-2020 (in CHF).

Figure 11: Overview of SDC portfolio disbursements (2013-20)



Annex 4: Pro-forma for project reviews

Project title
Part A: Basic data
A1. Project number & name. SDC projects are in the form '7F-00000' and their various phases in the form '7F-00000.00'. Where necessary, an explanation is included regarding the different names with which the same project number is associated, and also on whether more than one related project is included in the PRF.
A2. Sources. • **Process of PRF development**. A brief description of the steps (desk study, field work by national consultant, interviews, revision, etc.) by which the PRF was completed. • **Interviews**. A list of institutions and individuals consulted through face-to-face or remote interviews and correspondence. • **Web-sites used as initial sources of project information**. Typically the SDC project database (https://www.eda.admin.ch/deza/en/home/projekte/projekte.html) with separate entries for each phase, and the web-sites of the project concerned and/or the main implementing partner(s).
A3. Dates & financial data. Listed for each phase, with sources.
A4. Location(s). Country(ies) and sub-national region(s) targeted.
A5. SDC Geography. As listed in columns AM to AQ in the SDC CC project spread-sheet.
A6. SDC Domain. Funds Centre is listed in column AS in the SDC CC project spread-sheet, if necessary with further explanation from credit proposals, administrative end-of-phase reports or other sources.
A7. Partners. As listed in the credit proposals, administrative end-of-phase reports or other sources.
Part B: Purpose, relevance and approach
B1. Purpose. Statements of overall goal and expected outputs from credit proposals, administrative end-of-phase reports or other sources, by phase as appropriate.
B2. Relevance to partners. **Partner country/ies**. How the project related to national priorities, citing specific policies and plans. **Switzerland**. How the project related to national priorities, citing specific policies and plans. **General**. How the project related to global priorities and/or worldwide phenomena significant to CC.
B3. Relevance to SDGs. Specific reference to SDGs and targets (from https://sdgs.un.org/goals) to which the project contributed.
B4. Relevance to other development objectives. OECD/DAC classification from columns BO to BS in the SDC CC project spread-sheet and/or the relevant SDC project web-site page, plus other information on international agreements or priorities as appropriate.
B5. Relevance of the approach in principle to the climate response. What was recorded for the project under 'adaptation' and 'mitigation' during the preliminary assessment in the Inception Phase? See Annex 5 Note A.
B6. Relevance/approach within the climate response based on SDC classification. Rio Marks - NOT (0), SIGNIFICANT (1) and PRINCIPAL (2) - as given the project in columns L ('mitigation') and M ('adaptation) in the SDC project spread-sheet, if necessary giving the median and noting any variation between and within phases.
Part C: Narrative overview
A brief, stand-alone account, for use as an aide mémoire and in reporting, comprising a sentence or two each on the project's context, purpose, design, performance, achievements and points of interest, with design and performance (effectiveness, impact and sustainability) scores and conclusions on its estimated transformative potential for adaptation and/or mitigation.

Part D: Design quality
D1. Theory of change. A re-statement and explanation in clear language of the reviewer's understanding of what the designers hoped to achieve and why, the approach they took, why they expected it to work, and the methods that they intended to use - a "narrative about what to do when, how, and with whom and what to look out for on that journey ... a simple structured way of establishing and explaining the logic of the project" (DAIC, 2020).
D2. Assumptions underlying the theory of change. A list of explicit and implicit assumptions of cause and effect that underly the theory of change.
D3. Plausibility of assumptions and links. A statement of the plausibility or otherwise of each assumption, using evidence, reason and the logic of cause and effect.
D4. General quality of the project design. **Stakeholders & consultation**. A note on the extent of stakeholder participation in designing the project, usually from the credit proposal(s) and project document. **Risks**. A note on key risks identified in the credit proposal(s) and project document, and how the project designers proposed to address them. **Overall conclusion on design quality**. A scored assessment of the whole project design based on its clarity, presentation, logical integrity, etc. See Annex 5 Note B.
Part E: Evidence for strategic effectiveness and system change for mitigation [Parts E and F combined if mitigation and adaptation effects could not be distinguished]
E1. Strategic effectiveness. All projects in the SDC CC project spread-sheet are assumed to be relevant to climate change unless shown otherwise (anomalies being discussed elsewhere). 'Strategic effectiveness' is a heading that encompasses three sub-headings where findings are presented, in this case from the point of view of mitigation (i.e. specific signs that the project had, or plausibly could have had, an effect in reducing net GHG emissions): • Effectiveness (delivery of results, often organised by outcome or component). • Impact (consequences of the results during the project). • Sustainability (durable changes induced that are likely to survive the project). Conclusions are presented, with evidence, if any, of measurable effect on net GHG emissions, and overall performance scores are given for effectiveness, impact and sustainability. See Annex 5 Note C.
E2. System change. Judgements on transformative potential for mitigation are evidence-based and shaped by expectations of system-wide changes in **GHG emissions** within the targeted system that can be attributed to the project, taking into account CIF criteria for transformative change, the nature of impact and sustainability effects, and an understanding of the system(s) involved in each case. See Annex 5 Note D.
Part F: Evidence for strategic effectiveness and system change for adaptation
F1. Strategic effectiveness. See E1, substituting 'adaptation' for 'mitigation' as appropriate.
F2. System change. See E1. Judgements on transformative potential for adaptation are evidence-based and shaped by expectations of system-wide changes in **strength** (resilience, resistance and/or flexibility), taking into account CIF criteria for transformative change, the nature of impact and sustainability effects, and an understanding of the system(s) involved in each case. See Annex 5 Note D.
Part G: Other aspects of design and performance
G1. Efficiency issues. Efficiency "measures the results – qualitative and quantitative – in relation to the inputs" (SDC, 2018: 7). It "is considered high if there is evidence that the intervention contained measures that through elegance and accountability promoted sound management and value for money, including consistent patterns in management, governance, capacity or relationships, and in difficulties that arose and how they were overcome. Here a note is made of evidence and issues relating to project management, reporting, monitoring, evaluation, governance, etc. that may have affected project performance.

G2. Coherence issues. Coherence is considered high if there is evidence that the intervention has ways to promote synergy with, and to manage interference from, the plans and actions of other actors, including other donors and the impact of one donor's actions on another. Here a note is made of evidence and issues relating to synergy/interference among Swiss and other projects and institutions.
G3. Replicability issues. Replicability is considered high if there is good reason to expect that the intervention will yield lessons that can be used to improve actions in the future or elsewhere, based on the expectation that previous choices, policies or planning approaches will be effective against new but similar challenges. Knowing that this has actually occurred would be strong evidence for high replicability, and here a note is made of evidence and issues relating to the potential for lesson-learning, replication and expansion.
G4. Partnership issues. Here a note is made of evidence and issues relating to promotion of ownership, accountability and enthusiasm in partner organisations.
G5. Connectedness issues. Here a note is made of evidence and issues relating to external factors and influences to which the project may have been vulnerable but over which it had little or no control, such as climate change, macroeconomic pressures, civil discord, or the Covid-19 pandemic.
G6. Cross-cutting themes (CCTs). The CCTs include human rights, governance, gender equity and social inclusion (GESI - ensuring due attention to groups who are disadvantaged because of landlessness, caste, poverty, ethnicity, gender, age, faith or other reasons). Here a note is made of evidence and issues relating to the CCTs, with particular attention to measures to promote GESI.
G7. Capacity building issues. Here a note is made of evidence and issues relating to the effectiveness and quality of processes and partnerships that may have an impact on enhancing institutional and individual capacity.
Part H: Other matters arising from the review
H1. Follow-on questions. Here a note is made of lines of enquiry identified as needing further exploration in the desk study, and how they were addressed in preparing the final PRF.
H2. Missing documents. Here a note is made of key documents that remained missing when the final PRF was prepared.
H3. Other analyses, evidence, perspectives, etc. that may shed light on or be useful to the evaluation. Notes on topics that add detail, depth and context to the findings, including detailed questions for the national consultants and their answers to them.
Part I: Bibliography
All documents cited in the review, are fully referenced in a format suitable for compilation and use in the final report.
Part J: Acronyms and abbreviations
All as used in the review, in a form suitable for compilation and use in the final report.

Annex 5: Explanatory notes for project reviews

Note A: Validation criteria

These validation criteria were used in the preliminary assessment of the SDC project spread-sheet. They are based on the Rio Climate Markers and were designed (in SDC & SECO, 2014) to confirm that each project had a valid mitigation or adaptation purpose according to the following general approaches.

Ecosystem-based mitigation [EM]: reducing net GHG emissions through the protection or restoration of natural terrestrial or aquatic ecosystems or farmlands as carbon sinks and stores.

- Adapted from Rio Climate Marker text: Protecting or enhancing GHG sinks and reservoirs through forest protection, avoided deforestation, sustainable forest management, reforestation, restoration of disturbed ecosystems (including soils through organic farming), rehabilitation of areas affected by drought and desertification, and sustainable management and conservation of oceans and other marine and coastal ecosystems, wetlands, wilderness areas and other ecosystems.

Technology-based mitigation [TM]: reducing net GHG emissions through design, engineering, procurement, construction, operation and maintenance of low-carbon systems in any economic sector.

- Adapted from Rio Climate Marker text: Reducing or stabilising GHG emissions in the waste and sewage management, transport, energy, agricultural, construction, industrial and other sectors through application of new and renewable forms of energy, measures to improve the energy efficiency of existing generators, machines and equipment, or demand-side management.

Capacity-based mitigation [CM]: building capacity to reduce GHG emissions through choice awareness, mainstreaming, planning, incentives, policy development, regulation, training, education, research, monitoring, reporting.

- Adapted from Rio Climate Marker text: Developing, transferring and promoting emission-reducing technologies and know-how, including building capacity to control, reduce, prevent or reverse emissions of GHGs in the waste and sewage management, transport, energy, agricultural, construction, industrial and other sectors. Integrating mitigation concerns and priorities within development processes, through preparation of national inventories of GHGs (emissions by sources and removals by sinks), mitigation-related policy and economic analysis and instruments, low-carbon development strategies and plans, mitigation-related legislation, mitigation technology needs surveys and assessments, and the building of mitigation-related institutional capacity. Strengthening of regulatory frameworks related to mitigation, including those to discourage GHG emissions and to remove barriers to or encourage, through fiscal, economic, legal and other incentives, investment in reducing GHG emissions. Promoting mitigation-related education, training and public awareness. Promoting research and monitoring efforts focused on mitigation and the understanding of oceanographic and atmospheric systems and processes.

Ecosystem/community adaptation [EA]: increasing environmental security in relation to disasters, food, water and health through inclusive climate-smart management and restoration of natural ecosystems and inhabited landscapes.

- Adapted from Rio Climate Marker text: Making landscapes, farming systems, and communities more resilient to environmental change, including (as appropriate to changes anticipated in each location) through measures to safeguard or restore the ecosystem services of water catchments, floodplains, wetlands, mangroves, coral reefs, beach dunes, and aquifer recharge areas, conserving water and introducing water-saving irrigation methods, introducing crops that are resistant to heat, drought, submergence and salinity, prophylaxis against vector-born and other diseases,

amending fishery management practices in response to new ecological conditions and changing fish populations, promoting diverse forest management practices and species, developing emergency prevention and disaster preparedness measures (including insurance and engineering works to relieve known threats, e.g., from glacial lake outburst floods and sea-borne storms).

Technology/government adaptation [TA]: increasing environmental security through inclusive design, engineering, procurement, construction, operation and maintenance of physical strengthening and early-warning measures.

- Adapted from Rio Climate Marker text: Supporting the integration of adaptation into national and international policies, plans, and programmes, and strengthening the capacity of key national institutions (including finance and planning ministries) to coordinate and plan for adaptation activities, and integrate adaptation into planning and budgeting. Promoting research focused on environmental change, and weather, climate and water monitoring and information systems, including observation and forecasting, impact, and vulnerability assessments and early warning systems, and on how to make landscapes, farming systems, and communities more resilient to detected or anticipated changes.

Capacity-based adaptation [CA]: building capacity to increase environmental security through education, risk and choice awareness, local empowerment, mainstreaming, planning, incentives, policy development, regulation, training, education, research, monitoring, reporting, networking, citizen science, knowledge sharing.

- Adapted from Rio Climate Marker text: Promoting stakeholder environmental monitoring and networking to enhance sharing of knowledge on environmental change, threats, solutions, and adaptation best practices (as appropriate to changes anticipated in each location), including the building of social capital, cooperation and adaptation/disaster preparedness, and the production and dissemination of public information materials on the principles and practices of adaptation. Building capacity for disaster risk reduction, preparation, and management at local, national, and regional level, by making disaster-relevant information and tools more accessible to all, by promoting disaster consciousness in adaptation policies, strategies, and programmes, and encouraging systematic dialogue, information exchange, and joint working between climate change and disaster reduction institutions and experts, in collaboration with policy makers and development practitioners. Promoting adaptation-related education, training, and public awareness-raising.

Note B: Assessing and scoring design quality

Design quality is considered high if the theory of change makes sense in context (hence: link to relevance), if the explicit and implicit assumptions of cause and effect that underly the theory of change are plausible and the links between them are supported by evidence or sound inference, and if the whole design is clearly presented as "a simple structured way of establishing and explaining the logic of the project" (DAIC, 2020: 21). Based on this, and also the quality of stakeholder participation and risk analysis, a score is given in which: 7 = 'perfect'; 6 = 'excellent'; 5 = 'good' (positive balance); 4 = 'moderate' (or satisfactory); 3 = 'weak' (negative balance); 2 = 'very weak' (dominantly negative); 1 = 'extremely weak' (no merit found).

Note C: Assessing and scoring performance

Effectiveness is "a measure of the extent to which a programme attains its objectives" (SDC, 2018: 7), so it is considered high if there is quantitative or qualitative evidence that results contributed to achieving the specific purpose. **Impact** describes "the positive and negative changes produced by a development intervention, directly or indirectly" (SDC, 2018: 7), so it is considered high if there is evidence that the intervention had effects that were wider and longer-term than its results. **Sustainability** "is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been

withdrawn" (SDC, 2018: 7), so it is considered high if there is evidence that the intervention had effects that continued after it ended, due to induced changes: (a) in policies, laws and regulations, systems and working practices, establishment of new forums, or creation of new permanent staff positions; (b) to fiscal arrangements and budget allocations, or creation of thriving businesses with local participation in benefits; (c) in trends in environmental deterioration and ecosystem restoration, or introduction of incentives and resource management systems that reward sustainable use of ecosystems; or (d) in the introduction of new ideas, groups and activities that contributed to environmental or social protections. Based on the evidence obtained, performance scores are given for these three attributes in which: 7 = 'perfect'; 6 = 'excellent'; 5 = 'good' (positive balance); 4 = 'moderate' (or satisfactory); 3 = 'weak' (negative balance); 2 = 'very weak' (dominantly negative); 1 = 'extremely weak' (no merit found).

Note D: Assessing transformative potential

Rationale. Transformation relevant to CC is described as "a fundamental change in systems relevant to climate action with large-scale positive impacts that shift and accelerate the trajectory of progress towards climate neutral, inclusive, resilient, and sustainable development pathways" (CIF, 2021). This process requires high-emitting and climate-vulnerable system elements to be replaced, and these replacements are detectable and meaningful indicators of transformative progress. All are associated with policies, traditions, institutions, etc. within each system that have maintained the old ways and may resist the new ones, so changes to these are also important. Process indicators for initial, interim and advanced signals of system change are also offered by the Climate Investment Funds (CIF, 2020, 2021). These translate into the following specific signals of different kinds of system change.

Ecological mitigation: (i) development of new or enhanced strategies/policies for high carbon-density ecosystems (e.g. REDD+ for forests, but including mangroves, coral reefs, wetlands, etc.); (ii) new decision-making or advisory bodies being established, better coordination; (iii) enhanced institutional capacity in place (governance, land management); (iv) stakeholder processes under design (consultation, awareness, grievance); (v) processes to support enhanced forest rights and tree/land tenure systems; (vi) establishment of forest and land monitoring systems; (vii) community-scale pilot projects (e.g. alternative livelihoods, business models); (viii) improved quality and availability of information (e.g. carbon mapping of ecosystems, soils, geology); (ix) new planning approaches to forestry and boundary systems underway; (x) uptake of agreed incentive structures by market participants; changes in budgetary allocations to support forestry objectives; (xi) changes in community approach and/or ownership/stewardship of ecosystems; (xii) changes in mindset and understanding of ecosystems and stewardship among decision makers.

Technological mitigation: (i) enhanced public institutional or technical capacity to integrate low-emission technologies (e.g. in energy, waste, transport, construction, industrial sectors); (ii) development of policies, regulations and incentives (e.g. permits, contracts) to encourage private investment in low-emission technologies; (iii) changes in budgetary allocations to low-emission energy and other systems; (iv) investment in enabling infrastructure (e.g. transmission, information systems); (v) increasing availability of renewable energy technologies; (vi) lower financing costs (risk premiums) for low-emission technology investments; (vii) increasing public awareness and support for renewable energy supply and other low-emission technologies; (viii) increasing affordability and reliability of energy supply for end users from renewable supply; (ix) falling capital costs for low-emission technologies; (x) improved quality and availability of information (e.g. tidal/wind resource mapping); (xi) changes in regional energy markets and power trading; (xii) changes in grid quality and efficiency.

Mitigation capacity: enhanced capacity to reduce GHG emissions through ecological and technological approaches by improving choice awareness, mainstreaming, planning,

incentives, policy development, regulation, training, education, research, monitoring, reporting, etc.

Community-led ('bottom-up', 'ecological') adaptation: (i) enhanced participatory environmental education and citizen science; (ii) enhanced local responsibility and accountability for planning decisions (e.g. local 'forums'); (iii) enhanced local tenure over ecosystems and their management, protection and restoration; (iv) enhanced capacity of local institutions and community structures for adaptation and resilience; (v) stakeholder and community-led adaptation plans and processes based on a precautionary and restorative approach to ecosystem services and security (food, water, biodiversity, fires, floods, erosion, etc.).

Government-led ('top-down', 'technological') adaptation: (i) adoption of technical standards/guidelines for resilient infrastructure; (ii) development of enhanced climate and hazard warning information systems; (iii) changes in curricula and other awareness/enabling activities; (iv) new decision-making or advisory bodies for resilience; (v) integration of resilience considerations into (cross)-sector planning processes; (vi) increased budget allocations directed towards climate resilient initiatives; (vii) sector projects routinely screen and incorporate climate resilient approach; (viii) climate information routinely applied in strategic long-term planning; (ix) enhanced understanding drives new stakeholder behaviours and decisions; (x) increased access to and availability of resilience finance via intermediaries; (xii) increasing development and effective implementation of resilience plans and processes.

Adaptation capacity is the capacity to strengthen social and ecological systems and increase environmental security, for example through inclusive education, risk and choice awareness, local empowerment, mainstreaming, planning, incentives, policy development, regulation, training, education, research, monitoring, reporting, networking, citizen science, knowledge sharing, etc.

Transformative potential for mitigation is considered high if there is evidence that the project induced or was likely to induce system-level reductions in GHG emissions, or if it was replacing high-emission system elements with low-, zero- or negative-emission ones, or if ways to achieve effects of this kind were being piloted with potential for scale-up and replication. Speed of change and scale of the system change are important additional factors. The first implies that early GHG savings are worth far more in mitigation terms than later ones. The second implies that changing large systems (sectors, industries, cities, landscapes), is more useful in mitigation terms than changing small ones (farms, SMSEs, villages, neighbourhoods). Thus, transformative potential can be turned into transformation itself by achieving rapid, comprehensive and irreversible change in the GHG emission profiles of large systems. This often involves 'top down' fiscal incentives and technological measures applied by or with the support of government, often in partnership with large businesses.

Transformative potential for adaptation is considered high if there is evidence that the intervention induced or was likely to induce system-level strengthening, or if ways to achieve effects of this kind were being piloted with potential for scale-up and replication. Speed and scale of the system change is also important for adaptation, but here there are problems of measuring strength relative to stresses that each system may experience. Proxies must be used, such as integrity of protective ecosystems and capacity of local people, government systems and insurance schemes to organise works, institutions and other effective arrangements for risk reduction, risk sharing, early warning, disaster response and rebuilding. Thus, transformative potential can be turned into transformation itself by achieving rapid, comprehensive and irreversible change in the strength of large systems. This often involves the replication of 'bottom up' local initiatives that are tailored to the risks in each location, encouraged and enabled by government, sometimes in partnership with large businesses.

Annex 6: Interviews conducted by the evaluation team

Note. The SDC 'Guidelines for writing evaluation reports with regards to data-protection' require that the names of all personnel other than Swiss citizens employed by the Swiss government be redacted from the following lists (likewise in Annex 13).

Part A: Interviews by the core team

Institution	*Interviewee*
Swiss Agency for Development and Cooperation (SDC) - Bern	**Patrick Sieber** (Core learning Partnership (CLP) & Focal Point CC&E / CCE Mainstreaming, Global Programme Climate Change and Environment), 22 Jul 2021.
SDC - Bern	**Philippe Puyo** (CLP & Programme Officer, Asia Division for Climate Change), 22 Jul 2021.
SDC - Bern	**René Kaspar** (Programme Officer, Statistics Unit), 26 Jul 2021
SECO - Bern	**Daniel Menebhi** (CLP & Programme Manager, Federal Department of Economic Affairs, Education and Research), 26 Jul 2021.
SDC - Bern	**Carin Salerno** (CLP & Head of the Western Balkan division, Federal Department of Foreign Affairs), 26 Jul 2021.
SDC - Bern	**Andreas Weber** (CLP & Programme Officer, South Cooperation: Middle East and North Africa Division), 27 Jul 2021.
SDC - Cooperation Office	**Daniel Valenghi** (CLP & Programme Officer, Global Programme Food Security), 27 Jul 2021.
SDC - Cooperation Office	**Anonymous** (Senior Regional Programmes Office), 28 Jul 2021 and 14 Oct 2021.
SDC - Bern	**Jonathan Rezzonico** (CLP & Programme Officer Climate Change and Environment, Cooperation with Eastern Europe Eurasia Division (EuraD)), 5 Aug 2021.
SDC - Bern	**Reinhard Ludwig Pfeiffer** (CLP Programme Manager, Department of Institutional Partnerships), 11 Aug 2021.
SDC - Cooperation Office	**Anonymous** (Program Officer Climate Change and Environment) and **Anonymous** (Programme Officer Climate Change and Environment), 13 Aug 2021.
SDC - Bern	**Janine Kuriger** (Head, Global Programme Climate Change and Environment), 23 Aug 2021.
SDC - Bern	**Regina Gujan** (Deputy Head, Multilateral Affairs Division - Humanitarian Aid and SHA), 17 Aug 2021.
SDC - Cooperation Office	**Cliff Hammer** (Regional Adviser, Infrastructure & Environment Western Balkans and North Macedonia), 27 Aug 2021.
SDC - Cooperation Office	**Anonymous** (Programme Officer, Food Security Domain with responsibility for Governance and Leave No One Behind) and **Anonymous** (Programme Officer, Agriculture and Food Security), 14 Oct 2021.
Swiss Federal Office for the Environment - Bern	**Gabriela Blatter** (CLP & Head of International Environmental Finance, Department for International Affairs), 24 Nov 2021.
SDC - Bern	**André Wehrli** (Regional Water Adviser, Office of Blue Peace Central Asia), 24 Nov 2021.
SDC - Bern	**Katharina Jenny** (Senior Thematic Advisor Rural Development, Eastern and Southern Africa Division), 25 Nov 2021.
Alliance of BI & CIAT – Country office	**Anonymous** (Staff, Alliance of BI & CIAT) and **Anonymous** (Staff, Alliance of BI & CIATI), 25 Nov 2021.

United Nation Development Programme (UNDP) – Country office	**Anonymous** (Programme Officer, Energy, Environment and Disaster Risk Management Unit**)**, 29 Nov 2021.
United Nations Environmental Programme (UNEP) – Country Office	**James Morris** (Programme Management Officer, CCAC Coalition Secretariat), 29 Nov 2021.
Biovision - Zürich	**Anonymous** (Staff, Biovision Foundation for Ecological Development), 30 Nov 2021.
SWISSAID - Bern	**Anonymous** (Staff, Agroecology & Climate Change Unit), 30 Nov 2021.
Centre for Development and Environment (CDE), University of Bern - Bern	**Anonymous** (Researcher, Sustainable Land Resources), 30 Nov 21.
United Nations Industrial Development Organisation UNIDO – Regional Hub	**Anonymous** (Staff, Business Development) and **Anonymous** (Staff, Arab Regional Hub), 1 Dec 2021.
International Centre for Integrated Mountain Development (ICIMOD) – National Office	**Anonymous** (Staff); **Anonymous** (Staff)**;** and, **Anonymous** (Staff), 1 Dec 2021.
Biowatch - Durban	**Anonymous** (Staff), 3 Dec 2021.
SDC - Bern	**Carmen Eckert** (Learning & Networking Specialist, Knowledge, Learning and Culture KLC Division) and **Pascale Thievent** (Team Lead, Knowledge, Learning and Culture KLC Division), 7 Dec 2021.
SDC - Bern	**Beate Elsässer** (Deputy Head, Eastern Europe Domain), 6 Jan 2022.
SDC - Bern	**HE Ambassador Dr Thomas Gass** (Assistant Director General of SDC, Head of South Cooperation Domain, and Co-Chair of the Global Partnership for Effective Development Co-operation) and **Gabriella Spirli** (Deputy Head of South Cooperation and Chair of the Operational Committee (OpCom)), 7 Jan 2022.
African Centre for Biodiversity - Johannesburg	**Anonymous**, (Staff) 17 Jan 2022.
School of Agricultural, Forest and Food Sciences (HAFL), Bern University of Applied Sciences - Bern	**Anonymous** (Staff, Forest Policy and International Forest Management), 20 Jan 2022.

Part B: Interviews by national consultants

Institution	*Interviewee*
Interviews by national consultant, Bolivia	
Agroecology Research Center Universidad Cochabamba (AGRUCO)	**Anonymous** (Staff, Monitoring & Evaluation Biocultura), 9 Nov 2021.
Directorate of Research Science and Technology (UMSS/ DICyT)	**Anonymous** (Academic, UMSS) and **Anonymous** (Academic, DIDyT) 11 Nov 2021.
Bolivian Association for Rural Development (Pro-Rural) - National Office	**Anonymous** (Staff, Biocultura and Climate Change), 15 Nov 2021.

Swisscontact - Local Office	**Anonymous** (Staff, Inclusive Markets), 15 Nov 2021.
Wildlife Conservation Society (WCS) - Local Office	**Anonymous** (Staff, Climate Change Programme), 15 Nov 2021.
Directorate of Research Programs and Social Relations (UMSA) - Local Office	**Anonymous** (Staff, Postgraduate Research and Social Interaction Department (DIPGIS)), 15 Nov 2021.
Directorate of Territorial Planning (DGPT) - National Office	**Anonymous** (Staff, Territorial Planning), 16 Nov 2021
Vice-ministry of Environment, Biodiversity, Climate Change and Forest Management and Development (VMA) - National Office	**Anonymous** (Specialist, Biodiversity), 18 Nov 2021.
Plurinational Authority of Mother Earth (APMT) - National Office	**Anonymous** (Specialist, Adaption Mechanism) 18 Nov 2021.
Helvetas Swiss Inter-cooperation - Country Office	**Anonymous** (Staff, Resilient Territories and Water Management), 18 Nov 2021.
Vice-ministry of Civil Defence (VIDECI) -– La Paz	**Cap. Carlos A. Mariaca Cerbal** (Vice-Minister, Bolivian Civil Defence), 18 Nov 2021
SDC - Cooperation Office	**Anonymous** (Programme Officer), 22 Nov 2021.
United Nations Development Programme (UNDP) - Country Office	**Anonymous** (Programme Officer), 23 Nov 2021.
Interviews by national consultant, India	
Greentech Knowledge Solutions Pvt. Ltd - National Office	**Anonymous** (BEEP), 29 Nov 2021.
SDC - Country Office	**Anonymous** (Indo-Swiss Building Energy Efficiency Project, (BEEP).
Ministry of Power, Government of India - National Office	**Anonymous** (BEEP), 29 Nov 2021.
Administrative Staff College of India (ASCI) - National Office	**Anonymous**, 30 Nov 2021
Indian Institute of Technology Bhilai (ITT)	**Anonymous** (Assistant Professor), 30 Nov 2021
Mahindra Lifespace Developers	**Anonymous** (Staff, Sustainability), 1 Dec 2021.
Department of Science and Technology, Government of India - National Office	**Anonymous** (Adviser), 1 Dec 2021.
Centre for Media Studies (CMS) - National office	**Anonymous** (Staff) and **Anonymous** (staff), 1 Dec 2021.
The Indian Himalayas Climate Adaptation Programme (IHCAP)	**Anonymous** (Programme Management), 1 Dec 2021.
ICIMOD - Country Office	**Anonymous** (Secretariat), 2 Dec 2021.

Advanced Center for Water Resources Development and Management (ACWADAM)	**Anonymous** (Staff); **Anonymous** (Staff); and **Anonymous** (Staff), 2 Dec 2021.
Department of Environment, Jammu and Kashmir Government - Regional Office	**Anonymous** (Climate Change Cell), 2 Dec 2021.
Manipur Government - Regional Office	**Anonymous** (Climate Change and Environment), 2 Dec 2021.
SDC - Country Office	**Anonymous** (Programme Officer, BEEP), 29 Nov 2021, 3 Dec 2021.
Indian Institute of Technology - Regional Office	**Anonymous** (Academic, Humanities and Social Sciences), 3 Dec 2021.
Interviews by national consultant, North Macedonia and Kosovo	
a) North Macedonia	
Embassy of Switzerland in North Macedonia - Skopje	**Cliff Hammer** (Adviser, SDC/SECO operations in North Macedonia, and Regional Adviser for Infrastructure and Environment, Western Balkans) and **Anonymous** (Programme Officer), 11 Nov 2021.
Farmahem - Country Office	**Anonymous** (Programme Officer, Nature Conservation Programme) and **Anonymous** (Programme officer), 15 Nov 2021.
Ministry of Environment and Physical Planning (MoEPP) – National Office	**Anonymous** (Sector on Nature Protection), 18 Nov 2021.
Macedonian Ecological Society (MES) – National Office	**Anonymous** (Staff) and **Anonymous** (Staff), 18 Nov 2021.
Hans Em Faculty of Forestry, Landscape Architecture and Ecoengineering, Saints Cyril & Methodius University	**Anonymous** (Academic), 19 Nov 2021. **Anonymous** (Regional Fire Monitoring), 26 Nov 2021.
Public Enterprise 'National Forests' (PENF) – National Office	**Anonymous** (Coordinator), 23 Nov 2021.
Ministry of Agriculture, Forestry and Water Economy (MAFWE) – National Office	**Anonymous** (Advisor for Forest Protection); **Anonymous** (Advisor, Department for Protection of Forests from Abiotic and Biotic Factors); **Anonymous** (Forestry and Hunting); and **Anonymous** (EU Department), 23 Nov 2021.
b) Kosovo	
SDC/Embassy of Switzerland -Kosovo - Pristina	**Torche Laurent** (EDA TLT) and **Anonymous** (National Programme Officer), 22 Nov 2021.
SKAT Consulting Ltd	**Anonymous** (Project IWRM-K), 24 Nov 2021.
Ministry of Environment, Spatial Planning and Infrastructure (MESPI) - National Office	**Anonymous** (River Basin District Authority (RBDA)); **Anonymous** (Water Resources Planning); **Anonymous** (Water Resources Management); **Anonymous** (RBDA); and **Anonymous** (Information System Officer) 30 Nov 2021. **Linda Cavdarbasha** (Deputy Minister) and **Anonymous** (Advisor), 1 Dec 2021.

Kosovo Environmental Protection Agency (KEPA) - National Office	**Anonymous** (Staff), 1 Dec 2021.
Young Water Professionals (YWP)	**Anonymous** (Team Member), 1 Dec 2021.
Inter-Ministerial Water Council Secretariat – Country Office	**Anonymous** (Advisor), 2 Dec 2021.
Initiative for Agricultural Development of Kosovo (IADK) - National Office	**Anonymous** (Staff), 2 Dec 2021.
Interviews by national consultant, Peru	
SDC - Cooperation Office	**Anonymous** (Programme Officer, Climate Change and Mitigation), 10 Nov 2021. **Anonymous** (Programme Officer, Climate Change and Mitigation), 11 and 12 Nov 2021.
HELVETAS Swiss Intercooperation - Country Office	**Anonymous** (Regional Programme Officer), 11 Nov 2021. **Anonymous** (Staff, Climate Change Programme), 15 Nov 2021. **Anonymous** (Staff, Andean Forest Programme), 17 Nov 2021.
Regional Government – Local Office	**Anonymous** (Staff, Natural Resources), 16 Nov 2021.
Libélula SAC	**Anonymous** (Project Manager), 18 Nov 2021.
Ministry for Development and Social Inclusion - Social Development Cooperation Fund (FONCODES) - National Office	**Anonymous** (Project Facilitator), 19 Nov 2021.
Centre for Studies and Prevention of Disasters (PREDES) - Regional Office	**Anonymous** (Staff, Adaptation and Climate Change Risks), 19 Nov. 2021
Ministry of Environment (MINAM) - National Office	**Anonymous** (Staff, National Forest Conservation Program for CC Mitigation), 12 Nov 2021. **Anonymous** (Staff; Environmental Quality and Eco-efficiency), 16 Nov 2021.
National Forestry and Wildlife Service (SERFOR) - National Office	**Anonymous** (Staff, Information and Forestry Order), 15 Nov 2021. **Anonymous** (Staff, Sustainable Management of Forest Heritage and Wildlife), 19 Nov 2021.
National Institute for Research on Glaciers and Mountain Ecosystems (INAIGEIM) – National Office	**Anonymous** (Staff, Technical Cooperation Office), 16 Nov 2021.
Swisscontact Climate and Clean Air in Latin American Cities (CALAC+) - Country Office	**Anonymous** (Staff, Ministry of Environment - Regulation of Mobile Sources), 17 Nov 2021.
Swisscontact Climate and Clean Air in Latin American Cities (CALAC+) - Country Office	**Anonymous** (Staff, Environmental Management Group), 18 Nov 2021.
Swisscontact Climate and Clean Air in Latin American	**Anonymous** (Staff, Secretariat of the Environment of México), 19 Nov 2021.

Cities (CALAC+) - Country Office	
Interviews by national consultant, Zimbabwe	
International Maize and Wheat Improvement Centre (CIMMYT)	**Anonymous** (Specialist, Maize Seed Systems), 15 Nov 2021.
Ministry of Agriculture, Zimbabwe - National Office	**Anonymous** (Staff, Seed Services), 16 Nov 2021
Landell Mills - Country Office	**Anonymous** (Advisor, Institutionalisation in Vulnerability), 18 Oct 2021
Seeds and Knowledge Initiative (SKI)	**Anonymous**, 24 Nov 2021
Southern African Development Community (SADC) Secretariat	**Anonymous** (Programme Officer, DRR Unit), 2 Dec 2021

Annex 7: Highlight features of the focal projects

Part 1: Descriptive project summaries

Part A: Projects with very prominent NCbS features
7F-05409: **Climate Change Adaptation Programme in Peru (PACC) (Annex 13.2)**. A pioneering, exemplary project that laid the foundations for Peru to recognise the climate change threat by promoting legislative change and developing national strategies to safeguard strategic ecosystem services through catchment management and enhanced nutritional and food security through agroecology.
7F-05448: **Programa BioCultura: Living in harmony with Mother Earth (Annex 13.3)**[43]. Helped strengthen laws, accountable governance and planning at all levels, in favour of adaptation and mitigation by excluding open-access regimes of exploitation and encouraging more accountable decision making, especially in the vulnerable Andean region; recognised as having shaped key parts of the Bolivian position on climate change.
7F-05450: **The Agro-biodiversity Initiative (TABI) (Annex 13.4)**. Explored livelihood options using the rich resources of agrobiodiversity, non-timber forest products and traditional knowledge of the Lao uplands, while engaging local people in clarifying tenure and planning the use of their village lands and forests in ways recognised by the state. It stabilised shifting cultivation systems and was quickly upscaled to exert a wide influence.
7F-06872: **Nature Conservation Programme in North Macedonia (Annex 13.6)**. Innovative training and knowledge management at a sub-national planning institution and associated municipalities, while promoting sustainable agriculture, ecotourism, nature conservation research, education, pilot projects and Natura 2000 protected areas, integrated forest management for climate change, water and biodiversity values, and public awareness.
7F-07368: **Andean Forest and Climate Change (ANFOR) (Annex 13.8)**. Mobilised stakeholders in Bolivia, Colombia, Ecuador and Peru to consolidate successful forest management, conservation, adaptation and mitigation measures and strategies; devised new forms of collaboration among scientists, governments, private sector and civil society; promoted replication and up-scaling of forest restoration, conservation and management actions.
7F-08037: **Indian Himalayas Climate Adaptation Programme (IHCAP) (Annex 13.11)**. Addressing destabilised glacial and permafrost systems across the Himalayas, the project promoted knowledge exchange on climate change and adaptation between states and with national government, built state government capacity for vulnerability assessment and adaptation planning, and facilitated training in glaciology and groundwater catchment management.
7F-08632: **Applied Research on Adaptation to Climate Change (PIA-ACC) (Annex 13.13)**. This engaged with Bolivian universities to support research on disaster risks, on managing water, land and biocultural diversity, and on food security, sovereignty and inter-cultural modelling. This increased the capacity of the university system to address CCA issues, but lacked synergy with other SDC activities in the country (e.g. 7F-05448 Biocultura, 7F-07312 PRRD) and region (e.g. 7F-05409 PACC, 7F-07368 ANFOR), and with government institutions.
7F-08780: **Strengthening Agrobiodiversity in Southern Africa (SASA) (Annex 13.1)**. Implemented by the African Centre for Biodiversity; promoted policies favouring small farmers by ensuring their representation, opening policy spaces for seed diversity and agroecology through farmer-managed seed systems, farm input subsidy programmes and networks across the SADC region to build capacity, awareness and confidence in agroecological farming.

[43] The contribution narrative *Biocultura and 'Mother Nature' in Bolivia* (Annex 9 Part C) explores the project's transformative influence and its significance for CCM by promoting forest conservation and the Rights of Mother Earth.

7F-08781: **Seed and Knowledge Initiative (SKI) (Annex 13.1)**. Implemented by Biowatch in consortium with other African NGOs; promotes informal seed systems and improving those preferred by farmers through agroecological farming, an approach to sustainable and restorative farming that marries traditional land husbandry with the introduction at community level[44] of modern ecological understanding and new techniques and crop mixtures.
7F-09038: **Sustainable water and pasture management among Ethiopian pastoralists (Annex 13.14)**. Rehabilitated degraded rangelands, restored aquifers and water sources, and diversified pastoralists' sources of income, while promoting cooperation between customary and government institutions and NGOs; it improved environmental and food security in various ways, but also attracted in-migrants that compromised its sustainability.
7F-09439: **Malteser: Strengthening Disaster Resilient Communities and Local Risk Management to Minimize Loss and Damage in Rakhine State (Annex 13.16)**. Built capacity among local disaster management authorities and communities through training and participatory exercises in disaster risk assessment, planning and emergency preparedness, while also promoting community adaptation planning and infrastructure creation both physical and ecological through mangrove restoration activities.
7F-09484: **Sustainably managed pastures and healthy animals: Mongolia's 'green gold' (Annex 13.15)[45]**. Consolidated multi-phase projects on animal health (7F-06231), and on pasture health and governance (7F-03461); enabled pastoralists to manage and monitor their own herds and rangelands, and to become stronger in protecting and advancing their own collective interests in ways that are strongly adaptive to changing biophysical circumstances.
7F-09849: **Integrated Water Resources Management in Kosovo (IWRM-K) (Annex 13.19)**. Building capacity among all relevant institutions through engagement with leadership, planning, technical innovation, legislation, training and public participation to implement the 'gold standard' EU Water Framework Directive by paying holistic and effective attention to surface and sub-surface water systems throughout Kosovo.
7F-10341: **Landscape Fire Management Programme in the Western Balkans (Annex 13.21)**. An excellent design and growing regional cooperation to promote community-based landscape fire management to slow degradation of forests so that people, wild species and ecosystems can adapt to new environmental conditions, while safeguarding ecological service functions and reducing the net rate of forest loss and GHG emissions.
7F-07807: **Rural Resilience in Southern Africa (R4) (Annex 13.9)**. Offering integrated risk management in the form of insurance, credit, savings, and market and climate information to small farmers, R4 increased their biophysical resilience by promoting conservation agriculture, crop diversification and use of adapted seeds, and their livelihood resilience by encouraging and enabling savings and risk sharing, while lowering barriers to careful investment.
Part B: Projects with less obvious NCbS features
7F-00404: **Maize initiative in Southern Africa (NSIMA) (Annex 13.1)**. The SDC seed and small-farming initiative promoted new traits and varieties which were both context specific and robust to environmental change, with the aim of greater food security for small farmers. Most maize seeds now on the market in the region (Zambia, Zimbabwe, Malawi, parts of South Africa, Mozambique, Lesotho and Eswatini) were produced under NSIMA.
7F-01324: **Beans & Maize (PABRA) (Annex 13.1)**. The Pan Africa Bean Research Alliance brought beans, micronutrient fortification and nitrogen fixation to the seed and small-farming initiative, supporting crop diversification and improved productivity and nutrition, with a strong emphasis on promoting gender

[44] The community or local level is understood to comprise small-scale societies in predominantly rural settlements and municipalities, or in urban settings the neighbourhood.

[45] The contribution narrative *Mongolian pastoralists and grasslands* (Annex 9 Part A) explores the project's significance for CCA and the significance of the 'living resource user group' approach.

equity. System-wide strengthening effects at community level, and at continental scale by way of replication and amplification through policy influence and partnerships.
7F-03316: **SADC Southern African Development Community - Seeds (SSSN 2) (Annex 13.1)**. Entry point for the seed and small-farming initiative[46], the whole of which was oriented to promoting resilience to climate change and other stresses among small farmers in rain-fed farming systems.
7F-06524: **Indo-Swiss Programme on Building Energy Efficiency (BEEP) (Annex 13.5)**. Developed and disseminated knowledge and technology to improve building design and thermal management systems among sector professionals and institutions; contributed to new government building codes and developed compliance tools; and delivered public outreach activities nationwide.
7F-07312: **Disaster Risk Reduction Programme in Bolivia (PRRD) (Annex 13.7)**. Built capacity for emergency response at national and departmental levels, promoted understanding and preparation for climate change and other risks at all levels of society, and promoted a 'culture of resilience' at all government levels and across the university system.
7F-07646: **Strengthening Seed and Output Markets (SAMP) (Annex 13.1)**. Demonstrated seed production models involving small farmers; provided a route for speeding their access to new varieties; improved their market access and links to outlets; improved household wellbeing and resilience through improved assess to loans, net income, diets, gender equity and financial literacy.
7F-07817: **Water and Energy Security through Microhydels in the Hindukush (Annex 13.10)**. Seeking to harness through mini-hydro the energy of flowing water to substitute for wood and fossil fuels, and to increase irrigation for crops and reforestation, it had problems of access and security, and exceeded local capacity to use a raft of innovative approaches (networked power, community-owned companies, pre-paid cards for electricity bills).
7F-08531: **Regional Vulnerability Assessment and Analysis (RVAA) (Annex 13.12)**. This encouraged SADC member countries to share knowledge and prepare standardised national vulnerability assessments, while creating platforms to support responses to acute food insecurity crises. The focus was on analysis of vulnerability and threat, rather than promoting adaptation through climate-smart farming[47] or community-based security improvements.
7F-09567: **Strengthening Community Resilience to Natural Hazards, Rakhine State (Annex 13.16)**. Built capacity in disaster risk assessment, planning and emergency preparedness at communities and schools, through participatory exercises and by strengthening early warning systems.
7F-09699: **Climate and Clean Air in Latin American Cities Plus (CALAC+) (Annex 13.17)**. Partnered with CCAC (see 7F-08933), mobilised authorities, public opinion, investment and technologies to reduce soot pollution from public bus fleets (through filters and substitution by electric vehicles) and other diesel engines in Santiago, Bogotá, Lima and Mexico City.
7F-09748: **Inclusive Green Growth in Egypt (Annex 13.18)**. An energetic engagement with influential stakeholders in business and government to promote understanding of climate and other environmental risks and small-enterprise investment opportunities in building a 'greener' (more circular, less wasteful, more efficient, cleaner) economy; tested CEDRIG utility; potential influence from Egypt being president of UNFCCC CoP 27 in 2022.

[46] The contribution narrative *African smallholders and farming systems* (Annex 9 Part B) explores the significance for CCA of this cluster of related projects and their experimentalist governance features.

[47] Promoting 'climate-smart farming' means “using approaches that proactively facilitate environmentally sustainable agricultural development and promote adaptation and resilience to a changing climate through (a) development/rehabilitation of the natural resource base and more sustainable and efficient use of natural resources (b) minimizing environmental impacts such as pollution; (c) contributing to low-carbon economic development; (d) minimizing the vulnerability of human and natural systems to extreme climate events due to climate change, and (e) building capacity of farmers and other stakeholders to adjust and respond to the effects of climate change” (Danida, 2014: 3).

7F-09862: **Gulf of Fonseca Inclusive Economic Development Programme, Honduras (DEIT-Sur) (Annex 13.20)**. Restored cattle pastures and cashew plantations, promoted organic fertiliser use, and organised community groups to re-activate small livestock, cashew and tourism enterprises; poorly focused, over-ambitious, and impacted by organised crime and Covid-19, it made some progress, especially on milk production and processing.
7F-10511: **Markets and Seeds Access Project in Zambia, Zimbabwe (MASAP) (Annex 13.1)**. A continuation and extension to Zambia of 7F-07646 (SAMP) demonstrating seed production models involving small farmers, provides a route for speeding their access to new varieties, improves their market access and links to outlets, and improves household wellbeing and resilience.
Part C: Additional projects investigated through interviews
7F-07194: **Blue Peace**. An ambitious, multi-decadal effort to promote water cooperation across borders, sectors and generations, seeking transformation through policy dialogue, trust building and the enabling environments. With regional chapters in Central Asia (7F-07194), the Middle East (7F-07689) and elsewhere (e.g. 7F-07810), it involves promoting dialogue in neutral spaces, using technical exchanges to provide leverage for high-level diplomatic discussion, and long-term capacity building.
7F-08933: **Support to the Climate and Clean Air Coalition (CCAC)**. The CCAC shares information on short-lived climate pollutants (soot, methane, low-level ozone and HFCs). SDC/GPCCE led and managed the agreement of a new strategy and mandate to 2030. The top CCAC priority is now the 2021 Global Methane Pledge, which targets the energy, waste and agriculture sectors, but not biome-level emissions.
UR-01115: **Flood Risk Management in the Polog Region of North Macedonia**. SDC, SECO and UNDP cooperate in setting up a resilience network of 10 municipalities, to engage with studies of sediments and landslides, flood risk management planning, restoring river beds and landslide-prone areas, developing policy, building early warning systems and public awareness, and seeking inter-ministerial cooperation on flood risk.

Part 2: Project weaknesses linked to design issues

Design issues	Examples
Weak assumptions	• **Assumed but missing**: (i) stable institutional frameworks (7F-00404: NSIMA); (ii) shared understanding between researchers and communities of how to register, validate, process and use written data (7F-05409: PACC); (iii) coherent institutional frameworks for adaptation and DRR (7F-05409: PACC); and (iv) public policy on climate change and energy investments that would encourage (or not actively discourage) private investment in energy efficiency (7F-06524: BEEP). • **Excessive reliance on**: (i) prior experience and knowledge of project partner despite unfamiliar technology and business models (7F-07817: Microhydels); (ii) expectations of local willingness to take up innovative actions (7F-07817: Microhydels); (iii) unrealistic listing of expected diverse benefits to justify the project (7F-07817: Microhydels); (iv) weak financial assumptions (7F-07817: Microhydels); and (v) a focus on one cash crop, rather than a diversified and resilient agroforestry approach (7F-09862: Fonseca). • **Lack of prior studies/evidence on**: (i) local political economy factors (energy supply, use and attitudes to costs, cash, labour, gender, microenterprise constraints, etc.) (7F-07817: Microhydels); and (ii) the relative importance of soot emissions from public buses and NRMM to urban air quality (7F-09699: CALAC).

	• **Inadequate risk analysis**: (i) design assumptions compromised by political instability, organised crime, corruption, the impact of repeated hurricanes, and domestic and gang violence affecting women and other vulnerable groups (7F-09862: Fonseca); (ii) lack of measures to monitor and update mitigation measures against identified risks (7F-09862: Fonseca); (iii) vulnerability to the effects of decades of environmental abuse (e.g. deforestation since 1885), social injustice (e.g. ethnic oppression since the 1970s) and misgovernance (e.g. military dictatorship since 1962). (7F-09439: Malteser; 7F-09567: Resilience); and (iv) attraction of in-migrants by improved environmental conditions (7F-09038: SWPM).
Ineffective knowledge management	• **Weak monitoring**: (i) of carbon capture/storage effects in relation to NDC (7F-05448: Biocultura); (ii) effects on appreciation of value addition by the Integrated risk management package at household level (7F-07807: R4); and (iii) effects on knowledge management capacity (7F-08531: RVAA). • **Weak capture and sharing of knowledge**: (i) between donors and locations on payment for ecosystem services (7F-07368: ANFOR); (ii) from field research activities (7F-08632: PIA-ACC); and (iii) with strategic steering committee members (7F-08632: PIA-ACC). • **Information gaps**: (i) weakened technical capacity building and mainstreaming in host country institutions (7F-07807: R4); and (ii) no defined minimum standards for effective participation as barriers to scaling up (7F-07807: R4).
Key missing elements	• **Missing attention to**: (i) agrobiodiversity of upland rice (e.g. 7F-05450: TABI); (ii) implementation and replication arrangements for payment for ecosystem services (7F-06872: NCP); (iii) GHG emission reduction aims, baselines, records and planned outcomes (7F-06872: NCP); (iv) drought-tolerant varieties such as sorghum and millet, rather than just maize (7F-07646: SAMP); (v) agroecology (7F-07646: SAMP); (vi) measures to incentivise and link environmental protection and restoration through education, social mobilisation &/or paid work programmes. (7F-07817: Microhydels); (vii) identifying and disseminating solutions to climate change challenges, rather than the analysis of vulnerability and warning of weakness and threat (7F-08531: RVAA); (viii) minimum standards for implementation (including guidelines or non-negotiables on design and implementation (7F-07807: R4); (ix) restoration of protective mangroves (7F-09567: Resilience); (x) limiting or reducing GHG emissions (7F-09567: Resilience); (xi) environmental education beyond awareness-raising on immediate disaster preparedness and response (7F-09567: Resilience); (xii) filling technical gaps, correcting poor operation and maintenance arrangements, corrected low institutional capacity (7F-07817: Microhydels); (xiii) direct links to environmental education, avoided deforestation and ecosystem restoration (7F-07817: Microhydels); and (xiv) updating of risk analyses or management measures (7F-09862: Fonseca). • **Capacity building**: (i) lack of measures to mitigate high staff rotation (7F-07312: PRRD); and (ii) lack of measures to correct for political barriers to collaboration between levels and institutions (7F-07312: PRRD).
Other issues	• **Inadequate arrangements for**: (i) infrastructure maintenance (7F-09567: Resilience); (ii) essential works and repairs (7F-07817: Microhydels); and (iii) 'DRR' works (protection of facilities against landslides) (7F-07817: Microhydels). • **Weak or ineffective**: (i) changes to laws, institutions, budgets etc. (7F-09567: Resilience); (ii) participation in share ownership by communities or local business development (7F-07817: Microhydels); (iii) uptake of renewable energy due to social and gendered resistance to making cash payments (7F-07817: Microhydels); and (iv) substitution of fossil fuels (7F-07817: Microhydels). • **Weak coordination**: (i) between countries, project sites and stakeholders (7F-07368: ANFOR); and (ii) between institutional partners (7F-07807: R4; 7F-08531: RVAA).

	• **Other flaws**: (i) questionable financial leverage and value for money (7F-07368: ANFOR); (ii) unsupported claims of ecological improvements (7F-07817: Microhydels); and (iii) over-ambition, need for clarity on gender, the value chain approach, synergies with other projects, the territorial approach, financial flows, cost-benefit analyses, and potential effects on migration noted by SDC committees (7F-09862: Fonseca).

Annex 8: Project Transformative Potentials and Rio Marks

	Adaptation		Mitigation	
Project no. & name	*Rio Mark (RM)[48]*	*Evaluation (TP)[49]*	*Rio Mark (RM)*	*Evaluation (TP)*
Part A: Projects with prominent NCbS features				
7F-05409: Climate Change Adaptation Programme in Peru (PACC)	Principal (4)	Very high (4)	Not (0)	Moderate (2)
7F-05448: Programa BioCultura: Living in harmony with Mother Earth	Principal (4)	Very high (4)	Not (0)	High (3)
7F-05450: The Agro-biodiversity Initiative (TABI)	Significant (2)	Very high (4)	Significant (2)	High (3)
7F-06872: Nature Conservation Programme in North Macedonia	Significant (2)	Very high (4)	Significant (2)	High (3)
7F-07368: Andean Forest and Climate Change (ANFOR)	Principal (4)	High (3)	Significant (2)	High (3)
7F-08037: Indian Himalayas Climate Adaptation Programme (IHCAP)	Principal (4)	High (3)	Not (0)	Nil (0)
7F-08632: Applied Research on Adaptation to Climate Change (PIA-ACC)	Principal (4)	High (3)	Significant (2)	Low (1)
7F-08780: Strengthening Agrobiodiversity in Southern Africa (SASA)[50]	Significant (2)	High (3)	Not (0)	Low (1)
7F-08781: Seed and Knowledge Initiative (SKI)	Significant (2)	High (3)	Not (0)	Low (1)
7F-09038: Sustainable water & pasture management Ethiopian pastoralists	Significant (2)	High (3)	Significant (2)	Low (1)
7F-09439: Malteser: Strengthening Communities	Significant (2)	Very high (4)	Significant (2)	High (3)
7F-09484: Sustainable pastures & healthy animals: Mongolia's 'green gold'	Significant (2)	Very high (4)	Not (0)	High (3)
7F-09849: Integrated Water Resources Management in Kosovo (IWRM-K)	Principal (4)	Very high (4)	Principal (4)	Moderate (2)
7F-10341: Landscape Fire Management Programme in Western Balkans	Principal (4)	High (3)	Significant (2)	High (3)
7F-07807: Rural Resilience in Southern Africa (R4)	Significant (2)	High (3)	Not (0)	Nil (0)

[48] RM = Rio Mark in the SDC project spreadsheet, converted from 0-2 to a 0-4 scale (0 = NOT TARGETTED; 2 = SIGNIFICANT; 4 = PRINCIPAL).

[49] TP = Transformative potential estimated by evaluation, converted to a 0-4 scale (0 = NIL; 1 = LOW; 2 = MODERATE; 3 = HIGH; 4 = VERY HIGH). Judgements on transformative potential are based on evidence presented in Annex 13 and are shaped by expectations of system-wide changes in strength (resilience, resistance and/or flexibility) for adaptation and/or GHG emissions for mitigation, taking into account CIF criteria for transformative change, impact and sustainability effects, and the nature of the system(s) involved.

[50] 7F-08780 (SASA) is not found in the SDC project spreadsheet, so Rio Marks are taken from similar projects 7F-08781 (SKI):, 7F-07646 (SAMP), 7F-01324 (PABRA) and 7F-10511 (MASAP).

Part B: Projects with less obvious NCbS features.				
7F-00404: Maize initiative in Southern Africa (NSIMA)	Principal (4)	High (3)	Not (0)	Nil (0)
7F-01324: Beans & Maize (PABRA)	Significant (2)	High (3)	Not (0)	Nil (0)
7F-03316: SADC - Seeds (SSSN 2)	Principal (4)	High (3)	Not (0)	Nil (0)
7F-06524: Indo-Swiss Programme on Building Energy Efficiency (BEEP)	Not (0)	Moderate (2)	Principal (4)	High (3)
7F-07312: Disaster Risk Reduction Programme in Bolivia (PRRD)	Principal (4)	Very high (4)	Not (0)	Low (1)
7F-07646: Strengthening Seed and Output Markets (SAMP)	Significant (2)	Moderate (2)	Not (0)	Nil (0)
7F-07817: Water and Energy Security through Microhydels, Hindukush	Principal (4)	Low (1)	Significant (2)	Low (1)
7F-08531: Regional Vulnerability Assessment and Analysis (RVAA)	Principal (4)	Moderate (2)	Not (0)	Nil (0)
7F-09567: Community Resilience to Natural Hazards, Rakhine	Principal (4)	Moderate (2)	Not (0)	Nil (0)
7F-09699: Climate and Clean Air in Latin American Cities Plus (CALAC+)	Not (0)	Nil (0)	Principal (4)	Moderate (2)
7F-09748: Inclusive Green Growth in Egypt (IGGE)	Significant (2)	Moderate (2)	Significant (2)	Moderate (2)
7F-09862: Gulf of Fonseca IEDP, Honduras	Significant (2)	Low (1)	Significant (2)	Nil (0)
7F-10511: Markets & Seeds Access Project in Zam & Zim (MASAP)	Significant (2)	Moderate (2)	Not (0)	Nil (0)
Part C: Additional projects investigated through interviews.				
7F-07194: Blue Peace (CICADA).	Significant (2)	High (3)	Not (0)	Nil (0)
7F-08933: Support to the Climate and Clean Air Coalition (CCAC)	Not (0)	Nil (0)	Principal (4)	High (3)
UR-01115: Flood Risk Management in the Polog Region of N. Macedonia	Principal (4)	High (3)	Not (0)	Moderate (2)
Sample size (all)	31	31	31	31

Analyses				
Analysis 1: all projects.	**Parts A-C all projects**			
Parts A-C Sample size	28	28	14	14
Parts A-C Median (alphabetic)	Sign/Prin (3)	High (3)	Significant (2)	Mod/High (2.5)
Parts A-C Mean (numeric)	3.0 (= High)	3.0 (= High)	2.6 (= Mod/High)	2.1 (= Mod.)
Parts A-C 'Average'	3.0	3.0	2.3	2.3
Analysis 2: Part A projects only.	**Part A projects: Adaptation**		**Part A projects: Mitigation**	
Part A Sample size	15	15	8	8
Part A Median (alphabetic)	Significant (2)	High (3)	Significant (2)	High (3)
Part A Mean (numeric)	2.9 (= High)	3.5 (= Very High)	2.3 (= Mod.)	2.4 (= Mod.+)
Part A 'Average'	2.5	3.3	2.2	2.7
Analysis 3: Part B projects only.	**Part B projects: Adaptation**		**Part B projects: Mitigation**	
Part B Sample size	11	11	5	5
Part B Median (alphabetic)	Principal (4)	Moderate (2)	Significant (2)	Moderate (2)
Part B Mean (numeric)	3.1 (= High)	2.3 (= Mod.)	2.8 (= High)	1.6 (= Mod.)
Part B 'Average'	3.6	2.2	2.4	1.8

Annex 9: Contribution narratives

Part A: Mongolian pastoralists and grasslands[51]

Summary

- In 2004, when the first SDC 'green gold' project began, much of Mongolia's rangeland was known to be being degraded by a national herd of grazing animals that had tripled in head-count since political controls and disincentives were lifted in the early 1990s.
- The central problem was that most (80%) of Mongolian grazing land was owned by the state, and subject to poorly-regulated open-access grazing by pastoralists' livestock - a recipe for a 'tragedy of the commons' to cause wholesale resource destruction.
- SDC interventions targeted the underlying problem by supporting the establishment of pasture user groups (PUGs), and facilitating rangeland use agreements (RUAs) between PUGs and local authorities. Each PUG would be a social unit at a scale able to control access to its own grazing lands, and each RUA would provide the recognition and backing of the state in exercising that control (with PUG federations to mobilise support), thus closing down open-access exploitation. The PUG/RUA units could then be provided with guidance on rangeland management and the development and marketing of value-adding products.
- By June 2017, 1,300 PUGs and 700 RUAs had been established, about 4.2 million hectares of degraded rangelands had been rested from livestock grazing, 70 cooperatives had been formed by the PUG federations, and community credit and saving systems were underway. Meanwhile, capacity to promote science-based rangeland management had been built in most provinces, a national rangeland health monitoring system had been introduced, and the state had been enabled to provide better veterinary care of livestock.
- The whole process is an outstanding example of community-based resource management for sustainable and locally-beneficial outcomes in partnership with government, and it is assessed as showing very high design quality, excellent effectiveness, impact and sustainability, and high transformative potential especially for adaptation and also for mitigation.

Why the story is interesting

Climate change mitigation. See Annex 11 (Carbon in pasture lands).

The Living Resource User Group (L-RUG) approach. The 'Green Gold' programme applied key principles of sustainable, participatory living resource management, and in particular the use of L-RUGs, to close down an open-access exploitation system that had arisen because of the failure of traditional forms of regulation. There are many parallels to this, most obviously between the PUGs and RUAs in Mongolia and the almost-identical system of Community Forest User Groups (CFUGs) and Operational Plans in Nepal, which was set up and authorised by a succession of laws and policies in 1995-2005. There, CFUGs were encouraged to take over the management of large parts of Nepal's forest estate as community forests, each to be managed by a CFUG with the support of the state (and various development partners in the interim, including SDC through projects 7F-07309 and especially 7F-03128; SDC & SECO, 2014: 244-254). The result in Nepal was stabilisation and possible reversal of deforestation, just as for pastureland degradation in

[51] **Sources**: (a) PRF for 7F-09484 ('Green Gold' consolidation, including projects 7F-03461 on pasture ecosystem management and 7F-06231 on animal health) and sources therein. (b) PRF for 7F-05450 (TABI) and dialogue with Cornelia Hett at the Centre for Development and Environment (CDE), University of Bern. (c) SDC & SECO (2014).

Mongolia[52]. There are also strong parallels with project 7F-05450 (TABI) in Lao PDR, which pioneered a new form of land tenure by aiming to obtain recognition for communally-owned, planned and used land and ecosystem resources from a state that had traditionally regarded all land as its own property. These L-RUG systems are not unique, however, since they have clear parallels with community conservation systems in Africa inspired by the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) in Zimbabwe in the 1980s, which evolved into the communal conservancies system in Namibia in the 1990s, and similar arrangements elsewhere, including charcoal production in Village Land Forest Reserves in Tanzania (SDC project 7F-07802 in 2011-2022) and the Community Resource Management Area (CREMA) system in Ghana since 2008[53]. The key message is that helping local people to control the resources upon which they depend, and adding environmental education. livelihood options and technical support where needed, is a replicable and cost-effective way to conserve almost any ecosystem along with its biodiversity, ecosystem services and stored carbon.

Part B: African smallholders and farming systems[54]

Summary

- Many people live at the edge of farming viability in Africa, a position aggravated by the effects of climate change. Adaptation to climate change has therefore become a key theme, particularly relating to drought resilience in farming systems, and sharing solutions among locations with similar challenges.
- Because so many of Africa's farmers are small-holders, solutions must be fine-grained and intimately adapted to local conditions, while also being available across very large areas often with uncertain communications and transport links.
- Most improvements in agricultural productivity have always arisen from the manipulation of germplasm through selective breeding on farms, and the exchange of improved varieties, and this is likely also to be the case for adaptation.
- But the need is to accelerate genetic improvements in order to cope with rapid environmental change, while combining the process with complementary techniques of climate-smart cultivation (such as targeted irrigation and conservation farming) to promote sustainable agroecology systems, risk-sharing arrangements (such as weather index-linked crop insurance) to buffer small-holders financially against environmental shocks, and easier marketing arrangements to reward innovation and promote replication.
- This contribution narrative covers a family of SDC-funded projects, programmes and institutions that addressed all these challenges and opportunities in complementary ways from the early 2010s to the early 2020s, and that collectively shed light on SDC

[52] Evidence that rates of pastureland degradation declined or recovery increased as a result of the Green Gold in Mongolia is not yet definitive, but both effects are expected to be proven eventually alongside measurably increased carbon storage and a strengthening of Mongolian society against climate change impacts. Exactly the same can be said of Nepalese forests as a result of the community forest programme, and Lao upland ecosystems as a result of TABI and FALUPAM. In all cases the systems are too complex to measure easily, and regenerative changes are slow and in themselves complex.

[53] In CREMAs, landscapes are defined by social boundaries within which (often for traditional reasons) there is social cohesion and a basis for collective action, matched where possible to ecological boundaries, legally defined, and authorized through devolved powers to manage all local natural resources in the interests of CREMA members, with revenues obtained and shared locally from their sustainable use. The observed effects have included increased conservation awareness, wildlife species returning and populations increasing, forest re-growth, reduced bushfires, and new livelihood opportunities.

[54] **Sources**: (a) PRFs for 7F-03316 (SSSN 2), including closely-related projects 7F-00404 NSIMA III, 7F-08780 SASA, 7F-08781 SKI, 7F-01324 PABRA, 7F-07646 SAMP, 7F-10511 MASAP), 7F-07807 (R4 Initiative) and 7F-08531 (RVAA), and sources therein. (b) Sabel & Zeitlin (2012).

adaptation actions that could not have been found by looking at any of the interventions in isolation.

- Their collective design quality, performance and transformative potential for adaptation are considered high overall, and together they illustrate the application of important experimentalist governance and integrated risk management approaches.

Why the story is interesting

Experimentalist governance. The activities of SADC and its member states, and of PABRA and its collaborating scientists and institutions, are examples of 'experimentalist governance' applied to environment and development issues. This is a form of governance that is typically established by agreement among central, global or apex actors and local, national or subsidiary ones, and has three defining characteristics: (1) there are over-arching but provisional goals and ways to assess progress; (2) there is broad discretion for subsidiary actors to pursue the goals in their own way, provided that they report regularly and transparently so that they can all learn from each other (e.g. through peer dialogue and periodic reviews); and (3) there are opportunities to revise the goals and ways of assessing progress, and the decision-making procedures themselves, in response to the results of the review process (Sabel & Zeitlin, 2012).

Thus, it involves free actors in a common enterprise where progress is made iteratively, through repeated cycles of design, effort and learning, followed by re-design, renewed effort, and new learning, until the goal is reached or changed. This approach is central to the design and operation of the Paris Agreement, where the over-arching goal is to respond effectively to the threat of climate change, and the process is based on partners sharing experience freely in trying to do so. In the case of SADC here, the over-arching goal (for RVAA) is to understand and reduce vulnerability, or (for SSSN) to facilitate discovery, use, exchange and commercialisation of new seed varieties, and all parties have agreed to follow certain protocols of analysis and information sharing in order to seek solutions collectively. In the case of PABRA, the over-arching goal is to identify opportunities to use bean germplasm and various techniques to improve nutrition, and all parties have agreed to pool their knowledge. The case of SASA, the ACB and networks across the SADC region, in the search for appropriate farmer-managed seed systems, farm input subsidy programmes, and plant variety and intellectual property protections, may fall into the same category.

All such systems are based on equal sharing of information and equal access to materials and knowledge among their participants. It is notable that these advances in applied experimentalist governance have all been encouraged and enabled by 'federal' systems (the EU for the Paris Agreement, Switzerland for the others), and provide a model for adding value that can be applied to many other challenges in many contexts.

Integrated risk management. The creative bringing-together of multiple ways to reduce biophysical risk (e.g. by promoting climate-smart agroecological farming systems), to buffer against financial shocks (e.g. through savings schemes) and to share financial risk (e.g. through weather-index insurance) is a powerful way to encourage and enable smallholder farmers to adapt to the dangers of climate chaos. It reveals another important source of Swiss added value, in mobilising the power and reach of its insurance and re-insurance businesses in partnership with a trusted (UN) institution and the national governments concerned.

Part C: Biocultura and 'Mother Nature' in Bolivia[55]

Summary

- The Biocultura programme began in Bolivia shortly after the 2006 election of indigenous leader Evo Morales and the MAS government, and the start of a process to develop a new constitution that would more closely reflect the values and aspirations of all Bolivian peoples.
- Since Biocultura aimed to promote the conservation and sustainable use of Andean ecosystems for the benefit of peasant and indigenous communities, it was fully in line with the intentions of most key Bolivian stakeholders and particularly the aspirations of the beneficiaries themselves. It was therefore positioned to facilitate new settlements between the interests of peasant and indigenous communities and those of the various levels and institutions of the Bolivian state.
- The need for Biocultura arose from recognition that many of Bolivia's natural ecosystems had been destroyed or were under threat, that biodiversity is a key resource for sustainable development and poverty relief, that biodiversity and indigenous cultures are co-dependant and faced common threats, and that an opportunity had arisen with new Bolivian policies to preserve both in the context of a new constitutional settlement. It was also realised that healthy ecosystems provide environmental security and so contribute to climate change adaptation (CCA), while storing carbon and thus contributing to climate change mitigation (CCM).
- Biocultura contributed strongly to developing a Framework Law of Mother Earth and Integral Development that defined the national climate policy and validated collaboration between traditional Andean organisations and knowledge systems and science-based approaches to CCA, biodiversity conservation and poverty reduction. In its second phase it also helped improve household incomes, food security and nutritional diversity, promoted the sustainable management of natural resources in community territories and national parks, helped to improve governance of natural resources in 35 municipalities and the titling processes with three indigenous peoples.
- Its third phase built on all this by supporting: (a) integrated development planning with 25 municipalities, two departments, an indigenous territory, three institutions and several economic sectors, all with CCA elements; (b) the development of 33 municipal regulations on protected areas, conservation of ecosystems and water, and food security, and of 35 community regulations to preserve soils and ecosystems and consolidate institutional frameworks, all with CCA elements; (c) the strengthening of 20 local enterprises based on food processing, camelid farming, beekeeping and biocultural tourism; (d) the validation of local cultural practices to advance social cohesion and CCA based on ancestral knowledge; and (e) the creation and consolidation of protected areas and introduction of CCA management practices.
- Design quality was considered to be very high, effectiveness and impact were found to be very strong, and sustainability likewise because of the empowering and irreversible nature of many of the changes introduced.

[55] Sources. (a) PRF for project 7F-05448 (Biocultura) and sources therein. (b) Caldecott *et al*. (2021: Annex D, Evidence and options for ecological mitigation); (c) Caldecott *et al*. (2021: Annex E, Comparing mitigation investments in a bounded future. (d) Guterres (2020). (e) Nepstad *et al*. (2006). (f) Porter-Bolland *et al*. (2012). (g) Schleicher *et al*. (2017). (h) Schwensen *et al*. (2017). (i) Theilade (2020). (j) UNEP (2008). (k) UNEP (2021).

Why the story is interesting

Climate mitigation through forest conservation. See Annex 11 (Carbon in old-growth and regenerating forests). The link with Biocultura can be seen since those parts of the Bolivian Amazon where indigenous territories received community land titles in 1995-2010 are now often forest islands amidst new soya plantations. This and other evidence from Peru and Brazil show that indigenous territories may be the only governance mechanism able to withstand deforestation pressures under modern conditions in the Amazon Basin. This amplifies the message that such territories are at least as effective as national parks at protecting biodiversity and natural forests.

Rights of Mother Earth. The Bolivian concepts of the Rights of Mother Earth and 'living well' offer an alternative to unregulated ('neoliberal') capitalism as the governing spirit of human activities and relationships with each other and with nature. The approach has increasing traction among people who reject the social and environmental costs of the current economic system on the grounds of gross injustice and imminent existential threat from climate breakdown and mass extinction. Survival priorities and public sentiment both suggest that major change is necessary and inevitable, so SDC's involvement with Biocultura has helped to develop a relevant and useful line of thinking that may contribute to reform. This could be combined with the 'Peace with Nature' approach pioneered by Costa Rica and called for by the UN, and other new forms of economic thinking about equity and sustainability, to yield an effective and broadly acceptable pathway to transformational change.

Annex 10: Small Action Global Credit survey results

Project	*Name and short description of project*	*Budget and partners*
7F-09271	Small actions India (2015-2020)	
All actions	**Global credit for small action India**. A central funding mechanism to facilitate the implementation and development of the GPCCE programme in India. This credit line aims to address key climate change related challenges in India through the financing of one-time actions contributing towards low carbon and climate resilient development. The project is being implemented in 4 phases and is composed of 23 'partial' actions. The projects are diverse, ranging from SME investment to the promotion of sustainable farming practices. Success of this funding mechanism in India is shown by the increase of funding between phase 1 (CHF 16,099) and phase 4 (CHF 400,000).	**Budget**: CHF 1,597,792. Commissioned by: SCO India. **Implemented by**: various, by individual action.
Action 03.03	**Increasing the resilience of cyclone affected communities to climate change in Odisha**. The project aims to increase the resilience of cyclone affected communities through the promotion of livelihood security, organic farming, and efficient water use. Predominantly, this partial action focuses on promoting the uptake of Aqua Alimenta pedal pumps to avoid increasing reliance on diesel pumps. To achieve its goals the project focuses on awareness building of climate change; organic farming practices; water efficiency; and women empowerment. Importantly, this partial action is part of a larger project of the SDC to strengthen farmer producer organisations, promote climate resilient crops; and, rebuild local training centres that were destroyed by cyclones.	**Budget**: CHF 100,000. Commissioned by: SCO. **Implemented by**: SDC and Aqua Alimenta.
Action 04.03	**Skills-building in energy efficient and climate resilient infrastructure in Bhutan**. SDC is supporting the Bhutan Government's 'Build Bhutan Project' by providing skills training that aims to increase energy efficiency in the construction sector. Specifically, the Helvetas component focuses on energy efficiency through youth skills development in construction carpentry and heat and ventilation. This partial action includes the following activities: a newly-drafted policy on technical and vocational education and training; training of trainers for at least 15 local trainers; basic training materials procured and training delivered to at least 100 youth in the Chumey Technical Training Institute.	**Budget**: CHF 199,930. Commissioned by: GP CCE. **Implemented by**: Helvetas Swiss Intercooperation.
7F-10002	Small actions Mongolia, Asia Regional, Cambodia and Pacific-Oceania (2018-2023)	
All actions	**Small actions regional DRR**. The objective is to build capacity to respond to the regional strategic thematic and institutional needs with regards to DRR and rapid response in the Asia Pacific. The Regional Hub on DRR / Rapid Response in Bangkok aims to service SDC priority countries in the ASEAN region, responding to sudden-onset disasters according to the universal mandate of humanitarian Aid (Asia-Pacific region). The small action credit line	**Budget**: CHF 200,000. **Commissioned by**: SCOs Asia Regional. **Implemented by**: various, by individual action.

Project	*Name and short description of project*	*Budget and partners*
	allows the Hub to flexibly support DRR measures in SDC offices in Laos, Cambodia, Myanmar, Mongolia and advance the regional policy dialogue with ASEAN (and eventually PIF) in areas of joint interest. The relevance of this initiative is that CCA measures are not built into SDC projects from the very outset, this credit line allows to add them during the project duration and mainstream DRR. Furthermore, the credit line allows to organize training in the fields of climate, DRR and Environment for SDC staff/partners and increase "green" knowledge for project planning. Finally, it also supports activities of regional actors (e.g. ASEAN) on a small scale to enhance their regional leadership role in the field of disaster management.	
Action 01	**Mongolia: Asia ministerial conference on disaster risk reduction (AMCDRR)**. This partial action financed participants from the ASEAN and the Pacific region to participate in the Asian Ministerial Meeting on DRR (July 2018). Delegates included members from the ASEAN Secretariat, AHA Centre, Pacific Islands Forum (PIF), Secretariat of Pacific Community (SPC), GIZ Vanuatu.	**Budget**: CHF 32,000. **Commissioned by**: SCOs Asia Regional. **Implemented by**: SDC Regional Advisory Hub.
Action 02	**Pacific: Towards Pacific resilience partnership**. The partial action's objective was to organise the Climate, Environment and Disaster risk reduction integration guidance (CEDRIG) Regional Online Workshop for the SDC offices in Lao, Cambodia and Myanmar (November 2020). Programmatic activities were defined to support upcoming opportunities and established priorities by the PIF and SPC.	**Budget**: CHF 35,000. **Commissioned by**: SCOs Asia Regional. **Implemented by**: SDC Regional Advisory Hub.
Action 03	**Cambodia and Lao PDR: Selected DRR mainstreaming (CHAIN, PaFF, PRF, LURAS)**. The 2022 Project will involve Water Quality sampling, testing and reporting for provinces covered by the CHAIN project in Cambodia and collaboration with RIMES for the provision of datasets for Cambodia and Lao to establish multi-hazard maps (GIS) for SDC projects. Costs for DRR training workshops in Cambodia and Laos in 2018 were facilitated by regional DRR&RR advisors tailored to SCO and projects' needs. Programmatic activities are being defined based on demand and priorities of the national SCOs.	**Budget**: CHF 2,000. **Commissioned by**: SCOs Asia Regional. **Implemented by**: SDC Regional Advisory Hub.

Project	*Name and short description of project*	*Budget and partners*
7F-04319	Small Actions Mongolia (2005-2023, CHF 234,564 disbursed)	
Action 06.01	**Climate change effects on water reserves (glaciers, permafrost) in the Altai-Sayan and Khangai mountainous regions of Mongolia**. The project comprised multiple components to establish a better understanding and quantification of CC effects on water resources (glaciers, permafrost) in the mountainous regions of West Mongolia. A study was conducted that quantified the long-term areal changes of thermokarst lakes (lakes formed by the thawing of ice-rich permafrost) and glacier-connected lakes in selected mountainous regions by using remote sensing, bathymetric and terrestrial (differential GPS) measurements of paleo shorelines. The findings were disseminated to local communities, governmental administrations and authorities to transfer knowledge, raise the awareness of CC effects and discuss strategies of mitigation, which are in line with the SDC Global Programme Water, Strategic Framework 2017-2020. The project also addressed other CC problems to the herder's life in the key sites - delivering baseline data for improved decision-making processes for future land and water management strategies.	**Budget**: CHF unknown. **Commissioned by**: SCO Mongolia. Implemented by: unknown.
Action 06.02	**Improvement of water management in the Great Gobi B strictly protected area**. In 2019, the Mongolian parliament extended the Great Gobi B Strictly Protected Area (GGBSPA) from 9,000 to 18,000 sq. km. The project aimed to improve water management by ensuring better protection of the GGBSPA region by creating a buffer zone to protect essential water resources and to combat the risk of desertification. To do this a water analysis of all rivers, springs and lakes was conducted to determine possible health issues related to consumption. Water sources that were not suitable for human and livestock consumption were labelled. Awareness raising and workshops on water stewardship principles were afforded to herders and local authorities, while a 'young researcher' initiative was implemented at six schools in the buffer zone.	**Budget**: CHF unknown. **Commissioned by**: SCO Mongolia. Implemented by: unknown.
Action 06.03	**Real-time wildfire mapping for early detection and prediction pilot project for Mongolia**. The objective was to create a real-time open public forest fire detection map with a direct connection to the emergency agency. Fire detection cameras with applications and software to detect fire were configured and tested, an artificial intelligence camera module was developed, and drones were obtained from a Chinese supplier. Covid restrictions prevented drone operation engineers from Spain and Japan from attending, so the project achieved only the development of some technical capacities.	**Budget**: CHF unknown. **Commissioned by**: SCO Mongolia. Implemented by: unknown.

Project	*Name and short description of project*	*Budget and partners*
Action 06.04	**Greenhouse gas reduction studies**. The Project objective was to establish good governance in the field of energy efficiency to reduce GHG emissions and mitigate climate change through integrated management of conservation and efficient use of energy, and introduction of specific technical knowledge and promoting the use of advanced energy efficient techniques and technologies for designated consumers specifically in the industrial sector. The main activities of the small action project were to provide policy support in defining policy framework through technical assistance, specialised studies and policy advocacy. The project delivered a study looking at the national system for measurement, reporting and verification (MRV) of the GHG emission reductions achieved from energy conservation and energy efficiency. The study presents the basic projections of the national system for measurement, reporting and verification of the GHG emission reductions achieved from energy conservations and to develop integrated database climate change mitigation.	**Budget**: CHF unknown. **Commissioned by**: SCO Mongolia. Implemented by: unknown.
Action 06.05	**Wetland conservation along the Ulz river in north-eastern Mongolia**. This partial action aims to investigate livestock impacts, especially horses and cattle using GSM tags on livestock and satellite transmitter on cranes. Livestock contributes directly to GHG emissions, and pasture degradation also releases carbon captured in the soil and roots of plants. Various modelling results demonstrated that under the high-stress condition on pasture use, all characteristics of grassland are expected to decrease which limits the growth, yielding capability of plants, and further weakening root systems. Therefore, both decreased pasture productivity and increased number of livestock contribute to climate change also making herder communities vulnerable to CC impacts. Based on the results, a grazing management plan will be elaborated for livestock pastoral movement combined with the development of birdwatching tourism, wetland education and research, and outreach to nomadic herders.	**Budget**: CHF unknown. **Commissioned by**: SCO Mongolia. Implemented by: unknown.

Project	*Name and short description of project*	*Budget and partners*
7F-02102	Small Actions SADC (1987-2022)	
All actions	**Climate, environment and disaster risk reduction integration guidance (CEDRIG)**. SDC is systematically reviewing its strategies, programmes and projects across domains to make them climate-smart, environmentally sustainable and disaster-resilient. The CEDRIG Workshop in Harare in May 2018 was the starting point for this process. Its main goal was to sensitize SDC and key implementing partner staff to the implications of climate change, environmental degradation and disaster risk reduction on beneficiaries and programme activities, and to train them on the use of SDC's CEDRIG tool to screen and improve projects and programmes. Facilitated by staff at HQ and the embassy in Harare, participants worked hands-on screening four different projects for risks and impacts – two from the food security and two from the HIV/AIDS domain. The training focused on CEDRIG Operational and helped to screen four projects related to agriculture, health, and education to better integrate climate change, environmental issues and disaster risk reduction in the respective activities as well as to allow people to become familiarised with the tool.	**Budget**: CHF 51,351 (disbursed). Commissioned by: SCO SADC. Implemented by: unknown.
7F-01791	Small Actions Tajikistan (2001-undated)	
All actions	**Climate change adaptation small action projects**. A call for proposal for small projects addressing CCA and environmental protection (waste management) issues was launched in July 2021. Two projects from the 4 selected were CCA: 1) improved irrigation in the Pamirs high and dry land, selection of appropriate crops, acquisition of proper and adequate farming techniques; and, 2) use of afforestation/reforestation for biodiversity protection, greenhouse food production, remediation of contaminated sites. It was decided the use of 'small actions' was a good means for testing new ideas and new partners. Having a call for proposal allowed there to be a comparison of various offers to see what was 'out there'.	**Budget**: CHF 252,027 (disbursed). **Commissioned by**: SCO Tajikistan. Implemented by: unknown.
Action 01.01	**Climate change mitigation - improving private household energy efficiency**. This demonstration/pilot project aims to find the best-suited energy efficiency solutions (passive use of solar energy, insulation, improved ovens, etc.), providing people with the technical know-how on how to build or renovate their homes.	**Budget**: CHF unknown. **Commissioned by**: SCO Tajikistan. Implemented by: unknown.

Project	*Name and short description of project*	*Budget and partners*
7F-09656		
Action 01.04	**Low-income countries and unburnable carbon: unpacking the challenge**. This project has two objectives. First, to help articulate a just transition approach for low-income countries, especially those rich in fossil fuels. Second, to explore promising institutional vehicles to support the identified solutions for incorporating unburnable carbon considerations in development assistance. Broadly the project hopes to unearth further avenues for international cooperation on 'supply-side mitigation', encouraging divestment from fossil fuels by influencing multilateral development banks and reforming the international investment regime. This project will take existing research findings and data collected from interviews to formulate an international policy process encouraging resource-rich low- and middle-income countries to align their development with the global need to phase out fossil fuels.	**Budget**: CHF 42,000 (CHF 38,255 disbursed). Commissioned by: SDC. **Implemented by**: IISD International Institute for Sustainable Development (see IISD, 2018).

Annex 11: The NCbS approach to climate change

Nature/community-based solutions (NCbS)

Nature-based solutions are defined by IUCN (2021) as "actions to protect, sustainably manage and restore natural and modified ecosystems that address societal challenges effectively and adaptively [while] simultaneously providing human well-being and biodiversity benefits", and by JNCC (2021) as "actions which enlist elements of nature or natural processes to address a particular problem, or suite of problems, faced by society and which deliver multiple benefits in the form of public goods". Examples are given by GPNbSCR (2020) show that they can deliver more resilient infrastructure and involve integrated approaches to address development challenges with great versatility in coastal, urban and river basin settings. Ecosystems include settled landscapes, farms, catchments, soils, grasslands, forests, wetlands and rivers, and their inhabiting wildlife and people.

The general problem to which NbS apply is the tendency of people to over-exploit ecosystems once freed from the rules for sustainability devised over millennia of trial and error. Focusing by necessity on local people, therefore, NCbS seek to remind them of their dependence on nature and to introduce new rules for sustainability and/or to confirm traditional ones. So the NCbS approach is about treating ecosystems with respect and knowledge, appreciating the benefits that they bestow on people, and acting to understand, protect and restore them as necessary. This can take many forms because ecosystems and human cultures are diverse. One is the 'Peace with Nature' approach of Costa Rica, based on innovative technologies and financial incentives organised by the state in collaboration with business. Another is the 'Rights of Mother Earth' approach of Bolivia, based on reciprocity between humanity and nature as a spiritual and social duty organised by communities and protected by the state. Arrangements supported by SDC reveal many others, from agroecology, conservation farming and IWRM to LFM, springshed mapping and community-based pasture management.

NCbS and climate change

The specific problem to which the NCbS approach responds is two-fold, being related to the causes and consequences of climate change.

- **NCbS-CCM addresses causes**, and focuses on the fact that ecosystems absorb carbon from the air and store it in a dynamic way within themselves (see below). It is used to help redress dangerous imbalances in the net distribution of carbon between the terrestrial and aquatic biosphere and the atmosphere. In practice, this means protecting carbon-rich ecosystems (forests, mangroves, peatlands, coral reefs, soils, etc.) to prevent carbon emissions from fire and decay, and helping them recover and regenerate so they can absorb carbon from the air.
- **NCbS-CCA addresses consequences**, and focuses on using and maintaining the inherent strength of ecosystems to protect people from harmful impacts and to maintain food and water supplies. Since ecosystem strength comes largely from vegetation cover and root systems, in practice this usually means protecting and restoring plant communities and soils in ways that are consistent with local ecological conditions, the needs of plants for co-evolved species (pollinators, nitrogen-fixers, seed-dispersers, etc.), and the priorities of the people doing the work and receiving the benefits.

Since the carbon balance of a landscape is affected by the health and biomass of its ecosystems, which also affect environmental, food and water security, NCbS-CCM and NCbS-CCA are often co-beneficial. Thus it is necessary when calculating the costs and benefits of any NCbS action to consider co-benefits of mitigation for adaptation, adaptation for mitigation, and of either for biodiversity as well as for any of the other SDGs, the details of which will depend on precisely what is done by whom, and under what conditions of governance and benefit distribution.

NCbS and private sector engagement

IUCN (2021) provides the following examples of the value of NbS "for people and planet": (a) solutions for infrastructure worth USD 57 billion in the form of flooding damage averted by mangroves in China, India, Mexico, the USA and Viet Nam each year; (b) solutions for climate in the sense that NbS can contribute 37% of mitigation needed to meet the Paris climate goal; and (c) solutions for smart investments worth USD 170 billion in the form of ecosystem services from NbS focused on climate.

Translating these economic (and therefore public) benefits into financial terms through business investment is a vast topic and practice, applied by SDC across a range of scales from the smallest village enterprise in ecotourism, farming or fishing, to the largest continental risk-sharing mechanisms to buffer investors against climate-related shocks and involving insurance and re-insurance corporations. Finding ways to harness private enterprise to the business of net atmospheric carbon reduction for global benefit and ecosystem services maintenance for local benefit is an evolving challenge with as many potential solutions as there are potential actors. But in general terms, projects that support private sector engagement in NCbS can involve improving partners' access to finance, expertise and technology, supporting intermediary business organisations, and increasing private-public dialogue, while also helping to build the capacity of all partners.

NCbS and poverty reduction

Analyses of NbS in development emphasise multiple co-benefits from the approach, for example 2,900 case studies demonstrating the 'triple win' of reducing poverty, addressing climate change and enhancing biodiversity reviewed by JNCC (2021), and the targeting of multiple SDGs, "such as climate and disaster-risk resilience; economic and social prosperity; water security; and health and food security. Investments in these kinds of solutions across the world have already shown that they can have multiple, cross-sectoral benefits and development impacts at lower costs." (GPNbSCR, 2020).

The NCbS approach contributes to the enabling conditions for poverty reduction through its focus on local ecosystems and the goods and services they provide to local people. Combined with participatory environmental education, resource mapping and planning, local people become more interested in decisions that affect local ecosystems and the costs and benefits of those decisions for themselves. This builds demand for local accountability and local benefit sharing, which promotes good governance and motivates local enterprises to use local resources. Effects of NCbS are then exerted on livelihoods by enhancing the physical security of invested operations, equipment and infrastructure, ensuring the uninterrupted supply of food, water and raw materials to sustain people and for use in manufacture, creating opportunities to use biodiversity and ecosystem services in new ways, and mitigating environmental impacts that would otherwise undermine the business models of the SMSEs that are the primary vehicles for poverty relief in developing countries.

Carbon in pasture lands

Sources agree on the mitigation value of well-managed grasslands. SDC & SECO (2014: 18) noted that "grassland management has the potential to sequester carbon to the extent of 0.11-1.50 tCO_2/ha per year, [which] can be achieved by controlling grazing intensity through regulation of the animal stocking rate, by enhancing rotational grazing, and by limiting grazing time by season over the year." "Grassland sequesters carbon [and as] with forests, the rate of sequestration varies, but in most circumstances the rate is lower than forests achieve in a comparable ecosystem. The critical difference is that grassland stores sequestered carbon reliably and safely. The substantial stocks of carbon in temperate grassland ecosystems located below ground in roots and soil are 150% greater than those in temperate forest [and are much less vulnerable to fire]. Apart from wetlands and boreal forest ecosystems, temperate grasslands are notable as the largest store of soil carbon and 97% is stored in the soil. When grassland is converted to cropland there is a 59% decline in soil carbon stocks, and a 10% decline when grassland is converted to forest plantation

which confirms the value of grassland compared to forestry and emphasises the value of permanent pasture compared with the dangers of current methods of cultivation of crop land." (Alderson, 2020).

Carbon in mangroves

Mangrove forests occur along ocean coastlines throughout the tropics, and support numerous ecosystem services, including fisheries production and nutrient cycling. They have halved in extent over the past half century as a result of coastal development, aquaculture expansion and over-harvesting. Carbon emissions resulting from mangrove loss are uncertain, owing in part to a lack of broad-scale data on the amount of carbon stored in these ecosystems, particularly below ground. But Donato et al. (2011) quantified whole-ecosystem carbon storage by measuring tree and dead wood biomass, soil carbon content, and soil depth in 25 mangrove forests across a broad area of the Indo-Pacific region where mangrove area and diversity are greatest. These data indicate that mangroves are among the most carbon-rich forests in the tropics, containing on average 1,023 t/ha of carbon. Organic-rich soils ranged from 0.5 m to more than 3 m in depth and accounted for 49-98% of carbon storage in these systems.

Carbon in old-growth forests

Many researchers have tried to generate and use robust data on the carbon content of old-growth forests (for example: deFries *et al*. (2002); IPCC (2006); Pan *et al*., 2011; Saatchi *et al*., 2011; Cid-Liccardi *et al*. (2012); Robledo-Abad, 2015; Sonwa *et al*., 2016). Reviewing these studies, Caldecott et al. (2021) concluded that for the purposes of considering portfolios of potential investments that may cover multiple forests in multiple locations, it would be reasonable to take as a conservative average the range of 160-240 t/ha carbon (mid-point 200 t/ha) for natural moist tropical lowland forests, and 40-120 t/ha (mid-point 80 t/ha) for natural seasonal and montane forests. Establishing a new protected area in a tropical forest zone prevents GHG emissions if the area is under threat and protection is likely to preserve it. The total amount of stored carbon can be accounted as an immediate mitigation gain, which is vital because the mitigation value of carbon conservation declines rapidly over time. Additional carbon storage can be expected from re-growth of forest in a protected area that had previously been damaged (see below). Since most tropical forests are under threat, and since community-based protection arrangements are often highly effective and relatively cheap (Danielsen *et al*., 2013; Brofeldt *et al*., 2015, 2018; Theilade *et al*., 2021), forest conservation through community action can be a strongly cost-effective mitigation action, with abundant co-benefits in the form of environmental services, biodiversity, livelihoods and human rights.

Carbon in regenerating forests

Suarez et al. (2019), refined the 2006 IPCC Guidelines for National Greenhouse Gas Inventories by incorporating aboveground net biomass change (∆AGB) data from 2006, comprising 176 time series in secondary forests and 536 permanent plots in old-growth and managed forests in 42 countries in Africa, North and South America and Asia. They generated ∆AGB rate estimates for younger secondary forests (≤20 years), older secondary forests (>20 years and up to 100 years) and old-growth forests. In tropical rainforests, ∆AGB rate estimates ranged from 3.4 (Asia) to 7.6 (Africa) t/ha/yr in younger secondary forests, from 2.3 (North and South America) to 3.5 (Africa) t/ha/yr in older secondary forests, and 0.7 (Asia) to 1.3 (Africa) t/ha/yr in old-growth forests. These can be halved to yield carbon accretion rates, with mid-points of about 2.8 t/ha/yr in young forests, 1.5 t/ha/yr in older secondary forests, and 0.5 t/ha/yr in old-growth forests (the latter figure being similar to that of 0.67 t/ha/yr from 119 monitoring plots in Andean forests reported by Duque *et al*., 2021). For comparison, annual forest carbon sequestration in managed forests in 1992-2012 was 0.39 t/ha/yr in Finland, 0.46 t/ha/yr in Norway and 0.31 t/ha/yr in Sweden (Framstad *et al*. (2013).

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