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Climate-Security and Peacebuilding

Thematic Review

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CLIMATE SECURITY MECHANISM

UKaid from the British people

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Cover Image

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List of Acronyms

ACORD	Association for Cooperative Operations Research and Development
AU	African Union
CANCC	Coalition of Low-Lying Atoll Nations on Climate Change
CAR	Central African Republic
CB	Cross-Border
COVID-19	Coronavirus disease
CSM	Climate Security Mechanism
CSO	Civil Society Organization
DCAF	Geneva Centre for the Democratic Control of Armed Forces
DPCC	Development Partners on Climate Change
DPO	United Nations Department of Peace Operations
DPPA	United Nations Department of Political and Peacebuilding Affairs
DRC	Democratic Republic of Congo
EEZ	Exclusive Economic Zones
FAO	Food and Agriculture Organization of the United Nations
FESU	Fundación de Estudios Superiores Universitarios
GCF	Green Climate Fund
GEF	Global Environment Facility
GEWE	Gender Equality and Women's Empowerment
GHG	Greenhouse Gases
GPI	Gender Promotion Initiative
GYPI	Gender and Youth Promotion Initiative
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Person
IEP	Institute for Economics and Peace
ILO	International Labour Organization
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
IRF	Immediate Response Facility
ITC	International Trade Centre
LNR	Land and Natural Resources
MINUSMA	United Nations Multidimensional Integrated Stabilization Mission in Mali
MPTF	Multi-Partner Trust Fund
ND GAIN	Notre Dame Global Adaptation Initiative
NGO	Non-governmental Organization
OHCHR	Office of the High Commissioner for Human Rights
PBC	Peacebuilding Commission
PBF	United Nations Secretary-General's Peacebuilding Fund
PBSO	United Nations Peacebuilding Support Office
PCSN	Pacific Climate Security Expert Network
PDA	United Nations Peace and Development Advisor
PIF	Pacific Islands Forum
PIFS	Pacific Islands Forum Secretariat
PRF	Peacebuilding and Recovery Facility
PVE	Preventing Violent Extremism
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RMI	Republic of the Marshall Islands
SDG	Sustainable Development Goal
SFCG	Search for Common Ground
SIDs	Small Island Developing States
SIPRI	Stockholm International Peace Research Institute
TTT	Transhumance Tracking Tool

UCDP	Uppsala Conflict Data Program
UK	United Kingdom
UN	United Nations
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UN-Habitat	United Nations Human Settlement Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNISS	United Nations Integrated Strategy for the Sahel
UNOPS	United Nations Office for Project Services
UNU-CPR	United Nations University Centre for Policy Research
USAID	United States Agency for International Development
WFP	World Food Programme
WPS	Women, Peace and Secuity
WUA	Water Users Associations
WWUG	Women Water Users Groups
YPI	Youth Promotion Initiative

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Executive Summary

How to respond to anticipated climate change is a defining challenge across nearly every field and scope of human activity. Peacebuilding is no exception. While many have identified ways that climate change or environmental degradation might affect peace and security concerns, how to best respond to these so-called 'climate-security' challenges is still an emerging area of practice within the peacebuilding field.

As part of its continuous monitoring and learning process, the UN Peacebuilding Support Office (PBSO) annually commissions thematic reviews to examine past practices and promising innovations in specific areas of peacebuilding. This review, focused on climate-security projects approved by the UN Secretary-General's Peacebuilding Fund (PBF) between 2016 and 2021, is a particularly relevant exercise given the state of the climate-security field. It offers an opportunity to survey climate-security or related environmental peacebuilding efforts across 33 countries, as developed and implemented by some 29 partners, including both UN entities and civil society organizations.

The 43 projects identified as climate-security projects in this review span a number of issues – from projects that respond to situations in which climate change has already contributed to active conflict to those that raise awareness about the existential threats of climate change, aim to prevent future conflict by nurturing community cohesion, or encourage regional climate change adaptation as an integral part of peacebuilding strategies. The sample also features projects that test integrated responses to issues of gender, climate, and security, promote youth inclusion in natural resource management, and emphasize cross-border or transnational programming approaches.

In addition to providing an overall analysis of the themes and results in these 43 projects (spanning 22 countries), the review drew more contextualized lessons from three case studies: 1) nine projects in the Liptako Gourma subregion spanning Mali, Burkina Faso, and Niger; 2) two projects in Yemen; and 3) a cross-border project spanning the three Pacific Islands of the Republic of the Marshall Islands, Kiribati, and Tuvalu.

The **Liptako Gourma case study** illustrates how environmental pressures on regional transhumance patterns, in combination with active transnational armed groups and trafficking and weak or absent governance, have fueled violence and contributed to dire conditions. While these dynamics also created stark challenges for project implementation, the PBF investments in climate-security offered some promise in terms of being able to address root causes, and to shift the narrative from overly-militarized approaches. They also introduced a more regionalized lens to peacebuilding, and a much-needed focus on peacebuilding approaches that address the needs of vulnerable populations.

The two projects in the **Yemen case study** sought to mitigate local water blockages and associated conflict in a country that is both one of the most water-scarce in the world and one where conflict dynamics have halted many local peacebuilding and development activities for nearly a decade. Both projects adopted an innovative approach to women's inclusion in local water management and dispute resolution, and succeeded despite substantial gender barriers. The results suggest that 'bottom-up' peacebuilding around local natural resource issues may be among the most promising areas for peacebuilding in these difficult conflict environments, offering opportunities to alleviate local conflicts and sources of vulnerability, while also offering entry points to work on other trenchant social issues, such as women's or youth exclusion.

The **Pacific Islands case study**, although unique among other PBF-funded projects in many respects, offers insights into prevention-oriented programming and the particular climate-security concerns of island nations. While it was an important example of expanding conceptions of climate-security, some of the project components appeared far from PBF's comparative advantage in terms of local peacebuilding, and may not have been well tailored or sufficiently scaled to address the core climate-security issue in question – the existential risk faced by island nations.

Overall, this thematic review suggests that the PBF and the PBSO have helped to focus attention on climate-security and other environmental degradation in the context of peacebuilding. As one practitioner in the field observed: "At the current moment climate-security is a big policy priority but it wasn't [before]. PBSO played a big role in socializing its importance in programming. They've played a catalyzing role."[1]

The PBSO's efforts to focus attention on climate-security and encourage the development of practice has pushed boundaries and galvanized greater attention to the nexus between climate, security, and peacebuilding, which ultimately builds resilience and supports sustainable development outcomes in some of the world's most complex situations. The many partners implementing

these PBF-funded projects have been at the forefront of piloting innovative approaches and acting as the 'bottom-up' realization of global commitments to encourage community adaptation. In addition, the nature of the PBF's focus within its climate-security and peacebuilding portfolio has helped to shift the narrative around the causes of conflict, and its possible solutions.

The following key issue areas and recommendations for further growth and improvement stood out:

Further leverage the tremendous promise that climate-security and environmental peacebuilding demonstrate: Investments in environmental peacebuilding approaches, including improvements to agriculture and natural resource infrastructure, get to the heart of what many communities view as both their most pressing human security concerns, and the factors that contribute to persistent conflict and competition. Conducting these activities with an eye towards not just immediate scarcities, but also future pressures due to climate change, is critical. Combining them with other peacebuilding, social cohesion, disaster risk reduction, resilience building, and governance-strengthening approaches will increase the chances that PBF-supported projects have sustaining effects and better address the root causes of conflict. The project evidence also suggested that engaging in the environmental and climate-security space can bring important co-benefits for other peacebuilding priorities. Working through environmental peacebuilding offers entry points for beginning to address trenchant social issues, such as women's inclusion or elite capture in local communities.

Continue to strengthen gender- and youth-focused projects: More than half of the projects examined focus on women and youth, for example, on increasing their participation and inclusion in local natural resource management and other climate-security-related activities. The number of projects focused on women and youth was well beyond those that were supported through the Gender and Youth Promotion Initiative (GYPI), a specific funding modality. Some of the most exciting and innovative climate-security projects supported by the PBF have been those exploring women's role in climate change adaptation, and ways to address the specific vulnerabilities faced by women due to climate change and its interaction with other factors. A new crop of projects explored ways that women's inclusion would contribute to achieving the environmental or climate change goals in question, with an explicit testing and adaptive learning approach that is a model for best practice development in the field as a whole.

Despite this, a significant number of the projects that focused on Gender Equality and Women's Empowerment (GEWE) had only superficial climate or environmental components. Gender experts suggested that this reflected a larger trend of not fully realizing synergies in the gender-climate-security sector. Greater support to learning in this field and pushing projects to interrogate the synergies between climate and environmental-related components on one hand, and gender equality and women's empowerment goals on the other, may be necessary. In addition, projects focused on GEWE still tended to measure results based on levels of participation in key activities. More needs to be done to ensure meaningful participation, and also to try assess incremental gains in ways that go beyond satisfying quotas.

There was insufficient evidence to fully evaluate the eight climate-security projects with a strong focus on youth. However, the reviews and evaluations that had been conducted suggested that there may be a need to go beyond expanding opportunities for inclusion and participation. Deeper understanding of youth motivations, as well as the limitations on their participation and the issues behind their grievances and vulnerability, may be necessary to improve their contributions to climate-security dynamics.

Continue to prioritize, but strengthen, cross-border programming: The PBSO has prioritized development of cross-border projects (a PBF-supported project carried out in more than one country simultaneously). This was viewed as one of the most significant contributions of the PBF to climate-security work and should continue to be a priority. However, given the additional costs of implementing a project in more than one country simultaneously, there must be clear added-value to the Theory of Change and project goals. Where the main cross-border element involves the same activities on both sides of a border, additional questions should be asked as to how this would advance the Theory of Change. There may also be additional merit in modeling future PBF-funded projects on past environment peacebuilding work that addresses transnational natural resources (i.e. cross-border water issues).

Build on PBF progamming in countries or situations at risk or affected by violent conflict: The PBF has been an important leader in promoting climate-security and peacebuilding work in countries or situations at risk or affected by violent conflict. These areas represent the most vulnerable to climate-security risks, but also pose the greatest challenges in achieving the scale of programming necessary. The case studies and other project results suggest local level engagement on climate-security and peacebuilding may be one of the most tractable areas to engage in extremely fragile

environments, opening opportunities to address local sources of violence and strengthen local governance despite continuing volatility at a national level. The degree of success appeared to vary in part due to whether the resource or environmental issues in question were predominantly transnational or local in nature. Greater exploration of this dynamic may improve programming approaches, and also nuance project results expectations. In addition, extending the timeline for projects in these environments, and continuing the flexible approach that the PBF is known for, will be key to promoting greater success.

Build on the recent growth in climate-security projects through strategic engagement: There has been a notable growth in climate-security-related projects in recent years – from none in 2016 to 19 in 2021. Interviews with experts and practitioners suggested that the PBSO focus on this issue has encouraged greater attention to, and investments in, climate-security and peacebuilding among other donors. To enhance this catalytic effect even further, the PBSO might consider engaging in more strategic conversations with larger climate funds and donors leading on climate change adaptation, disaster risk reduction, and resilience – identifying potential synergies with their portfolios, and additional strategies or criteria that might enable more climate-security and peacebuilding projects to be taken up, particularly in more fragile environments.

Strengthen and reinforce project design, learning, and innovation: One of the key best practices emerging in the climate-security field was that of taking an integrated approach – addressing the drivers of conflict or vulnerability holistically. In PBF-funded projects this meant addressing environmental or climate-related factors alongside other interrelated drivers, such as poor governance, lack of enforcement or dispute resolution, or intra-communal tensions.

While this was validated as an important overall approach, many projects were still on a learning curve of how to do this. The PBSO might therefore continue to support communities of practice, organize special workshops for those engaged in developing climate-security programming, and encourage reflection on climate-security dynamics throughout the project design (not just in the project context).

To support further programming development in this area, the PBF may also want to consider developing criteria for more accurately categorizing and tracking climate-security projects. Doing so might improve accountability at a project level, allow the PBF to more clearly identify results from this part of its portfolio, and nurture best practices in the field.

More dedicated testing of Theories of Change and project approaches, through iterative projects and investment in longitudinal studies (for at least some of the projects or project approaches), would also add significant value to the emerging learning and development of climate-security and peacebuilding.

I. Introduction

The concept of climate-security – the ways in which climate change, directly or indirectly, may exacerbate or compound risks of violence, conflict, and other personal or national vulnerabilities and threats[2]– has become increasingly prominent on the global agenda, and in peacebuilding.[3] Global changes in weather patterns may limit or imperil major resources, such as drinking water,[4] the waters of major rivers,[5] arable land,[6] forests, and fisheries.[7] There are already signs that climate-related changes in transboundary water resources, food security, sea levels, flood risks, and migration patterns contribute to instability, displacement, and increased competition in and between States, requiring large-scale adaptation and mitigation,[8] as well as disaster risk reduction and resilience building measures. UN Secretary-General António Guterres has frequently underlined the connection between climate change and the maintenance of peace and security.[9] The UN Security Council has also increasingly recognized the links between climate change and levels of security and stability in particular regions or countries, and in the mandates of peacekeeping operations and special political missions.[10]

Scholarship has not established a direct causal link between climate change and levels of violence.[11] Instead, climate change is seen as having an indirect or mediated effect on levels of violence, in conjunction with a range of other variables, including political drivers such as exclusion of groups, armed group dynamics, governance issues or disparities, levels of inequality or poverty, migration, and other socioeconomic dynamics.[12] Changes in weather patterns and climate in a given region may contribute to the scarcity of resources (such as water, arable land, etc.), which can put pressure on livelihood conditions, increase food insecurity, and contribute to competition and tensions surrounding natural resources.[13] However, this is invariably in conjunction with other factors, such as other sources of environmental degradation, poor governance, weak or absent means of dispute resolution, inequities in distribution and access to natural resources, and other sources of communal or transnational tensions or disputes.

Because climate change can act as a 'risk multiplier' that compounds existing vulnerabilities and drivers of conflict, it may have more significant effects on those already vulnerable, both at a macro and individual level.[14] There is a growing consensus that climate change is disproportionately impacting low-income, fragile countries, and typically the poorest and most vulnerable communities within these countries.[15] Those with already limited coping means – due to poverty, inequality, other sources of conflict, or social and political marginalization – may be least able to withstand extreme weather shocks, such as more frequent or intense flooding and drought. The unequal impact of climate change for women and girls has been a particular concern, given that the sort of structural barriers and gender inequities prevalent in many countries may significantly limit adaptation and coping strategies.[16] Some practitioners have also identified patterns of greater risk of violence against women and girls in situations where climate, as well as other factors, have increased resource and livelihood constraints.

While many have identified the potential risks of further environmental degradation (climate-related or otherwise), there has also been substantial interest in the ways that collective engagement on these issues – either at a community, national, or international level – may yield opportunities for building and sustaining peace. The 2023 UN Water Conference highlighted the potential 'catalytic role' that increasing attention to water issues could play in helping to secure peace and security. It offered the following example: "Regional integration mechanisms, as exemplified in Africa through the regional economic communities, are key established vehicles to enhance regional cooperation, co-ordinate water collaboration across river, lake and aquifer systems, and hence contribute to the promotion of peace and security."[17] At a community level, there has been growing interest in what has sometimes been framed as 'positive' environmental peacebuilding – the idea that engagement and cooperation on environmental issues may not only help address sources of conflict or violence, but may also present entry points and opportunities for addressing other peacebuilding goals and bringing other peace dividends.[18]

Despite growing interest in the implications of climatic change for peace and security dynamics, ideas about appropriate responses to climate-security issues remain under-developed. As one recent study by the United Nations Development Programme (UNDP) summarized, much of the literature on climate-security focuses on "causality" and "does not yield operationally relevant recommendations for tackling climate-related security risks" in terms of project design programming, monitoring and evaluation, or other operational components.[19] Operating in silos also remains a challenge, with programming or initiatives being

In many communities like the one above in Burkina Faso, women are significantly involved in subsistence farming. Their dependence on agriculture, and gender barriers limiting other economic options, may make women and girls particularly vulnerable to the effects of climate change – a dynamic that an increasing number of the PBF projects sought to address. *Photo provided by CECI, © Chahinel Group.*

developed to respond to either climate or environmental threats, or to peacebuilding and security challenges. Although increasing, efforts that aim to bring the two issues together in a way that would respond to these interrelated threats remain at the experimental stage.

Experts and practitioners interviewed for this report suggested that because the field of climate-security and peacebuilding is so new, we remain in the developmental stages in terms of appropriate strategies and responses. There have been some recent efforts to collate examples of practice from the field, yet there is still no cohered view on the most appropriate programming strategies or responses to climate-security dilemmas.[20] Reviews conducted have thus far categorized the learning from practice as "nascent" or "in its infancy," and were able to offer only limited findings.[21]

This report at least partly helps to fill the gap in assessing and improving climate-security practice, by taking stock of climate-security or other environmental peacebuilding work supported by the UN Secretary-General's Peacebuilding Fund (PBF) over the last six years.[22] As part of its continuous monitoring and learning process, the UN Peacebuilding Support Office (PBSO) annually commissions thematic reviews to examine past practices and promising innovations in specific areas of peacebuilding. This review, focused on climate-security projects approved by the PBF between 2016 and 2021, is a particularly relevant exercise given the state of the climate-security field and also the nature of the PBF-funded projects in question. It offers the opportunity to survey climate-security, or related environmental peacebuilding efforts, across 33 countries, as developed and implemented by some 29 partners. These projects span a range of issues – from responding to situations in which climate change has already contributed to active conflict, as with transhumance dynamics in the Sahel, to projects addressing the existential threat of climate

change for island nations and other approaches blending environmental peacebuilding responses with forward-looking community-based climate change adaptation.

The peacebuilding focus of PBF-funded projects means that the climatic and environmental issues in question are approached in conjunction with efforts that try to address some of the other mediating factors noted above – including weak or inequitable governance, other transnational or local security dynamics, migration and socioeconomic challenges, and other factors contributing to individual or group vulnerabilities. As a result, this thematic review's objectives, of taking stock of these 74 projects, what they signal about trends in programming design and approach, and any identifiable best practices or lessons learned, can make a significant contribution to better understanding emerging practices in the climate-security and peacebuilding field.

This review will first introduce the methodology and objectives, followed by an overview of the PBF-funded projects examined for this review. This includes discussion of those that might be categorized as climate-security projects or not, and an overview of common project types and common modalities, as well as the recurrence of certain cross-cutting issues or themes. This is followed by three case studies: projects that fall within the Liptako Gourma subregion that spans the border area of Mali, Niger, and Burkina Faso; another on two projects in Yemen; and a project addressing the existential threats of climate change spanning three Pacific Island countries – which offer the opportunity to contextualize these project approaches within a specific regional or country context. The final analytical section will then reflect on any evidence of best practices or challenges that have emerged, in terms of overall project approaches, particular components or activities, and in specific areas of interest to the PBF, including projects focused on women and youth, and efforts to support this programming in fragile and conflict-affected states. The concluding section will also offer some overall reflections on the ways that the PBSO has shaped and supported climate-security work, as well as other programmatic reflections, and a bulleted section drawing lessons and recommendations from across the report.

Methodology and Objectives

This *Thematic Review on Climate-Security and Peacebuilding* was commissioned by the PBSO in partnership with the UN Food and Agriculture Organization (FAO), the UN Children's Fund (UNICEF), and the Climate Security Mechanism (CSM),[23] with additional support from the UK Foreign, Commonwealth and Development Office.

The objective of this report is to take stock of the projects identified as part of the PBF's climate-security portfolio. It is to identify trends in programming design and approach, assess any identifiable results and lessons learned, identify good practices and areas for programming improvement, and suggest guidance for future investments and policies in the climate-security field.

The methodology for this report was developed in coordination with the PBSO and other review partners, and reviewed and validated by an external reference group comprised of peacebuilding and climate-security experts from the International Organization for Migration (IOM), United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), the Global Environment Facility (GEF) Small Grants Programme (UNDP), CGIAR, adelphi, Mercy Corps, and Environmental Peacebuilding Association, in April 2022. The research was conducted primarily between April 2022 and November 2022, with some additional follow-up research, interviews, and consultation sessions conducted in December 2022 and January 2023 in response to draft feedback.

Key Informant Interviews: A total of 180 in-depth, qualitative interviews were conducted. As a starting point, the research team solicited suggestions for interviewees from review partners, the PBF Secretariats or focal points, and the implementing agencies in question, from pre-existing contacts, or other sources. Each interviewee was also asked for any further suggestions of contact points, allowing for an iterative, snowball sampling means of selection.

Interviews were participatory and based on a semi-structured set of questions or inquiries, depending on the position of the individual, and the portion of the research that the interview was intended to contribute to. The research team applied standard processes for data validation and triangulation. United Nations University Centre for Policy Research (UNU-CPR) procedures regarding confidentiality, consent, data storage and protection, and other ethical precautions were also followed across all phases of the research.[24]

Case Study Research: A substantial portion of these qualitative interviews were conducted in the course of case study research. The case studies are intended to evaluate PBF responses to climate-security needs in a particular country context, to assess their coherence and relevance vis-à-vis other UN priorities or partner objectives in-country, and also to potentially identify best

practices or lessons learned.[25] Field research for the case studies (by the lead case study researchers Oliver Brown and Nadwa al-Dawsari) was undertaken between April and August 2022, including visits to the capitals of Mali and Burkina Faso, and to Aden and Lahj in Yemen. A later visit to Niger took place after the primary research period was concluded. The research for the Pacific Islands case study of Kiribati, Republic of Marshall Islands, and Tuvalu, was conducted remotely.

Document and Literature Review: Report findings were informed by a literature review of some 274 documents (academic studies, grey literature, and other programmatic and policy documents). Separate from these 274 documents, the research team also reviewed all project documents associated with the 74 projects in this sample, as well as many of the other mid-term reports, all independent assessments, and other project information associated with these projects. The material was all coded and categorized on a larger matrix to assess trends and inferences across the portfolio. The projects were also cross-identified with the countries' scoring against the following standard climate-related or security-related indices (in the year the project was approved) as a way to generate further inferences and trend data: Notre Dame Global Adaptation Initiative (ND GAIN), Fragile States Index (by Fund for Peace); Institute for Economics and Peace (IEP); Global Peace Index; Uppsala Conflict Data Program (UCDP).

A greater degree of document review, and additional key informant interviews,[26] were undertaken with respect to 32 projects designated as part of a 'mid-level' review. This stage of research was designed to be more in-depth than the document review applied to all 74 projects, but not as in-depth as the projects within the case studies. This enabled a more comprehensive appraisal of a greater number of projects' designs and Theories of Change.[27]

Limitations on Research: The project sample included a large share of projects that were new or ongoing, which limited the degree to which outcomes, impacts, or effects, either at a project level or at a portfolio level, could be fully evaluated. At the time that research began, 54 of the 74 projects were still ongoing. Just under half of the projects were new: 24 had only been approved in 2021 and a further 14 had not yet even begun.

There were also limitations in data availability, even with projects that had closed (23 at the start of this research) or had been going on for some time. Independent project evaluations were only available for 18 of 74 projects. Several of those independent evaluations also expressed limitations given that monitoring, evaluation, and assessment reports, and other data necessary to reach their conclusions, either had not been fully conducted or was not otherwise available. Longitudinal data – which would be necessary to consider results or impacts at a project or portfolio level – was not available for any project. Notwithstanding these limitations, the research team attempted to collect inferences on best practices or results wherever possible.

Definitions and Terminology

The overall focus of this report is to take stock of PBF and PBSO efforts related to climate-security, which might also further contribute to the overall field by identifying and providing examples from existing work. As such, the goal was not to redefine or even to weigh into the larger debate among communities of policy and practice on definitions of climate-security. This review largely accepted the PBSO definitions and conceptual parameters surrounding climate-security.

The PBSO and other review partners established the definitional baseline that "'climate-responsive peacebuilding' should be understood as a set of initiatives that are aimed at addressing climate-related security risks and contributing to sustaining peace."[28] This definition is broader than it may appear on first glance. Within the same guiding document, "climate-related security risks" is further defined as encompassing a 'human security' conception of security risks: "Climate-related security risks are the compound risks that emerge from the direct and indirect effects of climate change on peace and security. They are understood as the adverse impacts of climate change on human security – the freedom from fear and want, but also as they relate to the security of the State, and the maintenance of international peace and security, under the United Nations Charter."[29]

In addition, evidence from the type of support the PBF has been providing, and further discussions with the PBSO and its staff, underline a strong emphasis on prevention, both prevention of near-term outbreaks of violence or conflict and addressing future existential risks posed by climate change for certain nations and populations (i.e. vis-à-vis island states).

As a result of this broader definition, the projects considered to be related to climate-security in this review include situations in which:

- Changing climatic conditions appear to have already contributed to resource scarcity or changes in socioeconomic patterns or livelihood activities that – together with other factors – appear to **increase the risk or incidence of conflict or violence**;

- Changing climatic conditions appear to have **contributed to or exacerbated the vulnerability of individuals or groups** as measured by a human security paradigm, including risks in terms of physical integrity rights or ability to pursue basic needs and livelihoods;[30]
- Expected climate change **presents an existential threat, or appears likely to contribute to sources of conflict in the future** (i.e. a more preventive climate-security conception).

A second definitional question is not just how climate-related risks are defined but what might define or constitute a 'climate-security project.' Some experts interviewed argued for a narrow definition of climate-security projects, comprising only those projects that included components related to climate change adaptation or climate change mitigation. Climate change adaptation generally refers to changes in practices, systems, or behaviors that are intended to "moderate potential damages or to benefit from opportunities associated with climate change."[31] It is often used to describe actions designed to modulate or prepare for the anticipated future impacts of climate change. Climate change mitigation generally refers to efforts that reduce or prevent greenhouse gas emissions.

These narrower criteria, while potentially useful for some discussions, may be less useful when discussing 'climate-security and peacebuilding' as a programming construct. **Because climate-security dynamics tend to invoke a range of interactive factors**, including but not limited to changing climatic conditions, **the intervention proposed by a particular project may involve a range of approaches not limited to, nor necessarily involving climate change adaptation or mitigation practices**. For example, many of the projects responded to the climate-security issue in question by focusing on governance or dispute resolution dynamics within a given community, and only incorporated a climate change adaptation or mitigation component as a minor subcomponent or activity, if at all. As one UN Peace and Development Advisor (PDA) working on responses to transhumance-related conflicts observed, the response to climate change in these cases needs to involve all the other factors that make this environmental dynamic a conflict driver: "The adaptation also needs to happen with the human interaction creating the conflict, not just in the herding or agricultural practices."[32]

While this review derived its analysis based on the PBSO's broad interpretation of climate-security, the authors would counsel against an unlimited definition. In practice, all human activities, and any form of peacebuilding, might be adversely affected by existing or future climatic change. In addition, given UN commitments to mainstream both conflict sensitivity and climate considerations as core principles across all programming, an increasing range of UN programming might be construed as contributing indirectly to the climate-security agenda. But to construe any peacebuilding or development project as a climate-security project might expand the definition to the point where it no longer has any meaning.

In addition, **greater precision and definitional clarity would be useful for improving project evaluation and guidance**. Clearly identifying project typologies and priorities – to what extent a peacebuilding project is affected by climate-related dynamics, and how much environmental strategies or climate-change responses are prioritized within the project focus – is crucial to evaluating results or impact at a project or sectoral level, and in contributing to the development of best practices within the climate-security field. For these reasons, this review does distinguish between climate-security-related projects (broadly defined) and other forms of 'environmental peacebuilding.' Environmental peacebuilding is generally considered to include areas of climate change mitigation and adaptation or climate-related risks, but also many other environmentally-related activities and areas, such as natural resource exploitation, minerals and extractive industries, areas of natural resource management and degradation not explicitly linked to climate change, nature conservation, and other practices related to agriculture, farming, and land management, among others.[33] The delineation between the two and what that might suggest for programming is further discussed in Section II.

With reference to other terms in this report, subsequent sections discuss issues of gender, climate, conflict, and security, often referred to as the **'gender-climate-security' nexus**.[34] Increasing policy attention and programming work in this space recognizes 1) that there may be specific gendered effects of climate change, with specific consequences and increased risk for women and girls in many situations; while 2) also recognizing and seeking to identify women and girls' unique role in contributing to positive climate action at a local, national, or international level.[35]

There is a particular focus on PBF-supported programming in countries or situations at risk or affected by violent conflict. A range of terminology is used in such situations. In general, this report will use the shorthand of **'fragile and conflict-affected countries,'** reflecting common terminology employed by those interviewed and in peer publications.[36] The World Bank annually publishes a list

Nearly half of the climate-security projects related to 'transhumance' patterns, and the way that climate change and resource scarcity has affected traditional migratory routes for herding. Herders like the Fulani boy pictured above in Niger have had to take new paths for their herds in search of ever-decreasing water supplies and viable pasturelands, bringing them into greater conflict with sedentary farmer populations and contributing to additional food security and livelihood stressors for millions in the Sahel. *Photo by Luis Tato, provided courtesy of FAO Niger.*

of 'fragile and conflict-affected situations.'[37] In addition, for further assessment, this review cross-correlated the project year and location (at a national, not local level) with standard indices measuring fragility or incidences of violent conflict, including the Fragile States Index, the IEP, Global Peace Index, and UCDP. However, while these and other metrics are useful, it is important to note that what constitutes a fragile or conflict-affected space may be even more context-specific, with strong variance below the national level.

In a subset of the projects there is a pronounced focus on addressing the needs or vulnerabilities of refugees, internally displaced persons (IDPs), returnees, or those who have migrated for other purposes. These projects and situations are generally grouped under the term **'migration' dynamics or migration-related projects**, to reflect their common usage in project documents and comparable literature, and by interviewees.[38] In general, unless explicitly noted, projects that deal with transhumance are not considered 'migration-related projects' within this report. This phenomenon is so significantly represented within the project set that it is specifically discussed as a transhumance dynamic throughout the report.

For brevity, individual projects will be referenced using the country name where the project was implemented, and a short form of the PBF project number, each hyper-linked to the Gateway portal information on these projects. The full titles, project names, and other data are listed in Annex 1.

II. Overview of PBF-Supported Climate-Security Projects

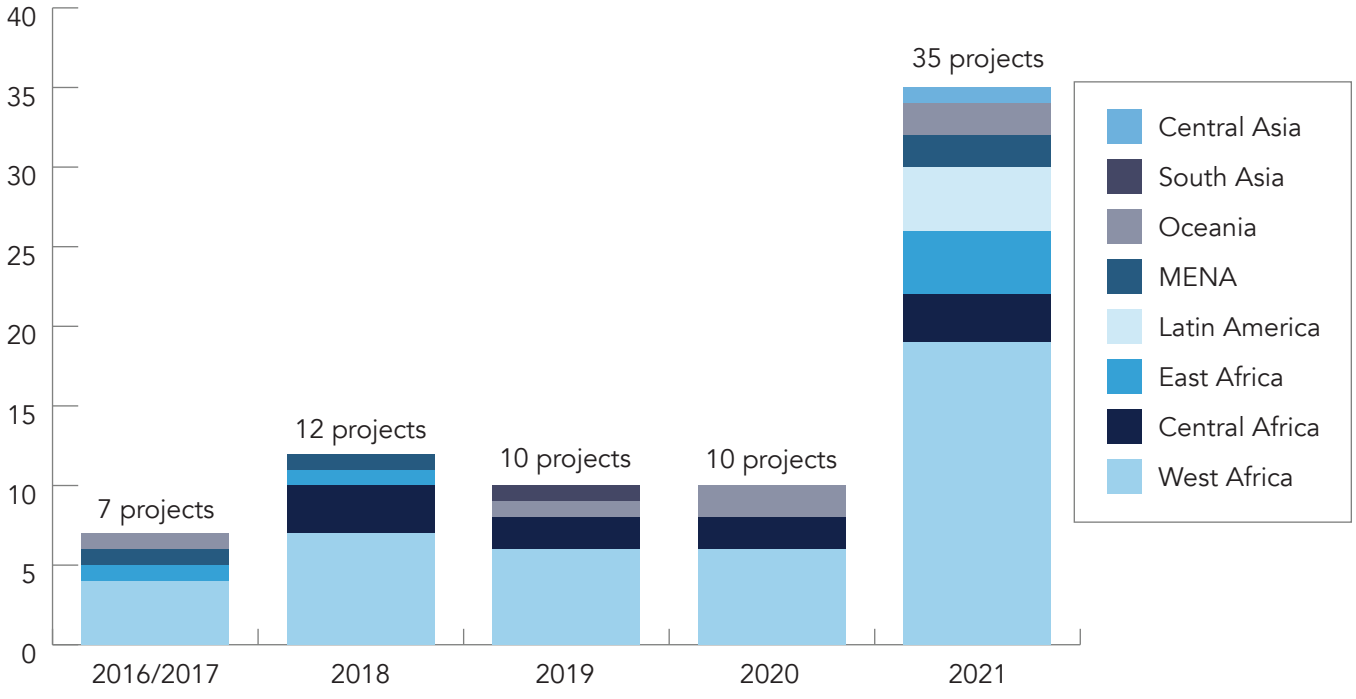
Climate-security and peacebuilding work has been an area of growing importance and investment within the PBF.[39] The climate-responsive peacebuilding approach, manifested in the PBF's investments, seeks to promote synergies between Sustainable Development Goal (SDG) 16 and other Goals, including SDG 6 on equitable access and management of water resources, SDG 13 on combating climate change and its impacts, as well as SDGs 14 and 15 on management of natural resources, to better support conflict-affected communities worldwide.

At the time of this review's inception in February 2022, the PBF had a total portfolio of over $1.56 billion.[40] Of this, it identified that since 2016 approximately $167.2 million had been expended in or approved for 74 peacebuilding projects with a climate-security or environmental peacebuilding component. These 74 projects were assigned as the programmatic base for this thematic review.[41] Based on internal PBF tracking, 33 projects were designated as having a 'full' focus on climate-security (the main purpose of the project), while 41 projects were considered as having a 'partial' focus on climate-security (with at least one outcome statement focused on climate-related drivers of conflict and/or the goal of peace and security through climate action).

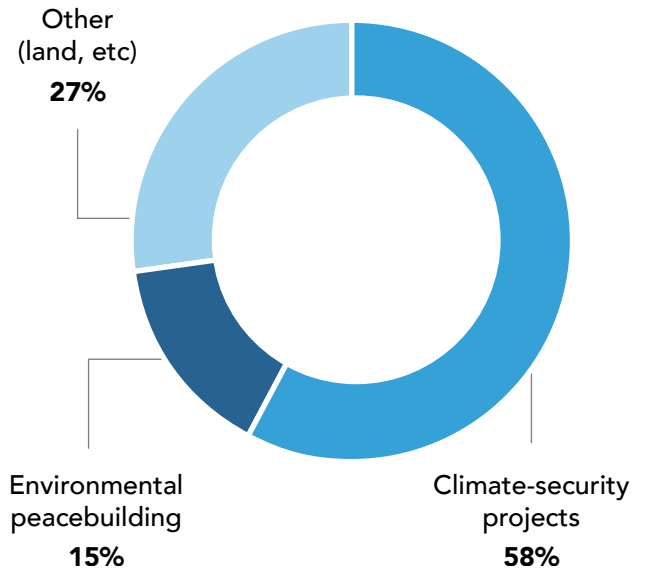
These 74 projects took place in 33 countries, including 14 cross-border projects (a designated PBF-supported project carried out in more than one country simultaneously). Although the majority of the 74 projects were in West Africa, particularly in the Sahel region,[42] PBF funding on this theme has diversified geographically in the last five years, with new projects approved in Colombia, Honduras, Guatemala, Sri Lanka, and the Kyrgyzstan-Uzbekistan border, among others.

Based on the total number of projects identified in 2016 versus those identified in 2021, there appeared to be a substantial increase in PBF support in this field – a 400 per cent increase.[43] However, it is important to caveat that over the course of the research, PBSO staff or partners also sometimes identified additional PBF-funded projects that might be construed as related to climate-security, but were not identified in the sample set for this project. This oversight appeared due to the lack

Geographic Spread of Projects in the 74 Project Sample (2016-2021)



Proportion of Climate-Security Projects in the 74 Project Sample

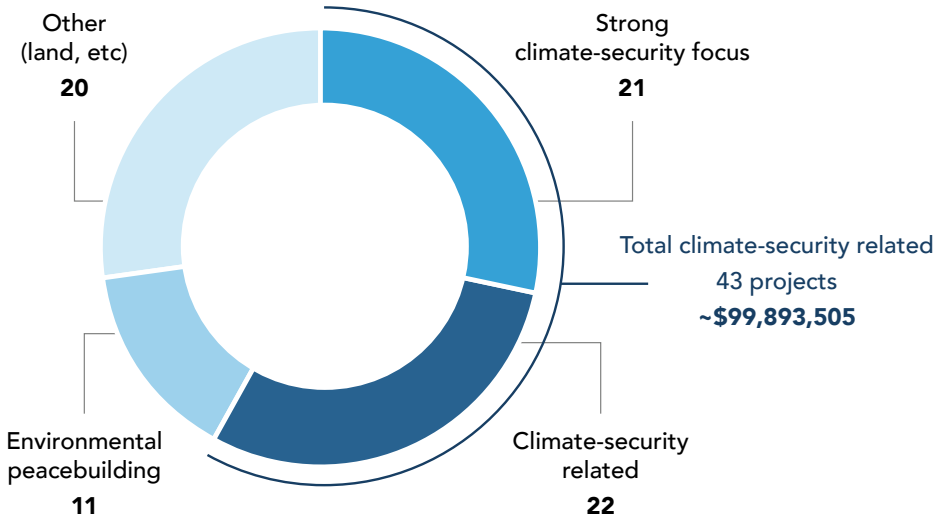


of a specific climate-security marker within PBF tracking. **Going forward, more systematic tracking of these projects may allow for greater accuracy in the growth and results of this portfolio**.

In addition, of the 74 projects, the research team identified that **31 projects (42 per cent) would not meet the definitions of climate-security projects adopted above**. Eleven projects represented other forms of environmental peacebuilding – they dealt with issues clearly within the scope of environmental degradation or peacebuilding, but without any particular nexus or link to climate change. Most of these focused on community tensions or human security implications that arose due to the activities of mining, extractive companies, or logging companies. Twenty of the projects would stretch even the broader conception of environmental peacebuilding. They primarily dealt with forms of land management, land conflict, land tenure, or other legal reforms that might have had some linkage with natural resources.[44] While in theory many common land use issues or conflicts might be affected by climate change, there are also many other factors contributing to land mis-management or land conflict that are unrelated to climate change. Peacebuilding programming approaches that have to deal with land or land reform may also comprise many thematic issue areas that are unrelated to climate-security risks. As such, **a blanket categorization associating land-related projects with climate-security would be unhelpful in further developing practice in this field**.

The projects identified as relating to a climate-security issue were further subdivided based on the weight or prioritization given to climate-security issues or responses. For 22 of these projects, there were clear climate-security dynamics in the environment, but the major goal or focus of the project appeared weighted towards addressing other peacebuilding goals or arose in response to other sources of environmental degradation. Identifying project priorities and key themes was crucial to ensure that projects were assessed against their intended effects and results.[45] In addition, isolating projects that intended to develop peacebuilding responses to climate-security dynamics (as opposed to primarily focusing on other peacebuilding goals or conflict factors) also helped to identify best practices or results specific to climate-security practice, the primary objective of this review. Further details of this categorization are provided in Annex 1.

Climate-Security Focus of Projects in the 74 Project Sample



Categorizing certain projects as climate-security versus other types of environmental peacebuilding, and even distinguishing the degree of emphasis on climate-security versus other components, is not intended to value certain project themes over others. As an overall field, or portfolio of investments, it is important that the PBF support a range of environmental peacebuilding projects. In addition, part of the reason that many projects that are not climate-security projects were likely included in the sample is because of a greater overall trend towards taking environmental or climatic factors into consideration in conflict analyses, and wherever possible, including more sustainable or climate-friendly approaches (for example using solar panels to power infrastructure projects) in project activities. This should be considered a positive trend, representing greater climate mainstreaming into peacebuilding approaches overall. However, it may blur the lines between what are climate-security projects or not, making evaluation and identification of trends in investment and programming more difficult.

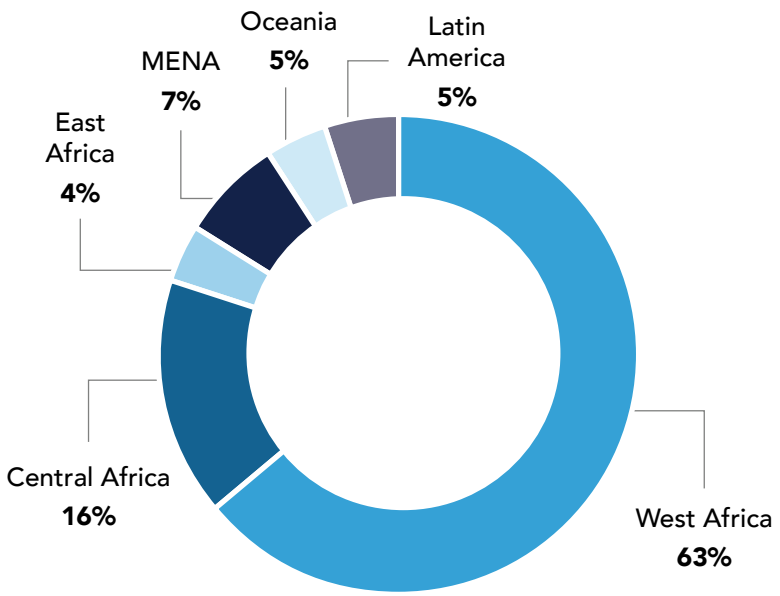
Because this review is aimed at taking stock of climate-security work specifically, the remainder of this report will focus on the 43 projects identified as climate-security projects. However, there may still be places where inferences from the larger sample of 74 projects (all of which were still reviewed) are useful, for example in comparing climate-security projects with other types of environmental peacebuilding, or in drawing out lessons in Theories of Change and project design that might be relevant across both types of programming. Where this is the case, it will be specifically noted.

There was notable growth in climate-security-related projects over time, from none in 2016 to three in 2017 and 19 in 2021. The substantial growth in 2021 is partly attributable to a specific focus on environmental and climate-related projects in the 2021 call for funding for the Gender Promotion Initiative (GPI) and Youth Promotion Initiative (YPI), which constituted nine of the 19 projects in 2021.[46] Further information on the GPI and YPI is included in the gender and youth subsection below. However, even discounting GPI and YPI projects, 2021 would still have had the largest number of climate-security projects of any year examined, suggesting a growing focus beyond this call.

As part of its *2020-2024 Strategy*, the PBF committed to expanding support for cross-border and regional initiatives that address conflict drivers exacerbated by climate change.[47] Cross-border projects refers to PBF-funded projects that are awarded funding jointly but implemented in more than one country. There was one climate-security-related cross-border project in 2017, compared to three in 2021, and 10 overall. The full sample included additional cross-border projects related to other forms of environmental peacebuilding.

Of the 22 countries where climate-security projects were identified, the greatest number of climate-security-related projects were in West Africa, and specifically the Sahel, in keeping with the larger sample. The greater amount of funding and projects in West Africa and the Sahel compared to other regions (disproportionately so) was true across all five years examined. Other geographic variance was not statistically significant given the low numbers for other regions.

Distribution of Climate-Security Projects by Region



Number of projects per region (climate-security only):

West Africa: 27

Central Africa: 7

East Africa: 2

MENA: 3

Oceania: 2

Latin America: 2

Sahel (all or part): 28

Although many publications and studies have highlighted particular climate-security risks in the Sahel,[48] it is worth noting that the overall distribution of PBF funding is not based on a needs-based or (for this sector) climate vulnerability assessment. PBF funding is available for countries that are deemed eligible for the Peacebuilding and Recovery Facility (PRF) for a five-year term (27 as of end of 2022), informed by an eligibility request submitted by governments to the UN Secretary-General.[49] PBF funding is also available through the Fund's Immediate Response Facility (IRF), which does not depend on a country's eligibility. The Gender and Youth Promotion Initiatives (GYPI), while conceived as IRF projects, are only available to eligible countries. Through the GYPI, the

Box A: Where is the PBF not Investing in Climate-Security, but Might?

The locations where PBF support occurs depend on a number of factors, including which countries are deemed eligible, what priorities are established in the eligibility request, and which project implementing partners are proposed. Governments must sign on to each PBF project, which may result in additional constraints. For all these reasons, PBF approval of climate-security projects does not depend on a global assessment of climate vulnerability and needs. Nonetheless, to help take stock of PBF efforts in this area, it is useful to compare where the PBF investments in climate-security currently take place compared to other indices' assessments of where the greatest needs are in terms of both climate vulnerability and fragility.

UNU-CPR compared the PBF's existing project footprint vis-à-vis global indices on conflict, violence levels, climate-vulnerability, fragility, and other metrics. Overall, the PBF is supporting climate-security projects in many of the countries with the greatest climate vulnerability (see subsequent discussion on fragile and conflict-affected countries). Nonetheless, there are a handful of exceptions. **Haiti**, for instance, is experiencing increased fragility and armed violence, and has been eligible for PBF funding since 2019. In 2020, it was ranked amongst the top 10 countries most vulnerable to climate change impacts. Yet, out of 15 PBF-funded projects worth approximately $27.7 million that were launched in Haiti between 2019 and 2022, none had a targeted climate-security focus. Similarly, despite high vulnerability to climate change impacts in the Democratic Republic of Congo **(DRC)**, the PBF's portfolio in the DRC has been predominantly non-climate/non-environmental. Out of 22 PBF-funded projects since the DRC's latest eligibility in 2019 (worth $35 million), none were amongst the 43 climate-security projects identified by UNU-CPR.[50]

Although the PBF supported many climate-security projects in the **Sahel**, only a small amount of PBF climate-security funding was invested in **Cameroon** and **Nigeria**, which are highly vulnerable to climate change impacts.[51] PBF-supported climate-security efforts in Cameroon and Nigeria[52] (the two most populous countries in the Sahel) amounts to $3 million in one project in Nigeria (PBF/IRF-273), compared to around $62 million in PBF-funded climate-security projects in other, smaller Sahelian states.

There were at least two further cases, in which PBF eligible countries face(d) climate-fragility risks, but PBF-supported interventions did not explicitly address this. **Myanmar** was last eligible for PBF funding in 2014–2019 and received more than $11 million in PBF funding. PBF's projects in Myanmar nonetheless did not focus on climate change-related security risks, even though, except for Afghanistan and Bangladesh (which also have not been recipients of PBF climate-security funding), there is no Asian country more vulnerable to climate change impacts.

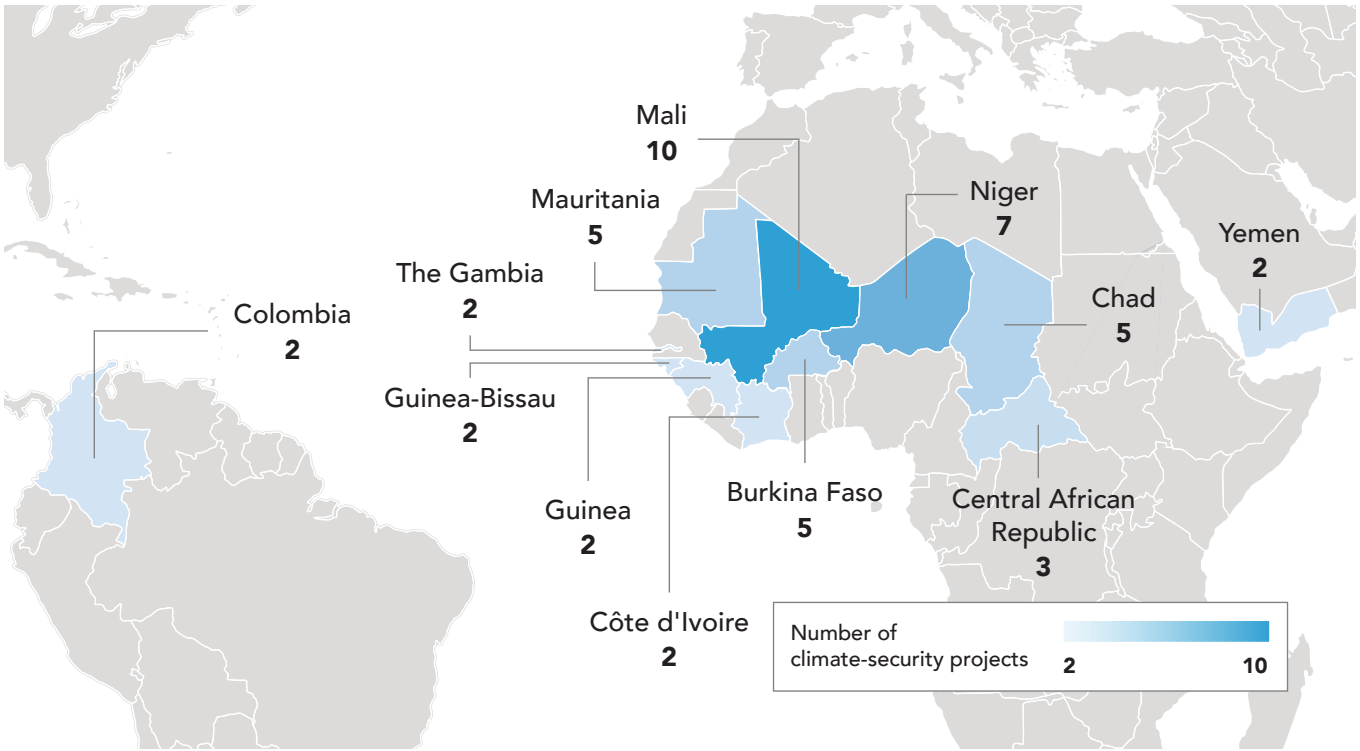
Likewise, PBF-funded projects worth about $26.7 million have been implemented in **Madagascar** since 2017. Despite being amongst the 15 most climate change exposed countries, no Madagascar projects were included in the sample for this review. However, in interviews with those working on PBF-funded projects in that region, one noted that several of the projects in Madagascar had been taking climate-security considerations into account in the implementation of other PBF-funded peacebuilding initiatives.[53] As such, this may simply point to inconsistency in recognizing the breadth of climate-security work.

PBF distributes funding to projects based on an annual competitive call for proposals (further discussion on the IRF and the GYPI is included below). Through either the PRF or the IRF, the PBSO's selection is ultimately dependent on what projects are brought to it to consider. In that sense, **although the PBSO will seek to prioritize certain themes and encourage investment in select programming approaches or areas, it is ultimately a demand-driven donor in its selection of projects and investments**. Further comparisons on the PBF's distribution of projects vis-à-vis other indices on climate-security vulnerability are offered in Box A above. Notwithstanding those caveats on how project selection processes affect geographic distribution, it is still interesting to identify where much of the PBF-supported climate-security projects are happening. **The greatest number of projects (including cross-border projects), took place in Mali (10 projects), followed by Niger and Burkina Faso (seven and five projects respectively).** There were 10 cross-border projects (PBF-funded projects implemented in more than one country as a joint effort). The vast majority entirely or partly involved Sahelian countries. The map below illustrates the 12 countries with more than one climate-security-related project.

The average number of projects per country was between two and three projects, including cross-border projects. Burundi, Guinea, Kiribati, the Republic of the Marshall Islands, Nigeria, Papua New Guinea, Senegal, Sierra Leone, Somalia, Sudan, and Tuvalu each had one project identified as a climate-security-related project, including cross-border projects between them.

There was relative distribution in terms of the amount of funding per project, which is partly dependent on whether the funding is received through the PRF modality (the regular eligibility process noted above) or the IRF. Project funding available for countries eligible through the PRF have a maximum duration limit of three years and no financial ceiling per project. Projects approved through the IRF have tighter limits. Both GYPI funding and funding for cross-border projects generally come through the IRF modality (although there are exceptions for cross-border projects).[54] The IRF projects are capped at $5 million each for a duration of 24 months. However, prior to 2022 (so covering all of the projects in this review) the limit was $3 million per project and 18 months. Since cross-border projects are treated as distinct projects in each country, this would mean that the ceiling for a two-country cross-border project approved in the period of this study was $6 million and 18 months (not

Countries with More than One Climate-Security Project



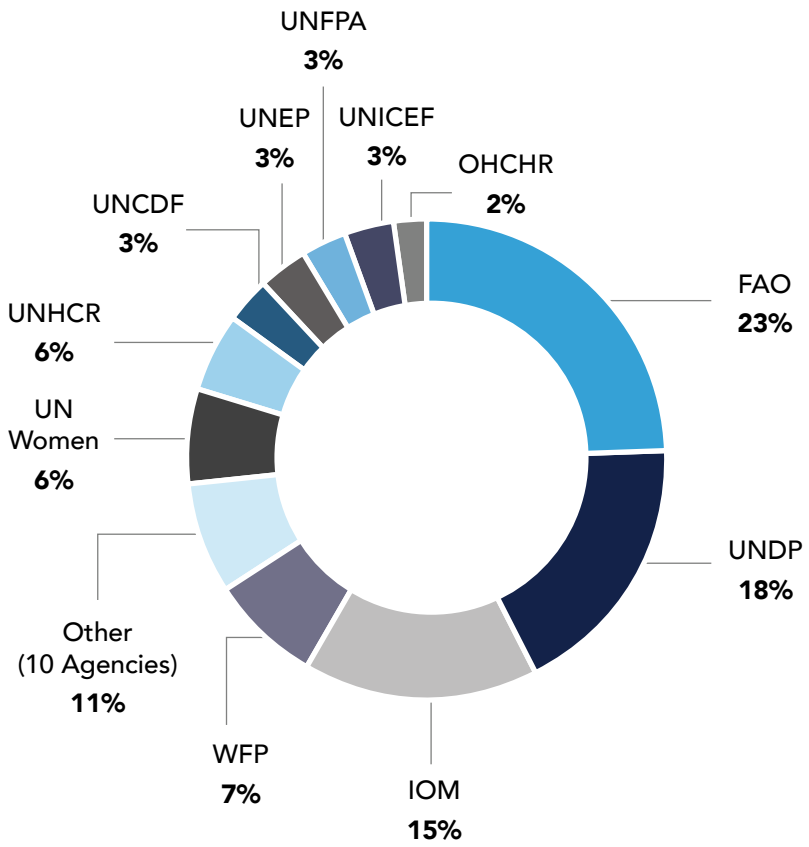
including extensions), or for a three-country cross-border project, $9 million and 18 months. For GYPI, the current maximum project budget is $2 million and a duration of 24 months as of early 2022. Prior to this (and applicable to all projects in this review), the ceiling was $1.5 million and 18 months duration.

Forty-six of the 74 projects (62 per cent), and 26 of the 43 climate-security projects (50 per cent) were funded through the IRF modality. Although the IRF has tighter funding caps and duration limits in general, this did not result in significant differences in the duration and amount of funding in this sample. As the chart below illustrates, in both the sample of 74 projects, and in the climate-security projects, the average amount granted per project was roughly comparable for both IRF and PRF projects.

Number of IRF and PRF Projects and Average Amount Granted per Project

	Full 74 project sample	43 climate-security projects
Number of PRF / IRF Projects	28 / 46 (62%)	17 / 26 (50%)
Average project award, IRF-funded projects	$2,070,463	$2,172,482
Average project award, PRF-funded projects	$2,571,618	$2,553,468

Implementing Partners for Climate-Security Projects (%)



Number of climate-security projects each implementing partner involved in:

FAO: 21

UNDP: 16

IOM: 14

WFP: 6

UN Women: 5

UNHCR: 5

UNCDF: 3

UNEP: 3

UNFPA: 3

UNICEF: 3

OHCHR: 2

& 1 each for ACORD, ILO, UNESCO, UN-Habitat, UNIDO, Mercy Corps, Helvetas, ITC, SFCG and FESU (grouped together on the pie chart).

Of the 43 climate-security-related projects, 22 were funded for 18 months, 15 projects for 24 months, and three for 30 or 36 months. Three of the projects received no-cost extensions.[55]

There were 21 different implementing partners (16 UN agencies, 5 Civil Society Organizations (CSOs)) for the climate-security projects, compared to 29 among the larger 74-project sample (17 UN agencies and 12 CSOs). There was a notably lower number of CSOs in the climate-security projects, compared with the sample as a whole; however, this does not necessarily mean that CSOs were absent from project implementation. The case study research, particularly in the Liptako Gourma subregion, suggested that many CSOs are involved in project implementation through subcontracting. In addition, one of the climate-security projects implemented in Burkina Faso, Niger, and Mali (PBF/BFA/B-6) involved a notable funding modality, with a CSO (Mercy Corps) overseeing mini-grants for local CSOs and community groups in the Liptako Gourma subregion.

Nine projects involved more than two partners. The most common partnership was between FAO and IOM, which worked together on the implementation of 11 climate-security projects. The above chart shows the allocation of projects by implementing partner.

Common Project Themes, Approaches, and Cross-Cutting Issues

In terms of the content or issue sets addressed, by far the most common fact pattern began with the identification of a scarce natural resource – whether land (i.e., arable agricultural land, or pastureland), water (drinking water supply, pasture water, or water for irrigation, etc.), or another resource. Projects with a climate-security linkage tended to then identify an increased risk of conflict or tensions over these scarce resources at least in part due to the way that changing climatic patterns were affecting their availability or use.

In all of these projects there were also other strong contributors to resource scarcity and to the conflict or tensions linked to it that were unrelated to climate, such as increases in population, poor maintenance of infrastructure (for example, pasture markers, poorly maintained irrigation canals, degradation in other natural resource management systems, etc.), poor governance, weak government (territorial) control and service delivery, maladaptation leading to further environmental degradation, inequity in distribution of resources, inadequate or poorly enforced legal structures, erosion in community dispute resolution mechanisms and so-called 'informal' management systems, and armed group threats or interruption of access, among many others.

Another distinction between the projects was the degree to which addressing the climate-security issue might be considered the primary goal of the project, as opposed to a secondary goal or potential co-benefit (some 22 projects for the latter). For example, there were many projects that focused on gender equity, inclusion, or empowerment while also having strong climate or environmental peacebuilding-related elements. Some of these projects reflected a prioritization and project focus that might make them better described as 'gender-focused climate projects,' while in others they might be better characterized as 'climate-related gender projects.' In the latter, the primary goal appeared to be to address the identified gender gaps and vulnerabilities, and while the project identified potential co-benefits for land and natural resource management or other climate-related security dynamics, these ultimately became secondary goals.

Drawing these distinctions helps to better understand the overall weight of PBF-supported efforts in the climate-security field, and also with project evaluation. After all, if those involved were focused on addressing another peacebuilding goal as the primary project focus, and only intended to recognize the effects of climate-related dynamics or saw any climate or natural resource-related successes as non-essential co-benefits of a project, then it would be unfair to judge them on having achieved any success in addressing the latter.

Common Project Themes or Central Issues

The lists below provide descriptions of some of the most common issues, project elements, and typologies that recurred across the climate-security projects.[56] These are not exclusive categories – many projects featured elements that spanned several of these different categories and issue sets. In addition, the identified number of projects and examples provided for each issue may not be exhaustive. Because there is a separate subsection on projects that focus on Gender Equality and Women's Empowerment (GEWE) and youth below, projects that might be characterized as primarily focused on gender or youth issues are not included in this list.

Transhumance (22 projects):[57] Changing rainfall and weather patterns (among a range of other factors) have decreased available pastureland in many countries and/or led to changes in the timing and geographic scope of seasonal migrations. This has tended to result in

increased competition and tensions with farmers or other parts of the sedentary population, often contributing to greater outbreaks of violence, increased communal tensions, and/or other human security consequences. Some of the transhumance projects placed a particular emphasis on the additional human security consequences of these communal conflicts, in particular their effects on women's protection, access to resources, and income.[58] The Liptako Gourma case study will offer further details on common types of responses or activities associated with transhumance projects.

Water Issues and Water Scarcity (13 projects):[59] The most common overall fact pattern within this category was that climate change had contributed to water scarcity in a given community, which might result in greater competition and tension over available water points. In some projects, climate-linked water scarcity was prominent because it increased the vulnerability or risk of particular populations or increased protection risks for women and girls in connection with accessing those resources. While 13 projects were strongly motivated by or centred around water scarcity issues, another 18 projects referenced other water issues in the conflict analysis or other project contextualization. A common response to localized water issues was to try to improve availability or management of the local water sources, often in conjunction with other mechanisms to mitigate disputes surrounding them (i.e. through the establishment of or support to local dispute resolution mechanisms, engagement with other government officials or statutory regulation, or through other social cohesion and inclusion-focused measures).

In some countries, rising sea levels contributed to coastal erosion or salinization of soils, decreasing available agricultural land and in some cases also affecting water supply.[60] As with the transhumance and other local water scarcity issues, these pressures on land and water might then contribute to conflict or exacerbate the vulnerability of the population, among other factors. Because these were more of a contributing fact pattern, rather than a central project theme, they tended to feature in the project contextualization and conflict description (although any land reclamation or agricultural support within a project might well have constituted a partial response to this dynamic).

Migration-related projects (seven projects):[61] Seven of the climate-security projects strongly centered around migration-related dynamics, and another seven had some reference to migration dynamics in their overall contextualization, although this was not a central feature. These projects did not include the transhumance projects, all of which contain some migration-related dynamics. The projects primarily dealing with migration issues tended to be situations in which an influx of refugees, IDPs, returnees, or other migrant population had put pressure on already scarce resources rather than the scarce resource situation being predominantly attributed to climate change. As a result, these projects tended to focus more on inequities, tensions, or resource scarcity surrounding the migrant population, or between the migrant and sedentary population. However, many also give consideration to other natural resource considerations (including climate) that made this relationship, or the situation of shared resources, even more constrained. Additionally, several sought to incorporate climate-friendly responses in their activities and Theories of Change (i.e. 'green' or sustainable jobs, or climate adaptation planning inclusive of migrant communities, etc.)

Deforestation and/or Biodiversity Preservation (five projects):[62] Five projects in the climate-security sample (and several more in the other environmental peacebuilding categories) were focused on issues of deforestation or biodiversity preservation.[63] Two projects (one in Colombia and one in Burundi) sought to ensure forest and biodiversity preservation by participating in private sector programmes for carbon emissions offset (the REDD+ strategy). Other projects were focused on identifying national or community-based mechanisms for reducing deforestation (particularly related to protected forests), for example through community dialogues and negotiations, or through reinforcing government laws and enforcement mechanisms.[64] The 'security' linkage within climate-security projects related to deforestation and biodiversity varied, and was sometimes vague (i.e. Colombia: IRF-461). The REDD+ projects and also a cross-border project in The Gambia and Senegal appeared to seek to protect these resources at least in part because they were a source of profits for illegal armed groups, and thus preserving them might reduce some sources of violence and conflict.[65]

Elite Competition and Environmental Drivers (at least four projects):[66] Although more difficult to code for (and thus there may be under-counting), at least four climate-security projects (11 in the larger sample) appeared to reflect some of the academic theorization that elite exploitation can be a pathway by which climate change or environmental degradation contributes to insecurity and violence.[67] The three strongest examples of this were in the Yemen and Somalia projects. In both countries water scarcity is significantly affected by changing weather and climate patterns. However, in all three of these projects, the prolonged conflict situation and absence of regular governance and service provision, combined with elite competition (clan-based in Somalia, tribal competition in

Yemen) blocking access or effective maintenance of the resource, were the most immediate proximate causes of water scarcity. The projects were oriented around trying to address these issues through improving overall local water management and maintenance, as well as trying to unlock or address local elite competition and capture.

Climate Change as an Existential Threat (one project):[68] For island nations and for many coastal communities of other nations, rising sea levels pose an **existential threat** above and beyond that of any other security concern.[69] This was the central animating issue of the Pacific Island project, as discussed more fully in the full case study below. However, projects in other countries where this was also a relevant issue (i.e. Papua New Guinea) noted this issue in the project contextualization but tended to focus on some of the other climate-security issues identified above, including the effects of increasingly scarce resources or extreme weather events and their effects on the vulnerability and livelihoods of the population.[70]

Other Project Themes or Issues

The following categories or issues more often represented subcomponents of a larger project, or in some cases were the rationale (among others) for engaging in the climate-security space. They tended to be elements or aspects of a project, in contrast to the list above, which reflected more of an overall project focus.

Climate Change Adaptation Planning (16 projects):[71] Arguably, nearly all of the community-level interventions, from trying to improve natural resource management to interventions aimed at adjusting transhumance grazing patterns, could be construed as forms of climate change adaptation. However, a smaller subset of projects had a more explicit subfocus and role envisioned for climate change adaptation. Piloting various forms of climate change adaptation was a significant element in the Pacific Islands project, discussed in the case study below. In three projects in Chad and one in Mauritania, climate change adaptation measures were specifically identified as a peacebuilding tool (i.e. a means of encouraging social cohesion and cooperation, and/or positing that greater community resilience against climate change would strengthen conflict prevention). Eight of the gender-focused projects were significantly animated by the idea that women tend to be more vulnerable to the effects of climate change, but are generally less integrated in developing the response. These projects were aimed at developing more gender-sensitive climate adaptation planning and including women and girls in community climate change adaptation.

Cross-Border Programming (10 projects):[72] All of the cross-border projects bar one – the Pacific Islands project – dealt with transhumance, at least to some degree. These transhumance-related cross-border projects tended to include efforts to strengthen and reinforce border authorities and promote cross-border cooperation on managing transhumance dynamics and potential tensions (i.e. encouraging trans-governmental cooperation, cross-border regulatory mechanisms or agreements on transhumance, or reinforcing trust between law enforcement and their respective communities). Many also featured cross-border information and analysis, both early warning systems, such as IOM's Transhumance Tracking Tool (TTT), and other one-off or systemic efforts to improve analysis of cross-border threats, activities, and transhumance patterns. Most also included dialogue or engagement activities, either between local or national government officials; between community stakeholders or authorities in border communities (i.e. bi-monthly meetings of designated village communities, or social clubs like the 'Dmitra' clubs); or in the form of cross-border trust-building activities or community events (for example, sporting matches or cultural events). These cross-border activities tended to be an extremely small share of activities. Most cross-border projects overwhelmingly focused on parallel activities on both sides of the border. Eight of the 14 projects in the full sample of 74 projects had almost no actual cross-border activities at all, and were almost exclusively about parallel activities in each country.

Youth Vulnerabilities and Prevention of Violent Extremism (PVE) (six projects):[73] At least six of the climate-security projects focused on PVE, with a specific focus on the risks of youth radicalization and recruitment in this context.[74] In these scenarios, the climate-security risk or linkage made was to identify climate-related communal pressures or conflict contributors, and then the risk that youth (because of stigma, poor livelihood opportunities, or socio-political marginalization, among other factors) might be more vulnerable to recruitment in these contexts (Box B below shares emerging research on some of these linkages). In some cases, these risks were used as the rationale for an overall project focus on youth. In others, activities related to youth engagement or support (with a view of reducing risk of recruitment) was only a minor subcomponent or activity, and not the primary focus. The common project response to this risk was to try to expand opportunities for youth to participate in local natural resource decision-making or support their socioeconomic opportunities (including in some cases through more 'green' or sustainable livelihoods).

Climate Change Mitigation (two projects):[75] The two projects participating in the carbon emissions offset

programmes (the REDD+ strategy), one in Colombia (PBF-COL-C-2) and one in Burundi (PBF/BDI/C-1), are the only two projects clearly engaged in climate change mitigation. While not identified as the main intent, the other projects focused on protecting forests might also be seen as contributing to reduction in greenhouse gas emissions. Some of the advocacy components within the Pacific Islands project might also be seen as contributing to this overall goal, albeit indirectly.

Box B: Climate Change, Livelihood Effects, and Armed Group Recruitment[76]

A number of projects had a component focused on preventing risks of violent extremism, with a particular focus on youth and/or on how climate vulnerabilities might contribute to recruitment into armed groups.[77] One of UNU-CPR's partner projects, the Managing Exits from Armed Conflict (MEAC) initiative, has recently been conducting exit interviews with former fighters, as well as community surveys, in the Lake Chad Basin region, Iraq, and Colombia.[78] While still a relatively small sample, the survey results help illustrate the potential link between climate-related vulnerabilities and armed group recruitment.[79]

Focusing first on the results from the Lake Chad Basin, respondents were asked if they had noticed climatic shifts such as changes in rainfall or temperature, and then if they or anyone they knew had experienced difficulties making a living from agriculture as a result of these changes. Fifty two per cent of respondents in Chad and 48 per cent of respondents in Cameroon had observed effects on agriculture or livelihoods due to climate change. Respondents were then asked if they knew of anyone who had joined Boko Haram as a result of these difficulties. Of the four countries in the Lake Chad basin, 57 per cent in Niger responded positively, 37 per cent in Chad, 18 per cent in Cameroon, and 16 per cent in Nigeria.

In all four countries, some former associates of Boko Haram who were interviewed reported that climate change-related difficulties contributed to their decision to associate with Boko Haram or other armed groups. In Niger, 53 percent of former Boko Haram members said climate-related challenges affected their decision to participate. In Chad, 29 percent of former Boko Haram fighters identified this link.[80]

In Colombia, in a survey conducted with 2,460 community members across 11 municipalities, 13 per cent of respondents who acknowledged climate change effects (changes in rainfall and temperature) in their community knew people who joined armed groups due to economic difficulties associated with these shifts. MEAC asked similar questions in a survey of 139 former armed group associates in the government-led reintegration programme. Of these, 30 per cent of respondents who acknowledged climatic shifts said they knew of people who had joined armed groups due to economic difficulties caused by these changes, and 22 per cent reported that they themselves had joined an armed group due to such difficulties.

In Iraq, similar questions were asked of community members in Tal Afar district (in northwest Iraq). Twenty nine percent of those who acknowledged climate change effects reported knowing of someone who had joined an armed group due to the repercussions of climate change, such as loss of agricultural livelihoods due to drought. Community surveys in four other locations also provided some recognition of the linkage, albeit to varying degrees.

Although this preliminary research is too small to posit a full correlation between climate change, livelihood loss or other vulnerabilities, and armed group participation, it helps add texture to the premise underlying many of the PBF-supported projects. The PBF project documents related to these themes often suggested a connecting link, but without this sort of community-based evidence, either at the project document or proposal level or as evidenced in available final project documents.

GEWE and Youth-Focused Projects, and Inclusion as a Project Logic

There has been increasing recognition that climate change, and any attendant security implications of it, may affect women and men differently.[81] In particular, **there are significant concerns that gender inequality in economic or decision-making spheres, and discriminatory norms against women and girls could make them more vulnerable to climate impacts**.[82] This has led to calls for those working on climate-security dynamics and on climate adaptation to take into particular consideration the needs of women and girls.[83] There have also been calls for greater attention to the needs of youth within climate-security and climate adaptation contexts, both because they might in certain situations be disproportionately affected by the livelihood or other conflict-related dynamics affected by climate change and because of their potential to positively influence future adaptation scenarios.

The PBF climate-security portfolio strongly responds to this twin call for a focus on women, girls, and youth. A large share of the projects were focused on women and girls, youth, or inclusion and empowerment of disadvantaged or marginalized groups. As noted, projects focused on women and youth is an area explicitly encouraged by the GYPI funding modality (see text Box C). However, the number of projects focused on women or youth in the climate-security sample went far beyond this GYPI funding modality. Whereas there were only 10 GPI projects in the climate-security sample, **19 of the 43 climate-security projects had a central or strong focus on women and girls**.[88] An additional nine projects had at least a significant subcomponent or element focused on women or girls. Whereas there are only four YPI projects in the climate-security sample, coding based on content suggested that eight projects had a central or strong focus on youth. Another eight had at least a significant subcomponent or contextualization related to youth.

Box C: GYPI Projects

The GYPI is an annual PBF competitive call for proposals for projects supporting the empowerment of women, advancement of gender equality, and a positive role for young people in peacebuilding.[84] Between 2016 and 2020, the PBF invested $154.5 million in 124 GYPI projects across 29 countries (48.6 per cent for GPI projects and 51.4 per cent for YPI projects).[85] Both CSOs and UN entities can respond to these calls, but only with proposals for projects in PBF eligible countries.[86] Since 2020, annual GYPI calls draw on particular themes as defined by the PBSO. Particularly relevant for this review, the 2021 call included "promotion and protection of civic spaces, notably regarding land, indigenous people and *environmental issues*" (emphasis added).[87] In response, many of the GYPI projects in 2021 incorporated environmental themes, nine of them specifically related to climate-security. Overall, 14 of the 43 climate-security projects, and 28 of the total sample of 74 projects, were awarded funding through this GYPI process.

The content of these women and youth projects spanned all of the key issue sets and project themes identified above. However, an important feature of the projects focused on women and girls, or on youth, was that they tended to operate on what this report will describe as an **'inclusion' logic**. Part of the remit of this review was to examine Theories of Change and project logics. In more than half of the climate-security projects, and roughly half of the 74-project sample, the underlying project logic featured inclusion or empowerment of certain groups as the key element to bring about the change desired.[89] This most commonly related to inclusion or empowerment of women and girls or youth, but in other projects might involve inclusion or support to minority groups or subcommunities, migrant communities, indigenous communities, or other disadvantaged or marginalized groups.[90]

The rationales for focusing on inclusion or empowerment varied. In some projects, particular groups were framed as '**change agents,' offering an entry point for unlocking the land or natural resource blockage in question**, or otherwise advancing stronger resource management initiatives. For example, several projects posited that

women or youth could more easily engage across clan or tribal lines, and thus act as mediators of certain intra-communal disputes, or get past communal barriers to coordination in ways that would enable better collective problem-solving and resource management in the future (Yemen: PBF/IRF-202; Yemen: PBF/IRF-256; Somalia: PBF/IRF-433; Sierra Leone: PBF/IRF-452).[91]

In other situations, it was posited that because women already had significant roles related to natural resource management or use, for example, being the primary water fetchers, or engaged in agricultural crop tending, that there was already some community tolerance for them to engage in this space. It was argued that if further enabled to take a more active decision-making or management role, women's differing perspective and priorities would allow them to shape community management of resources in ways that would better consider all community needs.[92] Further building from this identification of gendered role-pathways, at least two projects explored whether a greater proportion of female-headed households in communities (due to conflict, migration patterns, or other factors) would create an opening for women to take a more prominent role in natural resource management and climate change adaptation: the Sudan 'Blue Nile' project (PBF/SDN/B-1) and a project in The Gambia (PBF/GMB/B-2).[93]

While some projects focused on women, youth, or other groups as change agents, other projects promoted inclusion and empowerment strategies more broadly, as a way **to counter-balance existing structural inequities, address potential grievances and the root causes of conflict,** and **contribute to social cohesion and better communal management in the long term.**[94] Some of the projects focused on including youth in natural resource

Summary Chart of Key Project Coding

	Full 74-Project Sample	43 Climate-Security projects
Thematic Issues or Key Activities		
Water-related natural resources	19 strongly (26%) 22 limited (30%)	13 strongly (30%) 18 limited (41%)
Land	36 (49%)	12 (28%)
Transhumance	26 (35%)	22 (51%)
Migration	13 strongly (18%) 8 limited, & 19 further Transhumance	7 strongly (16%) 7 limited (16%)
Involve components related to		
Climate adaptation (explicit)	24 (32%)	16 (37%)
Deforestation/biodiversity protection	10 (11%) 7 strongly, 3 limited	5 (9%) 4 strongly, 1 limited
Other Programme features		
Final evaluation conducted	18 (24%)	11 (26%)
Gender Promotion Initiative	18 (24%)	10 (23%)
Youth Promotion Initiative	10 (14%)	4 (9%)
Cross-border	14 (19%)	10 (23%)
PRF / IRF	28 (38%)/ 46 (62%)	17 (40%)/ 26 (60%)

decision-making or management reflected this logic (these largely overlap with the Youth and PVE projects discussed above); as did several of the migration-related projects. In these projects, for example, including the refugee or IDP community in question in natural resource decision-making or local economic activities was seen as **a way to prevent sources of tension or conflict, while also promoting community resilience against climate-related weather shocks or environmental degradation**.[95] As noted above on climate change adaptation components, some projects were focused on identifying gendered effects of climate change and including women and girls in climate change adaptation planning. This was often framed as both addressing the particular vulnerabilities of women and girls, while also contributing to overall stronger community resilience against weather shocks or other anticipated effects of climate change.[96]

The implications of adopting an inclusive approach in terms of the pace and nature of results will be discussed further in the analysis section, following further examples in subsequent case studies. The chart on the preceding page summarizes some of the key issues, thematic elements, and other coding identified in this section, for both the entire sample and the climate-security projects.

III. Country, Regional, and Subregional Case Studies

The following case studies were identified through a collaborative process with review partners, with a view to selecting case studies that would illustrate key issues in the climate-security portfolio, and also offer some geographic, thematic, and contextual diversity. The Liptako Gourma case study hones in on climate-security programming in one of the most active areas of the PBF portfolio geographically and thematically, spanning three countries in the Sahel region and focusing on the issues of climate-security and transhumance. The Yemen case study helps to unpack some of the common (and promising) programming strategies regarding water scarcity and gender inclusion within local climate-security and peacebuilding efforts. The Pacific Islands case study, although unique among other PBF-funded projects in many respects, offers insights into prevention-oriented programming and the particular climate-security concerns of island nations. The case studies in Liptako Gourma and Yemen also contribute to inferences surrounding PBF programming in fragile and conflict-affected countries. Meanwhile the Liptako Gourma and the Pacific Islands case studies enable greater examination of different types of cross-border projects, a modality of increasing importance in climate-security programming. Further reflections on these cross-cutting themes and modalities, drawn from both the case studies and other project analyses, will be included in Section V, following the case study summaries.

Liptako Gourma Subregion (Mali, Niger, and Burkina Faso)

Liptako Gourma, a vast, sparsely populated, arid region straddling the troubled borders of Mali, Burkina Faso, and Niger,[97] hosts nine current and recent PBF climate-security projects with a total value of more than $21 million. This represents 12.5 per cent of the overall PBF climate-security portfolio, split among three countries that have been on the PBF agenda for many years. Impoverished[98] and increasingly controlled by jihadist armed opposition groups, the largely rural, young population[99] in the Liptako Gourma subregion is vulnerable to the impacts of climate change and suffers high levels of violence, both from their own governments and non-state armed groups.

Information for this case study was gathered from three trips to the region over the course of 2022. These trips included a total of almost 80 interviews with local experts, donors, and UN staff.[100] The case study focuses on several pertinent questions for the PBF climate-security portfolio: How to operate in places with weak institutions and/or entirely absent government? How to work across national boundaries in a highly volatile context? How to avoid reinforcing centre-periphery dynamics? How to differentiate the PBF amid a crowded field of conflict and peace initiatives? And, can the PBF truly address the root causes of climate-security challenges in a sustainable manner?

Climate Security and Conflict Dynamics

The Liptako Gourma subregion is afflicted by a complex crisis born of communal tensions, climatic variability, demographic pressure, high levels of poverty, a lack of livelihood opportunities, growing competition over dwindling resources, weak governance, and the absence of state institutions and basic services. The situation in the region has worsened since 2015, with a surge in intercommunal conflict and sexual and gender-based violence, four military coups in Mali[101] and Burkina Faso,[102] and escalating numbers of civilian deaths.[103]

Contested ownership of and access to land, mineral, and water resources are at the heart of many of the challenges facing Liptako Gourma.[104] Although pastoralism has been an adaptable and resilient livelihood strategy, in past decades governments have endeavoured to settle pastoral populations,[105] while population growth among farming communities has resulted in encroachment on what were designated pastoral corridors.[106] Land regulations are seldom enforced, opening the door for arbitrary decisions and abuse, especially in rural communities.[107] Government policies have sometimes displayed a preference for agriculture over pastoralism,[108] which is becoming an increasingly precarious existence for millions of people.[109] Meanwhile, national and international criminal networks are capitalizing on the lack of government control to traffic in smuggled goods and pillage livestock. According to one senior UN official as much as three quarters of the insecurity in the region may be associated with trafficking in some way.[110] The legacies of inequitable resource access has provided armed groups with an opportunity to exploit frustrations.[111] Nevertheless, there is a focus on the security and political dimensions of conflict in many peace initiatives, often at the expense of ignoring the underlying resource and environmental dimensions.[112]

Projects in the Liptako Gourma Case Study

PBF status

Mali: PBF eligible until 2024

Niger: PBF eligible until 2026

Burkina Faso: PBF eligible until 2023

ND GAIN Index

Mali: rank 170, score 35

Niger: rank 176, score 33.1

Burkina Faso: rank 158, score 37.6

Country and Project ID	Title	Budget	Timeframe	Funds' recipients	Thematic focus
Burkina Faso PBF/BFA/A-1	Appui a la Gestion Pacifique de Conflits Locaux	$ 2,200,134	2018-2021	UNDP UNHCR	Local conflict management
Burkina Faso, Niger, Mali PBF/IRF-180-181-182	Promotion de la sécurité communautaire et de la cohésion sociale	$ 3,000,000	2017-2019	UNDP	Social cohesion; natural resource management
Mali PBF/IRF-260	Deuxième décennie pour la paix	$ 1,500,000	2018-2020	FAO UNICEF	Youth empowerment and education (YPI)
Mali PBF/IRF-311	Appui à la gestion des risques liés à la dégradation environnementale	$ 801,056	2020-2021	UNIDO UNCDF	Local resource management; women's empowerment
Burkina Faso, Niger, Mali PBF/IRF-353-354-355	Promotion d'une transhumance pacifique dans la région du Liptako Gourma	$ 3,000,000	2020-2021	FAO IOM	Natural resource management; climate adaptation
Burkina Faso, Niger, Mali PBF/BFA/B-6	Appui aux Initiatives Locales de promotion de la Paix	$ 2,500,000	2022-2024	Mercy Corps	Civil society organizations; capacity building
Mali, Niger PBF/IRF-351-352 (GPI)	Femmes et gestion des conflits liés aux ressources naturelles	$ 4,000,000	2020-2022	UNDP UN Women	Social cohesion; natural resource management; empowerment of women
Burkina Faso PBF/BFA/A-2	Prévention et gestion des conflits	$ 2,500,000	2020-2022	UNDP FAO	Conflict management; capacity building
Mali PBF/IRF-440 (GPI)	Les femmes illuminant le chemin vers la paix	$ 1,500,000	2021-2023	UNDP UN Women	Natural resource management; women's leadership

The Liptako Gourma subregion is vulnerable to climate change because much of its population relies on livestock herding and rainfed agriculture, which are both susceptible to fluctuations in the availability of water and prevailing temperatures.[113] The climate is harsh, and the population has little or no government-provided social safety net. With average temperatures across the Sahel rising 1.5 times faster than the global average, droughts and floods are becoming longer and more frequent, undermining food production.[114] These trends, combined with overgrazing, deforestation, and mining are accelerating soil and vegetation degradation, which is damaging the capacity of local ecosystems to resist and adapt to climate change.[115]

Projections for the future are sobering. **The Intergovernmental Panel on Climate Change (IPCC) estimates that temperatures in the Sahel could rise by between 2.0°C and 4.3°C by 2080.**[116] While the models largely agree on temperature projections, there is less consensus on what is likely to happen to rainfall, which can rise or fall under different models.[117] A combination of rising temperatures and elevated rainfall would have mixed impacts on agriculture. Maize, millet, and sorghum are projected to be less productive, while cassava, cowpeas, groundnuts, and rice are likely to benefit from CO_2 fertilization.[118] However, this would also be shaped by non-climatic factors such as overgrazing and population pressure,[119] while increased temperatures, by increasing evapotranspiration and plant stress, may cancel out the benefits of more rainfall.

Overall, climate change in the subregion could exacerbate conflict by worsening food security,[120] undermining livelihoods, and creating more poverty. These factors can have significant impacts on where and how people can live: forcing some people to migrate, or – conversely – undermining previously mobile livelihoods such as pastoralism and 'locking' people in place.[121] There is a growing problem of distrust between host communities and IDPs that can break out into violence.[122] Traditional mechanisms to resolve farmer-herder conflicts have broken down and armed opposition groups are providing justice and dispute resolution in some places – leading to the erosion of confidence in customary systems for restoring peace.[123]

Introducing PBF-Funded Projects in Liptako Gourma

The PBF has funded a relatively large and multifaceted group of climate-security projects in the Liptako Gourma subregion. Starting in mid-2017, this now consists of nine current and recent projects with a total value of $21,001,190. This represents a large portion of the 74 projects identified for this thematic review. It is also a sizeable proportion of the total PBF 'family' of projects (i.e. climate-security and non-climate-security projects) in each of the three countries.

In keeping with the cross-border nature of the challenges that the subregion faces, four of the PBF-funded projects in this case study are cross-border projects, straddling the borders of two or three countries. Five are located in the Liptako Gourma border region of one of the three countries. Five projects had a 24-month duration (including two that have received six-month no-cost extensions) and another four were approved for 18 months. Three of the nine were funded via the GYPI, but the focus on GEWE and youth goes beyond that.[124] Half of the projects in the case study (four out of nine) had a central or strong focus on women. In addition to the one YPI project, three additional projects had a relatively strong connection or subcomponent devoted to youth.

The UNDP is the main implementer of projects, leading five, followed by FAO (two) and the United Nations Industrial Development Organization (UNIDO) (one). Supporting implementing agencies include UN Women, the UN Capital Development Fund (UNCDF), the United Nations High Commissioner for Refugees (UNHCR), UNICEF, and IOM. Mercy Corps is the only non-UN lead implementer. But while larger agencies are assuming planning and fiduciary responsibilities and ensuring quality control, as is the case with other PBF-funded projects (and UN practice more generally), most activities are being implemented through local Non-Governmental Organizations (NGOs) and CSOs. This helps to support and build the capacity of local organizations but also reflects the reality that access for UN staff to many parts of the Liptako Gourma subregion has become impossible without elaborate and expensive security arrangements.[125]

In terms of the common themes and issues in these projects, as would be expected given the context, all nine of the projects deal with issues related to transhumance. Moreover, given that issues in transhumance grazing often relate to issues surrounding pastoral land and water points, most also have at least a subtheme or focus on water scarcity issues. In terms of the Theory of Change and goals, **the projects share an overarching vision of a Liptako Gourma subregion in which populations are resilient to climate change and environmental degradation, and relations between ethnic and occupational communities are peaceful**. A review of project documents suggests an analysis that perceives

Many of the PBF-supported projects in the Liptako Gourma subregion responded to the way that climate change has affected transhumance routes, and attempted to address recurrent sources of conflict over transhumance (by expanding water access and sources, restoring pastureland, or rehabilitating pasture-related infrastructure) while also working with communities on intra-communal trust-building, equitable governance of natural resources, early warning, and other means of conflict mitigation. *Photo provided by FAO.*

violent conflict to be the result of three interrelated factors:

- The lack of capacity of the actors in charge of managing conflicts to identify risk factors, to network, and to be proactive in preventing conflicts;
- Ignorance of, and non-compliance with, existing regulations on natural resources (such as pasture and agricultural land), and inaccessibility to appropriate infrastructure and services;
- The absence of a strategy for the protection and sustainable management of natural resources.[126]

The ways that each of the projects seek to implement this vision are varied but the projects' climate-security-related intermediate outcomes include:

- Empowered local actors with appropriate financial and technical capabilities to tackle localized conflict;[127]
- Strengthened mechanisms for information about, and management of, climate risks, notably on transhumance;[128] of these, two projects prominently used IOM's early warning tool, 'TTT';[129]
- Strengthened conflict management, borne out of climate risks in general[130] and herder-farmer tensions in particular;[131]
- Strengthened community or national mechanisms for improved natural resource governance;[132]
- Support to community livelihoods, often with a focus on sustainable or 'green' jobs or practices;[133]
- Previously marginalized communities empowered economically and politically;[134]
- Improved pastoral infrastructure, or other technical support, to address environmental degradation or resource scarcity.[135] This included facilitating more sources of water for either pasture or drinking water through infrastructure repair, water bore holes, or other means; provision or repair of transhumance-related infrastructure such as securing grazing areas, redeveloping cattle tracks, veterinary checks or sites, cold storage, or other equipment; or 'greening' and renewing pastoral lands, among other interventions.

All of the projects demonstrated some efforts at improving community dialogue and social cohesion.

As noted in the previous section, a strong tendency within projects that focus on GEWE and youth was to take an inclusion approach in terms of the overall project logic. **Within Liptako Gourma, four of the nine PBF-funded projects examined strongly demonstrated this inclusion and empowerment logic as arguably the central approach, and a fifth had it as a very strong element.**[136]

This is not to suggest that the other strategies and activities identified above were absent from these inclusion-centred projects. All five were certainly engaged in the full range of other activities – including providing technical assistance on certain natural resource management or renovation issues, and supporting alternative livelihoods, a range of social cohesion and dialogue activities, and activities specifically aimed at increasing awareness of

climate change adaptation. However, the underlying logic furnishing the rationale for engagement in these activities, and often the selection of target beneficiaries, tended to hinge on including and empowering women and/or youth via the natural resource sector.

In most of these projects, **the idea was to use the natural resources sector as a potential entry point for addressing structural inequities**. However, equally important was the idea that improvement in the engagement of women and youth on these issues would result in stronger community resilience and better natural resource management strategies. For example, in the project "*Femmes et gestion des conflits liés aux ressources naturelles*" (PBF/IRF-351-352 in Mali and Niger), two out of three outcomes concern the political and economic participation of women in a context of climate insecurity.[137] As reflected in many of the climate-security projects, "*Promotion de la sécurité et de la cohésion sociale*" (PBF/IRF-180-181-182 in Burkina Faso, Niger, and Mali) offered an integrated approach, attempting to tackle the often interwoven dynamics of inequality related to accessing resources and basic services, ethnic strife, and conflict.[138]

Connecting some of these projects to the categories described in Section II, two projects in Mali (PBF/IRF-440 and PBF/IRF-311) offer strong illustrations of programming related to the gender-climate-security nexus. Both envisioned women's and girls' empowerment as a way to build peace and resilience to the cumulative impact of climate change-induced shocks, and deployed methods designed to better integrate women in climate change adaptation activities and planning. The project PBF/IRF-260 (in Mali) picked up on some of the themes of PVE and youth vulnerability introduced above, but situated them within a transhumance-focused climate-security context. Explicitly identifying a risk of youth 'recruitment' into armed groups, it focused on engaging youth in community mechanisms, spaces for dialogue, educational and livelihood opportunities, and other community-building activities (sports and youth clubs, for example).

Project Implementation and Preliminary Results

PBF-funded projects are not designed as a portfolio. In addition, as noted earlier, it is largely a demand-driven fund, such that while the PBF may encourage certain themes and approaches (as with encouraging cross-border approaches in this subregion), the projects selected may not necessarily reinforce each other or target particular gaps or needs in the way that a more strategic funding strategy might. As such, it would be difficult to assess the overall impact of this collection of projects as a connected portfolio. At a project level, an independent evaluation was available for five of the projects (at least in draft form).[139] Four of the nine projects were still ongoing at the time this case study was developed, making evaluation of their effects premature.

While noting substantial limitations in data collection, the four evaluations of the projects focused on GEWE and youth in Liptako Gourma suggested that the projects were able to meet many of the established targets and benchmarks for participation and inclusion. The project PBF/IRF-260 (in Mali) was said to have demonstrated gains in terms of youth inclusion in local dispute resolution mechanisms and encouraged greater social acceptance for a more prominent youth role. The project PBF/BFA/A-1 (in Burkina Faso) showed some incremental gains related to the inclusion of women in local mediation and decision-making bodies. In the cross-border project PBF/IRF-180-181-182 (in Burkina Faso, Niger, and Mali), women and youth became increasingly involved in income generating activities and in communal activities, to a greater degree than before, according to internal reporting reviewed by the independent evaluators.

However, the evaluations also demonstrated challenges in going beyond participatory outputs, and also of achieving a farther reaching and sustainable impact.[140] **Nearly all of the evaluations stressed the substantial challenges in terms of overcoming insecurity and in some cases pushing against entrenched and discriminatory social norms.**[141] The evaluation of PBF/IRF-180-181-182 (in Burkina Faso, Mali, and Niger) for example, explicitly noted that "the project had many difficulties in ensuring effective and efficient participation of women in project activities. In fact, the gravity socio-cultural factors have had an impact on this participation and to this has been added the insecurity that made access difficult in the areas of intervention." While the evaluations generally validated the overall project motivation and subject matter, several suggested room for further thinking in how these goals might be realized in such environments.

Notwithstanding the challenges in seeing at least some of the desired results, several interviewees noted that the overall approaches embodied in these projects – both the inclusion-centred activities and the overall integrated approach – were important to pursue.[142] In addition, it would be difficult, even with perfect implementation and achievement of strategic results, to be able to measure and observe these changes in the short term, so additional results and impact may yet be observable going forward. Several of the independent assessments noted the difficulty of establishing causality and attribution – questions not unique to these projects, but worth bearing in mind in any discussion of potential impact.[143]

Projects are also showing results on some of the other components designed to prevent or mitigate transhumance-linked conflicts. A draft evaluation of the cross-border project in Burkina Faso, Niger, and Mali (PBF/IRF-353-354-355) noted that its three targeted results were satisfactorily achieved overall. For example, the first targeted result – "information allowing for the peaceful management of transhumance is collected, analysed and disseminated to the various users" – was achieved in an overall satisfactory manner. It cited IOM reporting that the TTT system had made it possible to identify nearly 200 conflicts, more than half of which were resolved (although this statistic may have comprised multiple projects and areas where the TTT was operating).[144]

However, here, too, the independent evaluators highlighted significant challenges, despite the best efforts of project implementers. In the same cross-border project noted above, a substantial number of project activities had to be cancelled due to deteriorating security "deemed to be lasting." The insecurity also undermined key pillars of the Theory of Change. One of the key elements was to strengthen consultation frameworks on transhumance. But the independent evaluation suggested one of the major reasons this effort failed (or appeared unsustainable) was insecurity – the civil servants involved fled as soon as the frameworks were established. Insecurity also derailed some of the planned technical activities, and although modifications were made, they would not necessarily allow for the originally intended effect. **"[F]or transhumance to be pacified, the products must fit together and work together,"** the evaluators noted, and so **when different planned activities or components of the overall Theory of Change and project design were derailed due to insecurity or other factors, it diminished the prospects for attaining the desired results.**[145]

The remainder of this section steps back from this project-level focus to offer some indications for best practices and lessons learned for the wider PBF portfolio, based on interviews and a review of documents.

Best Practices and Lessons Learned

Focusing Peacebuilding on Root Causes: All nine projects evaluated as part of this case study contributed to a more rounded approach to peace and security in Liptako Gourma by helping to change the narrative around conflict in the region. The prevailing national response to armed conflict has often been to reach for a gun, yet the approach taken in these nine PBF-funded projects was to try to address climate-exacerbated root causes of conflict, with some success. **Integrating climate and environmental perspectives into a more fulsome understanding of sources of security and violence also helps to counteract a tendency to address insecurity in purely counter-terrorism terms.** The focus on inclusion of women and youth is particularly relevant given the links between disenfranchised youth, a lack of livelihood opportunities, and recruitment into armed groups.

Adaptive and Flexible Approaches: Another best practice is that the PBF has been adaptive, learning from experience and evolving different ways to tackle emerging challenges.[146] This reflects a strong link between headquarters and the field and demonstrates a willingness to trial approaches and learn from the results. The portfolio has evolved through various distinct phases, trialling work with different agencies and looking to bring together complementary skills. In the first phase, early climate-security projects suffered some delays and implementation problems. In the second phase, projects brought together two organizations – IOM and FAO – with complementary mandates and expertise. More recently, in the cross-border project PBF/BFA/B-6 (in Burkina Faso, Niger, and Mali) the PBF has been working with smaller organizations and looking at ways of delivering smaller grants – between $20,000 and $50,000 – directly to community organizations working in affected areas. Providing aid through small grants is more likely to be effective in areas where the government struggles to exert a presence and where UN staff are barred from entry.[147]

Promoting a Regional Approach: With existing governance structures, coordination mechanisms and implementing partners in each country, the PBF is better placed than many others to support a truly regional approach to peace programming. This is particularly important when government-to-government relations across the three countries are often characterized by mistrust. **The PBF has played an important role in pushing the countries (and the UN) to think regionally and beyond the capitals.**[148] There is also some evidence that the PBF portfolio is helping to inform and influence other donors and implementers towards a more regional approach, with the planned multi-million Regional Stabilization Facility being discussed between UNDP and some donors drawing ideas and inspiration from the PBF approach.[149] The United Nations Integrated Strategy for the Sahel (UNISS) highlighted the PBF's cross-border programming in the Sahel as an example of innovation that could "more effectively target the root drivers of fragility" in the Sahel.[150]

Supporting a 'One UN' Approach: The final best practice is that the PBF is genuinely helping to forge a more 'One UN' approach to peacebuilding in the Liptako

Gourma subregion. The requirement for projects to be delivered by more than one agency is rarely actively appreciated, given that it often increases the transaction costs of project management. However, almost all interviewees the authors spoke to acknowledged that it is important. As one interviewee put it: "It permits organizations to work together and to understand what other organizations are doing."[151]

Some implementers appreciated the focus that the PBF puts on Theories of Change and the support to develop monitoring and evaluation frameworks. The national PBF Secretariats are seen as responsive, easy to work with, and generally well connected to the peacebuilding community in each of their countries.[152] The PBF team in the New York headquarters has a reputation for relatively swift decision-making and solid due diligence processes. This is appreciated both by implementing partners and donors.[153] Many donors in the region are overwhelmed and the staff are on short deployments with frequent leave cycles, and so they are looking to programme funds through existing mechanisms that can offer a degree of institutional memory.[154]

Lessons Learned and Constructive Critiques for Future Programming and Investments

Challenging Security Context: In terms of lessons learned, the PBF, in common with many other initiatives, has struggled to operate in what is an extremely challenging environment. The security situation means that it has become difficult for implementing agencies to directly meet beneficiaries, to truly understand their needs on the ground and to be able to plan accordingly. It also makes it difficult to have participatory analysis and joint planning of interventions with communities. Indeed, even holding meetings with beneficiaries in the regional or national capitals can endanger beneficiaries if they are seen by jihadists as working against them, or 'collaborating' with the enemy.[155] One unintended consequence of the security dynamics is that a high percentage of the value of the portfolio is being 'captured' by those in the national capitals or regional centres, where most activities and workshops are required to be held for security reasons. A smaller portion of the resources may therefore be flowing to beneficiaries in remote rural areas.

While there is no immediate workaround for the security and governance challenges in Liptako Gourma, interviewees suggested that longer timelines may be necessary to be able to navigate around some of these issues and generate results. The independent evaluation for the project PBF/IRF-180-181-182 (in Burkina Faso, Niger, and Mali) noted that **the project's total running time of 29 months (factoring in no-cost extensions) was "insufficient to have tangible results in a very sensitive area such as peace, security, and social cohesion**."[156] Several interviewees also mentioned that the short duration of the project minimizes time for the necessary consultations and encourages a 'copy and paste' approach to project design.[157] This suggests that too-short timelines may not only limit the prospects for results, but might also curb innovation.

Difficulty in Refocusing Attention on Climate-Security: The PBF-funded projects offer a potential redefinition of insecurity in the Liptako Gourma subregion, encouraging an approach focused on addressing the root causes of conflict, many of which are affected by climate change. Nevertheless, it has proven difficult to get national governments and regional organizations to pay attention.[158] There is certainly a degree of lip service paid to the climate-security issue as it is seen as politically current and a source of funding, but it is not often seen as core to national interests.[159] In part this is because climate-security is not perhaps as immediate and intuitive a driver of conflict as other issues, such as marginalization and poverty. The immediacy of other threats and challenges can overwhelm other issues – in what one interviewee termed "the tyranny of the urgent."[160] As a result, people tend not to talk about environmental issues and the first priority is to focus on "dousing the fire" rather than addressing the underlying issues.[161]

Another reason that was mentioned by several interviewees is that average rainfall over the past thirty years (1991-2020) has been marginally higher than the preceding three decades (1961-1990).[162] While this somewhat counter-intuitive result is reflected in the projections due to the particularities of this part of the Sahel, it also means that people have not yet witnessed a strong drop in rainfall in their own recent memory, which makes it easier to downgrade the threat of climate change when compared to the many other risks facing the region.[163]

A Crowded Donor Environment: The deteriorating situation in the Liptako Gourma subregion has attracted a significant amount of international attention from military, humanitarian, development, and peacebuilding actors. The three countries host dozens of different initiatives at all levels and all scales. The result is competition for political space, donor funds, and implementation partnerships with the most effective local NGOs, coupled with duplication and occasional mistrust between different initiatives.[164]

The PBF, with its $21 million of climate-security projects in the region, is a small financial player in this 'ecosystem' of military, humanitarian, and peacebuilding initiatives. As a result, the Fund struggles to differentiate itself from the rest of the pack.[165] Even within the UN system there are similar entities: the Trust Fund in Support of Peace and Security in Mali, through the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA), for example, implements a range of similar projects. And the new Regional Stabilization Fund, which is being developed by UNDP with funding from Germany and others, has ambitions for a $300 million envelope of funding.[166]

Outside the UN there are more 'doppelgänger' programmes. The UK government has a £10 million Conflict, Stabilization and Security Fund: Sahel Programme. The Danish and Norwegian Governments funded a €22 million Regional Programme on Stabilization and Peace between 2018 and 2022. Other programmes start with a more explicit focus on natural resource management and infrastructure, often with budgets that dwarf anything the PBF is bringing to the table. The World Bank's *Programme Regionale Appui aux Pastoralisms au Sahel* has $375 million of funding for its five-year second phase, which began on 1 January 2022.[167] And the World Bank is in the process of finalizing a $352.5 million project – the Community-based Recovery and Stabilization Project in the Liptako Gourma subregion.[168]

Given the signs that the PBF approach is a useful contribution to the peacebuilding environment in Liptako Gourma, it should redouble cooperation efforts in order to synch project strategies with those funded by larger donors. At the same time, the degree of attention towards this type of programming in this subregion might allow for some space to explore climate-security issues in nearby areas to a greater extent.

Yemen

This case study analysing two projects in Yemen offers the opportunity to examine water-related programming in an environment that is both one of the most water-scarce countries in the world, and one of the most challenging operating environments in terms of governance and conflict dynamics. The projects in question also applied gender inclusion and tribal mediation dimensions that allow further inferences into how some of the 'change agent' project logics work in practice. **That this gender component was relatively successful is all the more notable in a country that routinely ranks among the lowest globally in terms of gender equality.**[169] Because these two projects are iterative in nature, and were some of the earliest within the project sample set, they allow some inferences to be drawn on effects and sustainability not available in the examination of other projects.

Projects in the Yemen Case Study[170]

Not PBF eligible currently (but was at the time of project initiation)

ND GAIN Index: rank 173, score 34.7

Project ID	Title	Budget	Timeframe	Funds' recipients	Thematic focus
PBF/IRF-202 (GPI)	Strengthening the role of women in peace building through natural resources management at the community level in the rural areas of the governorates of Sana'a and Lahj in Yemen	$ 2,000,000	2017-2019	FAO, IOM	Local water management and conflict; women's inclusion
PBF/IRF-256 (GPI)	Water for peace in Yemen: Strengthening the role of women in water conflict	$ 1,500,000	2018-2020	FAO, IOM	Local water management and conflict; women's inclusion

Climate-Security and Conflict Background Dynamics

Yemen has long been considered one of the most water-scarce countries in the world, due to a combination of natural ecological features, exploding population growth, overuse of water-intensive cash crops (namely qat), and poor water infrastructure and management.[171] **Although studies predicting that Sana'a would be the first capital city to run out of water (by 2017) have not yet proven true, Yemen continues to deplete water sources at a much faster rate than they are replenished.**[172]

Climate change has already exacerbated Yemen's water crisis and may do so to an even greater extent in the future. According to some future climate scenarios, temperature rises of 1.2°C to 3.3°C by 2060 could increase the rate of water depletion and desertification.[173] In addition, greater variability in rainfall patterns may contribute to both greater periods of drought as well as risk of flooding.[174] Rising sea levels have also exacerbated Yemen's water issues, by contributing to salinization of several key coastal aquifers, as well as contributing to soil salinization in some of Yemen's otherwise most arable land.[175] Yemen ranks among the top 10 low-income countries most susceptible to damage from sea-level rise, including damage to coastal infrastructure, communities, ecosystems, and maritime industries.[176] **Because of these factors, as well as the high levels of poverty and other markers of fragility, Yemen usually ranks among the 10 lowest scoring countries on the ND GAIN Index.**[177]

Yemen's water shortages and other environmental challenges have only been exacerbated by the extreme political and conflict dynamics of the last decade. In the fall of 2014, the Houthis (who refer to themselves as *Ansar Allah*) seized the capital of Sana'a, with backing and support from former president Ali Abdullah Saleh. In early 2015, Yemen's then president, Abdrabbuh Mansur Hadi fled to the southern city of Aden, establishing a temporary capital there for the internationally-recognized Government of Yemen. In March 2015, Saudi Arabia formed a coalition with another nine countries (the Coalition to Support Legitimacy in Yemen) and, at the request of then President Hadi, intervened militarily to reinstate the internationally-recognized Government of Yemen. Since then, the country has been de-facto split into two governing spheres, with many parts of the country caught in intensive fighting for extended periods of time.

The last eight years of conflict have created dire conditions for the population, with over 20 million people requiring humanitarian assistance in 2022.[178] Water management policies, water infrastructure maintenance, and other environmental regulation and adaptation measures were never strong in Yemen. But this extended conflict, following a period of equally weak governance and service delivery after the 2011 Arab Spring, has resulted in well over a decade of irregular maintenance, and lack of financial or technical investment in Yemen's water infrastructure.[179] Consequently, as of 2022, the International Committee of the Red Cross (ICRC) estimated that nearly 18 million Yemenis lack access to safe water for drinking and sanitation.[180] Other sources of environmental degradation and vulnerability have been equally neglected, and have even increased due to the conflict. Reports suggest that the regular blockades of fuel and declining economic resources over the last few years have led to a spike in deforestation.[181]

The water crisis, and other sources of environmental degradation, are not only casualties of the conflict, but also contribute to conflict drivers. Land and water competition have long been reported as major sources of lower-level conflict in Yemen. **In 2010, the Government of Yemen estimated that approximately 4,000 people are killed every year due to conflict over water and land.**[182] According to one literature review in a study by Sana'a University (date unknown), 70 to 80 per cent of rural conflicts in Yemen were associated with water.[183] Although not the main driver of the larger conflict in Yemen, experts have accused both the Houthis and the Saudi-led coalition of 'weaponizing' water and other humanitarian resources by targeting critical water infrastructure and at times blocking access in order to gain strategic advantage.[184]

PBF-Funded Projects in Yemen

The PBF has supported two climate-security projects in Yemen, with a total value of $3.5 million. PBF/IRF-202 (implemented between January 2018 and June 2019) worked to strengthen the role of women in water management and dispute resolution in rural areas of Sana'a and Lahj Governorates. The project concept and model drew from a previously successful 2015–2018 FAO project funded by the Netherlands, the Sana'a Basin Project. This earlier project had successfully established Women Water Users Groups (WWUG) in Sana'a, and supported them in resolving a major tribal dispute and associated water usage issues in the Sana'a Basin.[185] The second PBF project, PBF/IRF-256 (implemented between November 2018 and November 2020), was a follow-on from the first PBF project, adopting a similar model but ultimately applied in eastern Hadramawt Governorate.[186] Both projects were implemented jointly by the FAO and IOM.

Women's successful inclusion in and impact on local water management and dispute resolution in the PBF-supported projects in Yemen (implemented by FAO and IOM) offered proof of concept for why women's inclusion in climate-security activities can both advance GEWE goals, and improve natural resource management and adaptation. *Photo by Hani Musiaed, provided courtesy of FAO Yemen.*

The objectives for both projects were similar. The first project aimed to support three outcomes: 1) reducing conflict over water sources (through increasing the availability of water for irrigation); 2) supporting "gender-responsive community reform efforts," giving the chance for women to "take the lead" in resolving conflicts over water; and 3) enhancing community confidence and social cohesion, as well as economic returns and employment opportunities via water infrastructure improvements, with a view to reducing youth recruitment into conflict.[187] The second project listed three similar outcomes: 1) reducing incidents of water-based conflicts/disputes; 2) enhancing WWUGs and community participation in the resolution of water-based conflicts; and 3) increasing economic and livelihood opportunities to strengthen social cohesion and peace. As such, the Yemen projects illustrate, at least in part, the inclusion logic discussed earlier, with the focus on women's empowerment and women as 'change agents.'

Concerning the climate-security nexus, and the emphasis on climate-security objectives, both projects are focused on degradation of water-related infrastructure and disputes over water that more proximately stem from poor management and usage patterns and the overall conflict and governance environment in Yemen. **Given the degree to which climate change and weather patterns are contributing to water shortages in Yemen, climate change cannot but be considered a strong exacerbating factor to this local water scarcity (and associated conflict) dynamic.** However, it is not the most central dynamic in this project. Both project documents (particularly for PBF/IRF-256) contained language and planned activities that might be classed as climate change adaptation.[188]

Project Implementation and Results

Although there was some variance from one Governorate to another, the approach and activities were very similar. In all three Governorates, the project first worked to support or reactivate Water Users Associations (WUAs) – local community associations created to address local water management issues. Before the project, many of the WUAs were inactive, poorly managed, and lacked legal status. In Lahj, the head of the Ministry of Agriculture office said that the WUA existed only "on paper" before the PBF project.[189] In addition, the projects either formed or supported (where pre-existing, as in Sana'a) WWUGs and created Conflict Resolution Committees within the WUAs, the latter of which had to have a composition that was 50 per cent female.[190] Training and other capacity building activities were provided for the Conflict Resolution Committees and the WUAs, covering conflict resolution strategies and skillsets, social cohesion, and natural resource management.[191]

Once established, the WUAs, together with the project's technical staff, consulted with communities to identify key water issues and sources of conflict. The project technical team then worked with the WUAs and others

in the community to facilitate technical solutions to water shortages or water issues. These included rehabilitating water irrigation canals and tributary canals, and clearing these canals of debris (prominent in Lahj), and rehabilitating or expanding water facilities, dams, and barriers (prominent in Hadramawt).[192] Many of these engineering and water infrastructure projects were implemented at least in part via cash for work grants, which went mostly to youth but also to some women.[193] In Hadramawt, the project also supported the planting and protection of Sidr trees and an alternative livelihoods project involving beekeeping.

Concurrent with this technical and material assistance, the WWUG and Conflict Resolution Committees aimed to address sources of conflict surrounding water issues. Some 14 water-related conflicts were identified collectively in Sana'a and Lahj, according to the project evaluation.[194] IOM information noted that the project implemented in Hadramawt (in Tarim District) involved one large irrigation site that invoked multiple disputes along its length. Thus, it is difficult to enumerate whether this would be considered resolving one large conflict or multiple smaller, interconnected conflicts.[195]

Overall, the interviews suggested that the Conflict Resolution Committees and the WUA engagement functioned more in the vein of ensuring community consultation, buy-in, and collaboration in support of the solutions identified to address local water issues, rather than resolving discrete water conflicts or disputes. For example, in Lahj, the underlying issue (in addition to physical blockage of the canals and other infrastructure degradation) was that upstream water users often used water to the detriment of downstream users. A large part of what the WUAs, and the Conflict Resolution Committees within them, were working to accomplish was community acceptance and buy-in into a fairer water distribution system.

Through their mediation, an agreement was crafted among farmers who share resources from the water well. Farmers and other stakeholders were incentivized to cooperate by the technical and material assistance that came with this PBF project (solar-powered well water systems and irrigation channel rehabilitation). Their commitments were also enforceable – under the agreements negotiated by WUAs, the Office of the Ministry of Agriculture in Lahj has the power to take away equipment if farmers disagree. The WUA's role is to monitor compliance with the agreement. These latter components – of Ministry of Agriculture-enforceable contracts and continued community monitoring – were intended to add a degree of sustainability, and also contribute to building local governance.

Overall, **community interviews suggested that these interventions successfully reduced conflicts**, some of which were violent, among farmers in Lahj.[196] Similar types of situations and positive programme effects were also reported among community members in Sana'a and Hadramawt.[197]

Women's Inclusion and Engagement

Women's involvement was required as a condition of assistance throughout the project. There were mandatory quotas for women's participation both in the boards of the WUAs and in the Conflict Resolution Committees. One project staff member also offered that through this position, women had a sort of 'veto' power over the water projects decided upon (although this was not recorded in any project documents and could not be further verified). Women also took part in the other technical and material projects, including monitoring the cash-for-work positions and other economic components.[198]

Women's engagement in these conflict resolution processes, and in other project components, varied based on the nature of the water conflicts and the gender dynamics in each area. In Sana'a, the WWUG and female participants in the Conflict Resolution Committees were more active, often leading conflict mediation and discussions surrounding water issues in their community. This was in part due to their breakthrough success in negotiating a 17-year-old tribal dispute surrounding water use from the Al-Malakah dam in the prior Sana'a Basin Project, which lent them greater credibility in subsequent water dispute resolution processes.[199]

In Lahj and Hadramawt, women were less prominent but the gains in terms of women's inclusion were still apparent. In Lahj, women took part in negotiations surrounding the canals and well water usage agreements, participating in discussions within the community, and with the local Ministry of Agriculture. Their continued participation was observable even during the time of the field visit in Lahj, suggesting a degree of durability.

In Hadramawt, the greater impact was the inclusion of young women. Prior to this project gender norms allowed older women to take part to some degree in community decision-making and dispute resolution, but interviewees said these were not considered appropriate roles for young women. They therefore perceived young women's participation in the Conflict Resolution Committees (one as Deputy Head) to be a notable achievement. The ability of women to have ownership over their own revenue sources, which appeared more prominent in the second project than in the first (i.e., with the bee-keeping), was also highlighted as an important part of supporting women's empowerment.

According to the women involved in this project, these advances in women's inclusion were accepted because of the approach taken in this project. The women who participated said that it was important that women were themselves allowed to decide what type of role they wanted to play and how to frame their role within the Conflict Resolution Committees and other parts of the project.[200] Their statements suggest that this allowed them to determine what they viewed as appropriate for gender and social dynamics in their community, as well as how they might push that line. As a result of this approach, communities gradually started accepting women's participation, they said, and it gradually increased over the course of the project. Men started bringing their wives and daughters to take part in the project and women themselves gained confidence in their new role.[201]

The interviews also suggested that the project not only accrued benefits for women; women also contributed to larger water management improvement goals. From what was observed in field visits and taken from interviews with male and female members of the community, women's participation in the WUAs, and advocacy for improved water usage practices and management among communities, did add value. Women play a prominent role in water collection and agriculture in rural areas across Yemen, and thus the women involved in this project brought significant insights into water disputes in each local area. In addition, because of women's prominent roles in water collection, there are often disputes between women over water scarcity, which are difficult for men in the community to engage with or resolve.[202] Having women involved in the Conflict Resolution Committees and in the project more generally thus allowed for a fuller engagement among community actors and on the full range of water disputes.

This project overall presents a successful model of gender inclusion and participation in natural resource management, but one that differs from the model presented in the Theory of Change for this project. The project documents for both projects present the inclusion of women in the Conflict Resolution Committees and in the WUAs as a key element that will unlock or help resolve conflicts over water and usage disputes between key tribal groups, which are presented as obstructing fair and effective management and use of water resources. In both projects,[203] women were identified as 'change agents,' given their significant role in the rural economy and in the mediation of disputes. The Theory of Change for the first project, PBF/IRF-202, explicitly states that "Due to their more neutral role in society… [which results in] not identifying them as a threat to male power… women are accepted as more honest brokers in local disputes and better able to negotiate small-scale settlements."[204]

However, the interviews suggested that the main incentive for parties to cooperate with the project (what one might frame as the key change ingredient) was the technical and material assistance. Because these would not be provided without women's participation in the Conflict Resolution Committees, women's participation was accepted, and it ultimately proved constructive.[205] Although women had resolved the tribal usage dispute over the Al-Malakah dam, which was resolved in the prior (the Netherlands-funded, not PBF-supported) Sana'a Basin Project, women were not the 'change agents' the project had hoped for. This suggests that **while the idea of women as a 'change agent' is not misguided, it might be a much more context-specific role**, dependent not on overall gender and social dynamics in an area, but on the specific dispute characteristics and individual women involved. In addition, while this case study does not validate the idea of women serving automatically as 'change agents,' it offers further evidence of the benefits of women's inclusion in this sort of community-focused natural resource project.

Best Practices and Lessons Learned

The example of these projects' success within the local water management space in Yemen offers important insights about the prospect for, and challenges to, such projects in conflict-affected and fragile contexts, and benefits and opportunities in including women in local conflict management over natural resources.

Flexibility and Adaptability: Over this period, Yemen has represented one of the most difficult operating environments, due to the ongoing insecurity and levels of violence, and the hostile or absent governance environment. The Houthi de-facto authorities in control in northern Yemen are not an internationally-recognized government, barring regular PBF eligibility and project award procedures. In addition, it has been guarded about international engagement in Yemen and has blocked some development and humanitarian projects.

Notwithstanding these challenges, the flexibility and adaptability permitted in PBF-funded projects allowed this project to push forward in a country setting that many other donors have eschewed. As an example of this flexibility, the second PBF-supported project was in fact planned for Hudaydah Governorate, in Houthi-controlled territory. However, after authorization, it became clear that Houthi de-facto authorities would not allow it to proceed, and the PBF granted a project amendment to instead programme the same activities in Hadramawt.

An Entry Point in Fragile and Conflict-Affected Spaces: Many of those interviewed suggested that much more could be done in this space in Yemen and that it might represent one of the most fruitful peacebuilding areas or approaches. Given that the conflict has been going on for so long, without signs of immediate breakthrough, many within the UN system and outside of it have argued for finding peacebuilding approaches that can make gains in governance, development, and local peacebuilding needs notwithstanding the top-level conflict.[206] Investments in environmental peacebuilding might represent a potent opportunity for this. Yemen is largely a rural society with 70 per cent of the population living in rural areas.[207] For decades, these areas have suffered from a shortage of government services, a situation that was only exacerbated by the war.[208] Investment in water and natural resources can thus have a dramatic effect on lives and livelihoods, and on very significant sources of low-level conflict. In addition, those interviewed working on this project and on related ones argued that because these natural resource issues tend to be viewed as apolitical, there is less resistance from conflict parties to their being carried out, less interference in the project, and greater chance of success.[209] **The Yemen case study suggests that the climate-security and natural resource space may be one of the most tractable and productive spaces to engage in such environments.**

A Sustainable Model for Women's Inclusion and Empowerment: The overall impression was that this project succeeded in including women, and in a way that showed signs of sustainability beyond the project life cycle. For example, during the case study research, officials, project representatives, and women interviewees confirmed that women had continued to participate in the WUA beyond the project lifespan, including in its linkages with the Ministry of Agriculture. This was not exactly because of the logic espoused in the Theory of Change – women did not prove to be key 'change agents' in the way framed in the project documents. But, the project made **significant gains in its goals by expanding women's role in natural resource (water) management and dispute resolution**, and expanding their economic opportunities. There was also evidence that the benefits went both ways – that **women's participation enhanced the overall results in terms of better water management and dispute resolution**.

A Catalytic if not Unique Role: The PBF is not the sole donor to have supported this type of work, so it would be hard to argue for a truly unique or catalytic effect. As indicated above, a very similar project model to that supported by the PBF was funded previously by the Netherlands and the World Bank. Interviews suggested that other donors have continued to fund similar FAO projects related to local water management, natural resource governance, and sustainable farming.[210] Other donors – for example, UNDP's SDG Climate Facility – have developed projects in Yemen that have a similar blend of climate adaptation and conflict resolution or community peacebuilding approaches.[211] The GEF Small Grants Programme has supported 104 projects in Yemen since 2006, 35 per cent of which are specifically focused on climate change adaptation, and many of which centre around water use.[212]

Nonetheless, while the PBF is not the only actor to support climate, environment, and natural resource-related projects in Yemen, it is also not a crowded space. Because of the overall conditions and needs, and also the difficult access in Yemen, donor funding for non-humanitarian programming has remained limited. The PBF intervention was timely in supporting a project that had proved its model but needed additional testing and support. In addition, although parts of the model had been piloted before, staff said that after the further success demonstrated in the PBF-funded projects, that this model was then picked up and funded by other donors. However, they did not provide further details on which donors, or in which provinces.

Too Short Duration for Challenging Environments: The interviews were overwhelmingly positive about this project and this type of intervention. The only caveat offered by those interviewed was that PBF support was much shorter in duration than other donors' projects of a similar nature (which at a minimum tended to last for three years). **More time would be needed to ensure that the parts of the project that were aimed more at long-term peacebuilding – for example, by creating durable local governance structures, community buy-in and agreement, and features like the inclusion of women – had the chance of sustainable impact.** Since the Yemen project was concluded, the PBF expanded the maximum duration for GYPI projects, from 18 months to 24 months. This is certainly an improvement but based on the observations of beneficiaries and those implementing projects, even this additional six months would likely have been viewed as too short to make much headway on a project given the number of implementing obstacles and scale of challenges.

Pacific Islands (Kiribati, Republic of the Marshall Islands, and Tuvalu)

In 2018, the Pacific Islands Forum, a regional grouping of 18 Pacific countries and territories, declared climate

change the single most critical security threat to their islands, drawing together risks associated with sea level rise, droughts, and an increase in the frequency and intensity of tropical storms.[213] In May 2018 the UN Secretary-General visited the region to highlight the existential challenge of these risks. This resulting PBF-funded project was conceived prior to his visit, but its development was accelerated in response to it. In 2019 the PBF approved a $3.2 million 24-month climate-security project in three atoll countries in the northern Pacific: Tuvalu, Kiribati, and the Republic of the Marshall Islands. In 2022, the project received a six-month no-cost extension, bringing the overall duration to 30 months. This case study helps to consider preventive climate-security action at a regional scale as well as a different form of project and strategic development within the PBF as a whole.[214]

Climate-Security and Conflict Dynamics

On one hand, these three Pacific Island states are surprising destinations for the PBF's resources. All three countries (whose populations collectively number fewer than 200,000 people[215]) are ranked by the World Bank as either upper middle-income (Republic of the Marshall Islands and Tuvalu) or lower middle-income (Kiribati) economies.[216] They are politically stable,[217] and not in imminent danger of violent conflict.[218]

On the other hand, these atoll countries – all three of which are on average 2 meters or less above sea level[219] – may become uninhabitable as a result of climate change-induced sea-level rise and its associated impacts on food and water security. As the Boe declaration underlines, climate change is an overwhelmingly important threat to the islands as self-governing, viable nation states. **It is a threat that is not of their doing: these island nations produce few greenhouse gas emissions, yet are among the most vulnerable to the effects of climate change.**[220] They are extremely prone to flooding, which is exacerbated by sea-level rise,[221] coastal erosion, and tidal events, all of which cause salt water intrusion and threaten already limited sources of fresh water. Salt water also contaminates drinking water, affecting sanitation and food security.[222] Islands with very limited groundwater, such as Funafuti in Tuvalu, are dependent on rainfall for their water security, making droughts all the more disastrous.[223] Rising air temperatures also affect sea temperatures, which, combined with increasing atmospheric CO_2 levels, cause ocean acidification, and may lead to the collapse of coral reefs, disrupting a crucial pillar of food security.[224] Local fishing may be further affected by changing ocean currents, shifting the location of fish stocks.[225]

The gathering impacts of climate change are taking place in the context of the islands' complex colonial legacies, their current geostrategic significance, and their sometimes strained community-level power relations, all of which might fuel future division and disputes at local, national, or regional levels. Despite the relative absence of overt physical violence, many islanders experience structural violence. **Gender-based violence remains an issue, and women, children, and persons with disabilities suffer disproportionately from the impacts of climate change.**[226] Additionally, disputes regarding land tenure are common because of the limited access to productive land.[227] The impact of climatic changes on the populations of these small island developing states (SIDs) is more significant in areas where there are high poverty levels, limited economic resources, and dense population centres. Today, the South Pacific Islands are part of the wider geopolitical chessboard unfolding in the Pacific with shifting allegiances, strategic locations, and vast exclusive economic zones (EEZs), all of which are of great interest to regional and global powers and could be the source of tensions as climate change shifts EEZs and valuable fish stocks.

Projects in the Pacific Islands Case Study

PBF eligibility: none

None of the three countries are ranked on the ND GAIN index

Country and Project ID	Title	Budget	Timeframe	Funds' recipients	Thematic focus
Kiribati/ Republic of Marshall Islands/ Tuvalu PBF/IRF-362 PBF/IRF-363 PBF/IRF-364	Climate Security in the Pacific	$3,200,000	2020-2023	UNDP, IOM	Natural resources; climate change adaptation

By seeking to empower island communities in Kiribati, the Republic of the Marshall Islands, and Tuvalu to respond to the existential threat of sea-level rise, the Pacific Island project broke with the common narrative of climate change as a 'threat multiplier' and helped the PBF broaden understanding of how climate change can present security risks in different ways. *Photo provided by UNDP Pacific.*

Project Design and Ongoing Implementation

The Pacific Climate Security Project was launched in September 2020 with a $3.2 million grant.[228] It was designed as a 24-month project to be delivered by two implementing agencies, UNDP and IOM. The project is delivered in partnership with the Pacific Islands Forum Secretariat (PIFS) and the governments of the three low lying atoll nations of Kiribati, Tuvalu and the Republic of the Marshall Islands which are also part of the Coalition of Low-Lying Atoll Nations on Climate Change (CANCC).

The project has three objectives: 1) strengthen national and regional capacity to address climate security priorities; 2) strengthen the ability of key stakeholders in Pacific countries to understand, articulate, and mitigate security threats related to climate change, with a particular focus on atoll nations; and 3) empower atoll nations and Pacific SIDs to have stronger targeted advocacy in global fora combating climate change and addressing the root cause of these security threats.[229] The project's Theory of Change aims to achieve these objectives through the application of **tailored climate-security assessment approaches, inclusive youth- and gender-sensitive dialogues**, partnerships with a range of stakeholders, and the **uptake of key findings in relevant national, regional, and international policy and resourcing strategies**.[230]

The project has four main areas of activity.[231] The first is to hold a series of informal consultations with local communities to better understand the granularity of climate-security risks in the three countries and to strengthen the ability of local communities to effectively engage in a climate-security discourse. The second is to produce climate-security risk assessments for each country, and regionally, in order to provide a stronger evidence base and overall narrative for the threats presented by climate change in the Pacific to support the advocacy efforts of the Pacific's own leaders.[232] The third is to support regional organizations, such as the Pacific Islands Forum (PIF) and the CANCC.[233] The project is also providing technical support to other networks such as the Development Partners on Climate Change (DPCC) and the Pacific Climate Security Expert Network (PCSN).[234]

The fourth area of activity is to implement pilot projects in each country as a way of trialling tangible interventions that address identified climate-security impacts. The location and nature of each of these projects have been chosen in consultation with local communities and under the overall guidance of the national-level technical advisory committee. In Kiribati, the project is upgrading agricultural nurseries and a fisheries centre on the islands of Marakei and Tamana. In Tuvalu, the project is providing food cube gardens as a climate-resilient agricultural intervention on the island of Nue and providing a low-value grant to a local NGO for coral restoration initiatives on Funafuti and Nue islands.[235] In the Republic of the Marshall Islands the project is providing solar-run vertical aeroponic towers on Mejatto Island.[236]

Best Practices and Lessons Learned

Strong Local and Regional Buy-in: The Pacific Climate Security project appears to have fulfilled its mandate to help partner countries and organizations to understand and map how climate change interacts with the drivers and dynamics of potential insecurity in the region.[237] The project has brought together different conceptions of climate-security in a way that reflects the realities of the region.[238] It also enjoys strong buy-in at local and regional levels. By engaging with local communities through consultations and by providing local structures with a role in deciding the location and nature of the pilot projects, the project has ensured a high degree of community acceptance and interest.[239]

An Expansive View of Security Linked to Regional Concerns: This project is breaking new ground for the PBF. By framing the climate-security threat differently from dominant narratives of climate change as a 'threat multiplier,'[240] the project is helping the PBF to broaden the understanding of how climate change can present security risks in different ways, in different places.

Weak link to the PBF's Comparative Advantage: Perhaps because of the project's path-breaking approach to conflict prevention, it is hard to mesh the traditional peacebuilding tools and logic with the anticipated risks and vulnerabilities that the project is nominally aimed at addressing. Many of the common peacebuilding tools and approaches (as illustrated across the projects in this report) are designed to reinforce or help restore social cohesion, or address tensions, grievances, or sources of violence within a given community. **Most observers agree that there is little risk, thankfully, that climate change will cause social unrest over the course of the project or its immediate aftermath.[241] But this means that the tools that the PBF is elsewhere known for applying are not suited to the situation in the Pacific**.

The central risk that the project aims to respond to is the existential challenge that low-lying atoll countries could, eventually, be wiped off the map as a result of sea level rise. But **sea level rise is not a risk that the project is in a position to address in any meaningful way**. The Theory of Change for the project sets out its result as giving Pacific SIDs and low-lying atoll nations "greater credibility to call for greater ambition within GHG reductions," which would seem aimed at preventing this larger existential risk. But this is certainly not a typical peacebuilding objective and is hard to marry with the larger body of PBF work and approaches.

The Theory of Change also calls for "greater ability to build resilience and respond to climate security threats," and many of the projects appear designed to support forms of community resilience and climate change adaptation. One might infer that these interventions are designed for the mid-term scenario in which the existential threat is not realized but sea level rise and other changing weather patterns nonetheless strain resources and living conditions in other ways (otherwise, they would not appear commensurate or appropriate to the threat in question).

Weak Link from Pilot to Peacebuilding: To realize this goal, the project includes a number of pilot projects that are linked to community adaptation or resilience. Although more of a project-level implementation issue, the pilot projects that have been selected in each of the three countries – food cubes in Tuvalu, agricultural and fish nurseries in Kiribati, and aeroponic farms in the Republic of the Marshall Islands – are only tenuously related to the climate-security risks identified in the project. Instead, they are focused on supply side interventions (such as providing more food), which are several causal steps away from the societal tensions that might lead to an

outbreak of conflict.[242] **Where project activities are far removed from a likely path to conflict, it could prove difficult to show any meaningful impact on stability.**

Meanwhile, the activities chosen for the pilot projects are hard to see as truly demonstrating unproven concepts. Food cubes are already in place in Tuvalu,[243] aeroponic towers are operating in the Republic of the Marshall Islands,[244] and projects to support agricultural nurseries have been operating in Kiribati since at least the mid-1990s.[245] These are all worthwhile adaptation interventions in their own right, but they are not new to the region. In addition, they are projects that may be better scaled and supported through vertical funds or other large-scale forms of financing than the sort of support that the PBF could offer. In short, they appear much more like traditional development funding, without a clear link to the peacebuilding issue that is central to PBF engagement.

The best rationale for these projects might be that they are intended to buttress the credibility of the project, ensure local buy-in from governments and communities, and thereby contribute support to the main project goal of regional-level advocacy.

Cross-border Challenges: The project might also be seen as innovative in the sense of experimenting with a new approach to cross-border projects. However, despite goodwill on all sides, a comparatively high staffing ratio and very engaged staff, pandemic-related travel restrictions, the location and institutional affiliation of the teams, and the geography of the region have hindered coordination across the project team. The results so far illustrate some of the larger concerns about cross-border projects, which are elaborated upon further in the subsequent section: while cross-border projects have tremendous appeal given the transnational nature of climate-security challenges, they come with significantly higher start-up and project administration costs, and there are not always sufficiently high dividends from linking separate country activities together to justify these higher programme costs. That said, it should be noted that, in the case of the Pacific, individual country projects across such a large region would be much less cost effective than a regionally-focused project and would also risk losing the strong regional dimension to this particular project. At a minimum, those interviewed argued that to achieve these complex cross-border goals, and given the project goals of catalysing a wider change in climate-security policy in the Pacific, the PBF might consider a longer project start-up period before implementation fully starts.

IV. Best Practices, Lessons Learned, and other Key Issue Sets

In addition to the three case studies, the research team conducted a mid-level review of 32 projects (from the full sample, including but not limited to climate-security projects), which involved more detailed review of the project documents and follow-on interviews with many of those involved in those projects. The team also drew upon insights from the global coding and review of all 74 projects, the review of all evaluation reports available, as well as the wider literature on best practices and lessons learned in the climate-security field.

Based on these sources, this section will offer some overall reflections on any trends or learning from current practice. There are some important caveats regarding these preliminary results. At the time this research commenced, 73 per cent of the projects were still ongoing, 57 per cent by the time the research concluded. As a result, for many projects, preliminary results were not available. **Even for completed projects, many of the objectives and intended effects from these projects would only be observable over a longer span of time.** Many PDAs and implementing partners cautioned that it is unfair to judge these projects based on results that were observable at the time of the review. Finally, nearly all of the experts and policy practitioners stressed that they considered this to be a field that was still in development and warned against drawing too hasty conclusions.

Bearing those considerations in mind, the subsequent section will present inferences on the overall role and value of current efforts, and any promising approaches or practices identifiable within the PBF-funded projects. There will then be an expanded discussion on four key issues related to the PBF portfolio: projects focused on women and girls, fragile and conflict-affected areas, consideration of 'catalytic' effects and impact, and ways to support broader learning in this field.

Best Practices and Lessons Learned on Climate-Security Investments and Overall Project Approaches

The overwhelming impression from experts, practitioners, and implementing partners was that climate-security-related peacebuilding has the potential to be among the most impactful areas of emerging PBF work. As illustrated by the Yemen and the Liptako Gourma case studies, climate- or environmentally-related issues are not only crucial issues for communities, but they offer important entry points for engagement, in situations where engagement might otherwise be limited, either because of larger conflict or country dynamics, or because of social barriers on specific issues (i.e. women's empowerment).

In terms of best practices, experts and practitioners generally emphasized that **taking an 'integrated approach' is central to the climate-security and peacebuilding field.**[246] By this, they meant addressing the drivers of conflict or vulnerability holistically, including environmental or climate-related factors alongside other interrelated drivers, such as poor governance, lack of enforcement or dispute resolution, intracommunal tensions or mistrust, inequity, exclusion or stigma against certain groups, poor socioeconomic indicators, and other sources of vulnerability or violence.

The PBF-supported climate-security projects overwhelmingly reflected this integrated approach, both in the conflict assessments (increasingly so over time)[247] and the mechanisms chosen to address the identified issues. As illustrated in the activities associated with transhumance projects in the Liptako Gourma, most of the projects offered components or activities that were designed to jointly address the multiplicity of factors and drivers. For example, many combined technical assistance designed to alleviate resource scarcity or other land or environment-related drivers of conflict[248] – rehabilitating or improving water infrastructure, restoring pasture land or infrastructure, working to improve land usage or agriculture techniques – with efforts to support or strengthen governance structures, dispute resolution mechanisms (statutory or community-based), and social cohesion and dialogue.

The idea was to not only address community needs but to use natural resource issues or inputs as an entry point to address more systemic issues like governance, land management, or inequity.

Technical assistance need not be limited to material or engineering inputs like water infrastructure repair or restoring grasslands. For some projects technical assistance came in the form of promoting or supporting (sustainable) livelihoods or better land management practices.

Many projects also combined some or all of these components together with activities related to improving understanding and awareness, often related to climate

change adaptation. Some also deployed these strategies together with informational early warning platforms. The most prominent of these was the TTT developed by IOM and deployed in five of the climate-security projects. The chart on page 46 helps illustrate some of these integrated approach pathways by identifying common project components or responses to common climate-security project themes and issue sets.

In addition to this overall integrated approach, experts and partners interviewed emphasized that **there must be specific attention to issues of inequity or access in resource management, and also to the particular effects of climate change for certain groups** – whether for women and girls, for youth, or for other disadvantaged groups – in the climate-security field. This would appear to justify the primarily inclusion-based logic taken by a large subset of the PBF-funded projects (roughly 29 of 43 projects in the climate-security sample; 44 in the full 74 project sample).[249] The fact that there was such a substantial growth in projects exploring gender and climate change adaptation (eight), and particular dynamics of youth vulnerability in climate-security situations (six projects) might be viewed as a best practice on a portfolio level. As further discussed in the recommendations, further thought might be given to how learning within these projects can be consolidated and consciously built upon in order to further identify best practices and approaches at a project level.

Another broader approach featured in the whole sample was the increase in cross-border projects, which has been a dedicated goal for the PBSO in the climate-security space. **The PBF's ability to support cross-border work is viewed as its particular comparative advantage within the climate-security field, given that many of the climate-security challenges require developing regional, or transboundary responses.** The PBSO's efforts to expand cross-border programming was one of the most frequently cited ways that it is acting as a leader in the climate-security field, driving innovation and more effective approaches.

Although these broader approaches were validated overall, there are some larger **lessons learned or cautions** relating to each of these three approaches. These should be viewed more as helping to right-size expectations, than as a dismissal or critique of these approaches.

While an integrated approach was viewed as essential in the climate-security field, its results ultimately depend on a synergy or interaction between different components. Where one component fails, therefore, it can undermine the impact of the project as a whole. As one illustration of this, the independent evaluation of the cross-border project PBF/IRF-269-268 (in the Central African Republic (CAR) and Chad) found some significant achievements in terms of its technical assistance (especially related to improving pastoral infrastructure), and in encouraging better social cohesion and community-level dispute resolution. However, despite these important impacts, it made only partial progress in eliciting the desired level of inter-state engagement towards the issues in question. As a result, the evaluation found that the overall Theory of Change, which was premised on a synergy between these three components, was not fully achieved.[250]

To offer another, more generic, example, one common project approach in the climate-security field has been to redraw transhumance corridors in ways that would reduce conflict with sedentary populations. These redrawn lines would be negotiated with surrounding communities, often fixed through route demarcations or other community compacts, and would be additionally supported through re-pasturing land, infrastructure repair and support, provision of water resources, and other forms of technical assistance. The logic of this intervention was roundly supported – a positive example of how combining technical support with social cohesion-themed community dialogue could help a community mitigate conflict that stemmed from changing ecosystems. Nonetheless, while a positive way forward, where such projects are erected in areas that have weak government presence, informal governance systems already eroded or overrun by non-state armed groups, and little prospect of a cure for the near future, these newly demarcated transhumance routes may simply not be enforced.

These examples do not counter the importance of taking an integrated approach. But given that, in these very challenging situations, it is very common for at least one component to fail, we would expect to see under-performance, or at least failures in these synergistic effects, in many of these projects.

On inclusion-focused projects, the challenge may be that, almost by design, the results are long term in nature, limiting the prospects for immediate results. A large portion of the inclusion-focused projects or components were focused on women's inclusion and empowerment. However, as several of the project evaluations noted, these projects faced significant obstacles in achieving those goals in a short time given deeply entrenched gender norms, stigma, and barriers.[251] This does not mean that the rationale or logic of the project was flawed – improving women's participation in natural resources management, sustainable livelihoods, and community decision-making (among other goals) would likely contribute to a community's resilience to climate change and reduce the prospect for violence

over natural resources. However, in communities where women's participation has been blocked by deeply rooted structural inequity and gender discrimination, overcoming these barriers would take multiple times the length of an average PBF project to accomplish.[252]

What all this suggests is that while inclusion-focused approaches are important and can contribute significantly, expectations regarding the impact that inclusion-focused projects can achieve in a short timeframe may have to be adjusted. In addition, given that more than half of the PBF-funded climate-security projects adopted this project logic, it may mean that we would expect slower results overall from the PBF's climate-security portfolio.

Cross-border projects showed promise, but presented significant additional challenges in terms of implementation, and this additional cost and effort was not always justified by a clearly identifiable benefit. Interviewees for this review, the project evaluations of climate-security cross-border projects, and past reviews of PBF work more generally, have pointed to higher complexity, higher administrative and transaction costs, and greater challenges to achieving project synergies and results in cross-border projects.[253] To justify these costs, we would ideally see clear, additional benefits of adopting a cross-border modality. However, in the climate-security cross-border projects, a clear justification or benefit was often absent. **In many cross-border projects, there was not a clear synch between the Theory of Change, or what the project hoped to achieve, and *why* the cross-border approach of the cross-border activities in question would help advance that.** As noted above, most of the activities within cross-border projects involve mirror activities, steps, or processes happening on both sides of the border, but with little justification for why doing the same activities on both sides of the border simultaneously would further the Theory of Change or the issues in question. For example, the project in Mali-Niger (IRF-351-352) is primarily focused on supporting women's inclusion and empowerment as a way to address women's vulnerability to climate change and enhance land and natural resource management and resolution in the given community. The vast majority of activities involve supporting women's inclusion and empowerment in their respective communities, on both sides of the border. While the project was already showing some impressive achievements,[254] it was not clear what was gained by having parallel women's empowerment activities happening simultaneously on both sides of the border. The same results might have been achieved in each project without it being a cross-border project.

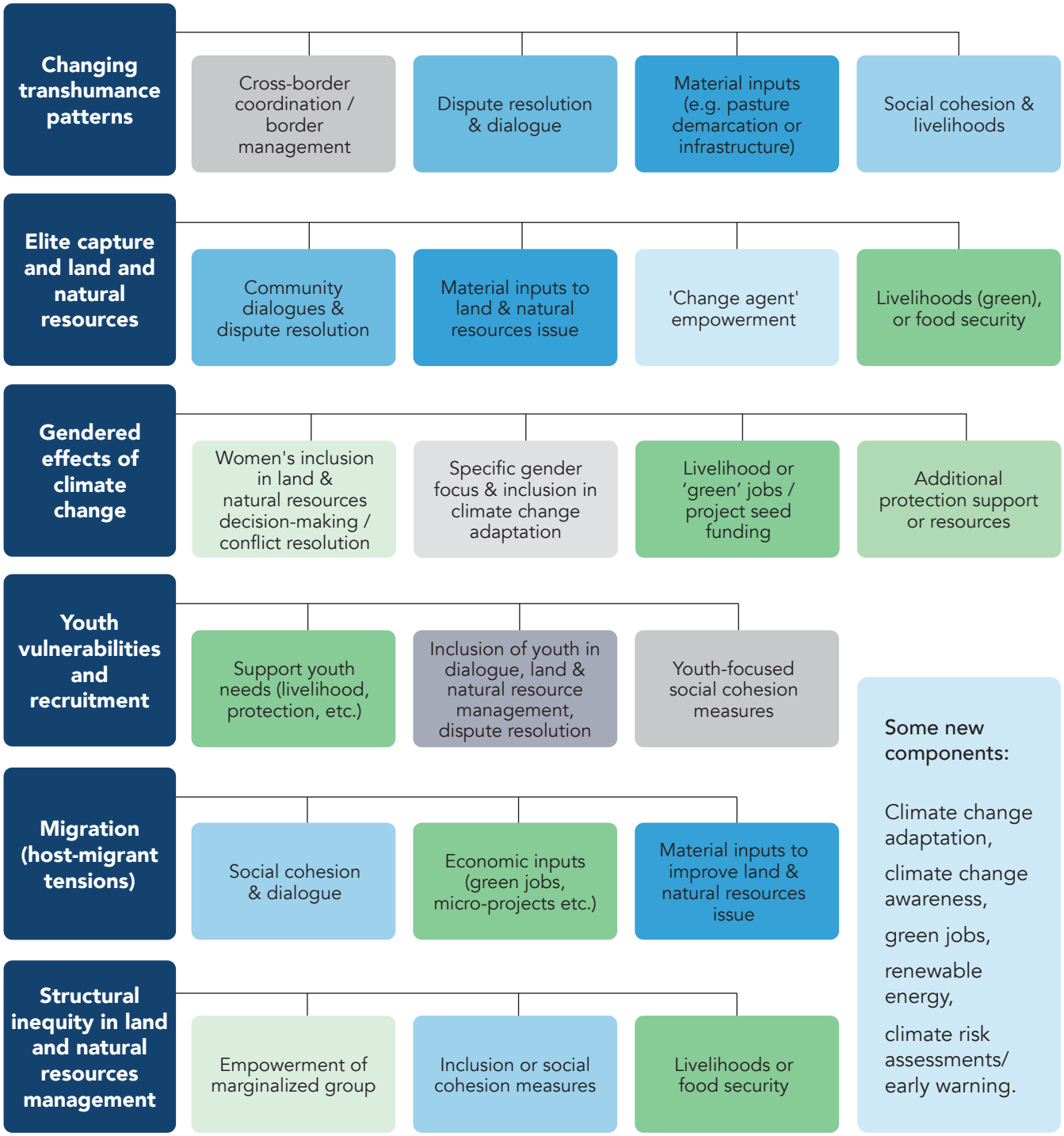
Even for the activities that were transnational or cross-border in nature, there were often not clear dividends or evidence that doing them significantly advanced overall project objectives. For example, the cross-border project PBF/BFA/B-6 (in Burkina Faso, Niger, and Mali) operates predominantly via CSO subgrants, with CSOs or community-level actors presented as the best or (potentially) only actors able to engage in any form of conflict mitigation or peace transformation in the Liptako Gourma subregion. While the overall objective and modality appeared sound, there were minimal cross-border activities – a very modest plan to try to develop a 'network' of cross-border NGOs, facilitated through a vague subactivity of cross-border workshops. It was also unclear how these activities would contribute to CSO efforts in each respective border area. The key question for such projects was not whether the modality adopted or individual activities made sense, but whether doing these activities as part of a multi-country project actually advanced the Theory of Change and justified the additional project costs.

Such findings do not suggest abandoning cross-border approaches, but they do encourage pushing for a tighter fit between the Theory of Change and the cross-border activities proposed. Particularly in environments where each country presents its own administrative and security challenges, fusing such projects can result in significant additive risks and complications to project implementation. These additional costs must be justified by a demonstrable added value of the cross-border activities in question. Otherwise, there is a risk of the project efforts adding up to less than the sum of their parts.

An additional feature that may help to advance the results of cross-border projects would be to extend project timelines. In early 2022, the PBSO expanded the maximum duration for IRF projects, which is the funding modality through which most cross-border projects are supported. It was extended from 18 months maximum duration to 24 months.[255] However, the evidence suggests that even 24 months would be an exceedingly short time to achieve goals in a cross-border project, given the additional transaction costs and often high political challenges. Practitioners interviewed drew a contrast with other cross-border or transboundary efforts in the environmental peacebuilding space (for example, negotiating transboundary water issues). Where the goal is to elicit some degree of higher-level political agreement, cooperation, or engagement (as was the case in many of the PBF cross-border projects), experts warned that it usually takes years of trust-building and negotiation to even get to the negotiation table. One implementing partner representative who had worked on other transboundary climate issues in the Middle East noted that for a multi-country initiative, they would usually expect a minimum of five years to see any results.[256]

Common Project Response Pathways

The below chart illustrates some common responses and pathways illustrated within some of the more frequently recurring issue sets. These are not intended to represent any given project, but simply to provide a summary of common recurrent themes and responses. Given that many projects offered complex, multi-faceted Theories of Change, with many attendant activities, the limitation of three to four example responses per issue area in the below chart is also much narrower than was the case in most projects.



Best Practices or Lessons Learned in Specific Project Components or Activities

In terms of common project components or activities, **the most positive results and reactions tended to surround technical assistance that improved natural resource availability or usage.**[257] This ranged from supporting pastoral infrastructure or re-greening pasturelands in transhumance projects, to the sort of local water infrastructure renovation practices seen in the Yemen case study. It might also include technical assistance to improve agriculture yields, other water supply issues, or infrastructure that enhanced the health and welfare of pasture animals or facilitated their transport. Communities tended to value these interventions highly because they responded to the resource scarcity or degradation issues directly affecting them. Practitioners and project implementers said this **'technical diplomacy' helped to create entry points to other elements of the project such as social cohesion and gender inclusion**.

While such immediate natural resource-related interventions appeared to show the most tangible results, practitioners equally emphasized the importance of interventions that might result in less immediate or observable results but had the potential to carry forward project dividends beyond the project cycle.[258] Project components or activities related to encouraging better overall natural resource management within the community (i.e. which might be the output of various social cohesion, dialogue, dispute resolution or inclusion-focused activities) had the potential to extend the effects of projects, allowing any technical or material interventions to become self-sustaining.[259] There were **greater challenges to overcome in successfully implementing, and seeing results from, these other dialogue, social cohesion, or community-related components**, particularly in communities where there was a greater degree of insecurity, more entrenched societal and communal barriers or community divisions, and other exacerbating dynamics.[260] **But practitioners nonetheless considered them an indispensable component.**

These observations appeared to be in keeping with emerging best practices and lessons learned from climate-security projects supported by other donors. To cite just one example, an assessment of a climate-security project funded by the United States Agency for International Development (USAID) in Ethiopia (which informed the project design of one of the PBF climate-security projects), noted: "Some climate change activities contributed to peacebuilding outcomes more than others. For example, project activities aimed at rehabilitating water ponds and constructing soil bunds for water harvesting were deemed to have been successful in decreasing tensions between groups by increasing the overall availability of water resources for everyone."[261] At the same time, the evaluation noted that other social and community components, including peace committees and enhancing inclusion and collaboration through women's peace networks, youth climate resilience clubs and other dialogues were equally important in seeing climate-resilient practices take hold.[262]

Several of the PDAs and project implementers interviewed observed that **communities welcomed livelihood support, but more time might be needed to see full results.** PDAs and implementing partners noted that while they could introduce sustainable livelihoods, for example, it would take time to see if the community members sustained the change, and how materially it contributed to climate-security dynamics.[263] Some projects did see immediate dividends of livelihood support, at least as an entry point to work on other trust-building and social cohesion elements. The project evaluation for the project PBF/TCD/A-1 (a project addressing host-migrant community dynamics in Chad), found that the livelihood support in the project acted as a key mechanism of change. Strengthening the means of subsistence of the various communities has "largely helped to stabilize the conflicts, and to create, to a certain extent, links of community solidarity between the beneficiaries."[264]

Community mediation and dispute resolution-related activities (related to transhumance, natural resources, or other collective environmental challenges and conflict) **were generally viewed as contributing to conflict mitigation, resolution, and lower levels of violence** (although precisely how much was difficult to measure).[265] For example, the evaluation of the CAR-Chad cross-border project (PBF/IRF-268-269) found "mediation with breeders and farmers is one of the project strategies that have had a real impact in resolving conflicts."[266] Within the Yemen case study, the dispute resolution mechanisms within the WUA was an essential component for addressing the fundamental water issues contributing to conflict. However, while in the Yemen case, the mechanism did appear to be self-sustaining beyond the PBF project (because the project was then supported by other donors, at least in some governorates), the evaluations of projects in other contexts cast doubt on whether the dispute resolution mechanisms and bodies would survive the project, either due to insecurity or lack of funding and support.[267]

A Nigerien cattle herder benefits from a FAO-led landscape management and regeneration project in Niger. Findings suggest that projects providing technical assistance to address resource scarcity – for example, improving water supply and preservation, improving agricultural techniques, or restoring pasture lands – gained traction because they were able to both address some of the root causes of conflict, and create entry points to address other trenchant social issues. *Photo provided by FAO Niger.*

Bringing in or strengthening government officials' engagement with natural resource management and conflicts proved most difficult, particularly national-level officials and especially in cross-border projects.[268] The reasons for this varied. In the Liptako Gourma region, government officials were not regularly present due to insecurity in the area.[269] In other situations, officials lacked sufficient knowledge and capacity in peacebuilding to play the role envisioned by the project.[270] Some practitioners and implementing partners interviewed noted a lack of interest or political will on the part of government officials which made such components or activities hard to implement, although many argued that this was a reason to engage more and not draw back from them (i.e. for the potential of changing government mindsets).[271] In cross-border projects, insecurity, political fallout, or border closures (for example due to COVID-19), appeared to make cross-border activities, including inter-governmental meetings, more susceptible to being cancelled or substantially reduced.[272]

While there proved to be many challenges to engaging government officials, anecdotally several PDAs and PBSO staff noted that where successful, it could be among the most impactful components. For example, one officer working on such projects in The Gambia noted that the project's ability to start a conversation between communities and government officials, and to position climate change adaptation as part of a security or peacebuilding dynamic, was one of the most important contributions of the project.[273] The independent evaluation of the project PBF/TCD/A-1 (in

Chad) flagged "synergy with the state" as a best practice, noting observations of "real collaboration between the local authorities and the beneficiaries of the project" that appeared to contribute to project goals.[274]

Components designed to provide information or awareness, either to improve community practice surrounding climate change adaptation, or as an early warning mechanism had mixed results. **Early warning tools (for example the TTT) appeared to contribute to conflict prevention in some communities.**[275] However, in other areas, there was poor uptake of early warning mechanisms, and even outright resistance from government officials; some evaluations questioned the sustainability of early warning mechanisms when communities are not paid to support them.[276]

On awareness raising or knowledge transmission related to climate change and adaptation or on other desired project components, it is difficult to appraise them collectively given the differing objectives. There were generally positive observations that **communities benefitted from the awareness raising on climate change adaptation, at least where linked to other interventions that enabled them to actually take positive adaptation steps.**[277] However, at least some of the awareness-raising activities (not limited to those on climate adaptation) seemed to fall short of the desired effects.[278] Some reviews suggested this might be attributed to poor implementation, while others pointed to a Theory of Change mis-diagnosis – attributing the issue in question to lack of knowledge (i.e. about climate change, or better practices for climate resilience and adaptation) as opposed to other barriers, such as insecurity, lack of financial capacity, or other social barriers.

Projects Focused on Women, Girls, and Youth

As highlighted above, the PBF climate-security portfolio has a strong focus on women and girls, with more than half of the projects focused on addressing the needs of these groups. While lower in number, there was also a significant and growing focus on youth. The sheer number of projects focused on women and girls demonstrates that increasing efforts are being made to develop approaches within the gender-climate-security field. While practitioners and experts in this area were among the most cautious – emphasizing the nascency of this field and that it is too soon to draw full conclusions and lessons about practice – the trajectory of PBF-funded projects in this subfield suggest important ways forward.[279]

Some of the PBF-funded projects focused on women and girls were already showing promising results. Several practitioners who work in this space argued that **engagement through natural resource or environmental areas may be one of the most fruitful areas for "positive peacebuilding"**[280] **to counter gender-based discrimination and vulnerabilities** – using the natural resource space as an entry point for advancing women's economic empowerment or advancing their inclusion in community decision-making. While caution may still be advised in some situations,[281] in many areas, environmental issues may be less politicized, and therefore less restricted in terms of women's inclusion and engagement. Women and girls' role in agriculture, in fetching water, or in other natural resource-related areas may mean that there is already acceptance of their input and engagement on those issues to some degree.

In addition, a significant focus in the field, and in many of the PBF-funded projects, has been to explore ways that women's inclusion can contribute to environmental or climate change goals.[282] The project document for the project PBF/IRF-434 in Papua New Guinea voiced this rationale: "**While disasters and crises have a disproportionately negative impact on women, girls and other vulnerable groups, they also provide opportunity for meaningful inclusive engagement in peacebuilding interventions and climate change adaptation.** Women's role in fostering a culture of resilience and their active contribution to building disaster resilience has often been overlooked."[283]

As the Yemen case study illustrated, the idea that natural resources management or dispute resolution may be a more tractable area to push on women's inclusion holds promise. Women's engagement in local water disputes and management was seen as a relatively safe space, where there was greater community tolerance for women's inclusion and leadership. In addition, the evidence suggested that while women were not the 'change agents' originally envisioned (the key element leading to changed water usage and water-related conflict management practices), women's participation in the project did add value. Participants argued that bringing women in allowed for engagement on a wider swathe of water issues in the communities (i.e., those involving women), allowed identification of new solutions, and may have encouraged the sustainability of effects.

Results like those in the Yemen projects are not singular. **Many of the most promising PBF-funded projects related to women and girls build on emerging, positive models of women's inclusion in community natural resources management or climate change adaptation.** For example, the so-called 'Blue Nile'

Box D: Projects with Women's and Youth Empowerment Components

From the entire sample, 48 of 74 projects had strong women's empowerment components:

- 36 of which were predominantly focused on women and girls;
- 12 of which addressed women/girls in one of the subcomponents.

From the climate-security projects, 19 of three projects had strong women's empowerment components:

- 18 of which were predominantly focused on women and girls;
- Seven of which had at least one subcomponent on women/girls.

On youth empowerment projects in the climate-security sample there were:

- Four YPI projects;
- Eight projects overall with a central or strong focus on youth;
- Eight with at least a significant subcomponent or contextualization related to youth.

project in Sudan (PBF/SDN/B-1) grew out of a joint UNEP-UNDP-UN Women initiative that sought to identify entry points for women's inclusion and engagement on issues surrounding natural resources, environment, and climate change – recognizing their greater vulnerability in some situations but also the positive contributions they might make.[284] One of the pilot projects in this initiative worked to retrain women in North Kordofan, Sudan, in sustainable farming techniques (among other livelihood activities), while also promoting their position in leading community dialogue on climate change adaptation. The theory underlying this project was that because there were more female-headed households in this community (due to conflict, climate, or other political dynamics), there was greater tolerance for women to step into roles that had traditionally been reserved for men, explicitly in the natural resource space. The pilot project had significant effects, with dramatic improvements in women's economic empowerment and inclusion in a short span of time.[285] The 'Blue Nile' project approved in 2021 therefore deliberately builds on a similar logic and will test the resilience of this model and Theory of Change in a much larger number of communities across different areas of Sudan.[286]

Two other promising projects – in Papua New Guinea (PBF/IRF-434), and in The Gambia (GMB/B-2) – also pointed to "extant evidence" in the field that women's inclusion in natural resource management and climate change adaptation would enable both "opportunities for gender transformation interventions" *and* better natural resource management and practice.[287] The project document for the latter, for example, pointed to several USAID-supported projects in the Horn of Africa where women's inclusion arguably contributed to a "cultural shift" in the communities in question, with women's participation linked to more cooperative and sustainable natural resource management and tree-planting.[288] These projects (as well as other PBF-funded projects focused on women and girls) also tended to be informed by and reference broader learning in the Women, Peace, and Security (WPS) field more generally about the benefits of women's leadership and participation in different forms of community decision-making and peacebuilding.

What made these three projects so exciting was that they were not only designed to try to realize synergies within the gender-climate-security space, but also to explicitly test the best pathways for doing so and to support broader learning in this field. The project documents for the project in Papua New Guinea (PBF/IRF-434) repeatedly emphasized that the project was intended to contribute to "addressing knowledge gaps within the gender-climate-security nexus." The 'Blue Nile' project also appeared to have a strong subtheme of further identifying and developing best practice in the gender-climate-security space. One of the experts consulted on the development of the 'Blue Nile' project had previously been involved in the North Kordofan pilot. She noted that a deficit of the North Kordofan pilot had been that it measured dramatic effects in terms of women's inclusion and empowerment, but had not done enough to measure any effects relevant to natural resources management or climate-security considerations. In response, the 'Blue Nile' project has built-in elements to better identify the environmental impacts from the project, in addition to any advances in women's empowerment and participation.[289]

While the above examples highlight a positive trend towards truly integrated gender-climate-security

Box E: Women and Youth as 'Change Agents'

One of the most prominent Theories of Change in projects focused on women and youth promoted the idea of them being positioned as 'change agents.' However, project evidence offered mixed results.[290] As noted in the Yemen case study, there was one clear situation in which women played a decisive role, and did appear to realize this 'change agent' role (in the pre-cursor pilot project in the Sana'a basin). However, in the subsequent three communities where the project was further developed, despite women's constructive contributions to project outcomes, they were not the reason that the project gained traction and was able to address the water conflict issues in question. The project PBF/IRF-259 (in Côte d'Ivoire) offers another relevant example of this dynamic.[291] The project appeared to have made meaningful gains in addressing tensions between two communities (specifically around one subcommunity's illegal occupation of a protected forest) and also contributed to a reduction in land and natural resource conflicts. There was also some marked engagement of youth and women. However, the results suggest that the overall peacebuilding goals were achieved by virtue of engagement with, and the buy-in of, traditional elders, rather than through inclusion of the youth and women leaders whom the project Theory of Change sought to promote as 'change agents.'

Given that there are both positive and negative results, **the take-away should not be to dismiss the 'change agent' theory, but perhaps to reconsider treating it as a generic or universal mechanism of change**. The results suggest it may be very context and situation-dependent – varying not just by community but also by the particular women, youth, or other individuals involved, or even simply based on the timing and climate-security issue in question. This may suggest a need to interrogate the particular circumstances more deeply before engaging in a project. Nonetheless, the benefits of promoting women and youth's greater and more meaningful participation in natural resource issues, or in local conflict resolution were still present in all of these situations, even if the particular 'change agent' function did not always play out.

projects, a still substantial portion of the PBF-funded projects focused on women and girls had not quite achieved the full synergies of gender-climate-security that many experts identified as ideal within this field.[292] Many of the 36 projects in the climate-security sample with a substantial focus on women reflect themes and approaches common to WPS projects, but with only superficial climate-related contextualization or activity added to it.[293]

There may be many reasons for this. First, this was more common among the earlier projects than those approved in 2021, suggesting already some thinking and development in this subfield. Second, it may just be that additional climate-related language was added on to the project document during the proposal stage, without being particularly intended to shift the weight of the project. Practitioners working on projects said that it can be fairly common for additional language – including that related to climate – to be added somewhere during the proposal stage, without its contribution to the Theory of Change or project design being given sufficient thought. Third, climate- or environmentally-related themes may have been relevant to the overall context, and so were included, but without an intent to change the project's main focus and content on gender issues.[294] In essence, some projects did not *fail* to reap the benefits of a fully synergized gender-climate-security approach – they simply were not trying to do so.

Notwithstanding these caveats for some projects or cases, the prevalence of these traditional WPS style projects in the PBF sample, with only superficial or not fully synched climate dynamics, does illustrate a larger challenge in the field. As one expert in the field offered: **"For many there is a disconnect, either on the gender or climate side…. [there is] a lack of thinking through the interaction or interconnectivity between them."**[295] The fact that PBF-funded projects were already demonstrating greater gender-climate-security synergies and integration even over this time span suggests trends in the right direction. Continuing to emphasize (either at the proposal stage or in other community of practice engagements) the need to think through the mutual benefits or linkages between these cross-cutting issues could support stronger programming, as would clearer categorization and prioritization by the PBSO (discussed further in the penultimate subsection).

Investing more in iterative projects or on projects with a dedicated gender-climate-security learning approach would help to build on the already emerging successes in the field. What might be needed to truly test new pathways and approaches is to have initiatives like that of the UNEP-UNDP-UN Women collaboration, or reflect learning approaches like those described above for the Papua New Guinea and 'Blue Nile' projects. Developing better ways of integrating climate, security, and peacebuilding needs sustained commitments by organizations that are willing to invest substantial time in collating ideas for new project interventions, testing them, and then evaluating the results across multiple contexts. The PBF can be an enabler for that sort of approach by supporting successive pilot models, and also by supporting sufficient analytical and learning components within each. But it may ultimately rest on these other agencies and partners to be the engines for developing and charting these new approaches.

A final important theme within gender-climate-security nexus programming concerns benchmarks surrounding women's participation in various project activities. This was by far the most common way that goals surrounding women's inclusion and empowerment were measured (both in the projects focused on these goals and for the subcomponents or activities of other climate-security projects). However, several project evaluations noted that participation had not seemed to secure the full dividends of women's empowerment and meaningful inclusion in either economic activities or communal decision-making. For example, the evaluation of the project PBF/IRF-353-354-355 (in Burkina Faso, Niger, and Mali) noted that "setting quotas is not enough and it is important that projects adopt proactive approaches to identify, raise awareness, train, or even organize minority groups, especially young people, in order to guarantee their full participation in the project."[296]

In terms of forward guidance for this area of work, this review would generally echo the findings of the PBSO's 2021 *Thematic Review on Gender-Responsive Peacebuilding*. That review also found a too heavy emphasis on participation benchmarks. It observed that: "[Theory of Change] frameworks often view women's participation as the final goal, but how this participation is expected to contribute to peace is rarely made explicit."[297] The same review emphasized the need to go beyond participation alone in terms of project goals: **"While getting women to the table is a necessary first step … what happens once they are there needs more attention to avoid merely symbolic or tokenistic participation by women."**[298] Also similar to the cautions set out above about rights-sizing expectations for inclusion-focused projects (which would describe most of the PBF-funded projects focused on women), the 2021 *Thematic Review on Gender-Responsive Peacebuilding* cautioned that "gender-responsive peacebuilding" is a slow process, taking years of efforts and often only showing results following setbacks and numerous challenges.[299] The review recommended patience among donors and a deeper investment in long-term follow-ups.

In terms of the youth-focused projects, these were much smaller in number, and most lacked independent evaluations or other project data that would have allowed for inferences on results. **The available results suggest a need to more deeply interrogate assumptions about youth rationales and motivations in order to better support youth participation and realization of project goals.** The evaluation of one youth inclusion-focused project in Mali, PBF/IRF-260 (featuring the innovative 'Do Kayidara' teaching method), observed that the project had successfully carried out many activities, and saw gains in youth participation in local conflict resolution. Despite this, the perception survey raised questions about whether these activities would lead to the overall intended results. To cite one example: "56% of direct beneficiaries and 79% of indirect beneficiaries (youth) believe that these community assets have not contributed to the protection and well-being of adolescents/youth."[300] While the evaluation did not lend insights into why they might not have been appreciated, other project conclusions suggest interrogating assumptions about what young people value or desire in terms of opportunities. The evaluation of the project PBF/IRF-353-354-355 implemented in Burkina Faso, Niger, and Mali, noted that the project struggled to achieve its benchmarks for youth inclusion and participation because many young people were not interested in the agricultural opportunities on offer, or if they were, they were mobile. **Such findings may challenge assumptions that simply expanding youth opportunities will be sufficient** to counter the marginalization or vulnerabilities that are seen as conflict drivers.

Countries or Situations at Risk or Affected by Violent Conflict

There are substantial reasons for trying to encourage greater donor support for climate-security or related environmental programming in fragile and conflict-affected spaces. One is purely a question of need. As one UNDP analysis estimated: **"70 per cent of the most climate vulnerable countries in the world also rank among the most fragile contexts; they are also amongst the hardest hit."**[301] Second, as the case studies

Climate-security-related and environmental peacebuilding appeared to be among the most promising approaches for gaining traction in fragile and conflict-affected countries. However, there appeared to be greater challenges in areas where the environmental and security challenges are fundamentally transnational in nature, as is the case in the borderlands of Niger where the Fulani herder above is tending his cattle. *Photo by Luis Tato, provided courtesy of FAO Niger.*

illustrated, **this climate or environmentally-related programming has the promise to be among the most tractable and effective in challenging environments because it addresses immediate material needs, but often without being viewed as overtly political as other peacebuilding activities.** It can thereby create entry points for other more sensitive peacebuilding activities, such as addressing issues of gender equality and women's empowerment or helping to address other community blockages and sources of distrust (See Box F below for further examples in both Yemen and Somalia).

Despite the increasing recognition of a link between conflict and climate change, investment in climate-linked peacebuilding efforts remains limited. A recent UNDP study of climate finance 'vertical funds' in 146 countries found that only one of the top 15 recipients was ranked extremely fragile. It further noted that among fragile and extremely fragile States, only two, the DRC and Haiti, ranked in the overall top 20 recipients of financing from global climate change assistance funds between 2014 and May 2021.[302] While there are some exceptions (i.e. the Global Environmental Fund),[303] the rule of thumb offered by another UNDP report roughly stands: "Donors tend to favour safer places."[304]

As part of the global coding exercise for the entire 74-project sample, UNU-CPR identified how each of the countries ranked, in the year of project authorization, against the rankings in the ND GAIN Index, the Fund for Peace Fragile States Index, the IEP, Global Peace Index, and UCDP. Among this 74-project sample, the PBF supported projects in five of the 10 countries most vulnerable to climate change, as measured against the ND GAIN Index. **Nine of the 10 countries with the most funding in this 74-project sample were among the most vulnerable countries (lowest quartile) on the ND GAIN Index** (Burkina Faso, Chad, Côte d'Ivoire,

Liberia, Mali, Mauritania, Niger, Sierra Leone, and Sudan). Moreover, of the 10 countries that received the most funding in this sample, six were consistently ranked among the most fragile states in the Fragile States Index (Chad, Mali, Niger, Mauritania, Sudan, and Liberia). Eight countries received funding while experiencing active armed conflict or in years in which they exceeded or approached the 1,000 battle deaths standard within the UCDP (Yemen, Somalia, Mali, Burkina Faso, Niger, Sudan, and DRC). Although the above figures are associated with the full 74-project sample, there were equally high rates of investment in fragile and conflict-affected spaces, and in states particularly vulnerable to climate change, within the smaller subset of climate-security projects.

These statistics reflect what many interlocuters commended: **the PBF was willing to invest in areas or situations that other donors deemed too risky**. As an example, one practitioner commented on a project in the Liptako Gourma subregion: "When we started the project, the impression was that we would never succeed because of the levels of insecurity. We could go [into these areas] only using budgets like the PBF because of the risk involved. It was a 'no man's land' for other donors."[305] The barriers to funding are not just physical security risks. Another programme officer operating in Sudan noted that since a military coup in October 2021, many international donors had frozen government assistance, development programming, and other international aid to Sudan. The PBF was one of the few donors still actively funding this type of work at the time that the research was ongoing, he said.[306]

This more risk-tolerant approach is by design. The PBSO has made a deliberate decision to take a 'risk-tolerant' approach, by which it means "engaging in neglected or high-risk geographies (including in rural or border regions) and encouraging other donors and private sector actors to invest and employ in higher risk areas, with the PBF providing an absorption capacity for adaptation and learning from failure."[307]

In addition to being less risk-averse than some donors, interlocuters **commended the PBF's more flexible approach in project adjustments**. Adaptations are often necessary in fragile environments, given the high potential for context and conditions on the ground to shift. While most donors might allow some adjustments in project design and implementation, interviewees noted that the PBF tends to be among the most flexible, even allowing for significant adjustments in the scope of work, or area of activities, in ways that would substantially change project objectives and outputs from those originally planned. In the second project in the Yemen case study (PBF/IRF-256), for example, the PBF allowed the project to divert half its resources to a new location due to blockages from the Houthi de-facto authorities.[308] Several of the projects discussed in the Liptako Gourma case study also had dramatic revisions to their scope, location of work, and projected activities approved due to the security situation.

While the project evidence suggested that climate-security and environmental peacebuilding may be among the most fruitful avenues to pursue in such situations, these are still difficult environments. **All the reasons that many donors may be risk averse – including insecurity and higher risks of project disruptions as a result – were also evident in PBF-funded projects in fragile and conflict-affected areas.** Overall, practitioners' observations and independent evaluations and progress reports associated with PBF-funded projects in these areas (for example, those discussed in the Liptako Gourma case study) pointed to higher rates of missed targets or lower-than-expected project results due to the insecure and volatile conditions.

Many also showed signs of uncertain sustainability in project achievements due to the surrounding insecurity and unstable governance situations. In Yemen, for example, the projects were aimed at addressing immediate water management issues – including the clearing of canals and irrigation channels – while also kickstarting more effective community water management and dispute resolution processes. There were strong indications of success from this, enduring even a couple of years after the projects concluded, at the time of this review's field research. However, project participants and other observers in these communities feared that, given the continued levels of instability and lack of governance in Yemen, it was only a matter of time before the same issues recurred, for example renewed blockages in canals and the degradation of water infrastructure. The Theory of Change in many of these projects often hoped to initiate better communal management and cooperation over a shared resource, which can substantially contribute to reduced conflict over this resource. However, if the environmental degradation and conflict issue in question is substantially driven by factors above the community level and those factors continue, they may ultimately outpace any positive effects at a local level. This would include persistent conflict and political turmoil contributing to weak or inconsistent governance and service provision; or lack of national commitments and capacity to respond and adapt to climate change impacts.

Another issue meriting more in-depth research and exploration would be distinctions within different types of fragile or conflict-affected environments, and how

that might predispose for greater or lessor challenges in project implementation and achievement. Although too small a sample to draw firm conclusions, there were notable differences between PBF-funded projects focused on what were largely local climate-security challenges, versus those that tried to respond to transnational climate-security challenges. For example, in the Yemen case study, the immediate blockages contributing to water scarcity were local degradation of water infrastructure and local disputes over access to and use over water. It was within the capacity of the local-level project to attempt to address these issues. In most of the Liptako Gourma projects, however, the primary issues related to transnational transhumance flows and drivers, often intersecting with other transnational conflict drivers, such as transnational trafficking or organized crime, or transnational armed group activities. Several of the evaluations or interview evidence related to projects in the Liptako Gourma, as well as in other areas facing similar transnational challenges, flagged that **it was difficult for fundamentally local-level interventions to fully respond to transnational drivers of conflict or environmental degradation**. This was the case even with cross-border projects, given that the activities and mechanisms were still quite localized (either parallel activities on both sides of the border, or at best, confined within one cross-border area). For example, the independent evaluation of the project PBF/IRF-269-268 (in CAR-Chad) noted that armed groups have joined herders to "monetize their protection."[309] As a result, some of the violence and conflict dynamics associated with transhumance were not issues that local communities themselves had the power and ability to fully address. The community-level conflict mitigation and dispute resolution activities that were part of the project could address or mediate some of the sources of local conflicts, but they could not contain or mitigate the activities of transnational armed groups. More testing, longitudinal data, and cross-comparisons would be necessary to fully identify whether these trends are consistent across different fragile and conflict-affected environments (or in fact, more broadly in any climate-security context).

While many of the larger challenges of operating in fragile and conflict-affected areas cannot be completely eliminated, project implementers across a range of PBF-funded projects argued that a **longer project duration would help to navigate barriers in difficult environments**. Because project implementation challenges and obstacles tend to be higher in these environments, what may be an 18- or 24-month project on paper is likely to constitute a much shorter duration project in terms of actual implementation time. Six months or even a year might easily be lost in working through political or conflict-related barriers. Implementing partners in Yemen and in Sudan both pointed to periods of time stretching into multiple months when operations were halted altogether due to physical blockages (staff no longer permitted to travel to a given area) or due to overall freezes in programming and operations as a result of political volatility or outbreaks of conflict.

In addition, because there are a smaller number of donors supporting the climate-related or environmental peacebuilding field in conflict-affected environments, it may be less likely that a project that showed some modest success would be immediately picked up and funded for continuation or expansion by other donors. Given that 18 months to 24 months is a small band of time to show demonstrable effects, this bridging and continuance function is crucial to fully understand whether the model shows signs of success. Thus, in order for the PBF to realize its goal of demonstrating that these projects can be supported in conflict-affected or fragile environments and can show results, it might consider extending the project implementation time in certain country or conflict settings.

In a nod to some of these concerns, the PBF in early 2022 extended the maximum duration for IRF projects from 18 to 24 months. PRF-supprted projects may last up to three years, but only three climate-security projects (eight in the full 74 sample) extended 30 months or more and only one project in Burundi (PBF/BDI/C-1) reached the maximum duration of 36 months. Among those who argued for longer timelines – for example, in both the Yemen and Liptako Gourma case studies – there were concerns that the average time length and new duration limit of two years would be too short to overcome the challenges inherent in fragile and conflict-affected environments.

The 'Catalytic Effect' of the PBF

A key goal for the PBF is to act as a catalyst for further work and to promote innovation. This is particularly important for climate-security work, given that much remains to be done in testing and developing appropriate responses, and also given outstanding gaps in climate-security and peacebuilding work in conflict-affected and fragile States.

The PBF defines 'catalytic effect,' one of six core principles meant to guide the Fund's operations, as "filling strategic financing gaps where other resources are not readily available and catalysing vital peacebuilding processes

Box F: Examples of Environmental Programming Offering a 'Bottom-up' Peacebuilding Strategy in Fragile and Conflict-Affected Environments

There were significant parallels between the two Yemen projects (discussed in the case study) and the one climate-security project identified in Somalia (PBF/IRF-433). These are worth further drawing out because they offer additional insights into engagement strategies in some fragile or conflict-affected environments. As highlighted briefly in section II, in both, the primary focus was on addressing water scarcity and mismanagement, and disputes arising from them. In both, one of the fundamental factors underlying the water mismanagement issue might be described as a situation of "elite capture" or a breakdown in elite bargains (related to tribal agreements in several of the Yemeni communities, clan disputes or capture in the Somali community). Last, in both, women or youth were seen as key "change agents" to try to unblock the dispute in question, and to contribute to better water management in the future.

A further parallel that might be drawn is that both projects appear to offer a "bottom-up" strategy for community peacebuilding engagement in situations where the overarching conflict dynamics may not appear to offer immediate openings or prospects for resolution. Both projects largely bypassed engagement in the national-level conflict dynamics and focused instead on community-based sources of conflict and violence related to natural resource management. There was an implicit (and for at least two of the project documents, an explicit) argument that – notwithstanding the necessity of resolving larger conflict dynamics – it would be impossible to achieve peace without addressing local sources of violence and conflict.

The results from the Yemen case study and observations from others working in similar situations lend support to this bottom-up approach, at least in the natural resource space. Practitioners suggested that natural resource management and dispute resolution is a space where engagement tends to be possible notwithstanding larger political or conflict dynamics. One practitioner who worked on similar climate-security and peacebuilding projects in Yemen, Somalia, Syria, and other fragile spaces argued that these sorts of projects can be the most impactful and tractable because they get at what matters most to communities (and often what most drives local conflict dynamics) but do not require engaging the government or invoking national faultlines.[310]

and/or financial resources by supporting new initiatives or testing innovative or high-risk approaches that other partners cannot yet support."[311] This principle enables the PBF to "pilot new systems or to bring about more sustained support mechanisms via larger and longer-term financing engagement."[312] The catalytic function of the PBF is also understood as mobilizing additional financial funds (financial catalytic effect), either directly (to scale up or extend a specific PBF-funded project) or indirectly (e.g. through donor contributions after a PBF-funded project has been completed), and/or unblocking political or peacebuilding-related processes (non-financial catalytic effect).

There was significant evidence of the PBF, and of the PBSO as an office, playing this catalytic role within the climate-security space, in several different ways. Three key types of catalytic effects recurred throughout the interviews: the PBF or the PBSO as a 'conversation starter,' the PBF as a 'fund for innovation,' and the PBF as a 'tugboat' to bring larger donor funding for climate-security into more fragile and conflict-affected areas.

Conversation Starter

Interviewees who engaged across a range of climate-security dynamics and vantage points said that one of the main contributions of the PBF and the PBSO was in focusing attention and promoting dialogue and thinking on climate-security in peacebuilding. "The PBSO has played a strong role in this story," was the observation of one climate-security practitioner, reflecting the overall tone of many of the interviews.[313] **"[C]limate-security is a big policy priority but it wasn't. PBSO played a big role in socializing its importance in programming. They've played a catalyzing role,"**[314] the same climate-security practitioner continued. This included raising the

One of the most important catalytic effects of PBF-supported projects on climate-security was the way they acted as a 'conversation-starter' among governments and local communities, generating a conversation about the interactive effects between climate, and peace and security issues. *Photo provided by UNDP Pacific.*

issue or acting as a convenor of climate-security policy and practitioner debates, and encouraging implementing partners in particular countries and regions to initiate thinking and practice related to climate-security.[315]

The contribution of the Peacebuilding Commission (PBC) to these efforts is also worth noting. In 2022, the Commission held multiple ambassadorial-level meetings addressing climate change and peacebuilding, one of which was dedicated to climate-related peace and development challenges in the Sahel. The fifth annual consultative meeting on peacebuilding in Africa, convened by the PBC and the African Union (AU) Peace and Security Council centred on the gaps and intervention challenges to address adverse climate change effects and related peacebuilding risks and generate synergies in response mechanisms. The Commission's written advice to the Security Council for the Council's debate on the partnership with the AU encouraged more structured financing investments to respond to climate change.[316]

The PBF and the PBSO's ability to act as a 'conversation starter' was important not just in promoting more thinking on climate-security action across the UN system, but also in initiating conversations at a national or local level. Several of those involved in overseeing or implementing projects observed that the most important effects of the projects, in their view, was the way that projects helped to start a conversation about climate change and security within affected States or communities. For example, one advisor in The Gambia argued that the **PBF projects sparked a conversation about climate change that had not been taking place previously, as a phenomenon that should be thought about in conjunction with other security and peacebuilding concerns.**[317] This could then galvanize collective thinking about ways to adapt to climate change that also created co-benefits or opportunities for peace. The advisor in question suggested that this happened both within the community that was the focus of project efforts, as well as among national government officials, since part of the approval, buy-in, and project coordination processes involved engaging them in the project.

Specific to engagement with government actors, several PDAs and practitioners observed that part of

the challenge in developing climate-security responses was cultivating the right type of engagement from and dialogue among government actors. For example, it was noted **in many areas that the ministries with technical jurisdiction over the issues in question – for example a ministry of agriculture or environment – did not have the expertise or mandate to think about the larger political or peacebuilding issues that would also have to be addressed for climate adaptation efforts or other climate-security responses to work**. These ministries also tended to be those with less political clout, less able to spark the sort of conversations and responses needed across a government, or within regional forums. Projects like the PBF-funded climate-security projects presented an opportunity to try to surmount these barriers and provoke a larger national conversation. Last, having these national conversations and then connecting these projects with the local level could contribute to a positive feedback loop, tying together both top-down conversations about climate change and security, and bottom-up efforts to take the necessary adaptation or peacebuilding steps.

Other PDAs suggested that the main added value of the PBF, or of the UN position more generally, was to bring in civil society voices, or other community voices, that might not otherwise have the chance to affect national or local policies on climate change. In this view, compared to other donors, **the UN was uniquely positioned to play a bridging or convenor role, cultivating conversations about climate change adaptation in conjunction with other political and security dynamics, and inclusive of all community members.**

A final note is that the PBF's ability to be a conversation starter had greater impact in some areas than others. PBF prompting or incentives carried less weight in crowded donor environments. But those operating in contexts with relatively fewer donor funds – in places like Cameroon, The Gambia, or Guinea, or in places where other restrictions have deterred larger investments, such as in Sudan – noted that the the PBF could have a more influential role.

Fund for Innovation

The PBF may also have a catalytic effect by acting as a fund for new or innovative approaches. Even if many of the project themes and components are not entirely new, practitioners saw innovation in the way that the PBF supported interdisciplinary and integrated approaches. As one expert in gender and environmental peacebuilding offered: **"The PBF is one of the more innovative funding initiatives – willing to push the boundaries and also able to bring these different themes together** because they are so grounded in interagency partnerships. [They are able to] do things like, for example, bringing climate-security in as one thing, but then also bringing in gender."[318]

Others interviewed argued that the PBF's willingness to test new approaches in 'high risk' areas was itself an example of innovation. One partner agency representative who worked on or helped develop several transhumance-related projects in the Sahel observed: "The PBF is a catalytic fund – it allows us to do what we think is the right approach, and then persuade other donors of it."[319]

The same advisor pointed to components like the TTT as an example of innovation, given that the PBF enabled it to be supported and tested in a variety of locations, and has now been mainstreamed across many projects. Other examples of innovation include the cross-border project situated in Burkina Faso, Niger, and Mali (PBF/BFA/B-6) which tested a new primarily CSO-based operating modality in order to get more funding into hard-to-access border areas of Liptako Gourma; the recent stream of projects exploring women's promotion within the climate change adaptation space; and initiatives testing cross-border approaches as a whole.

The PBSO also supports innovation and further thinking and development on climate-security approaches through supporting a growing community of practice. Several practitioners and PDAs highlighted the PBSO's behind-the-scenes support, for example organizing particular colloquia, fellowship programmes, or meetings among communities of practice. One PDA noted a particular fellowship programme hosted in 2020 to help those in the field develop tools and methodologies for more climate-sensitive conflict programming. He said such initiatives were necessary to further support development and thinking in this field: "That's one lesson – you need to be building the capacity of people [practitioners in the field] … to be able to recognize this as a useful approach to analyzing conflicts, a tool you can have in your toolbox."[320]

'Tugboat' for Climate Funding in Fragile States

A major goal for the PBF within the climate-security portfolio has been to use its risk-tolerant and flexible funding approach to test climate-security and peacebuilding projects within fragile and conflict-affected areas. The hope is that offering proof of concept that these approaches can work even in volatile environments

will persuade larger funds or other donors to pursue similar investments in the future. As one interviewee framed it, PBF funding might act as the "tugboat," pulling larger climate financing, such as the GEF or the Green Climate Fund (GCF), or other bilaterally-supported climate funding to fragile and conflict-affected areas.[321]

Practitioners generally applauded these efforts as an important demonstration of PBF's catalytic effect. One practitioner observed that the **PBF has functioned as "the risk takers that were needed at a time when other donors would have been slightly less keen."**[322] This catalytic effect was mentioned in interviews on PBF-funded projects in Yemen, Sudan, parts of the Liptako Gourma subregion, and Nigeria.[323] None of those contacted were able to provide specific details. This allows the research team to say that although there was substantial evidence of a catalytic effect happening, it is not possible to say with precision where, or how much.[324]

While most appeared to think of this 'tugboat' role in terms of other larger climate funds or bilateral donors, some projects facilitated or were linked to private sector investments in ways that might simultaneously support climate, peacebuilding, and development goals.[325] As noted above, two projects in Burundi and Colombia take advantage of the REDD+ scheme to try to support forest preservation through carbon trading schemes. Another PBF-supported project in Colombia (not part of this sample) worked to facilitate private sector enterprise projects in conflict-affected areas, in ways that would support either forest preservation or other sustainable livelihoods, rather than leaving these areas vulnerable to non-state armed group predation and deforestation.[326]

The analysis suggests that this 'tugboat' role could be taken even further with some small tweaks to the funding model, and a bit more strategic promotion. This might include lengthening the timeline of IRF projects, on the premise that they will offer proof of concept, but understanding that it might take more than two years to yield results or to have a donor willing to step in. Given the challenges to demonstrating results, such proof of concept exercises might be further enabled by investing more deliberately in iterative projects or programming cycles that would truly demonstrate adaptability, scalability, and feasibility for other donors. Finally, it may be worthwhile for the PBSO to engage in dialogue with some of the larger funds or bilateral donors in this space about what types of projects they might be looking to scale, what types of projects might meet their criteria, and what levels of proof of concept or reassurances would be necessary to overcome barriers to funding. **A more strategic approach might enable the PBSO to shape its investments, nurturing projects that have a high chance of being picked up and scaled, while also creating a pathway for promoting less well-trodden and more innovative approaches to attract climate funding.**

Theories of Change and Project Design

Part of the remit of this review was to identify and evaluate trends in project design, including Theories of Change. A Theory of Change is a narrative explanation of why a given intervention is expected to achieve a specific result. It identifies a link between the goals or outcomes identified for the project, and *why* the activities or approach proposed in the project are likely to further them. The PBSO already has extensive guidance on Theories of Change and emphasizes their coherent development in the project proposal stage.

In order to have the appropriate level of contextualization, Theory of Change validation should happen at a project level, not at the portfolio level that this review is largely aimed at. This subsection, therefore, will offer some general observations about trends within the project sample, including the degree to which Theories of Change reflected climate sensitivity in the project design, and suggestions for reinforcing their development and improving project monitoring and categorization in ways that might better contribute to overall learning in this field.

Integration of Climate-Security Considerations: The degree to which climate-security or environmental considerations were integrated in the project design – in the context and conflict analysis, in the Theories of Change, and in project objectives and corresponding activities – appeared to improve over time. This may reflect a larger degree of learning in this field of practice, as well as specific efforts by the PBSO to nurture a community of practice. As one example of this, one PDA recollected a 2020 initiative that enabled PDAs like himself to spend a week with climate-security experts workshopping ideas for more climate-sensitive conflict programming.[327] However, most suggested there is room for even further investment in these sorts of opportunities, or other activities aimed at sharing lessons learned and nurturing a community of practice.

Greater Precision in Project Tracking: Ultimately 42 per cent of the sample assigned to this review on climate-security were found not to be climate-security projects. Even those that might be deemed plausibly related to climate-security included those where the project implementers considered the main project focus to be

something else. More precision in project tracking would yield benefits both in terms of project accountability and monitoring, and in terms of nurturing this overall field. Several practitioners voiced the concern that because climate-security is seen as 'trendy' and likely to win funding there is a risk of 'box ticking' and 'green washing' within peacebuilding projects. Loose categorization only encourages this. In addition, labeling a broader range of projects in the portfolio as climate-security projects when they are not may set them up to fail. It would overstate the size of the climate-security portfolio within the PBF such that when only a small number of projects begin to show results and address climate-security issues it may make them appear less impactful than they really are.

Project categorization and tracking can be tricky to do on a systematic basis, particularly given all of the other responsibilities that PBSO staff have in managing projects. One interlocuter suggested that the PBSO might consider establishing a climate-security marker, similar to the gender marker, allowing projects to self-identify the degree to which a project was focused on climate-security issues. There are some advantages and disadvantages to this approach. Self-assigned markers offer a systematic self-grading that can be easier to interpret than a complex project document; however, they can be subjective, fail to reflect relative weight or emphasis between projects, and – because 'green washing' is a risk in this area – may be subject to bias.

Alternately, the PBSO might choose to invest in more systematic tracking and categorization. A first step would be establishing clear criteria, not only of what the PBSO considers to be a climate-security project, but also how it might define particular thematic areas or elements. For example, in developing the coding, the research team found the greatest miscategorizations in terms of a climate-security-related project with regard to land projects, and in terms of thematic issues, an under-counting of water-related projects.

This review has adopted a fairly broad criteria of climate-security, but one that still requires a core nexus with climate change, either as an element contributing to the core conflict, tensions or vulnerabilities that the project aims to address, or as a key feature integrated into the project response or logic (i.e. those focused on climate change adaptation). It would be useful to separately both encourage and track other forms of environmental peacebuilding, but not to conflate any environmental component with climate-security. In developing such a criteria, the PBSO would likely want to keep a relatively broad definition, allowing it to engage with immediate climate-security-driven conflict dynamics, as well as far-reaching prevention efforts, and on the basis of both manifestations of communal or intra-state violence as well as human security lenses. However, as this review has already cautioned, **it may not be wise to have an unlimited definition of climate-security. To do so would risk conflating all development and peacebuilding in certain areas (if not everywhere, given climate change's global impact) with climate-security**. This extends the meaning of the term so much that it would no longer add value.

Reinforcing Theory of Change Lessons: Existing PBSO guidance provides detailed advice on different strategies for framing Theories of Change, fleshing out assumptions, and identifying what level of evidence or data would be necessary to validate those assumptions.[328] While many of the projects appeared to reflect best practices, and to follow the tips or advice in PBSO guidance, there were certainly some projects with Theories of Change that demonstrated leaps in logic, buried assumptions, or did not clearly articulate *why* the identified components would result in the change in question. This was more common among older projects than more recent ones. This improvement over time, plus review of the existing guidance, suggests that the next steps need not necessarily involve revising or developing new PBSO guidance, but simply continuing to reinforce the messages and advice in existing guidance.

Encourage Thinking on Project Prioritization and 'High-Level Goals': Given the complexity of peacebuilding projects, many projects may apply multiple different tools or approaches, and the project may in fact be relying on multiple interactive Theories of Change. PBSO guidance recognizes this but still recommends that projects identify 'high-level' goals or objectives, while also identifying how different Theories of Change at different levels of the project (sometimes referred to as 'cascading Theories of Change'), can help achieve those goals.[329] Some of the project documents effectively articulated the overall high-level goals or priorities of the project; however, many did not, or there was a mismatch between what was promoted in the Theory of Change and the weight of activities in the project description. Being able to not only identify the Theory of Change but the prioritization within a project can be crucial, not only for evaluating that project in any regular monitoring and evaluation or accountability processes, but also helping to identify and develop best practice in this emerging field. It may also be a valuable tool for the PBSO to use in tracking projects, helping it to more accurately gauge whether projects are in fact climate-security projects, or not. Greater emphasis on this existing element within the Theory of Change guidance is to be encouraged.

Reinforcing Theories of Change, but Beyond a Cosmetic Level: While it is important to continue to reinforce existing guidance, it is important not to let this become a Theory of Change beauty pageant. Writing Theories of Change has evolved into almost a form of art within peacebuilding and development practice. Over-emphasis on having the form of a good Theory of Change might simply reward those who have the institutional structure to support excellent writing, without necessarily resulting in stronger project logics. **One way to try to reinforce the substantive value of a Theory of Change is to encourage check-ins or referrals back to it throughout the project cycle.** At the moment, there is a heavy emphasis on Theory of Change development and validation at the front-end, in the proposal stage, along with heavy emphasis on developing the conflict analysis. But it is unclear how much project partners really use Theories of Change to guide subsequent implementation, or even reflect upon it at all once the proposal is approved. Even minor steps, such as checking in at an interim stage, or in interim progress reports, to identify whether the Theory of Change appeared to be holding up and was proven in the course of implementation could be useful. Such steps might help ensure projects go beyond a formalistic check at the front end of the process. Certainly, if there were major changes – for example requiring a no-cost extension – it would be helpful to have a discussion about the implications of the changes for a Theory of Change.

Reflection on Theories of Change in Final Project Evaluation: If the PBSO wants to encourage stronger Theory of Change development, and also contribute to its meaningful use in practice, it might focus more on these later stages of reinforcement and reflection. This might include more systematic requirements to reflect – either in independent evaluations or simply in end-of-project reviews – whether the Theory of Change had appeared to work in the project context, or whether modifications might in retrospect have been advisable. **Of the 18 projects evaluated, only four explored whether the Theory of Change had fully borne out based on the evidence of results from the project.**[330] The other evaluation reports identified the Theory of Change but tended to validate it based on the assumptions provided at the start of the project. Nor was there substantial reflection in the mid-term and final project reports examined. Individual implementing partners may take it upon themselves to ask for staff reflections on Theories of Change at the closure of a project, as part of internal learning processes, and this information might not have been provided to UNU-CPR as part of this review. However, given that this is overall a common 'missing link' within the learning cycle in this field, it would be safe to assume that in many cases this did not happen. At a minimum, it would be helpful to ensure that any independent evaluations commissioned go beyond the project documents and original material in validating the Theory of Change. However, there would also be other, less formal opportunities to encourage reflection, for example in other learning-from-practice efforts that the PBSO encourages, such as colloquium or practice workshops among staff and implementing partners.

Reinforcing Regular Monitoring and Learning in the Course of Projects: As noted in the discussion of limitations on this research, there was overall less monitoring and evaluation data than might have been expected. Independent project evaluations were only available for 18 of 74 projects. Several of those independent evaluations found that monitoring, evaluation, assessment reports, and other data necessary to reach their conclusions, had not been conducted, or were not mentioned in the project documents.[331] The project monitoring and evaluation information that was available largely reported on completion of activities, primarily based against quantitative benchmarks (number of participants, number of meetings, percentage of women or youth, etc.).[332] Benchmarks that might have lent more insights into impact, were often proposed but in many projects several of the independent evaluation reports flagged that these were ultimately not carried out (perception surveys, measures or estimates of conflicts resolved, other metrics of changed behavior with regard to environmental preservation or degradation) or to a degree that was far lower than initially anticipated. A limited number of pre- and post-perception surveys had been conducted, and these were very insightful but remain a minority practice.

Be Wary of Over-Reliance on Universal Indicators: Some of the independent evaluations queried whether more effective indicators might be used. However, while some might emphasize stronger indicators, practitioners interviewed questioned whether certain commonly cited qualitative interviews, in particular metrics on the 'number of conflicts resolved' were in fact methodologically sound given measurement and causality challenges. The independent evaluation for the project PBF/IRF-311 (in Mali) made a similar point, noting that the issue with "why indicators do not meet standards is the composite nature of the targets, which makes any measurement complex." At a minimum, indicators or metrics should be very case-specific, making it difficult to generalize on what overall improvements to indicators or metrics might look like. However, to even begin to develop inferences about impact – even in the short term – there would likely have to be some inquiry beyond citing participation levels or other quantitative metrics.

Quality Over Quantity in Terms of Learning: There are understandable limitations on data collection, particularly for projects operating in challenging environments. It may be costly and intrusive to petition already-besieged beneficiaries with repeat perception surveys, and may in some cases be dangerous for the assessors involved. However, in many cases, some of the sources of information into estimated impact, best practices, or evolving thinking on Theories of Change, might come from the reflections of project implementors and monitors themselves. A more attainable goal across all projects would be to require those involved in implementation to reflect on whether the Theory of Change had proved effective, if they might recommend any modifications in practice for those applying similar Theories of Change or modalities in future projects, and what they considered to be the most impactful elements of the project. While not conclusive, these would certainly lend more insights, in a more systematic fashion, than the current ad hoc and quantitative metric-focused evaluations.

Supporting Iterative Projects or 'Learning' Projects: What most practitioners suggested was that more rigorous and explicit testing of particular approaches and Theories of Change was needed. This might be by deliberating funding projects with similar modalities or Theories of Change across divergent country, climatic, conflict, or community situations, in order to identify whether they were globally applicable, or whether certain conditions predisposed for success or failure. It also likely would require more systemic and longitudinal evaluation data, not only capturing change in the immediate project closure phase, but also years down the road. While it may not be feasible to fund longitudinal assessments in all areas and for all projects, it might be worthwhile for certain types of projects that are a priority for the PBF – for example, certain gender inclusion projects. Or it might be cost-effective to do so in an area where there has already been and will likely continue to be multiple programmes operating, as in the Liptako Gourma subregion or other parts of the Sahel.

The PBSO might also be able to encourage a more robust learning cycle connected to Theories of Change through explicitly testing Theory of Change modifications in iterative projects. In some cases, the PBF was used to fund iterative versions of a project, as was the case in Yemen. Overall, this is a strong way to nurture learning and climate-security project development in the field. An iterative project might, for example, fund a particular project modality related to gender-climate-security dynamics in areas with different gender, community, or conflict dynamics, in order to assess how replicable the model was across different community contexts. It might alternately fund a series of projects that tested slightly different iterations of Theories of Change, informed at each step by learning from the previous project. These funding approaches might better connect theory to practice and incentivize learning and reflection.

V. Conclusions

The PBSO's efforts to promote attention to climate-security and encourage the development of practice has pushed boundaries and galvanized greater attention to the nexus between climate, security, and peacebuilding, which ultimately builds resilience and supports sustainable development outcomes in some of the world's most complex situations. The many partners implementing these PBF-funded projects have been at the forefront of piloting innovative approaches and acting as the bottom-up realization of global commitments to encourage community adaptation. In addition, the nature of the PBF's focus within its climate-security and peacebuilding projects has helped to shift the narrative around the causes of conflict, and its possible solutions.

Investments in environmental peacebuilding approaches, which include improving agriculture, water management, securing pastoral routes, and enhancing natural resource infrastructure, get to the heart of what many communities view as both the most pressing human security concerns, and the factors that contribute to persistent conflict and competition. Conducting these activities with an eye towards not just immediate scarce resources, but to future pressures due to climate change, is a crucial and much-needed approach to these long-standing practices. Combining them with other peacebuilding, social cohesion, disaster risk reduction, resilience building, and governance-strengthening approaches increases the chance that these projects will have sustaining effects, and better address root causes than technical or material inputs alone.

The project evidence also suggested that **engaging in the environmental and climate-security space can bring important co-benefits for other peacebuilding priorities**. As illustrated in the Yemen case study, there may be more entry points for beginning to address trenchant social issues, like women's inclusion or elite capture in local communities. A number of new projects have been actively testing and refining work within the gender-climate-security space, and with dedicated learning components that may yield more rigorous evidence and programme improvements in the future.

All those interviewed identified the PBF's greater attention to encouraging **cross-border projects** in the last five years as crucial given the transnational nature of most climate-security dynamics. Moreover, the PBF is uniquely positioned to support this kind of work. However, the preliminary results underline how challenging it is to not just recognize, but actually address, cross-border issues meaningfully, at least within the scope of a 24-month (or less) project timeline. **Too often, there was not a strong enough rationale for *why* approaching a given project with activities in two or more countries would be more likely to result in the change desired than pursuing the given elements in a single country.** This does not suggest abandoning cross-border projects – by contrast, this appeared to be one of the most broadly supported and valuable areas of PBF work in the climate-security sector. However, it does suggest a need to think through the Theory of Change for cross-border approaches, and for cross-border elements more deeply.

Additional consideration for the type of projects the PBF is willing to support, the length of cross-border projects, and the weight or balance of activities may also yield even more promising approaches. It may be particularly relevant to engage in greater learning from past environmental peacebuilding on issues like transboundary water disputes.[333] Literature and practitioner learning on these types of projects would seem to recommend both a longer project duration than PBF funding typically allows, and a greater focus on building political engagement around an issue – investing in top-level inter-governmental exchange, negotiation, and trust-building – over a longer period of time, while also supporting these through additional technical advice and work (i.e. environmental studies, parallel community programming, etc.) as the talks progress.[334]

The PBF has been a leader in supporting climate-security and peacebuilding projects in **fragile and conflict-affected environments**, in some cases with great success. The Yemen case study, as well as learning from other projects in this review (i.e., see Box F on similar findings from both Yemen and Somalia projects), suggest that **local-level engagement on climate-security and peacebuilding may be one of the most tractable areas to engage in extremely fragile environments, opening opportunities to address local sources of violence and strengthen local governance despite continuing volatility at a national level**. The results from the projects in the Liptako Gourma subregion were more mixed: many of the projects failed to fully realize their goals due to the difficult environment. Nonetheless, this type of engagement still appeared to be strongly welcomed by communities, and practitioners interviewed thought it had the potential for obtaining some positive results, even if challenged by the larger transnational dynamics at play.

Here, too, the findings point to the need for a longer timeline in fragile and conflict-affected areas. Greater time, as well as the flexibility that the PBF is generally

known for, is key to ensuring safe implementation. In extremely fragile environments, it may also take more time to begin to build trust, inculcate a safe space among communities, and move towards the next steps of encouraging change. Lastly, because many donors are reluctant to engage in these spaces, and thus funding is not always in immediate or ready supply, a longer lifeline of support may be necessary to ensure that projects worth investing in are taken up (the goal of much of PBF support). While recognizing that the PBSO has recently extended the maximal project duration for IRF projects, even the extended duration of 24 months would likely be insufficient to overcome many implementation challenges. The project findings from the Liptako Gourma case study also underlined the risk that **the combination of too short timelines and extreme challenges could lead to more boilerplate and risk-averse approaches and stunt innovation in this field**.

There was substantial evidence of PBF investments achieving a **catalytic effect** in the climate-security space, with at least anecdotal evidence suggesting that many projects are positively tested through PBF support and then subsequently taken up by other donors.[335] In many areas, practitioners also observed a more subtle catalytic effect, with PBF piloting of certain approaches influencing the strategies of other larger donors (for example, encouraging a more regional approach in the Sahel area) and initiating critical conversations among affected countries and communities. To enhance this catalytic effect even further, the PBSO might consider engaging in more strategic conversations with larger climate funds and donors leading on climate change adaptation, disaster risk reduction, and resilience to identify potential synergies with their portfolio, and additional strategies or criteria that might enable more climate-security and peacebuilding projects to be taken up, particularly in more fragile environments. For example, practitioners suggested that developing a better sense of what these larger donors would look for, or what level of proof they would need, to convince them that investments in a fragile and conflict-affected space might be sound, could help the PBF to nurture certain project types or provide guidance to implementing partners that would help them demonstrate project results.

The idea that the PBSO might try to develop more strategic relationships with key climate finance donors also came up frequently in discussions about ways to realize synergies and develop complementarity between PBF-funded projects and other climate actors. Although the PBF is a much smaller donor and operates at a much smaller scale than many other potential donors active on climate issues, this does not mean that the PBF should avoid working in the larger climate space or refrain from supporting local climate change adaptation projects – far from it. Given that these larger funds have generally not incorporated a conflict-specific or peacebuilding lens into their work, the PBF is poised to bring an important perspective to this field, and has already done so. However, it may well be worth examining on a case-by-case basis whether the climate change adaptation projects in question draw from the PBF's comparative advantage in local peacebuilding. Given the more limited nature of PBF funds and project timelines, it would also be worth probing whether there is a fit between the Theory of Change (essentially what the project attempts to contribute to) and the scale of the project in question. In some cases, the PBF might not be the best donor for addressing the climate risks identified. Developing strategic relationships with larger donors in the climate space could also identify where PBF support would add value in testing new climate- and conflict-sensitive approaches, as a complement to larger efforts.

A final caution is that there were some tendencies to simply replicate existing strategies with an environmental or climate-related add-on. Many projects featured climate-security issues in the conflict analysis but failed to holistically integrate these considerations into the Theory of Change, the project approach, and project activities. Part of this is simply the learning curve of a new field. Greater consideration and integrated responses to climate-security dynamics was more evident in later projects, suggesting that there have already been some gains over time. However, in some cases, climate-security language and considerations had the feel of window dressing, added on because it is a catchy area, but not otherwise integrated into the project.

Reinforcing the distinctions between different projects and being clearer in which priorities or types of projects the PBF might support could help the PBF further refine and nurture this line of work. This thematic review made efforts to categorize projects that were focused on climate-security or not, and even to identify ways that climate-security projects might differ in their prioritization of climate-security goals versus other peacebuilding objectives. This is critical for developing an identifiable climate-security practice, and for improving techniques and approaches within it. It will also help to identify the likely impact of the PBF's investments in climate-security, and at what timeframe they might arrive.

Finally, this review also found a continued need to invest in learning in this still nascent field, something that the PBF is well positioned to support. Doing so must go beyond reinforcing better Theories of Change at the front end to focus more on their reinforcement throughout the lifetime of a project and greater reflection on their success or the need for project modification at the

Building strategic partnerships with vertical climate funds or larger climate-related donors might enhance the PBF's catalytic effect, enabling the PBF to support and develop best practices in its niche of climate-security and peacebuilding, while ensuring that PBF-supported climate-security projects are scaled to the degree needed for sustainable impact. Such division of labour and partner efforts may be particularly important in areas where the nature of the climate-related risk requires a larger scale than the PBF can offer, as with the existential risk faced by island nations like Tuvalu (pictured above). *Photo provided by UNDP.*

conclusion. More dedicated testing of these Theories of Change and project approaches, through iterative projects and investment in longitudinal studies, would add significant value, capture learning, and further support the development of the climate-security and peacebuilding field. Recommendations, based on learning captured during the development of this thematic review, are summarized in the proceeding section and offer guidance that can help to strengthen PBF-supported projects moving forward.

Recommendations to Enhance PBF-Supported Projects

Further leverage the tremendous promise that climate-security and environmental peacebuilding demonstrate:

- **Encourage further investment in climate-security and environmental peacebuilding:** Investments in environmental peacebuilding approaches, including addressing environmental issues related to climate change and other sources of degradation, showed tremendous promise. They get to the heart of what many communities view as their most pressing human security concerns, help mitigate significant sources of intra-communal violence, and create opportunities to address more systemic or structural issues, such as exclusion and marginalization of certain groups or women's empowerment.
- **Recognize the value of 'technical diplomacy' in climate-security work:** While not the only successful strategy, many of the most impactful projects provided technical assistance or inputs that helped address scarce resource issues. In addition to relieving immediate sources of conflict and vulnerability, this proved to be an effective entry point to address other community issues or blockages contributing to the climate-security issue in question. Technical inputs to address natural resource scarcity, when used in combination with other peacebuilding, social cohesion, disaster risk reduction, resilience building, and governance-strengthening approaches appeared to substantially increase the chances that PBF-supported projects would address the root causes of conflict.
- **Expand climate-change adaptation components:** Climate change adaptation planning and support was seen as a valuable component of local peacebuilding – an entry point for other peacebuilding goals, and a way to contribute to translating global adaptation commitments to a local level. This has already been a growing part of the PBF's climate-security work and could merit even further expansion and support.
- **Consider means-ends fit in deciding PBF support:** While greater support for climate-security projects is overall desirable, this does not mean that every climate-security situation is best suited to a PBF-type project. In certain situations, there may well be a strong climate-security issue that is identifiable, but

the type of local peacebuilding projects that are the PBF's comparative advantage would be unlikely to materially address the climate-risk identified. In these cases, choosing to devote limited climate-security resources on other contexts or only to certain types of activities within the given area or field should not be seen as delegitimizing the overall climate-security issue.

- **Encourage (but firewall) projects with an integrated approach:** Further integrating climate and environment-related perspectives into local peacebuilding as part of an integrated approach could yield dividends across a wide spectrum of peacebuilding situations. However, given the risk of 'ripple effects,' where one part of an integrated approach under-performs, it may be important to ensure that there are identifiable incremental gains associated with each project component. This might mitigate the risk that failings in one project component could have negative repercussions for the whole, or at least allow for stronger measurement of project results.

Continue to strengthen gender- and youth-focused projects:

- **Support learning and adaptive programming in the gender-climate-security space:** A new crop of projects are exploring ways that women's inclusion would contribute to achieving the environmental or climate change goals in question. These fill a much-needed gap in the field, and also offer an explicit testing and adaptive learning model that would improve best practice development in the field as a whole. Greater support for such focused learning projects, or for iterative projects testing Theories of Change across different contexts, would greatly advance best practices and impact in the gender-climate-security field.
- **Push for greater synergies on gender-climate-security:** A still large number of projects focused on GEWE had only superficial climate or environmental components, which gender experts suggested reflected a larger trend of not fully realizing synergies within the gender-climate-security nexus. Where the PBSO identifies such tendencies at the proposal stage, it might first question a) whether the project is intended as a full gender-climate-security project, and if so b) push for greater elaboration and thinking on how the climate- or environmental-components are intended to interact and be material in advancing the GEWE components, and vice versa. Additional support to practitioners, PDAs, and implementing partners – for example, specialized workshops with experts on the gender-climate-security nexus, or other forms of community of practice engagement – would offer greater support to those developing these projects, providing the space and expertise to develop such synergies.
- **Allow women beneficiaries to lead in pushing boundaries:** Beneficiaries interviewed in the Yemen case study confirmed they were able to play a significant role because they were given the opportunity to define their role and decide how they would push against gender stereotypes and roles. This best practice may well enable the PBF and its partners to initiate projects that challenge existing stereotypes and stigma, but in a way that respects considerations of 'do no harm' and immediate protection concerns that beneficiaries might have.
- **Nuance 'change agent' models and expectations:** While some projects featured examples of previously excluded women or youth acting as 'change agents,' leading to transformative results in the natural resources arena, this was difficult to validate as a general proposition. It was highly dependent not only on the particular community dynamics, but on the particular individuals and policy moment in question. There was substantial other evidence that inclusion of previously marginalized groups may add value, but they might not always be in the position of the critical change ingredient.
- **Go beyond quotas in women's empowerment and inclusion:** Projects focused on GEWE still tended to measure and evidence results based on levels of participation in key activities. Echoing the findings of the previous 2021 *Thematic Review on Gender-Responsive Peacebuilding*, participation is an important first step but more needs to be done to ensure meaningful participation and measure incremental gains beyond satisfying quotas.
- **Interrogate assumptions about youth rationales and motivations:** There was insufficient evidence to fully evaluate the eight climate-security projects with a strong focus on youth. However, the reviews and evaluations that had been conducted suggested that there may be a need to go beyond expanding opportunities for inclusion and participation. Deeper understanding of youth motivations, and other limitations on their participation or source of grievances and vulnerability, may be necessary to improve their contributions to climate-security dynamics.
- **Narrow the focus on GYPI calls:** Consider narrower themes for GYPI. Doing so would allow the PBSO to

nurture particular thematic areas (like climate-security) and approaches in a more targeted way.

- **Right-size expectations on inclusion projects:** Most of the GEWE and youth-focused projects took an inclusion-focused approach or project logic. However, working against long-standing gender barriers, structural inequities, or other forms of stigma or exclusion is by its nature a long-term project. While it is essential that a share of PBF-funded projects take this approach, expectations regarding the immediate impact of these projects may have to be adjusted. Given that more than half of the PBF-funded climate-security projects adopted an inclusion approach, this may also lead to a lower discernible short-term impact from a large portion of the PBF's climate-security portfolio.

Continue to prioritize, but strengthen, cross-border or regional programming:

- **Continue to emphasize and invest in cross-border projects:** The PBSO's efforts to champion and nurture cross-border approaches was one of the most widely commended attributes of its work in climate-security. More regional and transnational efforts are seen as crucial in this field.
- **Apply greater scrutiny on the fit between a cross-border approach and the Theory of Change:** While more cross-border approaches are needed, this does not mean that every project should adopt a cross-border approach. Given the additional costs of implementing a project simultaneously in more than one country, these costs must be justified by a clear added-value to the Theory of Change and project goals. A large share of the PBF cross-border projects examined merited more scrutiny on this point. In particular, where the main cross-border element involves the same activities on both sides of the border, additional questions should be asked as to how this would advance the Theory of Change.
- **Increase duration and/or start-up time for cross-border projects:** Given the additional administrative and transactional complexity of cross-border projects, it may be necessary to increase the maximum duration even further. If extending the duration of certain projects is not possible, the PBF might instead (or in addition) consider a longer project start-up period before implementation fully starts.
- **Introduce more political and long-term cross-border programming models:** Insufficient time to achieve cross-border programming was a major challenge, not only because of the greater implementation challenges but also because many cross-border projects sought to impact inter-governmental relations between two countries. Past environmental peacebuilding work on transnational natural resources (i.e. cross-border water issues) suggest that eliciting this sort of cooperation takes a much deeper time investment and a more overt and focused approach on facilitating inter-governmental engagement and trust-building dialogue. It cannot be an add-on activity, one element of a dozen, in a two-year project and be expected to yield dividends. While this would not be an appropriate model for all PBF cross-border projects, it may well be necessary for some of the transnational climate and environmental issues at stake.
- **Investigate transnational versus local blockages:** There appeared to be differing prospects for success in fragile and conflict-affected environments, depending on the degree to which the resource or environmental issues in question were predominantly transnational or local in nature. Greater exploration of this dynamic (for example, through iterative projects in differing environments, through longitudinal testing, or simply greater cross-comparative analysis of similar projects in differing environments) may improve programming approaches, and also nuance expectations about project results.
- **Support greater regional coordination:** Several interviewees remarked that, while there may be the beginnings of joint regional planning, there is still no true regional implementation. Rather, in the words of one interviewee, it seems that there is more often "implementation side-by-side" with different agencies, funds, and programmes, or different country offices in effect implementing their own activities. While PBF funding is still primarily focused at a national level, the flexibility to support cross-border projects suggests a greater ability for the PBF to support regional coordination (although project modalities may have to be revisited to support truly regional initiatives).

Build on PBF progamming in countries or situations at risk or affected by violent conflict:

- **Support further investment in climate-security and environmental peacebuilding in fragile and conflict-affected regions:** The case studies in Yemen and in the Liptako Gourma subregion, and other project findings, suggest that climate- and environmentally-linked peacebuilding may be among the most tractable approaches in fragile and conflict-affected areas. Attention to causes of environmental scarcity

or resource competition address immediate and dire community needs, can be a powerful entry point for addressing other community issues and blockages, and are often not seen as overly politicized.

- **Continue to trial more adaptive, decentralized, and flexible funding approaches in inaccessible areas:** The Liptako Gourma case study offered examples of the PBF exploring more adaptive and flexible funding, including new modalities (i.e. via local CSOs) for peacebuilding implementation. While too new to have full results, the other projects in the Liptako Gourma subregion suggest these may be essential for getting more funding into highly insecure areas, and also may be more inclusive of local community and CSO approaches.
- **Lengthen project duration or start-up time:** Surmounting the many security and other implementation obstacles in fragile and conflict-affected settings may require more than the average project duration (typically two years, although sometimes extended). It may also take longer to see the sort of results that would allow for proof of concept, to encourage other donors to invest in these projects and environments. Given the already substantial challenges in these environments, a too-short timeline can lead to shortcuts and a stifling of innovation in these critical areas. For all these reasons, it may be necessary to extend project duration or start-up time in fragile and conflict-affected settings.
- **Encourage greater efforts at uptake of early warning systems:** Early warning was a growing dynamic within many climate-security projects, and is particularly important in conflict-affected or vulnerable areas. However, in many cases it was not clear that government or local actors had taken up the tools – and in some cases they directly challenged them. An important programming modification going forward would be to ensure that local stakeholders saw value in early warning systems and appeared ready to adopt them.

Build on positive investments in climate-security through strategic engagement and knowledge-sharing:

- **Engage strategically with larger climate donors:** To increase the PBF's catalytic effect, and encourage pick-up of PBF-tested climate-security approaches, the PBSO may want to engage in strategic conversations with some of the larger vertical climate funds or large climate donors about what types of projects they might be looking to scale, what types of projects might meet their criteria, and what levels of proof of concept would be necessary to overcome barriers to funding. Such strategic development conversations might be particularly important for enabling more climate funding in fragile and conflict-affected states.
- **Link different climate change adaptation elements:** More might be done to try to encourage linkages between PBF-funded projects that include climate change adaptation elements and broader efforts. This might be another benefit of establishing more strategic relationships with other climate funds or donors, to ensure that climate change adaptation components are able to leverage scale.
- **Recognize and extend the 'conversation starter' role of the PBF:** PBF-supported projects could initiate new conversations with national or local community interlocuters, or with other donors. This might be about the importance of focusing on climate and environmental factors within peacebuilding, of taking a regional or transnational approach, and/or of taking a peacebuilding approach to local-level climate change adaptation. Expanding the notion of what constitutes a catalytic effect to this 'conversation starter' role would be a more appropriate way to appreciate the value added by PBF projects in this emerging field and to the climate change adaptation space.
- **Expand communities of practice and climate-security learning workshops:** PBSO efforts to encourage more programming on climate-security issues, to support a growing community of practice, and to support learning on how to better integrate climate and environmental perspectives into peacebuilding projects were roundly appreciated. Ensure closer collaboration with the Climate Security Mechanism (CSM), and between CSM and PBF communities of practice, for greater cross-fertilization of knowledge about climate-security programming. More support for community of practice exchanges, or specific colloquia or workshop opportunities for PDAs or others may yield benefits for programming.
- **Support more iterative projects and longitudinal testing:** A greater number of iterative projects (testing variations on Theories of Change and project models, across different country or community contexts) would yield significant insights on best practices and project approaches in this still emerging field. In addition, given that many of the key issues that projects seek to impact (e.g., environmental effects, changes in participatory governance, and changes in women's degree of empowerment) would only show results over a longer period of time, investing in longitudinal testing for at least some of the projects

may be necessary to develop insights on some of these programme approaches.

- **Conduct a second thematic review in five years:** In light of data limitations and the newness of projects, a follow-up thematic review in five years would be constructive. Such a review would be further supported by ensuring that at least a core subset of the climate-security projects identified in this portfolio had fulfilled the monitoring, data collection, and any other evaluation steps outlined in the proposal (i.e. perception surveys, evaluation of proposed metrics, etc.). Supporting some degree of continuous, longitudinal data collection for at least the most promising of the project approaches or projects within the PBF portfolio over the next five years would ensure that there is a stronger base of data for this next thematic review.

Strengthen and reinforce project design, learning, and innovation:

- **Track climate-security projects as those with an identifiable 'climate' nexus:** Consider developing criteria for more accurately categorizing climate-security projects. Criteria need not be complex, but some linkage with a climate change dynamic should be a prominent part of the project – either a significant factor in the problem set or conflict analysis, and ideally carried through to some degree in other project elements and activities. A minor 'green' or climate-friendly activity would not be sufficient. Resist the temptation to tag projects as climate-security based on environmental-related attributes alone (i.e. related to mining or extractives, or to land or agriculture generally).
- **Keep an expansive but not unlimited definition of climate-security:** Given PBF goals, an expansive definition of climate-security may be appropriate, but it should not be unlimited, or else the category and term would lose any value. It would be important to identify a climate-linkage or nexus that is of significant weight in the project. An additional guardrail should be to identify how closely linked the project activities are to addressing the climate-security issues identified. Any development or governance activity in an area that is vulnerable to climate change should not signify a climate-security project.
- **Shift the terminology:** Some review partners proposed that using the broader terminology of 'climate, peace, and security' would be preferable to the existing terminology of climate-security.
- **Improve component tracking:** To the extent that the PBSO continues to track thematic areas based on the key project components, a more expansive definition of what constitutes projects with a nexus to water issues (not limited to those focused on improved water supply improvement alone, but also including other ways that climate change contributes to water scarcity and risk or vulnerability) would improve understanding of PBF investments in the climate-security space. Many policymakers and practitioners also requested information about how many projects involved substantial climate change adaptation and climate change mitigation measures, so these may also be worthwhile to track.
- **Reinforce existing guidance on 'high-level goals' in Theories of Change:** Reinforcing existing PBSO guidance that complex or multi-faceted projects try to identify 'high-level' goals or priorities within the project would improve overall project categorization, which can support development of best practices, and better evaluation of results at both a portfolio and project level.
- **Encourage reflection on Theories of Change throughout the project cycle:** Encouraging check-ins or referral back to the Theory of Change throughout the project cycle (in progress reports, applications for adjustments or project extensions, in final evaluations, and to the extent possible, informally among implementing partners) would help to strengthen learning and reflection on what components or elements contributed to positive results. The focus should not be on re-validating the Theory of Change as it was framed in the project proposal, but on whether the results in implementation suggested that the Theory of Change espoused proved sound or needed to be adjusted or nuanced for future related work.
- **Go beyond quantitative indicators in project monitoring:** In any project monitoring and reporting, it is important to go beyond quantitative metrics (number of participants, number of activities, percentage of target group involved, etc.) and to attempt to ask questions that might help derive inferences about the qualitative effects of certain activities or measures. While there are no universal indicators or metrics that would act as a 'silver bullet' in measuring effects, even staff members' internal reflections, in consultation with beneficiaries and community or governmental partners, may yield more insights into what is working or not than activity counts.

Annex 1: Table of All 74 Projects

Most of the information in this table mirrors the regular project tracking undertaken by the PBSO. Cross-border projects are denoted by CB next to the project code; Gender Promotion Initiative by GPI; and Youth Promotion Initiative by YPI. The far-right column indicates the additional coding on project typologies undertaken as part of this review. Based on the results of the mid-level analysis, UNU-CPR identified four relevant categories:

- Two categories of Climate-Security projects – As indicated in Section II, the research team identified two categories of climate-security projects based on the significance or weight of climate-security issues in the project focus or goals. For simplicity, in the table below both categories are simply represented as climate-security projects.
- Environmental Peacebuilding – These projects had a clear environmental focus and corresponded with themes or issues common to the field of environmental peacebuilding, but lacked a clear nexus or focus on climate change. For example, many focused on community tensions surrounding mining or extractive industries, or on sources of natural resource degradation not directly linked to or identified with climate change.
- Other projects – Projects that did not fall into one of the above categories are categorized as other.

Given divergences between project documents and the realization of a project in practice, there is a margin of error on some of these categorizations. The research team was most confident about the categorization of projects that featured in the case study research, given the depth of consideration, followed by the 32 projects in the mid-level review, although even within these there were close calls and a degree of subjectivity in categorization.[336] Going forward, should PBSO choose to adopt this categorization approach, it would be helpful to have input from the project team on what they consider to be the priority goals or focus of a project and whether they would view the project as significantly focused on climate-security issues, as opposed to other peacebuilding objectives or typologies.

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
1	Burkina Faso, Côte d'Ivoire: IRF-428-429 (CB)	Appui à la Gestion Pacifique de Conflits Locaux dons les Régions du Sahel et du Nord Burkina Faso	$ 4,000,000	2018-2021	UNICEF, UNDP	Other
2	Burkina Faso, Niger, Mali: 180-181-182 (CB)	Prévention et gestion des conflits dans la Région de l'Est du Burkina Faso	$ 3,000,000	2020-2022	UNDP	Climate-security
3	Burkina Faso, Niger, Mali: BFA/B-6, NER/B-6, MLI/B-1 (CB)	AILP: Appui aux Initiatives Locales de promotion de la Paix	$ 2,500,000	2022-2024	Mercy Corps	Climate-security
4	Burkina Faso, Niger, Mali: IRF-353-354-355 (CB)	Promotion d'une transhumance pacifique dans la région du Liptako Gourma	$ 3,000,000	2020-2022	FAO, IOM	Climate-security

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
5	Burkina Faso: BFA/A-1	Appui a la Gestion Pacifique de Conflits Locaux dons les Regions du Sahel et du Nord Burkina Faso	$ 2,200,134	2018-2021	UNDP, UNHCR	Climate-security
6	Burkina Faso: BFA/A-2	Prévention et gestion des conflits dans la Région de l'Est du Burkina Faso	$ 2,500,000	2020-2023	UNDP, FAO	Climate-security
7	Burkina Faso: IRF-446 (YPI)	Facilitation de l'accès à la terre et participation des jeunes à la prévention et la gestion des conflits fonciers dans les régions de la Boucle du Mouhoun et des Hauts Bassins	$ 1,500,000	2022-2023	FAO, UN-Habitat	Other
8	Burundi: BDI/C-1	The Kibira Peace Sanctuary	$ 3,000,000	2021-2024	UNCDF	Climate-security
9	Burundi: IRF-460 (GPI)	Amélioration de l'Accès À la Terre de la Femme Burundaise	$1,500,000	2022-2023	Stitching Cordaid	Other
10	Cameroon: CMR/B-1	Leveraging community participation in local governance for effective conflict prevention and resolution in the Littoral and West regions affected by the North-West and South-West crisis in Cameroon	$2,000,000	2021-2023	UN-Habitat, UN Women	Other
11	CAR, Chad: IRF-268-269 (CB)	Projet de restauration de la paix et du dialogue entre les communautés affectées par la transhumance transfrontalière	$3,000,000	2018-2020	FAO, IOM	Climate-security
12	CAR: IRF-304 (GPI)	CAR: IRF-304 (GPI) Renforcement du relèvement et de réintégration des femmes et des filles grâce à une agriculture résiliente au changement climatique pour instaurer la paix et la réconciliation en RCA après conflit	$1,500,000	2019-2021	FAO, UN Women	Climate-security

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
13	CAR: CAF/A-13	Appui au renforcement des mécanismes de gestion concertée et apaisée de la transhumance pour la restauration du dialogue intercommunautaire et la consolidation de la paix dans les préfectures de l'Ouham et de l'Ouham-Pendé	$3,000,000	2020-2022	FAO, UNFPA	Climate-security
14	Chad, Niger: IRF-286-287 (CB)	Prévenir les conflits intercommunautaires et contribuer à la consolidation de la paix à travers le développement d'un pastoralisme résilient dans la zone transfrontalière de Diffa et du Kanem	$3,000,000	2018-2020	FAO, WFP	Climate-security
15	Chad: TC-D/A-1	Projet de consolidation de la paix à travers l'adaptation au changement climatique et la résilience des moyens d'existence des populations de la région du lac Tchad	$2,488,906	2018-2020	FAO, IOM, UNHCR	Climate-security
16	Chad: TC-D/A-3	Prévention et gestion des tensions intercommunautaires à travers un meilleur accès aux et gestion rationnelle des ressources naturelles	$3,134,000	2019-2022	UNHCR, WFP	Climate-security
17	Chad: TC-D/B-1	Promouvoir la consolidation de la paix par la résolution des conflits et le dialogue entre les communautés et les autorités locales dans le nord du Tchad (Ngla-Ha)	$3,000,000	2021-2023	Humanity & Inclusion, IOM	Environmental Peacebuilding
18	Chad: TC-D/B-4	Consolidation de la paix et de la sécurité entre les communautés d'agriculteurs et d'éleveurs dans les provinces du Salamat, du Sila et du Ouaddaï	$3,500,000	2021-2023	FAO, WFP, UNDP	Climate-security

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
19	Colombia: COL/C-2	Natural Paz – Naturaleza para la paz	$3,000,000	2021-2023	UNDP, UNEP	Climate-security
20	Colombia: IRF-461 (GPI)	Construyendo Paz a través de alianzas productivas de Mujeres para la Vida en la Tierra	$750,000	2022-2023	FESU	Climate-security
21	Côte d'Ivoire: IRF-259 (YPI)	Participation des jeunes à la gestion durable des ressources forestières pour le renforcement de la cohésion sociale dans la région Ouest de la Côte d'Ivoire	$1,500,000	2018-2020	IOM, UNDP	Environmental Peacebuilding
22	Côte d'Ivoire: CIV/A-5	Consolidation de la paix dans la zone frontalière du nord-est de la Côte d'Ivoire par le biais d'une gestion participative et planifiée de ressources naturelles	$2,503,800	2020-2023	UNEP, FAO, IOM	Climate-security
23	Côte d'Ivoire, Guinea: IRF-423-424 (CB)	Consolider la Cohésion Sociale transfrontalière entre la Côte d'Ivoire et la Guinée pour une meilleure compréhension et anticipation des risques et le renforcement de la confiance et de la collaboration entre les acteurs locaux	$3,712,895	2021-2023	IOM, FAO	Climate-security
24	DRC: IRF-473 (GPI)	Artisanes de Paix: Setting inclusive Peacebuilding Networks in Tanganyika and addressing land issues in displaced Twa and Bantu communities.	$996,564	2022-2023	Tearfund	Other
25	The Gambia: GMB/B-1	Addressing Conflict over Land and Natural Resources (LNR) In The Gambia	$1,400,000	2018-2020	FAO, UNDP	Other

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
26	The Gambia: GMB/B-2	Strengthening community coping mechanisms against risks of climate induced conflicts and to minimize gender-related vulnerabilities and tensions in The Gambia	$1,700,000	2020-2022	WFP, UNFPA, ITC	Climate-security
27	The Gambia, Senegal: IRF-430-431 (CB)	Supporting Cross-Border Cooperation for Increased Community Resilience and Social Cohesion in The Gambia and Senegal	$3,800,000	2021-2023	IOM, FAO	Climate-security
28	Guatemala: GTM/B-5	Promoviendo la gestión del entorno social, político e institucional para contribuir a la disminuir la conflictividad agraria en el Valle del Polochic	$1,500,000	2022-2024	FAO, WFP, OHCHR	Other
29	Guinea: GIN-B-9	Renforcement de la confrérie des Donzo pour la protection de l'environnement et la cohésion sociale en Haute Guinée	$850,000	2020-2022	ACORD	Other
30	Guinea: GIN/B-10	Renforcement du dialogue multi-acteurs pour une gouvernance foncière et environnementale responsable en Basse Guinée	$2,100,000	2021-2023	UN-Habitat, UNDP, ACORD Guinea	Climate-security
31	Guinea, Sierra Leone: IRF-425-426 (CB)	Building cross border peace and strengthening sustainable livelihoods of cattle herders and crop farmers in Sierra Leone and Guinea	$4,550,000	2021-2023	WFP, IOM	Other
32	Guinea-Bissau: IRF-210	Mobilizing rural Youth and adolescents to serve as peacebuilding leaders	$1,564,821	2017-2020	UNDP, UNICEF	Climate-security
33	Guinea-Bissau: IRF-438 (YPI)	Inclusive Peaceful Land Management in OIO, CACHEU and BIOMBO regions	$1,500,000	2021-2023	FAO, UN-Habitat	Environmental Peacebuilding

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
34	Guinea-Bissau: IRF-457 (GPI)	Creating safe and empowering public spaces with women to mitigate climate-security risks and sustain peace in Guinea-Bissau	$1,406,694	2022-2023	UNDP, WFP	Climate-security
35	Honduras: IRF-435 (YPI)	Prevenir y gestionar la conflictividad social vinculada a la tierra y territorio que enfrentan las juventudes campesinas e indígenas en Honduras	$1,500,000	2021-2023	OHCHR, FAO	Other
36	Kenya, Somalia: IRF-151-152 (CB)	The Kenya-Somalia refugees and peacebuilding cross border pilot project for voluntary return, co-existence and sustainable reintegration in the areas of return	$3,000,000	2017-2018	UNHCR, UNICEF, FAO, ILO, WFP, IOM	Other
37	Kiribati, Republic of the Marshall Islands, Tuvalu: IRF-362-363-364 (CB)	Pacific Island Countries with a focus on Tuvalu, Kiribati and the Republic of the Marshall Islands	$3,200,000	2020-2023	UNDP	Climate-security
38	Kyrgyzstan, Uzbekistan: IRF-442-443 (CB)	Shared prosperity through cooperation in border regions of Kyrgyzstan and Uzbekistan	$3,000,000	2021-2023	FAO, UNFPA	Environmental Peacebuilding
39	Liberia: IRF-160 (GPI)	Strengthening Women's Rights and Participation in Peacebuilding in Liberia	$449,888	2017-2018	Educare Liberia	Environmental Peacebuilding
40	Liberia: IRF-230	Strengthening Conflict Prevention through Establishment of Multi-Stakeholder platforms and Improved Alternative Livelihoods in Concession Areas	$2,761,070	2018-2019	UNDP, FAO	Environmental Peacebuilding
41	Liberia: LBR/H-3	Sustaining peace & reconciliation through strengthening land governance & dispute resolution mechanisms	$ 3,996,522	2020-2023	UN Women, UNDP, WFP	Other

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
42	Liberia: LBR/C-1	Delivering Peace Dividends in Liberia: Consolidating National, Regional and Local Reconciliation and Social Cohesion Opportunities	$ 3,000,000	2021-2024	UNDP, FAO	Other
43	Liberia: IRF-474 (YPI)	Strengthening the agency of young women in peacebuilding processes and land tenure in Liberia	$ 1,200,000	2022-2023	ActionAid UK	Other
44	Mali: IRF-260 (YPI)	Deuxième décennie pour la paix	$ 1,500,000	2018-2020	FAO, UNICEF	Climate-security
45	Mali: IRF-311 (GPI)	Appui à la gestion des risques liés à la dégradation environnementale à travers des mesures d'adaptation dans les zones à risque de conflits intercommunautaires	$ 801,056	2019-2021	UNIDO, UNCDF	Climate-security
46	Mali: IRF-440 (GPI)	Les femmes illuminant le chemin vers la paix	$ 1,500,000	2021-2023	UNDP, UN Women	Climate-security
47	Mali: IRF-458 (GPI)	Consolidation de la paix par la participation active des jeunes et des femmes de Koulikoro dans les mécanismes locaux de gestion-prevention des conflits liés aux ressources naturelles	$ 800,000	2022-2023	ONG AZHAR	Other
48	Mali: IRF-463 (YPI)	Consolidation de la paix par l'accès des jeunes femmes et hommes au foncier agricole dans la zone sahélienne du Mali	$ 750,000	2022-2023	HELVETAS Swiss Intercooperation	Climate-security
49	Mali: MLI/C-1	Soutien à l'auto-emploi de la jeunesse rurale, vecteur de paix et de cohésion sociale au Mali	$ 2,500,000	2022-2024	FAO, IOM, UNESCO	Climate-security
50	Mali, Niger: IRF-351-352 (CB)	Femmes et gestion des conflits lies aux ressources naturelles	$ 4,000,000	2020-2022	UNDP, UN Women	Climate-security

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
51	Mali, Mauritania: IRF-372-373 (CB)	Gestation des conflits et renforcement de la resilience agro-pastorale à la frontière Mauritano-Malienne	$ 3,000,000	2020-2022	FAO, IOM	Climate-security
52	Mauritania: IRF-249	Renforcement des capacités locales pour la prévention des conflits dans la Moughataa de Bassikounou	$ 3,000,000	2018-2020	FAO, OHCHR, UNDP, UNICEF	Climate-security
53	Mauritania: MRT/A-1	Consolidation de la paix à travers l'engagement des femmes et de la jeunesse et le renforcement des capacités des communautés dans la région frontalière du Hodh El Chargui	$ 1,500,000	2020-2022	IOM, UNHCR	Climate-security
54	Mauritania: MRT/A-2	Consolidation de la paix à travers le renforcement de la cohésion sociale et l'amélioration de l'accès équitable aux ressources naturelles dans les zones frontalières du Guidimakha	$ 1,500,000	2020-2022	WFP, FAO	Climate-security
55	Mauritania: IRF-441 (GPI)	Consolidation de la «paix verte » en Mauritanie : appui à la coexistence pacifique entre les jeunes hommes et femmes réfugiées et des communautés d'accueil dans la région du Hodh El Chargui, en Mauritanie	$ 1,500,000	2021-2023	UNDP, UNHCR	Climate-security
56	Niger: NER/B-5	Prévention et gestion pacifique de conflits liés à l'accès et à la gestion des ressources naturelles dans les communes nord de la région de Zinder (PREGECON)	$ 2,300,000	2021-2023	FAO, UNFPA	Climate-security

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
57	Niger: IRF-462 (YPI)	La jeunesse nigérienne en action : Soutenir le rôle actif des jeunes femmes et hommes pour la consolidation de la paix dans les départements de Diffa (Communes de Diffa, Chetimari et Gueskerou), Bosso (Commune de Bosso et Toumour) et N'Guigmi (Communes de Kablewa et Nguigmi)	$ 1,500,000	2022-2023	IOM, SFCG	Climate-security
58	Nigeria: IRF-273	Integrated Approach to Building Peace in Nigeria's Farmer-Herder Crisis	$ 3,000,000	2018-2020	UNDP, UN Women, FAO, OHCHR	Climate-security
59	Papua New Guinea: IRF-434 (GPI)	Preventing Climate-Induced Conflicts Through Empowered Women Leadership	$ 1,500,000	2021-2023	UNDP, IOM	Climate-security
60	Sierra Leone: IRF-253 (GPI)	Creating Peaceful Societies through women's improved access to management of natural resources, land tenure rights and economic empowerment in Sierra Leone	$ 1,500,000	2018-2020	FAO, ILO	Environmental Peacebuilding
61	Sierra Leone: SLE/D-2	Mitigating Localized Resource-based Conflicts and Increasing Community Resilience in Pujehun and Moyamba districts of Sierra Leone	$ 3,000,000	2019-2022	UNDP, WFP	Environmental Peacebuilding
62	Sierra Leone: IRF-452 (GPI)	Women4Water&Peace: Promoting civic spaces and empowering women to address water-related disputes and provide access to water in poor communities in Freetown	$ 1,499,075	2022-2023	UNCDF, ILO	Climate-security

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
63	Solomon Islands: IRF-193	Consolidating Peace, stability and social cohesion in Solomon Islands post-RAMSI	$ 2,999,266	2017-2019	UN Women, UNDP	Other
64	Solomon Islands: IRF-383 (GPI)	Gender Responsive Peacebuilding in Extractive Industries in Isabel Province, Solomon Islands	$ 1,500,000	2021-2023	UNFPA, IOM	Environmental Peacebuilding
65	Solomon Islands: SLB/E-1	Inclusive Governance of Natural Resources for greater social cohesion in the Solomon Islands	$ 2,149,820	2019-2022	UNDP, UN Women	Other
66	Solomon Islands: IRF-472 (YPI)	Bridging traditional governance and rule of law through youths' participation as agents of peace and change in Rennel and Bellona	$ 1,499,960	2022-2023	UNDP, World Vision	Environmental Peacebuilding
67	Somalia: IRF-433 (YPI)	Promoting Inclusive Action in Peacebuilding (PIAP Initiative)	$ 1,500,000	2021-2023	FAO, IOM	Climate-security
68	South Sudan: IRF-257 (GPI)	Enhancing Women's Access to Land to Consolidate Peace in South Sudan	$ 1,500,000	2018-2020	FAO, UN-Habitat	Other
69	South Sudan: SSD/B-2	Community Action for Peaceful Resolution of Housing, Land and Property (HLP) Disputes and Conflicts	$ 3,700,000	2021-2024	IOM, FAO	Other
70	Sri Lanka: IRF-313 (GPI)	Promoting Women's Engagement in Waste Management to Prevent Conflict in Sri Lanka	$ 1,500,000	2019-2021	UN Women, UNOPS	Environmental Peacebuilding
71	Sudan: SDN/B-1	Supporting Sustainable Peace in Blue Nile State through Gender-Responsive Natural Resource Governance, Inclusive Conflict Resolution Mechanisms and Climate-Resilient Livelihoods	$ 3,982,125	2021-2024	UNDP, UN Women, UNEP	Climate-security

#	Project ID (+Priority Window)	Project title	Funding $	Timeframe	Funds' recipients	Climate-security subset
72	Sudan: SDN/B-3	Peacebuilding and Human Rights in Support of Durable Solutions for IDPs and Affected Communities: The Right to Adequate Housing in West Darfur	$ 4,000,000	2022-2025	UN-Habitat, UNHCR	Other
73	Yemen: IRF-202 (GPI)	Strengthening the role of women in peace building through natural resources management at the community level in the rural areas of the governorates of Sana'a and Lahj in Yemen	$ 2,000,000	2017-2019	FAO, IOM	Climate-security
74	Yemen: IRF-256 (GPI)	Water for peace in Yemen: Strengthening the role of women in water conflict resolution and climate change mitigation	$ 1,500,000	2018-2020	FAO, IOM	Climate-security

References

[1] Interview with UN staff, remote interview, 20 July 2022 (Interview #10).

[2] This definition is adopted from internal PBF guidance, and in response to other feedback from review partners whose work is featured in this report. Further definitions, including those the PBF applies to climate-security projects, are included in the definitional section below. However, it is worth noting that, we do not limit the notion of security to inter-State violence. See, e.g., Joshua Busby et al., "In harm's way: Climate security vulnerability in Asia," *World Development* Vol. 112 (2018): 88–118; P.K. Krishnamurthy et al., "A methodological framework for rapidly assessing the impacts of climate risk on national-level food security through a vulnerability index," *Global Environmental Change* Vol. 25 (2014): 121–132.

[3] Maria-Therese Gustafsson et al., *Climate-Related Security Risks: Towards an Integrated Approach* (Stockholm: SIPRI, 2016). Available at: https://www.sipri.org/publications/2016/climate-related-security-risks; Adam Day, *Climate Change and Security: Perspectives from the Field* (New York: United Nations University, 2020). Available at: http://collections.unu.edu/eserv/UNU:7818/UNU-ClimateChangeandSecurity.pdf; Tobias von Lossow et al., *Towards a Better Understanding of Climate Security Practices* (The Hague: The Clingendael Institute, 2021). Available at: https://www.planetarysecurityinitiative.org/sites/default/files/2021-04/PSI-2021_Climate-Security-Practices_final.pdf.

[4] Paolo Vineis, Queenie Chan, and Aneire Khan, "Climate change impacts on water salinity and health," *Journal of Epidemiology and Global Health* (2011): 1–10.

[5] Vincent Roth et al., "Effects of climate change on water resources in the upper Blue Nile Basin of Ethiopia," *Heliyon* Vol 4 Issue 9 (2018); José A. Marengo et al., "Climate Change and Water Resources," *Waters of Brazil* eds. Carlos Eduardo de Mattos Bicudo, José Galizia Tundisi, Marcos Cortesão, and Barnsley Scheuenstuhl (Rio de Janeiro: Brazil Academy of Sciences, 2017): 171–186.

[6] Alex Evans, *Resource Scarcity, Climate Change, and Violent Conflict* (Washington, DC: World Bank, 2011). Available at: https://openknowledge.worldbank.org/handle/10986/9191.

[7] Rupert Seidl et al., "Forest disturbances under climate change," *Nature Climate Change* Vol 7 (2017): 395–402.

[8] Neil Adger et al., "Human security," *Climate Change 2014: Impacts, Adaptation and Vulnerability* eds. Christopher Field et al. (Cambridge: Cambridge University Press, 2014): 775–91.

[9] See, e.g., António Guterres, Secretary-General of the United Nations, "Statement by António Guterres at Security Council Debate on Climate and Security," statement to the Security Council, New York, 23 September 2021, https://unfccc.int/news/statement-by-antonio-guterres-at-security-council-debate-on-climate-and-security.

[10] To date, the Security Council has explicitly recognized the destabilizing effects of climate change in country-specific and regional resolutions, including in the mandate of 10 special political missions and peacekeeping operations. These included five UN special political missions: UNAMA (recognizing the adverse effects of drought), UNITAMS, UNOCA, UNOWAS, and UNSOM; and five UN Peacekeeping Missions: MINUSMA, MONUSCO, UNMISS, MINUSCA, and UNFICYP, as well as in the context of the Lake Chad Basin. See, e.g., UN Security Council, "Resolution 2408, adopted by the Security Council at its 8215th meeting," United Nations, 27 March 2018, S/RES/2592; UN Security Council, "Resolution 2592, adopted by the Security Council at its 8846th meeting," United Nations, 30 August 2021, S/RES/2592; UN Security Council, "Resolution 2349, adopted by the Security Council at its 7911th meeting," United Nations, 31 March 2017, S/RES/2349. Climate-related security language has featured in 45 Security Council resolutions since 2009, either in the general language or as part of operational mandate provisions. However, in 2021, the Security Council did not adopt a proposed thematic resolution on systematically integrating climate-related security risks into the UN's conflict prevention, conflict management, and peacebuilding work. See "Security Council Fails to Adopt Resolution Integrating Climate-Related Security Risk into Conflict-Prevention Strategies," UN News, 13 December 2021, https://www.un.org/press/en/2021/sc14732.doc.htm.

[11] Kendra Sakaguchi, Anil Varughese, and Graeme Auld, "Climate Wars? A Systematic Review of Empirical Analyses on the Links between Climate Change and Violent Conflict," International Studies Review Vol 19 Issue 4 (2017): 622–645; Daniel Pearson and Peter Newman, "Climate security and a vulnerability model for conflict prevention: a systematic literature review focusing on African agriculture," Sustainable Earth Vol 2 (2019); Philipp Heinrigs, *Security Implications of Climate Change in the Sahel Region: Policy Considerations* (Paris: OECD, 2010).

[12] Kendra Sakaguchi, Anil Varughese, and Graeme Auld, "Climate Wars? A Systematic Review of Empirical Analyses on the Links between Climate Change and Violent Conflict," *International Studies Review* Vol 19 Issue 4 (2017): 622–645; Daniel Pearson and Peter Newman, "Climate security and a vulnerability model for conflict prevention: a systematic literature review focusing on African agriculture," *Sustainable Earth* (2019); Philipp Heinrigs, *Security Implications of Climate Change in the Sahel Region: Policy Considerations* (Paris: OECD, 2010). This concept of the relationship between horizontal inequality and violent conflict is at the heart of the UN/World Bank *Pathways for Peace* report and demonstrates how climate change can act as a risk multiplier in settings of political and economic marginalization. See United Nations and World Bank, *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict* (Washington, DC: World Bank, 2018). Available at: https://openknowledge.worldbank.org/handle/10986/28337.

[13] Research on this by scholars at SIPRI, for example, has identified four interrelated pathways by which climate change, in conjunction with other factors, might affect levels of violence: (a) pathways related to livelihood conditions, (b) pathways that stem from migration and changing mobility patterns, (c) pathways by which armed groups exploit or leverage environmental conditions or resource scarcity, and (d) issues of elite capture on issues of resource mismanagement. See Malin Mobjörk, Florian Krampe, and Kheira Tarif, *Pathways of Climate Insecurity: Guidance for Policymakers* (Stockholm: SIPRI, 2020). Available at: https://www.sipri.org/publications/2020/sipri-policy-briefs/pathways-climate-insecurity-guidance-policymakers; Pernilla Nordqvist and Florian Krampe, *Climate Change and Violent Conflict: Sparse Evidence from South Asia and South East Asia* (Stockholm: SIPRI, 2018). Available at: https://www.sipri.org/publications/2018/sipri-insights-peace-and-security/climate-change-and-violent-conflict-sparse-evidence-south-asia-and-south-east-asia; Sebastian van Baalen and Malin Mobjörk,

Climate Change and Violent Conflict in East Africa: Implications for Policy (Stockholm: SIPRI, 2016). Available at: https://www.sipri.org/publications/2016/other-publications/climate-change-and-violent-conflict-east-africa-implications-policy; Kheira Tarif, *Climate change and Violent Conflict in West Africa: Assessing the Evidence* (Stockholm, SIPRI, 2022). Available at: https://www.sipri.org/publications/2022/sipri-insights-peace-and-security/climate-change-and-violent-conflict-west-africa-assessing-evidence; Emilie Broek and Christopher M. Hodder *Towards an Integrated Approach to Climate Security and Peacebuilding in Somalia* (Stockholm: SIPRI, 2022). Available at: https://www.sipri.org/publications/2022/other-publications/towards-integrated-approach-climate-security-and-peacebuilding-somalia.

14 Ashley Moran, Joshua W. Busby, Clionadh Raleigh, Todd G. Smith, Roudabeh Kishi, Nisha Krishnan, and Charles Wight, *The Intersection of Global Fragility and Climate Risks* (Washington: USAID Office of Conflict Management and Mitigation, 2018); Jessica M. Smith, Lauren Olosky, and Jennifer Grosman Fernández, *The Climate-Gender-Conflict Nexus: Amplifying women's contributions at the grassroots* (Washington, DC: Georgetown Institute for Women, Peace, and Security, 2021), p. 2–3. Available at: https://giwps.georgetown.edu/wp-content/uploads/2021/01/The-Climate-Gender-Conflict-Nexus.pdf.

15 Andrew D. King and Luke J. Harrington, "The Inequality of Climate Change from 1.5 to 2 Celsius of Global Warming," *Geophysical Research Letters* Vol 45 (2018): 5030–5033; Luke J. Harrington et al., "Poorest countries experience earlier anthropogenic emergence of daily temperature extremes," *Environmental Research Letters* Vol 11 Issue 5 (2016); Irina Mahlstein et al., "Early onset of significant local warming in low latitude countries," *Environmental Research Letters* Vol 6 Issue 3 (2011).

16 Houria Djoudi et al., "Beyond dichotomies: Gender and intersecting inequalities in climate change studies," *Ambio* Vol 45 (2016): 248–262; UNEP, UN Women, DPPA, UNDP, *Gender, Climate & Security: Sustaining inclusive peace on the frontlines of climate change* (UNEP, UN Women, UNDP and DPPA/PBSO: 2020). Available at: https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2020/Gender-climate-and-security-en.pdf [hereinafter UNEP et al., *Gender, Climate & Security*, 2020].

17 UN 2023 Water Conference, Concept Paper: Interactive Dialogue 4 – Transboundary and International Water Cooperation (New York: UNECE and UNESCO, 2022).

18 Florian Krampe, "Ownership and inequalities: Exploring UNEP's environmental cooperation for peacebuilding program," *Sustainability Science* Vol 16 (2021); Florian Krampe et al., "Sustaining peace through better resource governance: Three potential mechanisms for environmental peacebuilding," *World Development* Vol 144 (2021).

19 UNDP, *Climate Finance for Sustaining Peace: Making Climate Finance Work for Conflict-Affected and Fragile Contexts* (New York: UNDP, 2021). Available at: https://www.undp.org/publications/climate-finance-sustaining-peace-making-climate-finance-work-conflict-affected-and-fragile-contexts; Desse A, Fischhendler I, Nielsen JØ, Zikos D, "Environmental peacebuilding: Towards a theoretical framework," *Cooperation and Conflict* Vol 54 Issue 1 (2019): 99–119.

20 Adam Day, *Climate Change and Security: Perspectives from the Field* (New York: United Nations University, 2020); Von Lossow et al., *Towards a Better Understanding of Climate Security Practices* (The Hague: Clingendael Institute, 2021). Available at: https://www.planetarysecurityinitiative.org/sites/default/files/2021-04/PSI-2021_Climate-Security-Practices_final.pdf; Mercy Corps, *Climate Fragility: Addressing Barriers to Practice* (Portland: Mercy Corps, 2020). Available at: https://www.mercycorps.org/sites/default/files/2021-04/Climate-Fragility-Barriers-to-Action-Landscape-Review-Mercy-Corps-April-2021-Final.pdf.

21 Ibid. p. 10.

22 The Peacebuilding Fund (PBF) was established in 2006 by the Secretary-General at the request of the General Assembly as the UN's primary financial instrument to sustain peace in countries at risk of or affected by violent conflict. "The UN Peacebuilding Architecture," UN Peacebuilding Support Office (PBSO), last accessed on 22 February 2022, https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/pbso_architecture_flyer.pdf.

23 Climate Security Mechanism, established in 2018, is a joint initiative between the UNDP, UNEP, DPPA, and DPO.

24 UNU-CPR has an internal ethics review process that guides procedures and safeguards in conducting interviews, including related to informed consent, information and data storage, and other risk mitigation measures. The default practice in this project was to seek oral informed consent as a starting point. However, written information and a written consent form were available upon request.

25 The case studies were selected after a detailed consultation process with review partners and input from the reference group. For the case studies, key informants tended to include those involved in implementing the projects in question; the PBF Secretariat staff or main PBF focal points in countries (as relevant to the country in question); national and local government representatives, and civil society in the country or subregions in question; those with knowledge on the climate-security challenges and/or the PBF portfolio in each country; or other representatives of the review partners, other UN agencies, funds, programmes and secretariat entities, or non-UN organizations and civil society, either in the countries in question or at a regional or headquarters level. Further details about case study selection, and other case study methodology details are available within the approved inception report, available upon request.

26 Interviews were conducted with those who had experience examining Theories of Change or project modalities within related areas of programming (for example, those already established and assessed within environmental peacebuilding or in other peacebuilding fields of programming), as well as those with specific experience with or knowledge of the projects in question.

27 Selection of the mid-level review projects was discussed at the inception report stage with the peer reference group, and details are included in the inception report, which can be made available upon request.

28 PBSO, Terms of Reference: Thematic Review on Climate Security and Peacebuilding, 5 January 2022, p. 4 [on file with authors].

29 Ibid. For more information, see PBF, *Secretary General's Peacebuilding Fund, Climate Security and Peacebuilding* Thematic Brief (New York: PBF, 2020). Available at: https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/brief_climate_security_20200724_2.pdf.

[30] To offer another way of conceptualizing these human security risks, a UNEP report on "Climate Change and Security Risks" notes that "security concerns linked to climate change include impacts on food, water, and energy supplies, increased competition over natural resources, loss of livelihoods, climate-related disasters, and forced migration and displacement." See "Climate Change and Security Risks," UNEP, last accessed 15 January 2023, http://www.unep.org/explore-topics/disasters-conflicts/what-we-do/disaster-risk-reduction/climate-change-and-security.

[31] "What do adaptation to climate change and climate resilience mean?" UNFCCC, last accessed 15 November 2022, https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean.

[32] Interview with PDA, MS Teams, 29 June 2022 (Interview #6).

[33] For further definitions and conceptualization, see, e.g., Dresse A, Fischhendler I, Nielsen JØ, Zikos D, "Environmental peacebuilding: Towards a theoretical framework," *Cooperation and Conflict*, Vol 54 Issue 1 (2019): 99–119; Herbert S, "Lessons from environmental peacebuilding programming," K4D Helpdesk Report (Brighton, UK: Institute of Development Studies, 2019); "Environmental Peacebuilding |Welcome to Environmental Peacebuilding Knowledge Platform," last accessed 13 January 2023, https://www.environmentalpeacebuilding.org/.

[34] See, e.g., Giulia Caroli, Katie Tavenner, Sophia Huyer, Carolina Sarzana, Anna Belli, Marlène Elias, Grazia Pacillo, and Peter Läderach, *The Gender-Climate-Security Nexus* (Montpellier: CGIAR, 2022). Available at: https://gender.cgiar.org/publications/gender-climate-security-nexus-conceptual-framework-cgiar-portfolio-review-and.

[35] Jessica M. Smith, Lauren Olosky, and Jennifer Grosman Fernández, *The Climate-Gender-Conflict Nexus* (Washington, DC: Georgetown Institute for Women, Peace, and Security, 2021). Available at: https://giwps.georgetown.edu/wp-content/uploads/2021/01/The-Climate-Gender-Conflict-Nexus.pdf; UNEP et al., *Gender, Climate & Security*, 2020; Elizabeth Smith, *Gender Dimensions of Climate Insecurity* (Stockholm: SIPRI, 2022). Available at: https://www.sipri.org/sites/default/files/2022-03/sipriinsight2204_gender_dimensions_of_climate_insecurity.pdf.

[36] For usage of these terms specifically in the climate-related security space, see, e.g., UNDP, *Climate Finance for Sustaining Peace: Making Climate Finance Work for Conflict-Affected and Fragile Contexts* (New York: UNDP, 2021). Available at: https://www.undp.org/publications/climate-finance-sustaining-peace-making-climate-finance-work-conflict-affected-and; Alec Crawford, et al, *Promoting Climate-Resilient Peacebuilding in Fragile States* (Winnipeg: IISD, 2015). Available at: https://www.iisd.org/system/files/publications/promoting-climate-resilient-peacebuilding-fragile-states.pdf UNEP et al., *Gender, Climate & Security*, 2020.

[37] "Classification of Fragile and Conflict-Affected Situations," World Bank, last accessed 15 January 2023, https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations.

[38] Some review partners would have preferred the term 'human mobility-related' to describe these projects, which is noted for PBSO's future consideration but not adopted here as it is not the common vernacular used in the field. For common usage of the term in this field, see, e.g., Rigaud et al. *Groundswell: Preparing for Internal Climate Migration* (Washington, DC: World Bank, 2018), p. 143. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/29461/WBG_ClimateChange_Final.pdf; Ashley Moran et al., *The Intersection of Global Fragility and Climate Risks* (Washington, DC: USAID Office of Conflict Management and Mitigation, 2018); Robert McLeman, "Migration and Displacement in a Changing Climate," *Epicenters of Climate and Security: The New Geostrategic Landscape of the Anthropocene*, eds. Caitlin E. Werrell and Francesco Femia (Washington, DC: The Center for Climate and Security, 2017), pp. 100–109. Available at: https://climateandsecurity.files.wordpress.com/2017/06/epicenters-of-climate-and-security_the-new-geostrategic-landscape-of-the-anthropocene_2017_06_091.pdf.

[39] PBF, *2020-2024 Strategy, Secretary-General's Peacebuilding Fund* (New York: PBF, 2020). Available at: https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/pbf_strategy_2020-2024_final.pdf.

[40] "UN Multi-Partner Trust Fund Office: The Peacebuilding Fund," United Nations MPTF Office Partners Gateway, last accessed 14 November 2022, https://mptf.undp.org/fund/pb000.

[41] The PBF does not have designated criteria or a marker for categorizing a project under its 'climate-security' portfolio. The PBSO identified this subset on the basis of a listing of project objectives or outcomes, and which appeared to have a linkage with climate-related risks or other environmental themes that it associated with these climate-related risks.

[42] These comprise Burkina Faso, Cameroon, The Gambia, Guinea, Mali, Mauritania, Niger, Nigeria, Senegal, and Chad.

[43] It is worth noting that a significant part of this increase is related to the PBF's 2021 GPI/YPI call for project proposals, which prioritized proposals on the "Promotion and protection of civic spaces, notably regarding land, indigenous people, and environmental issues … ." Also see p. 23.

[44] In some of these, they might have had a very minimal reference or subactivity that noted a climate-related issue – for example, a development project that chose to use renewable energy in implementing a planned infrastructure component, or in one project, a single, passing reference to rising sea levels in an annex. Nonetheless, these projects were not categorized as climate-security issues based on those limited references.

[45] Understanding the degree to which climate-security concerns are central to or are prioritized within a project is also crucial in evaluating any effects or potential successes of the project. For example, some implementing partners or PDAs in a given country were surprised to learn that a given project had been included in our sample of 'climate-security' projects. They considered the project in question to be (for example) primarily a gender and economic empowerment project, or a refugee resettlement and land project, rather than one intended to address or mitigate a climate-security issue. If those involved in project design were not intending to address a climate-security issue or had not even identified that there was a strong one within the project context, it would then be unfair to judge them on having achieved any success in addressing climate-security issues.

[46] The 2021 call for funding for the GYPI included language encouraging proposals related to "promotion and protection of civic spaces, notably regarding land, indigenous people and *environmental issues*" (emphasis added). PBF, *Mid-Term Review of the Peacebuilding Fund Strategy 2020-2024: Gender and Youth Empowerment*

Background Paper (New York: PBF, 2022), p 2. As such, only 14 of the GPI/YPI projects, out of 28 in the total sample, were identified as related to climate-security. If future calls are intended to encourage GPI and YPI projects specifically within the climate-security space, there might need to be greater specificity in the call's language, and then in any follow-on project tracking as well.

47 PBF, *2020-2024 Strategy: Secretary-General's Peacebuilding Fund*, (New York: PBF, 2020). Available at: https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/pbf_strategy_2020-2024_final.pdf. This report adopts the UN standard of the following 10 countries within the Sahel region: Burkina Faso, Cameroon, The Gambia, Guinea, Mali, Mauritania, Niger, Nigeria, Senegal, and Chad.

48 See, e.g., World Bank Group, *G5 Sahel Region Country Climate and Development Report* (Washington, DC: World Bank, 2022). Available at: https://openknowledge.worldbank.org/handle/10986/37620; Cepero et al., *Climate Change, Development and Security in the Central Sahel* (Potsdam: Cascades, 2021). Available at: https://www.cidob.org/es/content/download/78482/2509957/version/1/file/Climate-Change-Development-and-Security-in-the-Central-Sahel_June 2021.pdf; UNEP, *Livelihood security: Climate Change, Conflict and Migration in the Sahel* (Nairobi: UNEP, 2011). Available at: https://wedocs.unep.org/handle/20.500.11822/8032;jsessionid=9C4BBFCA7F6DDC8286ADA3A5D9712FF4.

49 "Countries Declared Eligible to the PBF by the Secretary-General," PBSO, last accessed 21 December 2022, https://www.un.org/peacebuilding/content/list-pbf-countries-declared-eligible.

50 A UNDP study found that looking at vertical climate adaptation funds' expenditure, Haiti and DRC were receiving a more significant amount of climate adaptation funding than other countries in fragile contexts. UNDP, *Climate Finance for Sustaining Peace: Making Climate Finance Work for Conflict-Affected and Fragile Contexts* (New York: UNDP, 2021). Available at: https://www.undp.org/publications/climate-finance-sustaining-peace-making-climate-finance-work-conflict-affected-and-fragile-contexts.

51 "Country Index," ND GAIN, last accessed 27 February 2023, https://gain.nd.edu/our-work/country-index/. Cameroon ranked 124th out of 182 and Nigeria 129th. Also see: Adam Day and Jessica Caus, *Conflict Prevention in an Era of Climate Change: Adapting the UN to Climate-Security Risks* (New York: United Nations University, 2020), p. 35.

52 Nigeria has not been seeking eligibility to receive larger PBF funding envelopes like some other countries in the Sahel.

53 Interview with PBSO staff, MS Teams, 7 July 2022 (Interview #7). One example provided was PBF/MDG/B-2 (in Madagascar).

54 Cross-border projects are almost always funded through the IRF, although there was one exception to this within this climate-security portfolio (PBF/BFA/B-6 in Burkina Faso, Niger, and Mali) because all three countries were eligible for PRF funding at the time. Although this would also theoretically be possible in the future, the cross-border project would then also have to align with the PBF Strategic Results Framework for each country (introduced in 2021).

55 Twenty-five of the full set of 74 projects received no-cost extensions, most related to COVID-19 delays in implementation. In the three climate-security projects that received no-cost extensions, this did not appear to be the cause.

56 Except for the projects that fell within the case studies, or some of those that fell within the 'mid-level review,' the calculation of projects aligning with these issues was based on project document review and so some issues of identification may have been missed where not prominent in the project document.

57 Example projects: PBF/BFA/B-6 (Burkina Faso, Niger, Mali); PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali); PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali); PBF/BFA/A-1 (Burkina Faso); PBF/BFA/A-2 (Burkina Faso); PBF/IRF-268-269 (CAR, Chad); PBF/CAF/A-13 (CAR); PBF/IRF-286-287 (Chad and Niger); PBF/TCD/A-3 (Chad); PBF/TCD/B-4 (Chad); PBF/IRF-423-424 (Côte d'Ivoire, Guinea); PBF/IRF-430-431 (The Gambia, Senegal); PBF/IRF-372-373 (Mali, Mauritania); PBF/IRF- 351-352 (Mali, Niger); PBF/IRF-260 (Mali); PBF/IRF-311 (Mali); PBF/IRF-249 (Mauritania); PBF/IRF-441 (Mauritania); PBF/MRT/A-1 (Mauritania); PBF/MRT/A-2 (Mauritania); PBF/NER/B-5 (Niger); PBF/IRF-273 (Nigeria).

58 The background contextualization for PBF/IRF-311 (Mali) noted that water scarcity, which affects both water for pasture and crop cultivation, has particular effects for women given their dependence on subsistence farming and increased risk of tensions between breeders and women farmers (Project document for PBF/IRF-311 in Mali, p. 9). The project PBF/IRF-351-352 (in Mali, Niger) traced a linkage between increased transhumance-related conflicts and women's vulnerability to individual violence: "With insecurity, gender relations have begun to deteriorate …, accentuating the relationship of women's dependence on the men of their families to protect them against the violence." (Project document for PBF/IRF-351-352, p. 11).

59 Sample projects with a strong or central focus on water (* indicates identification of vulnerability or human security risk as the fundamental 'security' issue in these climate-security projects): PBF/BFA/A-2 (Burkina Faso); PBF/TCD/A-3 (Chad); PBF/GMB/B-2 (The Gambia); PBF/IRF-457* (Guinea-Bissau); PBF/IRF-372-373 (Mali, Mauritania); PBF/IRF-441 (Mauritania); PBF/MRT/A-2 (Mauritania); PBF/IRF-462 (Niger); PBF/IRF-452* (Sierra Leone); PBF/IRF-433 (Somalia); PBF/SDN/B-1* (Sudan); PBF/IRF-202 (Yemen); PBF/IRF-256 (Yemen).

60 This issue of salinization was explicitly noted in project documents or interviews with those involved in the projects PBF/GMB/B-2 (The Gambia), PBF/IRF-457 (Guinea-Bissau), PBF/IRF-362-363-364 (Kiribati, Republic of the Marshall Islands, Tuvalu) and PBF/IRF-472 (Solomon Islands). However, it would also be relevant in many of the other project contexts.

61 Sample projects: PBF/BFA/A-1 (Burkina Faso); PBF/IRF-304 (CAR); PBF/TCD/A-1 (Chad); PBF/TCD/A-3 (Chad); PBF/IRF-249* (Mauritania); PBF/IRF-441 (Mauritania); PBF/MRT/A-1 (Mauritania).

62 Sample projects: PBF/COL/C-2 (Colombia); PBF/IRF-461 (Colombia); PBF/BDI/C-1 (Burundi); PBF/IRF-430-431 (The Gambia, Senegal); PBF/MLI/C-1 (Mali)(partly).

63 A larger number mentioned this broadly in the project context and background, but it was not a focal point.

64 One project, PBF/GIN-B-9 (Guinea), sought to police the use of forests by supporting a local eco-defender force that functioned as a self-defense force. However, for this project, there was no identifiable link with climate change, and so it was categorized as another form of environmental peacebuilding, and was not included in the climate-security or 43 project samples.

65 This came across in the project documents for PBF/BDI/C-1 and PBF/IRF-460 (Burundi) and for another project in The Gambia and Senegal (PBF/IRF-430), as well as in interviews with those involved in the REDD+ project in Colombia (PBF/COL/C-2).

[66] Sample projects: PBF/IRF-433 (Somalia); PBF/SDN/B-1 (Sudan); PBF/IRF-202 (Yemen); PBF/IRF-256 (Yemen).

[67] The coding of four projects in the climate-security sample and 11 in the larger sample reflects projects where issues of elite capture (or equivalently worded issues) were noted in the project documents, or (in the case of the Yemen projects PBF/IRF-202 and PBF/IRF-256) in follow-up interviews during the case studies. Interviews suggest this was an underlying issue or factor in a far wider range of projects, however, even if it was not singled out as such in the project documentation. For conceptualization of this pathway see, e.g., Pernilla Nordqvist and Florian Krampe, *Climate change and violent conflict: Sparse evidence from South Asia and South East Asia* (Stockholm: SIPRI, 2018). Available at: https://www.sipri.org/publications/2018/sipri-insights-peace-and-security/climate-change-and-violent-conflict-sparse-evidence-south-asia-and-south-east-asia; Emilie Broek and Christopher M. Hodder, *Towards an Integrated Approach to Climate Security and Peacebuilding in Somalia* (Stockholm: SIPRI, 2022). Available at: https://www.sipri.org/publications/2022/other-publications/towards-integrated-approach-climate-security-and-peacebuilding-somalia.

[68] PBF/IRF-362-363-364 (Kiribati, Republic of the Marshall Islands, Tuvalu).

[69] See, e.g., "Boe Declaration on Regional Security," Pacific Islands Forum Secretariat, last accessed 15 January 2023, https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security/.

[70] Many of the projects in the Solomon Islands (four in total) also noted the issue of rising sea levels, but none were categorized as climate-security issues given a superficial or completely absent connection made between the project drivers, activities, and theories and climate-related security issues in the project documents.

[71] Sample projects: PBF/IRF-304 (CAR); PBF/TCD/A-1 (Chad); PBF/TCD/A-3 (Chad); PBF/TCD/B-4* (Chad); PBF/IRF-461 (Colombia); PBF/CIV/A-5 (Côte d'Ivoire); PBF/GMB/B-2 (The Gambia); PBF/IRF-457 (Guinea-Bissau); PBF/IRF-362-363-364 (Kiribati, Republic of the Marshall Islands, Tuvalu); PBF/IRF- 351-352 (Mali, Niger); PBF/IRF-311 (Mali); PBF/IRF-440 (Mali); PBF/MLI/C-1 (Mali); PBF/IRF-434 (Papua New Guinea); PBF/SDN/B-1 (Sudan); PBF/IRF-441 (Mauritania).

[72] Climate-security cross-border projects: PBF/BFA/B-6 (Burkina Faso, Niger, Mali); PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali); PBF/IRF-268-269 (CAR, Chad); PBF/IRF-286-287 (Chad, Niger); PBF/IRF-362-363-364 (Kiribati, Republic of the Marshall Islands, Tuvalu); PBF/IRF-372-373 (Mali, Mauritania); PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali); PBF/IRF-423-424 (Côte d'Ivoire, Guinea); PBF/IRF-430-431 (The Gambia, Senegal); PBF/IRF- 351-352 (Mali, Niger).

[73] Sample projects: PBF/CAF/A-13 (CAR); PBF/IRF-260 (Mali); PBF/IRF-463 (Mali); PBF/MLI/C-1 (Mali); PBF/IRF-249 (Mauritania); PBF/IRF-462 (Niger).

[74] Not all of the projects in this list used the language surrounding the risk of 'radicalization' but this was the risk identified in several projects, including: PBF/IRF-463 (Mali), PBF/MLI/C-1 (Mali), PBF/IRF-441 (Mauritania), and PBF/IRF-462 (Niger).

[75] Sample projects: PBF/COL/C-2 (Colombia); PBF/BDI/C-1 (Burundi).

[76] This brief was authored by Cristal Downing, and stems from her research and those of other colleagues at MEAC.

[77] For a more detailed treatment of these themes, see, e.g., UNDP, *The climate security nexus and the prevention of violent extremism: Working at the intersection of major development challenges* Policy Brief (New York: UNDP, 2022). Available at: https://www.undp.org/sites/g/files/zskgke326/files/publications/UNDP-Climate-Security-Nexus-and-Prevention-of-violent-extremism.pdf

[78] The MEAC project is a multi-year, multi-partner collaboration that aims to develop a unified, rigorous approach to examining how and why individuals exit armed conflict and evaluating the efficacy of interventions meant to support their transition to civilian life.

[79] The data was collected from a 516-person pre-programme survey sample of individuals formerly associated with armed groups as well as non-associates in Niger; a 998-person sample of a similar composition in Chad; a 807-person sample of a similar composition in Cameroon; and a 995-person midline survey of ex-associates and non-associated community members in Nigeria.

[80] In Nigeria, 13 per cent of Boko Haram ex-associates and 18 per cent of ex-affiliates of the CJTF, Yan Gora, and other vigilante groups reported this link. Only a small minority reported this link in Cameroon (7 per cent).

[81] See, e.g., Elizabeth Smith, *Gender Dimensions of Climate Insecurity* (Stockholm: SIPRI, 2022). Available at: https://www.sipri.org/sites/default/files/2022-03/sipriinsight2204_gender_dimensions_of_climate_insecurity.pdf; DCAF, *Women Speak: The Lived Nexus Between Climate, Gender and Security* (Geneva: DCAF, 2022). Available at: https://www.dcaf.ch/sites/default/files/publications/documents/WomenSpeak2022_EN.pdf.

[82] UNEP et al., *Gender, Climate & Security*, 2020; Jessica Smith, Lauren Olosky, and Jennifer Grosman Fernández, *The Climate-Gender-Conflict Nexus* (Washington, DC: Georgetown Institute for Women, Peace and Security, 2021). Available at: https://giwps.georgetown.edu/wp-content/uploads/2021/01/The-Climate-Gender-Conflict-Nexus.pdf; Elizabeth Smith, *Gender Dimensions of Climate Insecurity* (Stockholm: SIPRI, 2022). Available at: https://www.sipri.org/sites/default/files/2022-03/sipriinsight2204_gender_dimensions_of_climate_insecurity.pdf.

[83] International Alert, *Integrating Gender and Security in Climate Adaptation: Principles for Success* (London: International Alert, 2021). Available at: https://www.international-alert.org/wp-content/uploads/2021/05/Climate-Adaptation-Gender-Security-EN-2021.pdf.

[84] The GYPI call was first launched in 2016. While combined in one call, the GPI and YPI are separate initiatives with interconnected but distinct objectives. The GPI supports projects focused on gender equality and women's empowerment while the YPI supports projects on youth empowerment and participation, both with the potential for catalytic effects and peacebuilding outcomes.

[85] PBF, *Gender and Youth Promotion initiative: Call for Proposals and Guidance Note* (New York: PBF, 2021), p 2.

[86] In 2020, GYPI welcomed joint UN-CSO proposals for the first time ($12 million, 7.8 per cent allocated to these proposals). Ibid.

[87] The additional themes in the 2021 call included the promotion and strengthening of health and psychosocial well-being for women and youth as part of local peacebuilding processes. In 2022 they related to strengthening women's CSOs (GPI) and (i) youth-inclusive political participation and (ii) youth protection (YPI). PBF, Mid-Term Review of the Peacebuilding Fund Strategy 2020-2024: Gender and Youth Empowerment Background paper (New York: PBF, 2022), p. 2.

[88] These were: PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali); PBF/CAF/A-13 (CAR); PBF/IRF-304 (CAR); PBF/IRF-461 (Colombia);

PBF/GMB/B-2 (The Gambia); PBF/IRF-457 (Guinea-Bissau); PBF/IRF-351-352 (Mali, Niger); PBF/IRF-311 (Mali); PBF/IRF-440 (Mali); PBF/MLI/C-1 (Mali); PBF/IRF-249 (Mauritania); PBF/MRT/A-1 (Mauritania); PBF/IRF-462 (Niger); PBF/NER/B-5 (Niger); PBF/IRF-273 (Nigeria); PBF/IRF-434 (Papua New Guinea); PBF/IRF-452 (Sierra Leone); PBF/SDN/B-1 (Sudan); PBF/IRF-202 (Yemen); PBF/IRF-256 (Yemen).

89 Twenty-nine of 43 projects in the climate-security sample could be characterized as centred around an inclusion logic, versus 44 of the full sample of 74. This determination was made by evaluating the project documents primarily, but also other inferences where the projects involved additional interviews (i.e., case study or mid-level review projects). Given that this is a somewhat subjective determination appraising both the Theory of Change and the prioritization or weight given to different elements in project design, there is a margin of error, particularly for the projects receiving lessor levels of examination (i.e., non-climate-security projects outside of the mid-level review).

90 Projects specifically related to the inclusion or empowerment of women and girls or youth were: PBF/IRF-440 (Mali); PBF/IRF-351-352 (Mali, Niger); (subtheme) PBF/TCD/B-1 (Chad); PBF/NER/B-5 (Niger); PBF/IRF-210 (Guinea-Bissau); PBF/IRF-260 (Mali); (partially) PBF/IRF-463 (Mali); PBF/IRF-462 (Niger); PBF/MLI/C-1 (Mali); PBF/GMB/B-2 (The Gambia); PBF/IRF-434 (Papua New Guinea); PBF/SDN/B-1 (Sudan); PBF/IRF-259 (Côte d'Ivoire). A subset of projects framing inclusion as increasing community resilience was: PBF/IRF-457 (Guinea-Bissau); PBF/TCD/A-1 (Chad); PBF/TCD/B-4 (Chad).

91 Non-climate-security projects which also framed women or youth as 'change agents were: PBF/IRF-472 (Solomon Islands); PBF/IRF-442-443 (Kyrgyzstan, Uzbekistan); PBF/IRF-313 (Sri Lanka).

92 For some support to these propositions, see, e.g., UNEP, *Women and Natural Resources: Unlocking the Peacebuilding Potential* (Nairobi: UNEP, 2013). Available at: http://www.unep.org/resources/report/women-and-natural-resources-unlocking-peace-building-potential.

93 This rationale also came out in some of the interviews for the Yemen case study, but was not prominent in the project documentation. For greater elaboration of this pathway, see, UNEP et al., *Gender, Climate & Security*, 2020.

94 Examples of projects strongly reflecting this logic in the climate-security sample include: PBF/IRF-440 (Mali); PBF/IRF- 351-352 (Mali, Niger); PBF/TCD/B-1 (part of Chad); PBF/NER/B-5 (Niger); PBF/IRF-210 (Guinea-Bissau); PBF/IRF-260 (Mali); PBF/IRF-463 (Part of Mali); PBF/IRF-462 (Niger); PBF/MLI/C-1 (Mali); PBF/GMB/B-2 (The Gambia); PBF/IRF-434 (Papua New Guinea); PBF/SDN/B-1 (Sudan); PBF/IRF-259 (Côte d'Ivoire).

95 Examples: PBF/MRT/A-1 (Mauritania); PBF/IRF-441 (Mauritania).

96 These were: PBF/IRF-304 (CAR); PBF/GMB/B-2 (The Gambia); PBF/IRF-457 (Guinea-Bissau); IRF-351-352 (Mali, Niger); PBF/IRF-311 (Mali); PBF/IRF-440 (Mali); PBF/MLI/C-1 (Mali); PBF/IRF-434 (Papua New Guinea); PBF/SDN/B-1 (Sudan); PBF/IRF-441 (Mauritania).

97 Liptako Gourma covers a land surface of roughly 370,000 km2 and includes 57.6 per cent of the territory of Burkina Faso, 21 per cent of Mali and 10 per cent of Niger. Tiwa, D. F, Nimaga, B., Boureima, A., Ouedraogo, O., and Dongmo Ngoutsop, A., *Évaluation finale du projet: Promotion d'une Transhumance Pacifique dans la Région du Liptako Gourma* (2022), (Burkina Faso: ID 00120162 – PBF/IRF-353; Mali: ID 00120164 – PBF/IRF-354; Niger: ID 00120165 – PBF/IRF-355).

98 Between 2015 and 2018 the number of people suffering food insecurity increased by 60 per cent (Tiwa et al., 2022).

99 The 17 million or so people of Liptako Gourma are 80 per cent rural dwellers. "Think Regionally, Act Locally: A New $350 Million Project Supports Community-Based Recovery and Stability in the Sahel," World Bank, 15 June 2021, https://www.worldbank.org/en/news/press-release/2021/06/15/think-regionally-act-locally-a-new-350-million-project-supports-community-based-recovery-and-stability-in-the-sahel. With an annual population growth rate of 3–4 per cent, 50 per cent of the population are younger than 15 years of age (Tiwa, et al., 2022).

100 Individuals are not referenced by name – to preserve anonymity and in the interests of a frank exchange – but are cited by the organization in which they work. The 79 interviewees came from the following organizations. Mali: IMADEL, IOM, UNDP, UNDP, UNCDF, WFP, CARESS, Anndal Institute, MINUSMA, HD Centre, ISS, religious organizations, MARN, HRP, IMRAP, OG Azhar, Carter Center, ACTED, DCAF, Mercy Corps and the embassies of Belgium, Sweden, Denmark, Canada, Germany, Luxembourg, the United Kingdom, and Norway. Burkina Faso: The Liptako Gourma Authority, AFD, IRAM, UNDP, FAO, IOM, UNHCR, APESS, Haut Conseil Islamique, and the embassies of Germany, Luxembourg, and Denmark. Niger: UNDP, IOM and Association Tabital. Global: UNDDPA, the Clingendael Institute, and adelphi.

101 Mali – On 18 August 2022 a military coup deposed Ibrahim Boubacar Keïta, President since 2013, leading to sanctions from ECOWAS. Less than a year later, on 24 May 2021, a second military coup led by Vice-President Assimi Goïta deposed President Bah N'Da.

102 Burkina Faso – On 23 January 2022 a military junta deposed President Roch Marc Christian Kaboré and installed Paul-Henri Sandaogo Damiba as interim President. However, his rule lasted only eight months until a second coup in September 2022 where a young army officer called Ibrahim Traoré took control.

103 A third of the 10,000 casualties which occurred in the region between 2014 and July 2020 took place in 2020: WFP, Conflits persistants, pertees de terres agricoles et insécurité alimentaire récurrente dans la region du Liptako Gourma (WFP and Liptako Gourma Authority, 2021).

104 Interview with NGO peacebuilding expert, in person in Bamako, Mali, 4 April 2022 (Interview #51).

105 Interview with mediation expert, in person in Bamako, Mali, 12 April 2022 (Interview #92).

106 Interview with government peace envoy, in person interview in Bamako, Mali, 10 April 2022 (Interview #83).

107 FAO, *Plan de réponse regional – avril 2020-avril 2021 – répondre aux besoins humanitaires dans les pays de la région du Liptako Gourma* (Senegal: FAO, 2020).

108 Interview with NGO Director, in person interview in Bamako, Mali, 4 April 2022 (Interview #103).

109 Interview with NGO Director, in person interview in Bamako, Mali, 12 June 2022 (Interview #61).

110 Interview with UN agency representative, in person interview in Bamako, Mali, 12 April 2022 (Interview #118). Interviewees were mostly referring to trafficking in cattle but trafficking in drugs, arms, and other illicit goods, as well as human trafficking, are also prevalent in some areas.

111 FAO, *Plan de réponse regional – avril 2020-avril 2021 – répondre aux besoins humanitaires dans les pays de la région du Liptako Gourma* (Senegal: FAO, 2020).

112 Interview with mediation expert, MINUSMA, in person interview in Bamako, Mali, 7 April 2022 (Interview #71).

113 International Atomic Energy Agency, *Integrated and sustainable management of shared aquifer systems and basins of the Sahel region* (Vienna: International Atomic Energy Agency, 2012). Available at: https://www.iaea.org/sites/default/files/18/07/sahel-zouari-160712.pdf.

114 Robert Muggah and José Luengo Cabrera, "The Sahel is engulfed by violence, climate change, food insecurity and extremists are largely to blame" *World Economic Forum*, 23 January 2019, https://www.weforum.org/agenda/2019/01/all-the-warning-signs-are-showing-in-the-sahel-we-must-act-now/.

115 Autorite de developpement integre de la region du Liptako Gourma and Bankque Oust Africaine de developpement, "Programme regional de gestion durable des terres et de renforcement de la resilience des communautes rurales et des ecosystems aux changements climatiques dans les etats du Liptako Gourma," September 2017, https ://www.boad.org/wp-content/uploads/2019/07/05092017_Prog-GDT_RESILIENCE-Annexe-Vol-2_Mali.pdf.

116 UNHCR, *Climate Risk Profile – Sahel* (Geneva: UNHCR, 2021). Available at: https://www.unhcr.org/61a49df44.pdf.

117 Ibid.

118 Ibid.

119 Paul Absalon, Etude de cadrage en sécurité climatique dans le Liptako Gourma (New York: UNDP, n.d).

120 Daniel Kangogo, Peter Läderach, and Grazia Pacillo, *How does climate exacerbate root causes of conflict in Mali? An econometric analysis* (Montpellier: CGIAR, 2021).

121 FAO, *Burkina Faso, Mali et Niger Analyse des conflits liés aux ressources naturelles dans les trois pays du Liptako Gourma* (Rome: FAO, 2021).

122 Interview with an NGO expert, in person interview in Bamako, Mali, 11 April 2022 (Interview #57).

123 Ibid.

124 These include one Youth Promotion Initiative project, PBF/IRF-260 (in Mali) and two Gender Promotion Initiatives, PBF/IRF-351-352 (Mali, Niger) and PBF/IRF-440 (Mali).

125 Interviews with UNDP, IOM, UNHCR, FAO, in person interviews, April and June 2022 (Interviews #61, #69, #87, #59).

126 Evaluation for PBF/IRF-353-354-355 (Burkina Faso, Mali, Niger). Note that the full citations of project evaluations can be found in the annex.

127 PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali); PBF/IRF-440 (Mali).

128 PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali); PBF/IRF-440 (Mali); PBF/IRF-311 (Mali); PBF/IRF-351-352 (Mali, Niger).

129 PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali); PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali).

130 PBF/IRF-311 (Mali); PBF/IRF-351 (Mali); PBF/BFA/A-2 (Burkina Faso).

131 PBF/IRF-353 (Burkina Faso); PBF/IRF-354 (Niger); PBF/IRF-355 (Mali); PBF/BFA/A-1 (Burkina Faso).

132 PBF/BFA/B-6, PBF/NER/B-6, PBF/MLI/B-1 (Burkina Faso, Niger, Mali); PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali); PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali).

133 PBF/IRF-311 (Mali); PBF/IRF-351 (Mali); PBF/BFA/A-2 (Burkina Faso); PBF/BFA/B-6, PBF/NER/B-6, PBF/MLI/B-1 (Burkina Faso, Niger, Mali); PBF/IRF-440 (Mali)(supporting women and youth in solar energy entrepreneurship).

134 PBF/IRF-311 (Mali); PBF/IRF-351 (Mali); PBF/BFA/A-2 (Burkina Faso); PBF/IRF-351 (Mali); PBF/BFA/B-6, PBF/NER/B-6, PBF/MLI/B-1 (Burkina Faso, Niger, Mali) (micro-grants; exact targets not identified); PBF/IRF-440 (Mali) (supporting women and youth in solar energy entrepreneurship); PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali); PBF/IRF-260 (Mali).

135 PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali); PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali); PBF/IRF-311 (Mali); PBF/BFA/A-1 (Burkina Faso); PBF/BFA/A-2 (Burkina Faso).

136 In the following projects, inclusion and empowerment were the strong, central logic: PBF/IRF-351-352 (Mali, Niger); PBF/IRF-260 (Mali); PBF/IRF-311 (Mali); PBF/IRF-440 (Mali). In PBF/IRF-180-181-182 (Burkina Faso, Niger, and Mali) it was also a very prominent theme.

137 PBF/IRF-351-352 (Mali, Niger).

138 PBF/IRF-180 (Burkina Faso).

139 See independent evaluation for projects: PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali); PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali); PBF/IRF-260 (Mali); PBF/IRF-311 (Mali); and PBF/BFA/A-1 (Burkina Faso).

140 See, e.g., independent evaluation for PBF/IRF-260 (in Mali, suggesting poor prospects for sustainability and uptake); independent evaluation for PBF/IRF-353-354-355 (in Burkina Faso-Niger-Mali, suggesting that the participatory quotas were insufficient).

141 See, e.g., independent evaluation of: PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali); PBF/BFA/A-1 (Burkina Faso); PBF/IRF-180-181-182 (Burkina Faso, Mali, Niger).

142 E.g., interview with UNDP staff member, in person interview in Bamako, Mali, 10 April 2022 (Interview #68).

143 The evaluation of Mali-IRF-311 noted that one of the key issues to evaluation is that the "composite" nature of the goals and targets would make any measurement complex, regardless of the indicators chosen.

144 Evaluation for PBF/IRF-353-354-355 (in Burkina Faso, Niger, Mali).

145 Independent evaluation for PBF/IRF-353-354-355 (in Burkina Faso, Niger, Mali).

146 Interviews with PBF staff, remote and in person in Mali, Niger, and Burkina Faso, April, May and June 2022, (Interviews #62, #111, #124, #129).

147 Interview with donor, in person in Bamako, Mali, 9 April 2022 (Interview #63).

148 Interview with UN staff, remote interview, 15 July 2022 (Interview #121).

149 Interviews with UN staff, donors, government representatives, in person in Mali, Niger, and Burkina Faso, April, May and June 2022 (Interviews #81, #107, #112, #118, #120, #125).

[150] UNISS, *Rapid Assessment of UN investments in the Sahel (2016 – 2020): Reflections on UN and partner investments in the region* (Dakar: UNISS, 2021), p. 73.

[151] Interview with UN agency representative, in person in Bamako, Mali, 10 April 2022 (Interview #121).

[152] Ibid.

[153] Interviews with UN agency representatives, remote and in person in Mali, Burkina Faso and Niger, 3-12 April, 12-17 June 2022 (Interviews #62, #67, #68, #87, #100).

[154] Interview with donor, in person in Bamako, Mali, 11 April 2022 (Interview #65). It was noted that one or two staff members in the capital could manage disbursements to the PBF, which was appreciated.

[155] Interview with Peacebuilding expert, in person in Bamako, Mali, 10 April 2022 (Interview #57).

[156] Final evaluation for Burkina Faso, Niger, Mali: IRF-180-181-182.

[157] Interviews with UN representatives, in person in Bamako, Mali, and Ouagadougou, Burkina Faso, 10 April 2022 and 15 June 2022 (Interviews #118, #129).

[158] Interview with security think tank programme manager, in person in Mali, April 2022 (Interview #73); Interview with UNDP staff, in person in Bamako, Mali, April 2022 (Interview #97).

[159] Interview with UN agency head, in person in Bamako, Mali, 11 April 2022 (Interview #118).

[160] Ibid.

[161] Interview with head, mediation initiative, in person in Bamako, Mali, 10 April 2022 (Interview #60).

[162] 329.2 mm of rain on average over the course of the year from 1991–2020 compared to 313,83 from 1961–1990: World Bank Climate Portal Data for Mali, https://climateknowledgeportal.worldbank.org/country/mali/climate-data-historical.

[163] Interview with donor, in person in Bamako, Mali, 11 April 2022 (Interview #65).

[164] Interviews with donors and implementing agencies, in person in Mali and Burkina Faso, April and June 2022 (Interviews #65, #86, #107, #120).

[165] Interview with donor, in person in Bamako, Mali, 11 April 2022 (Interview #65).

[166] Interview with UN agency representative, in person in Bamako, Mali, 10 April 2022 (Interview #121); Interview with donor government representative, in person in Bamako, Mali, April 2022 (Interview #85).

[167] "PRAPS 2: Regional Support Project for Pastoralism in the Sahel 2. Structuring project for Research/Development issues on agro-pastoral systems in the Sahel and West Africa," World Bank, last accessed 2022, https://umr-selmet.cirad.fr/projet-scientifique/nos-projets/praps-2.

[168] World Bank, *Project Identification Document: Commuity-based Recovery and Stabilization Project for the Sahel* (Project P173830) (Washington, DC: World Bank, 2021).

[169] The evaluation study noted that Yemen ranks "last out of the 144 countries included in the 2016 World Economic Forum's Global Gender Gap Index, a position it has held for the last ten years." Yemen has also consistently ranked among the bottom 10 countries in the UNDP Human Development Report's Gender Inequality Index (GII), including the years in question for this project.

[170] The research for this case study was led by Nadwa al-Dawsari. This condensed case study draws from her research and draft case study materials, supplemented by additional information received by the research team in the course of this review.

[171] See, e.g., Nicole Glass, "The Water Crisis in Yemen: Causes, Consequences and Solutions," *Global Majority E-Journal* Vol. 1 Issue 1 (2010): 17–30. Available at: https://www.american.edu/cas/economics/ejournal/upload/glass_accessible.pdf; UNDP, *Water Availability in Yemen* (New York: UNDP, 2021). Available at: https://www.undp.org/sites/g/files/zskgke326/files/migration/ye/Water-Availability-Study-in-Yemen.pdf; Helen Lackner and Abdulrahman Al-Eryani, "Yemen's Environmental Crisis Is the Biggest Risk for Its Future," The Century Foundation, 14 December 2020, https://tcf.org/content/report/yemens-environmental-crisis-biggest-risk-future/.

[172] For studies providing metrics of annual water usage compared to depletion rates, see, e.g., UNDP, *Water Availability in Yemen* (New York: UNDP, 2021). Available at: https://www.undp.org/sites/g/files/zskgke326/files/migration/ye/Water-Availability-Study-in-Yemen.pdf; Helen Lackner and Abdulrahman Al-Eryani,"Yemen's Environmental Crisis Is the Biggest Risk for Its Future," The Century Foundation, 14 December 2020, https://tcf.org/content/report/yemens-environmental-crisis-biggest-risk-future/; Helen Lackner, "Climate Change and Conflict in Hadhramawt and Al Mahra," Berghof Foundation, 21 December 2021, https://berghof-foundation.org/library/climate-change-and-conflict-in-hadhramawt. On those predicting water depletion in Sana'a by 2017, see USAID, *Yemen Climate Change Risk profile* (Washington, DC: USAID, 2016). Available at: https://www.climatelinks.org/sites/default/files/asset/document/2016_USAID%20GCC%20Office_Climate%20Risk%20Profile_Yemen.pdf

[173] Ibid: 2; Climate Investment Funds, *Strategic Program for Climate Resilience for Yemen* (Washington, DC: Climate Investment Funds, 2012), p. 42. Available at: https://www.climateinvestmentfunds.org/sites/cif_enc/files/ppcr_8_strategic_program_for_climate_resilience_yemen_0_0.pdf. However, as Lackner and Al-Eryani note, the scenarios for how climate might affect ecosystems in Yemen are somewhat contradictory – either "hot and dry" or "warm and wet." Helen Lackner and Abdulrahman Al-Eryani, "Yemen's Environmental Crisis Is the Biggest Risk for Its Future," The Century Foundation, 14 December 2020, https://tcf.org/content/report/yemens-environmental-crisis-biggest-risk-future/; World Bank, *Yemen – Assessing the Impacts of Climate Change and Variability on the Water and Agricultural Sectors and the Policy Implications* (Washington, DC: World Bank, 2010). Available at: https://openknowledge.worldbank.org/handle/10986/2943.

[174] Ibid.

[175] Helen Lackner and Abdulrahman Al-Eryani, "Yemen's Environmental Crisis Is the Biggest Risk for Its Future," The Century Foundation, 14 December 2020, https://tcf.org/content/report/yemens-environmental-crisis-biggest-risk-future/, citing: World Bank, *Yemen – Assessing the Impacts of Climate Change and Variability on the Water and Agricultural Sectors and the Policy Implications* (Washington, DC: World Bank, 2010). Available at: https://openknowledge.worldbank.org/handle/10986/2943 Lackner and Al-Eryani also note that changing rainfall patterns and more "violent downpours" – in a country where terraces have not been maintained – have also already contributed to the water shortages by eroding topsoil that would otherwise help absorb incoming water. Ibid.

[176] See, e.g., USAID, *Yemen Climate Change Risk profile* (Washington, DC: USAID, 2016), p. 4. Available at: https://pdf.usaid.gov/pdf_docs/PA00MX8Q.pdf.

[177] Notre Dame's GAIN: rank 173, score 34.7, "Country Index", ND GAIN, last accessed 14 November 2022, https://gain.nd.edu/our-work/country-index/.

[178] "Yemen – Global Humanitarian Overview 2022," UN Office for the Coordination of Humanitarian Affairs, last accessed 14 November 2022, https://gho.unocha.org/.

[179] "Bad management to blame for water scarcity," *ReliefWeb*, 22 September 2011, https://reliefweb.int/report/yemen/bad-management-blame-water-scarcity.

[180] "Water Situation in Yemen," ICRC, 5 June 2022, https://www.icrc.org/en/document/water-situation-yemen.

[181] "Yemen's climate crisis is threatening lives, livelihoods and culture," Islamic Relief, 25 March 2022, https://reliefweb.int/report/yemen/yemen-s-climate-crisis-threatening-lives-livelihoods-and-culture; Ghaida Ghantous, "After war, deforestation is a further threat to Yemen," *The Independent*, 29 August 2021, https://www.independent.co.uk/arts-entertainment/photography/photography-yemen-deforestation-environment-b1901338.html.

[182] Small Arms Survey, *Under pressure: Social violence over land and water in Yemen* (Geneva: Small Arms Survey, 2010), p. 2. Available at: https://www.files.ethz.ch/isn/123971/Yemen-Armed-Violence-IB2-Social-violence-over-land-and-water-in-Yemen.pdf. This statistic was also cited in both of the Yemen project documents relevant to this case study.

[183] Nicole Glass, "The Water Crisis in Yemen: Causes, Consequences and Solutions," *Global Majority E-Journal* Vol. 1 Issue 1 (2010): 17–30. Available at: https://www.american.edu/cas/economics/ejournal/upload/glass_accessible.pdf, p. 25.

[184] Helen Lackner and Abdulrahman Al-Eryani, "Yemen's Environmental Crisis Is the Biggest Risk for Its Future," The Century Foundation, 14 December 2020, https://tcf.org/content/report/yemens-environmental-crisis-biggest-risk-future/; Milena Caye, "The Weaponization of Water Amidst Yemen's Humanitarian Crisis," Crossfire Blog, 18 August 2020, https://www.crossfirekm.org/articles/the-weaponization-of-water-amidst-yemens-humanitarian-crisis.

[185] Evaluation of Yemen-IRF-256, pp. 7, 12. Project staff said the model was also informed by a previous 2006 World Bank project that established something similar to WUAs, but without any women's engagement. Interview with FAO project staff, 23 September 2022 (Interview #36).

[186] The project was planned to target Sana'a, Hudaydah, and Lahj. However, Hudaydah was replaced by Hadhramaut after the Houthi regime refused to allow FAO to implement the project in the governorate.

[187] Project document for PBF/IRF-202 (Yemen), pp. 10–11.

[188] For example, in the project documentation for PBF/IRF-256 (Yemen), the second of two objectives listed involves introducing climate change mitigation measures among farmers to reduce water usage. It should be noted that though "climate change mitigation" is the language used (also in the evaluation), the practices in question do not involve greenhouse gas mitigation but climate change adaptation.

[189] Interview with Head of Irrigation, Lahj, 6 September 2022 (Interview #41).

[190] WUAs that took part in the project had to meet specific criteria including: 1) elections of board members with 30 per cent women representation, and 2) a 50 per cent representation of women in the Conflict Resolution Committees within the WUAs. The project documents note that the Women's WUA had been established in Sana'a in a prior Netherlands-supported project of a similar nature, but indicates that they were created in the other governorates. Detailed information on this prior project was not available.

[191] The project also worked to strengthen the WUA by creating a manual guiding its internal structure and elections, and also registering these or otherwise connecting the WUA with appropriate government agencies.

[192] Project staff also frequently mentioned establishing greenhouses, a farmer-field school, projects working on establishing new drip irrigation systems, and other related interventions. However, it was not always clear if these were activities taken during and supported within the scope of the PBF projects, or taken on subsequently as the same WUA engagement projects have been taken on by other funders. None of the project documents or evaluation material mention greenhouses, for example, so it appears likely that this was part of the continuing project.

[193] Some of the project documentation and interviews suggest that a goal of 30 per cent of women within the cash-for-work positions, but this was not verified in the evaluation reports, nor in any other project data. Interviews suggested that there was some female participation in the cash for work projects, although it varied based on the governorates and documentation of the exact proportion does not appear to have been recorded or preserved. The evaluation of IRF-256 noted that young engineers were also involved in the engineering design of the irrigation channel renovation. [Hereinafter evaluation of PBF/IRF-256 (Yemen), pp. 25–26].

[194] FAO, "Evaluation of Strengthening the Role of Women in Peacebuilding through Natural Resources Management at the Community Level in the Rural Areas of the Governorates of Sana'a and Lahaj in Yemen, UNJP/YEM/038/PBF," 2019, p. 18 (on file with authors) [Hereinafter Evaluation of Yemen-IRF-202].

[195] Feedback provided by IOM as part of draft review, received 21 December 2022.

[196] Focus group discussion with members of WUAs, Lahj, 5 September 2022 (Interview #50); Interview with FAO local coordinators, Lahj, 6 September 2022 (Interview #39 and Interview #40).

[197] Interview with head of WUA, Hadhramaut, 4 September 2022 (Interviews #45, #46); Interview with a local researcher, 26 September 2022 (Interview #48).

[198] Interview with a female leader of the WUA in Sana'a, 4 September 2022 (Interview #43); Interview with a female leader of the WUA in Hadhramaut, 4 September 2022 (Interview #46).

[199] Further details are available in the evaluation of PBF/IRF-202 (Yemen), pp. 16–17.

[200] Women said that they portrayed their role as supporting men in the community (rather than 'monitoring' them, which would have been perceived as threatening or inappropriate for women). They also sought acceptance for their position by working through family connections. For example, female members of the WUA went to the wives and daughters of the sheikhs to help them influence the male leaders to accept their participation. Interview with head of WUA in Hadhramaut, 4 September 2022 (Interview #45); Interview with Hadhramaut female member of WUA, 4 September 2022 (Interview #46); Interview with FAO water management specialist,

3 August 2022 (Interview #36); Interview with female member of WUA in Sana'a, 5 September 2022 (Interview #43).

201 Interview with FAO's water management specialist, 3 August 2022 (Interview #36); Interview with female member of WUA in Sana'a, 5 September 2022 (Interview #43); Interview with female member of WUA in Hadhramaut, 4 September 2022 (Interview #46).

202 Interview with a local researcher, 26 September 2022 (Interview #48).

203 Project document for PBF/IRF-202 (Yemen), p. 9; Project document for PBF/IRF-256 (Yemen), p. 7. The project document for PBF/IRF-202 also noted women's record of involvement in the Arab Spring protest movement and subsequent transition period, although this appears to be a less relevant precedent for the issues in question. Project document for PBF/IRF-202 (Yemen), p. 9.

204 Project document for PBF/IRF-202 (Yemen), p. 13.

205 Women themselves said that it was the harsh economic conditions – and desperation for the water management technical and material assistance that the project brought in – that forced people to accept women taking on a larger role in the public sphere (via this project). Focus group discussion with members of WUAs in Lahj, 5 September 2022 (Interview #50).

206 This is even referenced in the project document for the first project, PBF/IRF-202, pp. 7–9.

207 "Country Profiles: Yemen," Landlinks, last accessed 14 November 2022, https://www.land-links.org/country-profile/yemen/.

208 Kawkab Al-Wadeai, "Rural Development is Key to sustainable peace in Yemen," Yemen Policy Center, June 2021, https://www.yemenpolicy.org/rural-development-is-key-to-sustainable-peace-in-yemen/.

209 Interview with FAO water management specialist, 3 August 2022 (Interview #36); Interview with UNDP staff, MS Teams, 20 September 2022 (Interview #24).

210 Interview with FAO water management specialist, 3 August 2022 (Interview #36); "Ensuring the supply of water and sanitation," GIZ, last accessed 14 November 2022, https://www.giz.de/en/worldwide/100191.html.

211 UNDP SDG Climate Facility, *Climate Action for Human Security in the Arab Region* (New York: UNDP, 2021). Available at: https://www.undp.org/arab-states/publications/sdg-climate-facility-climate-action-human-security-arab-region. Specific to Yemen the SDG Climate Facility has worked on two projects – one trying to transition qat farmers to instead grow coffee, and another establishing a waste-to-energy conversion plant. Interview with UNDP staff, MS Teams, 20 September 2022 (Interview #24).

212 "Yemen," GEF Small Grants Programme, last accessed 14 November 2022, https://sgp.undp.org/component/countrypages/?view=countrypage&country=119&Itemid=.

213 The first paragraph of the Boe declaration (2018) reads: "We reaffirm that climate change remains the single greatest threat to the livelihoods, security and wellbeing of the peoples of the Pacific and our commitment to progress the implementation of the Paris Agreement." Paragraph ix calls for strengthened regional security apparatus that, inter alia, accounts for a concept of security inclusive of climate change, addresses emerging security challenges, improves coordination, and further develops early warning mechanisms. "Boe Declaration on Regional Security," Pacific Islands Forum Secretariat, 5 September 2018, https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security

214 The case study is informed by a thorough review of relevant project documents, broader literature, and by 15 structured interviews with project staff and thematic and regional experts.

215 In 2022 their populations were estimated by the World Population Review as follows: Kiribati – 131,274; Tuvalu – 11,312; Republic of the Marshall Islands – 41,569. "Total Population by Country," World Population Review, last accessed 14 November 2022, https://worldpopulationreview.com/countries.

216 "World Bank Country and Lending Groups," World Bank, last accessed November 2022, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.

217 Tuvalu is listed at number 11 of 194 countries in the World Bank's 2020 political stability index, just below Switzerland (#10). Kiribati, meanwhile, takes the 18th position, above the ostensibly politically stable Japan (#21), Portugal (#23), and Sweden (#26).

218 According to the Armed Conflicts Location and Events Data Project (ACLED), there have been no incidents of political violence or the targeting of civilians in the Republic of the Marshall Islands, Kiribati, or Tuvalu since ACLED began their coverage at the beginning of 2021. "ACLED," last accessed 14 November 2022, https://acled-data.com/.

219 The highest points of Tuvalu, Kiribati, and the Republic of the Marshall Islands, are 4.6, 87, and 10 metres above sea level respectively, but their average height across the entire land mass is 1.8, 2, and 2 metres respectively.

220 Given their small populations their emissions are negligible in collective terms but also low in per capita terms: Tuvalu and Kiribati had per capita emissions of c. 0.8 tonnes in 2019, while the Republic of the Marshall Islands had emissions of 3.1 in 2019 – which are all lower than the world average (4.5 tonnes) or that of the Euro area (6.1 tonnes). "CO2 emissions (metric tons per capita)," World Bank, last accessed 14 November 2022, https://data.worldbank.org/indicator/EN.ATM.CO2E.PC.

221 Satellite data shows sea levels rising across Kiribati by 3.4 mm per year since 1993, compared with the global average of 2.8–3.6 mm per year. See John P. Cauchi, Ignacio Correa-Velez, and Hilary Bambrick, "Climate change, food security and health in Kiribati; investigating community resilience and opportunities for adaptation in Kiribati," *Glob Health Action* Vol 12 Issue 1 (2019); Mary Taylor, Andrew McGregor, and Brian Dawson, *Vulnerability of Pacific Island agriculture and forestry to climate change* (New Caledonia: Pacific Community, 2016). Available at: https://www.sprep.org/attachments/VirLib/Regional/vulnerability-pacific-island-agriculture-forestry-climate-change.pdf.

222 Pedro Lopes de Castro Barbosa, "Environmental Security: The case of Kiribati and Tuvalu," Atlas Institute for International Affairs, 31 December 2020, https://www.internationalaffairshouse.org/environmental-security-the-case-of-kiribati-and-tuvalu/.

223 McCubbin et al., "Social–Ecological Change and Implications for Food Security in Funafuti, Tuvalu," *Ecology and Society* Vol 22 Issue 1 (2017): 53.

224 Government of Kiribati, *Security Implications of Climate Change in Kiribati* (Tarawa: Government of Kiribati, 2009). Available at: https://sustainabledevelopment.un.org/content/dsd/resources/res_pdfs/ga-64/cc-inputs/Kiribati_CCIS.pdf.

225 Ibid.

226 Coral Pasisi, "Climate-fragility Risk Brief: Pacific Islands Region," adelphi, 12 November 2019, https://www.adelphi.de/en/publication/climate-fragility-risk-brief-pacific-islands-region.

227 John P. Cauchi, Ignacio Correa-Velez, and Hilary Bambrick, "Climate change, food security and health in Kiribati; investigating community resilience and opportunities for adaptation in Kiribati," *Glob Health Action* Vol 12 Issue 1 (2019).

228 "Climate Security in the Pacific – Project at a glance," UNDP, 22 March 2021, https://www.undp.org/pacific/publications/climate-security-pacific-project-glance. The project document was largely drafted by UNDP, with IOM and the Pacific Islands Forum Secretariat as the main partners in the design of the project. While the idea of a regional climate-security project funded by the PBF had been mooted for some time, project development was accelerated following the UN Secretary-General's visit to the region in May 2019. This also aligned with the efforts of the DPPA to foster a stronger, more cohesive Pacific voice on climate-security issues.

229 UNDP, *Climate Security in the Pacific – Project at a glance* (New York: UNDP, 2020).

230 Ibid.

231 Interviews with UNDP and IOM project staff, remote, 19, 26, and 27 July 2022 (Interviews #130, #138, #133),

232 Interview with UNDP project staff, remote, 19 July 2022 (Interview #141).

233 The project has set aside $100,000 to support the set-up of the CANCC Secretariat, though delays on both sides may mean these funds are not utilized. Interview with UNDP project staff, 27 July 2022, remote (Interview #144).

234 UNDP, *Climate Security in the Pacific: Project Brief* (New York: UNDP, 2022). Available at: https://www.undp.org/pacific/publications/climate-security-pacific-project-brief. The PCSN was officially established in November–December 2021, as a go-to group for validating the Regional Climate Security Assessment findings.

235 The Climate Security Project will provide a low-value-grant of $40,000 to Fuligafou NGO to carry out coral restoration initiatives in Funafuti and Nui Islands; Interview with UNDP project staff, remote, 25 July 2022 (Interview #138).

236 UNDP, *Climate Security in the Pacific: Project Brief* (New York: UNDP, 2022). Available at: https://www.undp.org/pacific/publications/climate-security-pacific-pilot-project-briefs.

237 Interviews with project staff, remote, 19, 20, 27 July 2022 (Interviews #131, #132, #138, #144).

238 Interview with regional expert, in person, 18 July 2022 (Interview #142); Interview with UNDP project staff, remote, 26 and 27 July 2022 (Interviews #138, #144).

239 Interview with UNDP project staff, remote, 27 July 2022 (Interview #138).

240 Interview with climate security expert, remote, 12 July 2022 (Interview #132).

241 Tuvalu and Kiribati come in at position 11 and 18 respectively on the World Bank's 2020 political stability index, significantly higher than other Pacific nations receiving PBF funds such as the Solomon Islands (#60) and Papua New Guinea (#152), and much higher than most PBF countries (which are typically in the #100s). The Republic of the Marshall Islands is not included in this listing: https://www.theglobaleconomy.com/rankings/wb_political_stability/.

242 For example, initial consultations and risk analysis have identified unclear and contested land tenure systems as a driver of possible tension in places such as Tuvalu. But the pilot projects (as well as other activities under the project) do not tackle the inequitable allocation of land or the ineffective resolution of land disputes.

243 "Atoll Nation of Tuvalu Adopts 'Cubes' to Step Up Nutritious Food Production," SPC, 14 October 2021, https://www.spc.int/updates/blog/partners/2021/10/atoll-nation-of-tuvalu-adopts-cubes-to-step-up-nutritious-food.

244 Funded through UNDP's GEF small grants programme. See: https://www.infomarshallislands.com/growing-veggies-in-the-air/.

245 Lex Thomson, *Country Report Republic of Kiribati* (Secretariat of the Pacific Regional Environment Programme, 2002).

246 See, e.g., Interview, MS-Teams, 2 November 2022 (Interview #30); Interview with Climate Advisor, MS Teams, 9 August 2022 (Interview #13).

247 In comparing the climate-security projects in the earlier years of this sample set versus those in 2021, there was an observable improvement in the way that climate-security or environmental elements were incorporated in the conflict analysis. They also tended to be better integrated throughout the project, in the conflict analysis, in the Theory of Change or objectives, and in activities, in the latter projects, as compared to earlier projects.

248 An example of this sort of logic is well articulated in PBF/IRF-269-268 (CAR-Chad). After first identifying the larger need to counter mistrust between farmers and herders (spanning both sides of the border), and negative perceptions of the latter, the project notes: "To do this, it would be important to create the material conditions for land management guaranteeing a non-conflictual coexistence between farmers and transhumant herders." Project document for PBF/IRF-269-268 (CAR-Chad), pp. 11¬–12.

249 In singling out these trends, the intent is not to suggest that inclusion-focused projects neglected an integrated approach and lacked some of the other project features and components described above (i.e., addressing natural resource scarcity, broader community engagement and social cohesion, etc.). Nor is it intended to suggest that the other 15 climate-security projects not designated as leading with an inclusion approach lacked attention to issues of gender, youth vulnerability, or the exclusion or marginalization of other groups – these often featured as subcomponents and/or the various activities had elements that required a certain degree of gender, youth, or other group inclusion. The distinction is more intended to offer a sense of the overall trends, characterization, and weight of different projects, in order to begin to identify particular project typologies, themes, and practices.

250 Independent evaluation for PBF/IRF-269-268 (CAR-Chad), p. 16.

251 The independent evaluation for the project PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali) found that "the project had many difficulties in ensuring effective and efficient participation of women," given the "gravity of socio-cultural factors" as well as increasing levels of insecurity. The independent evaluation for PBF/IRF-269-268 (CAR-Chad) concluded the emphasis on "participation of women and young people in the prevention and reduction of conflicts linked to transhumance… proved to be ambitious given the limited duration of the project and certain unfavourable socio-cultural realities." Independent evaluation for PBF/IRF-269-268 (CAR-Chad) p. 15.

[252] These findings are not limited to learning from the PBF climate-security projects. For example, one USAID publication reviewing efforts targeting the inclusion of women and youth in natural resources projects in the Horn of Africa emphasized the importance of an inclusive process while also highlighting the timeline of results. Among other lessons, it noted that 'success' in terms of including women, youth, or other marginalized communities, "requires deeper social and institutional changes that are more complex and take longer to achieve." USAID, *Pathways to Peace: Addressing Conflict and Strengthening Stability in a Changing Climate - Lessons Learned from Resilience and Peacebuilding Programs in the Horn of Africa* (Washington, DC: USAID, 2020), p. 44. Available at: https://www.climatelinks.org/sites/default/files/asset/document/2020_USAID-ATLAS-Project_Lessons-learned-from-resilience-and-peacebuilding-in-the-Horn-of-Africa.pdf.

[253] Those involved in cross-border projects noted that there tends to be higher planning, project design, staffing, administrative, and start-up costs to cross-border projects, making them a much bigger undertaking, and harder to successfully execute on time, and on budget. For example, the evaluation report for the project PBF/IRF-180-181-182 (Burkina Faso, Niger, Mali) found cross-border dimensions made it much harder to carry out activities, monitor activities, and develop project synergies, but identified few positive results for these costs. Similar issues of high transaction costs and complexity have been identified in other PBF reviews. PBF, *Mid-Term Review of the Peacebuilding Fund Strategy 2020-2024: Background paper – Regional and Cross-border Programming* (New York: PBF, 2022), pp. 1–5. Salif Nimaga and Anne Moltès, *Final Report: Mid-Term Review* (New York: PBF, 2022) [internal draft], p. 7.

[254] Internal progress reports, for example, highlight women's growing participation in formal and informal governance in each target community. They also estimated that provision of income-generating activities in Mali and Niger increased an estimated 4000 beneficiary women's incomes by at least 60 per cent.

[255] In response to past cross-border project evaluations highlighting the complexity and high transaction costs of regional interventions, the PBF increased both the duration and the maximal funding amounts. A recent mid-term review noted that the vast majority of projects approved since 2020 exceeded $3 million in project funding, with one cross-border project in DRC and Angola awarded $5.1 million. Salif Nimaga and Anne Moltès, *Final Report: Mid-Term Review* (New York: PBF, 2022) [internal draft], pp. 1–2.

[256] Interview with UN official, MS Teams, 13 October 2022 (Interview #29).

[257] This point was broadly supported in the interviews for the Yemen case study. See also independent project evaluations for: PBF/IRF-269-268 (CAR-Chad); PBF/IRF-259 (Côte d'Ivoire); PBF/IRF-353-354-355 (and Burkina Faso, Niger, Mali).

[258] Lack of sustainability was the major concern with this material and environmental-related support, either due to lack of funds needed to maintain infrastructure and equipment or whether any improvements in community usage patterns could be maintained. This finding was raised in the Yemen case study, and was also noted in independent project evaluations for: PBF/IRF-269-268 (CAR-Chad); PBF/IRF-259 (Côte d'Ivoire); and PBF/IRF-353-354-355 (Burkina Faso-Niger-Mali).

[259] See, e.g., Yemen case study; independent evaluation for PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali); evaluation report for PBF/IRF-260 (Mali).

[260] While still noting some achievements, the project evaluations of projects in Mali, Chad, Burkina Faso, Niger, and others in more volatile areas tended to note more issues in both organizing dialogues and in satisfaction about the effects. There were also more frequent issues in implementing community dialogue or exchange issues in cross-border projects. By contrast, those interviewed who were involved in implementing similar components in more stable and more cohesive community settings – for example, in Sierra Leone, Côte d'Ivoire, The Gambia, and Guinea – suggested fewer obstacles to completion and tended to report stronger effects. As an illustration of the latter, see October 2022 Progress Report for PBF/GMB/B-2 (The Gambia).

[261] USAID, *Pathways to Peace Series: Addressing Conflict and Strengthening Stability in a Changing Climate - Lessons Learned from the Peace Centers for Climate and Social Resilience Project* (Washington, DC: USAID, 2019) p. 15. Available at: https://www.climatelinks.org/sites/default/files/asset/document/2020_USAID-ATLAS-Project_Lessons-learned-from-resilience-and-peacebuilding-in-the-Horn-of-Africa.pdf.

[262] Ibid, pp. 15–18.

[263] For example, PBF/GMB/B-2 (The Gambia) supported various alternative or sustainable livelihood projects for women, working with women who had only relied on subsistence agriculture to develop skills and receive starter funds to manufacture reusable menstrual pads and initiate beekeeping and honey production. Those interviewed who oversaw the projects thought there was some immediate traction and promise but offered that it would take several years to see if women fully made the transition to these alternative livelihoods and found it supportable (in part because although the project offered starter funds, it would still take substantial investment on their part). Interview with project coordinator, MS Teams, 8 September 2022 (Interview #21).

[264] PBF/TCD/A-1 (Chad) evaluation, p. 19. Similar results were noted in the review of livelihood components in the Nigeria 273 evaluation report.

[265] Some projects tried to introduce metrics such as number of conflicts reduced or resolved. In practice, these metrics were often not realized or measured, to judge by the observations in multiple independent evaluations. Several practitioners interviewed critiqued this indicator and argued that it involved counting counterfactuals or segregation of collective conflict sources that was not realistic.

[266] PBF/IRF-269-268 (CAR-Chad) project evaluation (author translation).

[267] See, e.g., evaluation of PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali).

[268] It was more common to identify positive steps forward and results with regard to engaging local officials. Where they were present (not always the case in insecure locations), they frequently appeared to welcome opportunities to engage on these issues. An example of this can be seen in the independent evaluation for PBF/TCD/A-1, which commended "synergy with the state" as a best practice, and observed "real collaboration between the local authorities and the beneficiaries of the project," Independent evaluation of PBF/TCD/A-1, p. 23.

[269] See, e.g., project evaluation of PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali) (author translation).

[270] See, e.g., evaluation for PBF/IRF-269-268 (CAR-Chad).

[271] Interview with PDA in the Sahel, MS Teams, 30 August 2022 (Interview #18). This point was also raised by several of those working

on cross-border projects trying to encourage inter-governmental meetings and cooperation. Some of the officials whose subject matter expertise was relevant (for example, from ministries of agriculture or environment) did not feel that they had either the mandate or expertise to engage with other government ministers, certainly not on binding compacts.

272 As noted in the Pacific Islands case study, COVID-19 border closures and travel restrictions also limited cross-country engagement in the Pacific Island project. The evaluation of the project PBF/IRF-269-268 (CAR-Chad) noted that many cross-border engagements were not possible due to deteriorating security and sanitary conditions. See also, independent evaluation for PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali).

273 Interview with PDA, MS Teams, 8 September 2022 (Interview #21).

274 Independent evaluation for PBF/TCD/A-1 (Chad) p. 23.

275 For example, the evaluation of PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali) (of which the TTT is a central element) gave examples of inter-communal conflicts prevented because of early warning, and also of individual disputes that were de-escalated (including one 'near-lynching') because of the tool. It also noted IOM's internal review finding that 200 conflicts were identified through the tool, and half of them resolved, although this appeared to be the number identified across a multi-project scope, not in this project specifically. PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali).

276 While generally praising its effects, the evaluators for the project PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali) observed that government officials in all three countries objected to the tool, seemingly at both a national and local level, and argued they were not involved enough in its mechanisms and validation. For this reason, and because community members appeared unlikely to collect the data when they were no longer paid, the evaluation cast doubt on the tool's long-term sustainability. See evaluation report of PBF/IRF-353-354-355. While efforts undertaken within the project's cost-extension tried to address issues of sustainability of the TTT, the general sustainability of project results remains moderately unlikely since many are largely dependent on external financing, the availability of which cannot be guaranteed. Ibid.

277 The evidence for this was anecdotal. As of the time of writing, nearly all of the projects testing specific climate change adaptation components were still ongoing or had not been evaluated. Even had they been, this would be one of the areas where it would be difficult to isolate the effects of awareness-raising and information vis-à-vis other project components or situational dynamics, given issues of causality.

278 For example, as part of evaluating PBF/IRF-260 (Mali), a perception survey was conducted with project beneficiaries and indirect beneficiaries. On the question of the training young people received, only "9% of stakeholders think they will be able to share the knowledge acquired with the community after the project." PBF/IRF-260 (Mali) evaluation report. By contrast, to offer an example of a more positive result, PBF/IRF-259's evaluation credited awareness raising with having a decisive effect on contributing to the community that was occupying classified forests from peacefully re-locating. PBF/IRF-259 (Côte d'Ivoire) evaluation report, p. 15.

279 The literature on the gender-climate-nexus has been more focused on identifying particular gendered effects or opportunities within climate-security contexts, rather than on programming application. See, e.g., Elizabeth Smith, "Gender Dimensions of Climate Insecurity," SIPRI insights, March 2022, https://www.sipri.org/sites/default/files/2022-03/sipriinsight2204_gender_dimensions_of_climate_insecurity.pdf; DCAF, *Women Speak: The Lived Nexus Between Climate, Gender and Security* (Geneva: DCAF, 2022). Available at: https://www.dcaf.ch/sites/default/files/publications/documents/WomenSpeak2022_EN.pdf. However, there have been efforts to close this gap. For example, the Knowledge Platform on Gender, Natural Resources, Climate, and Peace, is a joint initiative of the Environmental Peacebuilding Association, UNEP, UNDP, UN Women, and DPPA/PBSO. While still new, it holds the potential to be a valuable collecting point for emerging practice in this field. For more information see https://gender-nr-peace.org/.

280 On concepts of 'positive peace' in environment peacebuilding, see, e.g., Florian Krampe, "Ownership and inequalities: Exploring UNEP's environmental cooperation for peacebuilding program," *Sustainability Science* Vol 16 (2021); Florian Krampe et al., "Sustaining peace through better resource governance: Three potential mechanisms for environmental peacebuilding," *World Development*, Vol 144 (2021).

281 While overall there may be many communities in which women's inclusion in natural resource areas is less restricted, control or input over distribution and use of natural resources can be an extremely sensitive point and insufficient care could lead to certain inclusion schema putting women at greater risk. Efforts to review whether 'do no harm' considerations are being appropriately weighed might be particularly important in situations that already documented violence over natural resources, including against women. In PBF/IRF-452 (Sierra Leone), for example, the project context documented rampant theft and violence over water, including gender-based violence against women. It then proposed to address this in part by promoting women to be in charge of new community water kiosks or sources of water, as well as giving them other economic resources and means to influence water decision-making. While no violence had as yet been reported against women involved in the project, or manning the water kiosks, which was only approved in 2021, the background context suggested enough risk factors to be wary of this particular inclusion scheme.

282 Projects addressing this issue significantly included: PBF/IRF-434 (Papua New Guinea); PBF/SDN/B-1 (Sudan); PBF/GMB/B-2 (The Gambia); PBF/IRF-304 (CAR); PBF/IRF-457 (Guinea-Bissau); PBF/IRF-440 (Mali); PBF/IRF-311 (Mali); PBF/MRT/A-1 (Mauritania); PBF/CIV/A-5 (Mauritania).

283 Project documents for PBF/IRF-434 (Papua New Guinea), p. 8.

284 The initiative was started in 2016 and its results included a series of conferences, a large-scale report, as well as pilot projects. See: "Women, Natural Resources, and Peace," UNEP, last accessed 22 February 2023, https://www.unep.org/explore-topics/disasters-conflicts/what-we-do/environment-security/women-natural-resources-and; "Gender-Responsive Natural Resource Management for Peacebuilding," United Nations MPTF Office Partners Gateway, last accessed 27 February 2023, https://mptf.undp.org/fund/jxd00; UNEP et al., *Gender, Climate & Security*, 2020.

285 As one of the programme reports from the pilot noted, "Through the project, women for the first time led dialogue forums to encourage conversations between farmers and pastoralists on natural resources and how to find solutions on the most pressing environmental problems. Following its end, they are now systematically included as part of all conflict mediation processes and Jodeya meetings." "Empowering women on the frontlines of climate change," UNEP, 8 March 2019, https://www.unep.org/fr/node/24522.

286 Interview with project teams, UN officials, MS-Teams, August and September 2022 (Interviews #20, #19, #16). Several other

PBF-funded projects also pointed to the results of the North Kordofan pilot as a model, including PBF/GMB/B-2 (The Gambia).

287 The project documents for PBF/IRF-434 (Papua New Guinea) cited "extant evidence that suggests increased participation of women in local leadership leads to better outcomes in terms of conservation and sustainability." The evidence provided pointed to a recent survey of priorities in Papua New Guinea, which did not quite appear to fully support the point, which is perhaps why the evidence was described as "extant". A project document for PBF/GMB/B-2 (The Gambia:) noted that its project design was modelled partly after the North Kordofan experience, as well as other pilot projects in Ethiopia, DRC, Iran, Afghanistan, and Senegal that explored "opportunities for gender transformation interventions" within the climate-security space. Project documemt, GMB/B-2 (The Gambia), p. 9.

288 USAID, *Pathways to Peace Series: Addressing Conflict and Strengthening Stability in a Changing Climate - Lessons Learned from the Peace Centers for Climate and Social Resilience Project* (Washington, DC: USAID, 2019), p. 15. Available at: https://www.climatelinks.org/sites/default/files/asset/document/2020_USAID-ATLAS-Project_Lessons-learned-from-resilience-and-peacebuilding-in-the-Horn-of-Africa.pdf.

289 Interview with UN official, MS Teams, 31 August 2022 (Interview #19).

290 Among the climate-security projects, this included: PBF/IRF-202 (Yemen); PBF/IRF-256 (Yemen); PBF/IRF-433 (Somalia); PBF/IRF-452 (Sierra Leone). Non-climate-security projects which also framed women or youth as 'change agents' were: PBF/IRF-259 (Côte d'Ivoire); PBF/IRF-472 (Solomon Islands); PBF/IRF-442-443 (Kyrgyzstan, Uzbekistan); PBF/IRF-313 (Sri Lanka).

291 PBF/IRF-259 (Côte d'Ivoire) is not classified as one of the climate-security projects, but nonetheless offers a relevant example here on the question of this Theory of Change. It is also worth noting that it was one of the more difficult projects to classify as a climate-security project or not. It focuses on the issue of protected forests, which were threatened by demographic and livelihood changes. There is no mention of a climate change threat in the project in question.

292 Interview with gender and climate expert, MS Teams, 3 August 2022 (Interview #12). Interview with gender and climate security expert, 11 January 2023.

293 Examples of these projects, mostly in the CS subset but also including a few from the larger sample: would be: PBF/IRF-461 (Columbia); IRF-457 (Guinea-Bissau); COL/C-2 (Colombia); IRF-383 (Solomon Islands); IRF-457 (Guinea-Bissau); IRF-440 (Mali); IRF-452 (Sierra Leone); IRF-160 (Liberia). Even some that used slightly more climate-related language, like IRF-351-352 (Mali-Niger), in many cases failed to make a full link or establish the synergies of how this climate- or environmental-related link fed into what overall felt like core WPS objectives and project modalities.

294 The project PBF/IRF-461 (Colombia), which focuses on protection and economic empowerment for women in rural and conflict-affected regions of Colombia, is a strong example of this. The project document is replete with language on climate change. But when those involved in projects in Colombia were interviewed, they did not even mention it as one of their core climate-security projects. It was fundamentally intended to be a women's empowerment project, but in a country context in which environmental themes were highly relevant. Interview with PBF focal point and monitoring staff member, 25 August 2022 (Interview #17). This made it difficult to categorize. Ultimately, the language related to climate change was so strong, across the project contextualization, in activities, and in core components, that it was hard not to include it in the climate-security subset.

295 Interview with gender and climate expert, MS Teams, 3 August 2022 (Interview #12).

296 PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali) evaluation report. Although less oblique in their findings, this also appeared to be the conclusion at least in part from the evaluations for PBF/IRF-260 and PBF/IRF-311 (both in Mali) which cited statistics of women and girls' participation according to set benchmarks or quotas, but nonetheless seemed to find only implicit or unstated effects. PBF/IRF-311 only noted that "it emerged that there was some added value" of this gender participation in terms of effects.

297 Katharina Merkel, *Thematic Review on Gender-Responsive Peacebuilding* (New York: PBSO, 2021), p. 7. Available at: https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/gender_thematic_review_2021_23_nov.pdf.

298 Ibid, p. 37.

299 Ibid, p. 35.

300 Higher marks were given for youth inclusion in conflict resolution. Evaluation of PBF/IRF-260 (Mali).

301 George Conway, "On peace, security and climate finance at COP26," UNDP Blog, 12 November 2021, https://www.undp.org/blog/peace-security-and-climate-finance-cop26.

302 UNDP, *Climate Finance for Sustaining Peace: Making Climate Finance Work for Conflict-Affected and Fragile Contexts* (New York: UNDP, 2021). Available at: https://www.undp.org/publications/climate-finance-sustaining-peace-making-climate-finance-work-conflict-affected-and-fragile-contexts.

303 More than two-thirds of GEF recipients (61 countries) since 1991 had projects proposed and implemented while armed conflict was ongoing somewhere in the country. Ibid, p. 6, citing Rosina Bierbaum and Annete Cowie, *Integration: to solve complex environmental problems* (Washington, DC: Scientific and Technical Advisory Panel to the Global Environment Facility, 2018), p. 104. Available at: https://www.thegef.org/council-meeting-documents/report-scientific-and-technical-advisory-panel-0.Another 2021 study focused on GEF found that 88 per cent of its country-level projects occurred in fragile environments – some $4 billion in investments in countries affected by major armed conflicts since July 2020 alone. Carl Bruch, *Effects of Conflict and Fragility for GEF Projects* (Washington, DC: GEF, 2021). Available at: https://www.gefieo.org/sites/default/files/documents/fragility-2020-bruch-ppt.pdf

304 Yue Cao et al., *Synthesis report: Exploring the conflict blind spots in climate adaptation finance* (New York: UNDP, 2021).

305 Interview with implementing agency, MS Teams, 23 August 2022 (Interview #15).

306 Interview with UN official, MS Teams, 24 August 2022 (Interview #16).

307 Internal guidance on 'PBF Terms and Definitions,' provided by PBSO, at p. 2 (on file with authors).

308 The second (of two) project locations changed from Hudaydah Governorate in the north to Hadramawt Governorate in the far west of Yemen. The change was significant – Hadramawt has a completely different governing authority, ecological profile and water issues, and local peacebuilding dynamics.

309 Independent evaluation for PBF/IRF-269-268 (CAR-Chad), pp. 20–21.

310 Interview with UN official, MS Teams, 20 September 2022 (Interview #24).

311 Internal guidance on 'PBF Terms and Definitions,' provided by PBSO (on file with authors).

312 Salif Nimaga and Anne Moltès, *Final Report: Mid-Term Review* (New York: PBF, 2022) [internal draft], p. 7.

313 Interview with a UN official, 20 July 2022 (Interview #10).

314 Ibid. The same interviewee also expanded on these thoughts, as follows: "Overall the peace and security community has been closed to any issues that they would consider developmental in nature. But since then, they've come way further in integrating environment and climate into peace issues… arguably farther than the environmental world has come in integrating conflict sensitivity."

315 More generally, the PBSO has been ascribed a 'hinge' role, "acting as a hinge to various parts of the UN political, development and humanitarian system" ("Peacebuilding Fund Objectives," United Nations MPTF Office Partners Gateway). As the Secretary-General noted in 2018, the PBSO will function as a 'hinge' between the peace and security pillar and the other pillars and with the humanitarian community. It will be responsible for connecting relevant tools and approaches across the conflict spectrum, drawing together the expertise of the United Nations system to facilitate coherent system-wide action, and for strengthening partnerships within and beyond the United Nations. In the context of PBSO's climate, peace, and security work, its ability to act as a 'conversation starter' and convenor of climate-security policy and practitioner debates might also be seen at least in part on fulfilling this role. United Nations General Assembly/Security Council, *Peacebuilding and sustaining peace* (New York: United Nations, 2018), p. 5, A/72/707-S/2018/43. Available at: https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/a_72_707_s_2018_43.pdf.

316 Inputs provided by the PBSO's PBC Support Branch staff during the review of this thematic review's draft report. A more elaborate document regarding the PBC's engagements in 2022 on climate-security is being drafted by the DPPA and CSM.

317 Interview with UN official, MS Teams, 8 September 2022 (Interview #21).

318 Interview with UN official, MS Teams, 31 August 2022 (Interview #19).

319 Interview with implementing agency, MS Teams, 23 August 2022 (Interview #15).

320 Interview with UN official, MS Teams, 29 June 2022 (Interview #6).

321 Interview with climate advisor, MS Teams, 8 August 2022 (Interview #13).

322 Interview with UN official, MS Teams, 20 July 2022 (Interview #10).

323 Interview with PDA, MS Teams, 24 August 2022 (Interview #16); Interview with FAO staff member, MS Teams, 23 August 2022 (Interview #15); PBF/IRF-273 (Nigeria) evaluation report (noting uptake of the project model into a $5 million program by Japan).

324 Further concrete examples were not discernible from the progress reports reviewed, although these do include questions that might allow for reporting on further take-up. It is very likely that in many cases, further project funding was not known at the time that progress reports were completed.

325 Two projects in Colombia, one in the 74 project sample and another raised by PBSO colleagues as relevant to environmental programming, fall into this category. PBF-COL-C-2 (Colombia) sought to leverage private sector investment in carbon emissions offset as a way to both improve development prospects and peace dividends, and ensure environmental protection in the most conflict-affected communities. PBF/BDI/C-1 (Burundi) also has a REDD+ strategy aimed at reducing drivers of deforestation and accessing carbon markets.

326 Interview with PBF focal point and monitoring staff member, 25 August 2022 (Interview #17).

327 Interview with PDA, MS Teams, 29 June 2022 (Interview #6). According to the same PDA, the workshop in question was organized by DPPA and UNDP and hosted by Folke Bernadotte Academy (FBA).

328 See, e.g., PBF, *Guidance Note on Theory of Change* (New York: PBF, 2021). Available at: https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/pbf_toc_guidance_note_2021_en.pdf.

329 Ibid, p. 4.

330 The four were the final evaluations for: PBF/GMB/B-1 (The Gambia); and among the climate-security-relevant projects, PBF/IRF-269-268 (CAR-Chad); PBF/TCD/A-1 (Chad); and PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali). The evaluation of PBF/IRF-193 (Solomon Islands) did critique the Theory of Change in that project, but largely based on the premise that the assumptions were misguided and too ambitious from the outset, rather than finding that the Theory of Change had not proved itself in practice.

331 The independent evaluation for PBF/IRF-353-354-355 (Burkina Faso, Niger and Mali) for example, noted that much of the regular monitoring information that was proposed at the start of the project was "not fully deployed," that the final study on achievement of results was not carried out, and that the proposed perception study was only carried out in Burkina Faso. Independent evaluation of PBF/IRF-353-354-355 (Burkina Faso, Niger, Mali) (translated).

332 They counted the number of participants (and the percentage of youth or gender within that) or the number of dialogue or committee sessions held, but rarely any evaluation of how this contributed to change. Some proposed metrics such as the number of conflicts resolved or the number that had arisen but in practice they failed to collect this data. See, e.g., the evaluation reports for: PBF/IRF-259 (Côte d'Ivoire); PBF/BFA/A-1 (Burkina Faso); PBF/IRF-260 (Mali); and PBF/IRF-311 (Mali).

333 Interview with international environmental consultant, Zoom, 3 August 2022 (Interview #11); Interview with UN official, MS Teams, 13 October 2022 (Interview #29).

334 Interview with international environmental consultant, 3 August 2022, via Zoom (Interview #11); Interview with UN official, MS Teams, 13 October 2022 (Interview #29). For further literature on these approaches, see, e.g., Florian Krampe, "Water for peace? Post-conflict water resource management in Kosovo, *Cooperation and Conflict,*" *Cooperation and Conflict* Vol 52, Issue 2 (2016); Marina Djernaes, Teis Jorgensen, and Elizabeth Koch-Ya'ari, "Evaluation of Environmental Peacekmaking Intervention strategies in Jordan-Palestine-Israel," *Journal of Peacebuilding & Development*, Vol 10 Issue 2 (2015): 74–80.

335 The exact number of projects taken up by other donors was not available in any project information reviewed, and follow-up inquiries with staff who noted such take-up did not yield exact details or verifiable examples.

[336] For example, the project documents for PBF/IRF-461 (Colombia) frequently mentioned the effects of climate change and tried to link the project outcomes to environmental protection and climate mitigation. However, on follow-up interviews, the PBF coordinators overseeing it noted surprise at it being considered in a climate-security study. Interview with PBF focal point and monitoring staff member, 25 August 2022 (Interview #17). Given the number of climatic references, it was difficult to fully dismiss this as a 'climate-security' project and so it remains in the larger subset of climate-security projects, but illustrates the ambiguity in some of these categorizations.

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