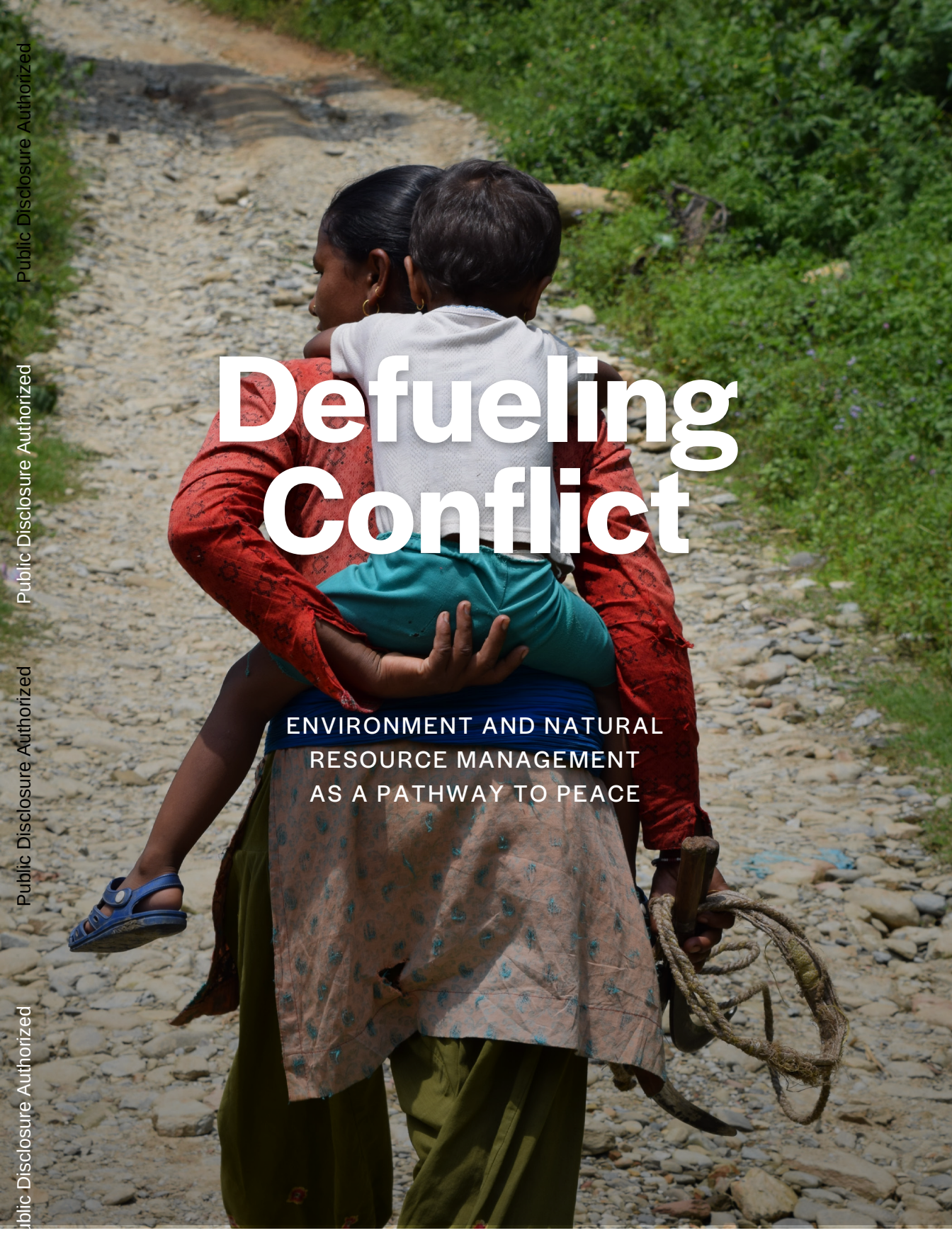

Defueling Conflict

ENVIRONMENT AND NATURAL RESOURCE MANAGEMENT AS A PATHWAY TO PEACE

WORLD BANK GROUP

SPF STATE AND PEACEBUILDING FUND

Defueling Conflict

Environment and Natural Resource Management as a Pathway to Peace

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Cover photo: Shaadee Ahmadnia / World Bank.
Cover photo depicts a woman walking an uphill path in rural Nepal while carrying a child on her back with one hand and a sickle in the other.
Cover design: Sergio Andres Moreno Tellez

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Abbreviations

ACLED	Armed Conflict Location and Event Project Database
AFOLU	Agriculture, Forestry, and Other Land Use
ASA	Advisory Service and Analytics
CCALM	Communal Climate Action and Landscape Management
CCDR	Country Climate and Development Report
CDD	Community-Driven Development
CDM	Clean Development Mechanisms
CEN	Country Engagement Note
CMU	Country Management Unit
CPF	Country Partnership Framework
CPIA	Country Policy and Institutional Assessment
DDR	Disarmament, Demobilization, and Reintegration
DFWMP	Decentralized Forest and Woodland Management Project
DGM	Dedicated Grant Mechanism
DRM	Disaster Risk Management
ENB	Environment, Natural Resources, and Blue Economy
ESF	Environment and Social Framework
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization
FARC	Revolutionary Armed Forces of Colombia
FCPF	Forest Carbon Partnership Facility
FCS	fragile and conflict-affected situations
FCV	fragility, conflict, and violence
FOLUR	Food Systems, Land Use, and Restoration Impact Program
GBV	gender-based violence
GDP	Gross Domestic Product
GEF	Global Environment Facility
GFDRR	Global Facility for Disaster Reduction and Recovery
GP	Global Practice
ICRC	International Committee of the Red Cross
ICT	information and communication technologies
IDA	International Development Association
IDPS	Internally Displaced Persons
IDMC	International Displacement Monitoring Center
IEG	Independent Evaluation Group
IEO	Independent Evaluation Office
IFPRI	International Food Policy Research Institute
IFRC	International Federation of Red Cross and Red Crescent Societies
IGCP	International Gorilla Conservation Program
IIED	International Institute for Environment and Development
INVEST	Integrated Valuation of Ecosystem Services and Tradeoffs

IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPL	Inclusion and Peace Lens
IPV	intimate partner violence
LGBTQ+	lesbian, gay, bisexual, transgender, queer, plus
M&E	monitoring and evaluation
MIONJO	Support for Resilient Livelihoods in the South of Madagascar Project
NATO	North Atlantic Treaty Association
NGO	non-governmental organization
NRM	natural resource management
OECD	Organization for Economic Co-operation and Development
OP	Operational Policy
PBSO	Peacebuilding Support Office
PDO	Project Development Objective
PRA	Prevention and Resilience Allocation
PRODERMO	Rural Community Development and Water Mobilization Project
REDD+	Reducing Emissions from Deforestation and Degradation
RRA	Risk and Resilience Assessment
SAWAP	Sahel and West Africa Program
SCD	Systematic Country Diagnostic
SFISH	Sustainable Fisheries Development in the Red Sea and Gulf of Aden
SIMCI	United Nations Office on Drugs and Crime Integrated Illicit Crops Monitoring System
SLM	sustainable land management
SLMP	Ethiopia Sustainable Land Management Project
SOGI	Gender and Sexual Orientation and Gender Identity
SSI	Social Sustainability and Inclusion
STAP	Scientific and Technical Advisory Panel
UCDP	Uppsala Conflict Data Project
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Program
UNHCR	United Nations High Commissioner for Refugees
UN-IFTPA	United Nations Interagency Framework Team for Preventative Action
UNOPS	United Nations Office for Project Services
USAID	United States Agency for International Development
VIEWS	Uppsala Violence Early Warning System
WBG	World Bank Group
WFP	World Food Programme

All dollars are U.S. dollars.

Foreword

Natural resources management can be a powerful driver of fragility and conflict or a critical tool for peacebuilding. Protracted, cross-border, and compounded transnational challenges such as climate change, resource scarcity, pandemics, rising inequality, illicit financial flows, organized crime, and violent extremism threaten communities around the globe. How natural resources are managed can compound each of these challenges. The results are wide-ranging, from disputed rights to water and land, to unstable economies following climate-related disasters, to inequalities between those that extract resources and those that profit from them, leaving communities with little but disease and degraded lands. Yet the ways that natural resource management can reduce conflict, violence, and fragility range just as widely, with opportunities to grow economic empowerment, sustainability, equality, and governance.

Addressing the underlying drivers of some of the world's most protracted crises is critical to meeting the World Bank's goals of reducing global poverty and improving shared prosperity in a sustainable manner. These goals are not the only ones that rely on lasting solutions to complex conflict: Sustainable Development Goal (SDG) 16 calls for just and sustainable development and highlights that no one of the SDGs will be achieved unless violence and fragility are addressed.

Defueling Conflict: Environment and Natural Resource Management as a Pathway to Peace, made possible through the State and Peacebuilding Fund, makes a strong case for the World Bank Group to scale up investments in environmental conservation, sustainable natural resource management, and climate change resilience to strengthen areas affected by fragility, violence, and conflict. By taking a hard look at how the WBG engages in investment operations in fragile, violence, and conflict-affected situations, the report makes clear the need to mainstream conflict sensitivity across current and planned environment operations, and in a manner that appropriately identifies and addresses the linkages between conflict, fragility, gender, and natural resources.

There is much to be done by the WBG and international actors as fragile and conflict situations emerge and evolve globally. So too must national and local governments and communities shift their own strategies to address old and new challenges. Through the tools and findings highlighted in this report, stakeholders can better build a comprehensive and strategic vision to address natural resource management as a pathway for sustainable peace.

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The report benefitted from the work produced by academia and humanitarian spheres that have been exploring the connections between natural resource management, fragility, conflict, and peacebuilding in depth for more than a decade, and the development actors that have been translating research into action. The team thanks Carl Bruch and Amanda Susan Woomer for their scholarship and roles convening the environmental peacebuilding community, bridging theory with practice. Special thanks to the following institutions for the research, policies, toolkits, lessons learned, and dialogue that have shaped this work: the Global Environment Facility, Hague Centre for Strategic Studies, Somali Greenpeace Association, Geneva Centre for Security Sector Governance, International Committee of the Red Cross, Geneva Peacebuilding Platform, Conservation International, Stockholm International Peace Research Institute, Adelphi, Environmental Peacebuilding Association, United States Agency for International Development, Mercy Corps, United States Institute of Peace, United Nations Entity for Gender Equality and the Empowerment of Women, United Nations Environment Programme, the United Nations Executive Committee on Humanitarian Affairs, United Nations Development Group, and the Environmental Law Institute. The following individuals provided key insights to the gender dimensions of this work: Jennifer Grosman Fernández (United States Department of State), Clara Chiu (Georgetown Institute for Women, Peace, and Security), Molly Kellog (United Nations Environment Programme), Silja Halle (United Nations Environment Programme), and Zainab Mai-Bornu (University of Leicester). The team also wishes to acknowledge the important work of Sandra Ruckstuhl on conflict sensitivity during her time at the Bank and more currently with the International Water Management Institute.

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Executive Summary

Background, Context, and Approach

Fragile and conflict-affected situations (FCS), environmental degradation, and natural disasters are on the rise and threaten to reverse development gains. In the past decade, violent civil conflicts have tripled and the number of people living in proximity to conflict has nearly doubled, with forced displacement at a record high.

The World Bank Group (WBG) Strategy for Fragility, Conflict, and Violence (FCV) 2020–2025 marks a shift in the World Bank's work in fragile and conflict situations, as it adopts a more holistic approach to prevention. The Strategy seeks to enhance the World Bank Group's effectiveness in supporting countries' efforts to address the drivers and impacts of FCV and strengthen their resilience, especially for their most vulnerable and marginalized populations. The FCV Strategy explicitly recognizes the importance of climate change as a driver of FCV and as a threat multiplier, as well as the need to address the environmental impacts and drivers of FCV. Delivering on this shift toward preventing conflict underscores the importance of understanding the role the environment and natural resources can have.

The report *Defueling Conflict: Environment and Natural Resource Management as a Pathway to Peace* seeks to build a strong narrative on the need for the World Bank Group to engage and invest in environment, natural resource management, and climate change resilience in FCV-affected situations. It further aims at facilitating the integration of a conflict-sensitive lens into World Bank operations and programs addressing natural resource degradation and climate change.

To meet these objectives, the report seeks to:

- Clarify environment-conflict linkages and entry points in light of the FCV Strategy and enhance awareness on how environmental interventions may interact with conflict.
- Serve as a general resource for World Bank teams to empower their programs in FCV.
- Present a broad suite of options to improve conflict-sensitive design and implementation.
- Influence high-level policy and programs on FCV to consider natural resources more systematically.

To this end, the report offers a compendium of concise but detailed information incorporating essential guidance, reference material, and analytical tools for a broad audience with a wide range of technical expertise. The document is suitable for World Bank project teams across different Global Practices, as well as external readers with different ranges of expertise.

The report is divided into six sections:

SECTION 1 sets the Background, Context, and Approach, as laid out above.

SECTION 2 describes the risks associated with the interplay between natural resources, climate change, fragility, and conflict across the conflict cycle.

SECTION 3 connects those causal chains to the delivery of the FCV Strategy across its four pillars.

SECTION 4 showcases a suite of options to improve conflict-sensitive project design and implementation.

SECTION 5 presents an annotated questionnaire that serves as a complementary tool to the report.

Natural Resources, Climate Change, Fragility, and Conflict Risks and Linkages

Fragility and conflict are rarely caused by a single driver. Instead, they are often the result of multiple, interacting, and compounding factors. At the same time, weak governance and lack of resilience in FCS can trigger conflict, which further exacerbates factors of fragility. Section 2 of the report breaks down FCV challenges, and elucidates the relationships, trends, and knock-on impacts between FCV and environment.

DIRECT IMPACTS: Violent conflict can drive natural habitat loss and render significant, consistently negative effects on biodiversity. For instance, conflict is the most important predictor of wildlife decline for large-mammal populations in Africa from 1946 to 2010, while environmental crime is the largest financial driver of conflict.

INDIRECT IMPACTS: Military priorities, an urgent need for cash, and weak negotiating power often push nations into unfavorable resource contracts. The rapidly changing security situation lends itself to short-term coping strategies as opposed to sustainable, long-term resource management and use, including at the household level. Adding to this uncertainty is the threat to tenure security: for example, land records were destroyed over the course of conflicts in Yugoslavia, Timor-Leste, Cambodia, and Afghanistan.

POST-CONFLICT: Once conflict ends, there is opportunity to transform and (re)build systems that, otherwise, may be politically difficult. Capitalizing on opportunities is especially important if natural resources triggered the conflict or threaten the prospects for peace. Natural resources are further vulnerable to exploitation in the post-conflict period.

CAUSAL CHAIN IMPACTS: The environment rarely causes conflict directly but can exacerbate existing social, economic, and political challenges and stressors in FCS contexts – and eventually lead to violence. Whether increased competition over natural resources escalates into conflict depends on several risk factors, such as high natural resource dependence, inequality and marginalization, and a recent history of conflict. Each risk factor is exacerbated by climate change.

GENDER, CONFLICT, AND ENVIRONMENT: Conflict and environmental vulnerabilities disproportionally affect women, girls, and other marginalized groups. Structural gender inequalities, discriminatory laws, and adverse gender norms put them at a further disadvantage to cope with conflict and climate-related shocks because they lack equal access to and control over land, property, and other assets. The conflict-gender-environment nexus also increases the risk of gender-based violence. The gendered implications of conflict are therefore a critical factor to consider in operations and peacebuilding.

TYPOLOGIES OF RISKS AND DRIVERS: There are different ways to classify and understand the environmental risks and drivers of conflict, including: (i) scarcity- vs. abundance-driven conflict, (ii) risks and drivers by natural resource category (non-renewable resources, renewable resources, and land), and (iii) typical risks and drivers from a changing climate.

Alignment with the WBG's FCV Strategy and Entry Points

Section 3 discusses the drivers of resilience and the opportunities for World Bank engagement throughout the four pillars of the FCV Strategy: prevention, engagement during conflict, transition out of fragility, and mitigation of FCV spillovers.

The report draws attention to the potential sequence of risks and opportunities, while emphasizing the entry points are dynamic and change throughout the conflict cycle.

Natural resources can be a valuable entry point for dialogue and confidence-building between divided groups to work toward a common goal with multiple benefits (i.e., peace dividends) as part of prevention efforts (Pillar I). Effective natural resource management supports the stability of the economy at the national and local levels and can be used to enable productive, sustainable, and rewarding livelihoods.

Environmental and natural resources are also a relevant factor during conflict (Pillar II), when the humanitarian stakes are high. Natural resources can encourage stakeholders to consider long-term time horizons on issues that transcend political boundaries and that may be less politically charged than others.

In the transition out of fragility (Pillar III), natural resources/environment can be further at the core of efforts to diversify the economy, mobilize financing, and engage formal and informal sectors to revitalize rural livelihoods. There are also job creation and food security opportunities in reforestation, rehabilitation of ecosystems, renewable energy programs, green jobs, agriculture, community forestry, sustainable fisheries, etc. At the macro level, water and other natural resources are key for the provision of basic services, while at the micro level, effective and sustainable management is key for achieving water security, food security, and access to agricultural inputs post-conflict.

The effects of FCV are not limited to countries in active conflict but are broadly felt, as reflected in Pillar IV of the FCV Strategy. For instance, migration can exert pressure on host communities and countries and can intensify desertification, deforestation, and other forms of resource scarcity. While Pillars I-III above aim to contain the spillovers of FCV by improving community resilience through adaptation and mitigation at the local and national levels, Pillar IV advocates for immediate, concerted action to reduce global emissions.

Programmatic and Project-Level Strategies & Guiding Principles

Section 4 of *Defueling Conflict: Environment and Natural Resource Management as a Pathway to Peace* offers recommendations for programs and projects to consider the multiple dimensions of conflict – that is, to be conflict-sensitive. The starting point for conflict sensitivity is the assumption that no intervention is neutral. Conflict sensitivity enhances the understanding about the risks associated with working in FCV contexts, helps avoid exacerbating or generating conflict, and contributes to identifying opportunities to prevent violence and promote resilience.

Conflict sensitivity also means that there is no one-size-fits-all solution, since conflict drivers and dynamics vary from context to context.

This approach aligns well with the FCV Strategy, which calls for projects to adopt peace lenses and conflict filters that help identify fragility drivers and risks, and plan potential mitigating measures. Having dedicated financial resources and hands-on support to project teams is the single most important factor to ensure such instruments are used correctly, according to an internal World Bank review.

Adopting a conflict-sensitive approach can also help integrate the interplay between environment and social determinants (such as gender, race, ethnicity, sexual orientation, and age) across projects in order to address the differentiated needs and impacts on various groups. Factoring in how social inclusion intersects with gender can improve the design of interventions by identifying groups affected by the gender-conflict-environment nexus.

The role of communities is also relevant under a conflict-sensitive lens. Community-Driven Development programs have been especially prominent in FCV and are among the most common operational approaches in the portfolio. Communities play an influential role in identifying and addressing risks. Real-time data to and from communities can support the transparent sharing of information, improve coordination and collective action across different scales, and serve as an early warning system.

Adaptative management is another important factor to take into account in projects and programs undertaken in FCV contexts. Because of the shifting dynamics of fragility and conflict, flexibility is essential, so that projects and programs can be adapted if security conditions worsen.

A final aspect to improve conflict sensitivity entails adopting affirmative action measures to promote gender equality. These can help advance women's participation in sustainable natural resource management and governance.

Natural Resource Management in Fragile, Conflict, and Violence-Affected Contexts: Questionnaire for Upstream Analytics and Downstream Operations

The report includes a questionnaire (Section 5) to consider the interplay between conflict, climate, and environment, along with gender and social inclusion considerations, both in upstream analytics and downstream operations.

The questionnaire is divided into two sections: (i) Situational Analysis - which is a series of macro-level guiding questions that are especially useful to help task teams and inform Risk and Resilience Assessment, Country Partnership Framework, and Systematic Country Diagnostic development at a strategic level; and (ii) Project Design – with questions that deepen the analysis and enhance the conflict sensitivity of operations.

The questionnaire is not intended as a "checklist," but as a tool to help teams ask the appropriate questions to integrate these complex dimensions in WBG projects. The questionnaire can be adapted to country and local contexts.

Select Resources for Task Teams

Section 6 contains a list of relevant internal and external resources that can be used for in-depth analysis and with the objective of producing deeper insights and guidance to support the implementation and strengthening of conflict sensitivity in environment, climate change, and natural resource management-related projects.

SECTION

1

Background, Context, and Approach

Connected Global Challenges

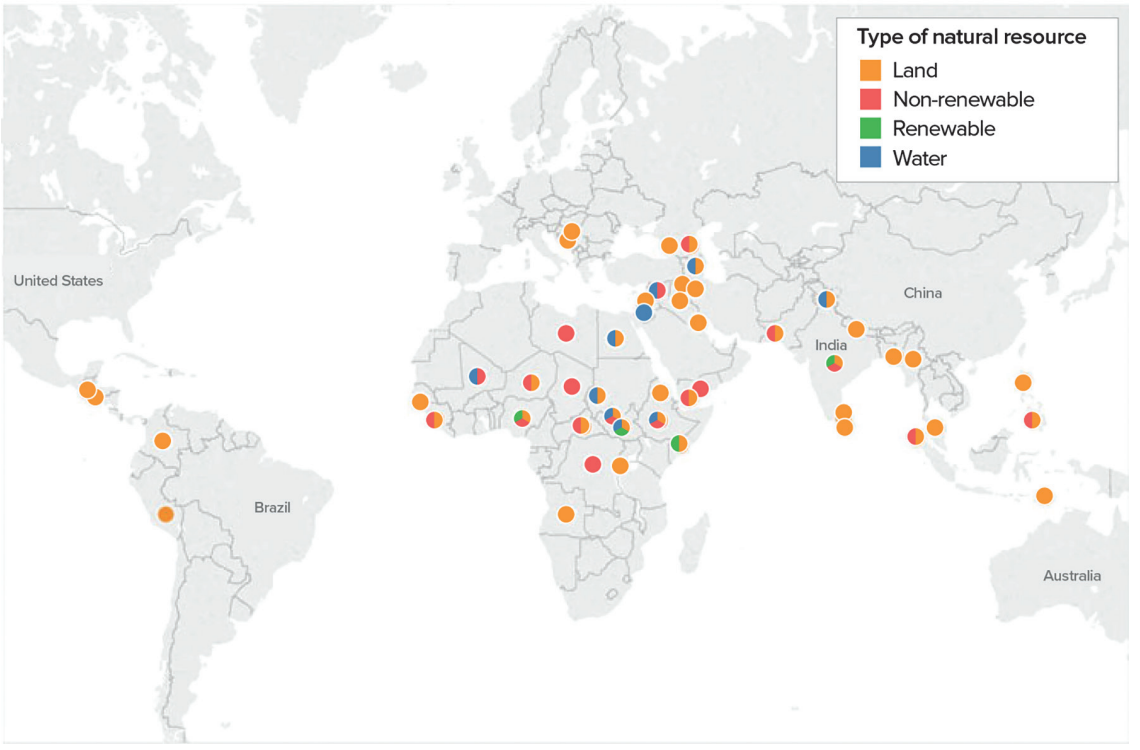
Fragile and conflict-affected situations (FCS), environmental degradation, and natural disasters are on the rise and threaten to reverse gains made toward achieving the World Bank's twin goals of ending extreme poverty and boosting shared prosperity. Although extreme poverty rates have declined globally, they have remained stagnant or risen in FCS (Corral et al. 2020). The World Bank estimates that by 2030, up to two-thirds of the global extreme poor will live in countries impacted by fragility, conflict, and violence (FCV). In the past decade, violent civil conflict has tripled (von Einsiedel et al. 2017), the number of people living in proximity to conflict has nearly doubled (Corral et al. 2020), and forced displacement is at a record high (UNHCR 2022). The increase in natural disasters and environmental degradation threatens to aggravate these fragile situations and exacerbate vulnerability in the immediate and long term. Extreme weather events such as floods, droughts, wildfires, hurricanes, and heatwaves have increased five-fold over the past 50 years (WMO 2021). Slow-onset gradual temperature increases, desertification, rising sea levels, loss of biodiversity, ocean acidification, and land and forest degradation threaten the livelihoods of resource-dependent populations globally; an estimated 80 percent of the world's poor live in rural areas and have livelihoods that depend on fast degrading natural resources (IEG 2021 citing IFAD, 2015 and World Bank, 2018). Unchecked, climate impacts could push over 130 million additional people into poverty by 2030 (Jafino et al. 2020).[1] By 2050, as many as 216 million people could become internal climate migrants across Sub-Saharan Africa, South Asia, North Africa, Latin America, and Eastern Europe and Central Asia, potentially destabilizing these regions (Clement et al. 2021).

1 Health impacts (malaria, diarrhea, and stunting) and the effect of food prices are responsible for most of the impact. The effect of food prices is the most important factor in Sub-Saharan Africa, while health effects, natural disasters, and food prices are all important in South Asia.

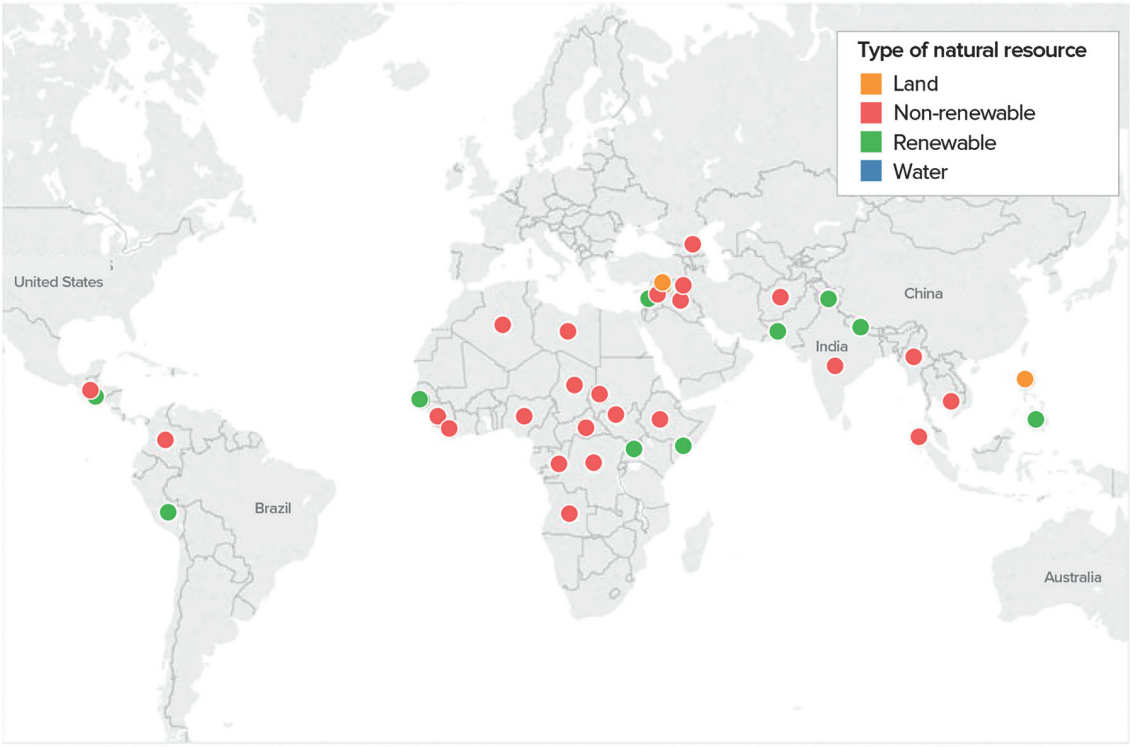
Inseparable from many conflict situations are the natural resource stocks powering many countries. In any year from 1946 to 2008, at least 40 percent of all intrastate conflicts were triggered, funded, or sustained by natural resources, and in some years, as high as 65 percent (GEF 2020 citing Rustad and Binningsbø 2010). From 2014 to 2018, natural resources were a source of contention in one in four global crises and conflicts (Schellens and Diemer 2020 citing HIIK n.d.). The maps below depict the major inter- and intrastate armed conflicts between 1990 and 2015 (over 999 battle-related deaths within one year) in which natural resources (land, non-renewable, renewable, and water) contributed to the cause of conflict (Map 1.1) and assisted in financing conflict (Map 1.2).

There is a strong correlation between vulnerability to climate change and FCV. Development, humanitarian, and security actors recognize the role of natural resources in conflicts and of climate change as a threat multiplier with the potential to increase the risk of violence and exacerbate the insecurity of vulnerable populations, especially women and girls, through competition over scarce resources, loss of livelihoods, food insecurity, and human mobility. Many of the countries that are already in crisis will experience the greatest impacts. An estimated 70 percent of the most climate-vulnerable countries are also among the most politically and economically fragile (Rüttinger 2020); 60 percent of the 20 countries most vulnerable to climate change are in conflict (ICRC 2020). Each degree Celsius rise in temperature increases interpersonal conflict by 2.4 percent and intergroup conflict by 11.3 percent (Burke, Hsiang, and Miguel 2015).

MAP 1.1 Major Inter- and Intrastate Armed Conflicts in which Natural Resources Contributed to the Cause of Conflict, 1990–2015



MAP 1.2 Major Inter- and Intrastate Armed Conflicts in which Natural Resources contributed to Financing Conflict, 1990–2015



Source: Schellens and Diemer 2020, citing Bruch et al. 2019. Reproduced with permission from author; further permission required for reuse.

Conflict-environment linkages particularly affect poor, rural communities who rely on natural resources, and in gendered ways. Rural men and women have different roles and responsibilities in natural resource management (NRM). Women, for example, are often responsible for collecting resources to meet household responsibilities. Despite a growing recognition of women's varied roles in forestry, fisheries, and other sectors, women face major gender inequalities in accessing, controlling, and using natural resources, and remain excluded from decision-making around natural resources in many cases. More broadly, men and women often have differential access to and control over key resources (e.g., land) and participate in different livelihood and economic activities. Often, women more than men are responsible for children and food security and, therefore rely on public services in different ways. They may also be more vulnerable than men to different types of violence. Women and girls are disproportionately affected by conflict and fragility and are less able to cope with environmental stress due to structural gender inequality. These differences also mean that women and men often have different knowledge of and control over natural resources. These challenges are exacerbated in places affected by FCV due to the collapse of institutions, loss of livelihoods, and increased vulnerability to gender-based violence (GBV). Importantly, these differences are not universal, rather, they vary greatly and should be assessed for each unique context.

Increasingly, more agencies, from traditionally environmental organizations to humanitarian organizations, are focusing on the interactions between the environment, conflict, and the outcomes of interventions. Institutions such as Conservation International, the International Committee of the Red Cross (ICRC), and Mercy Corps have prepared guidance on how the environment contributes to peacebuilding and stability, as well as how their operations can be more conflict-sensitive and not exacerbate tensions at the environment-conflict nexus. The United Nations Interagency Framework Team for Preventative Action (UN-IFTPA) (2020) defines conflict sensitivity as, "the capacity of an organization to (i) understand the context in which it operates; (ii) understand the interaction between the organization's interventions and the context; and (iii) act upon these understandings to avoid negative impacts (do no harm) and maximize positive impacts."[2] Since its establishment in 1991, the Global Environment Facility (GEF) has become the "largest multilateral trust fund focused on enabling countries to invest in nature, and supports the implementation of major international environmental conventions including on biodiversity, climate change, chemicals, and desertification" (GEF n.d.). The Independent Evaluation Office (IEO) of the GEF recently prepared an evaluation of its work in FCS. Of the 70 programs and projects examined in the study, the World Bank served as the implementing agency for 25 (36 percent) (GEF 2020). With the World Bank making up over one-third of the evaluation's portfolio, its insights on the key pathways by which conflict and fragility affect GEF projects and typology of conflict-sensitive GEF programming approaches are especially relevant. The GEF Secretariat agreed to all the evaluation's recommendations for improving conflict sensitivity and project success at the nexus (Box 1.1), a largely unprecedented response.[3]

BOX 1.1
Evaluation of GEF Support in FCS: Endorsement of the GEF Secretariat

Recommended Council Decision

The Council, having reviewed document GEF/E/C.59/01, Evaluation of GEF Support in FCS, and the Management Response, endorses the following recommendations:

1. The GEF Secretariat should use the project review process to provide feedback to Agencies to identify conflict and fragility-related risks to a proposed project and develop measures to mitigate those risks.
2. To improve conflict-sensitive programming while also providing flexibility to Agencies and projects, the GEF Secretariat could develop guidance for conflict-sensitive programming.
3. To improve conflict-sensitive design, implementation, monitoring, and evaluation of GEF projects, the GEF Secretariat together with the Agencies should leverage existing platforms for learning, exchange, and technical assistance.
4. The current GEF Environmental and Social Safeguards could be expanded to provide more details so that GEF projects address key conflict-sensitive considerations.
5. The GEF Secretariat could consider revising its policies and procedures so that GEF-supported projects can better adapt to rapid and substantial changes common in FCS.

Source: Excerpt from GEF 2020.

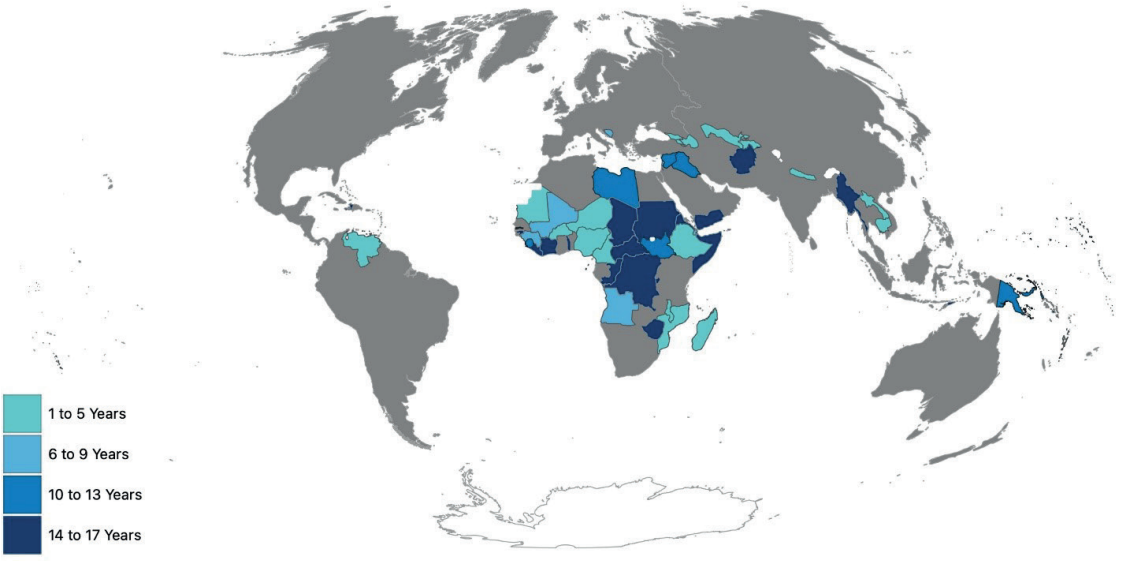
The World Bank has an advanced framework and guidance for working in FCV that reflects many of these high-level recommendations for projects and programming, but that have yet to be examined in the context of environmental interventions. The release of the World Bank Group (WBG) FCV Strategy 2020-2025 has given momentum to broader efforts at the WBG to enhance conflict sensitivity and a differentiated approach to working in FCV—such as the revised Risk and Resilience Assessment (RRA) methodology, guidelines for peace lens development, and recommendations for improving monitoring and evaluation (M&E) in uncertain contexts. However, there remains a clear opportunity to incorporate environmental considerations into these efforts and beyond as the strategy is implemented.

2 The same definition was utilized by the GEF IEO report, *Evaluation of GEF Support in Fragile and Conflict-Affected Situations* (2020).
3 Interview with evaluator.

The Evolving Role of the World Bank Group in Fragile and Conflict-Affected Situations

The World Bank has been changing its approach to working in FCS and has set out to adopt a holistic approach to prevention that goes beyond its traditional role in post-conflict recovery (World Bank 2020). Conflict has become increasingly protracted, and countries often stay trapped in cycles of fragility and violence. Overall, 80 percent of countries that were on the World Bank's annual "FCS list" in 2012 remain on it today. Map 1.3 depicts the geographical spread and number of years countries were listed as FCS. The World Bank seeks to break the cycle by scaling its focus on prevention as part of an institutional shift toward proactive risk management. This shift is supported by a strong business case—every $1 spent on prevention saves up to an average of $16 in costs associated with conflict.

MAP 1.3 Number of Years Countries were Listed as FCS on the World Bank Harmonized FCS List, 2006–2022



Source: World Bank FCS lists from FY06 to FY21.

The objective of the WBG Strategy for FCV 2020-2025 is to enhance the WBG's effectiveness in supporting countries' efforts to address the drivers and impacts of FCV and strengthen their resilience, especially for their most vulnerable and marginalized populations. The strategy articulates four overlapping, reinforcing pillars of engagement to meet this objective (Table 1.1).

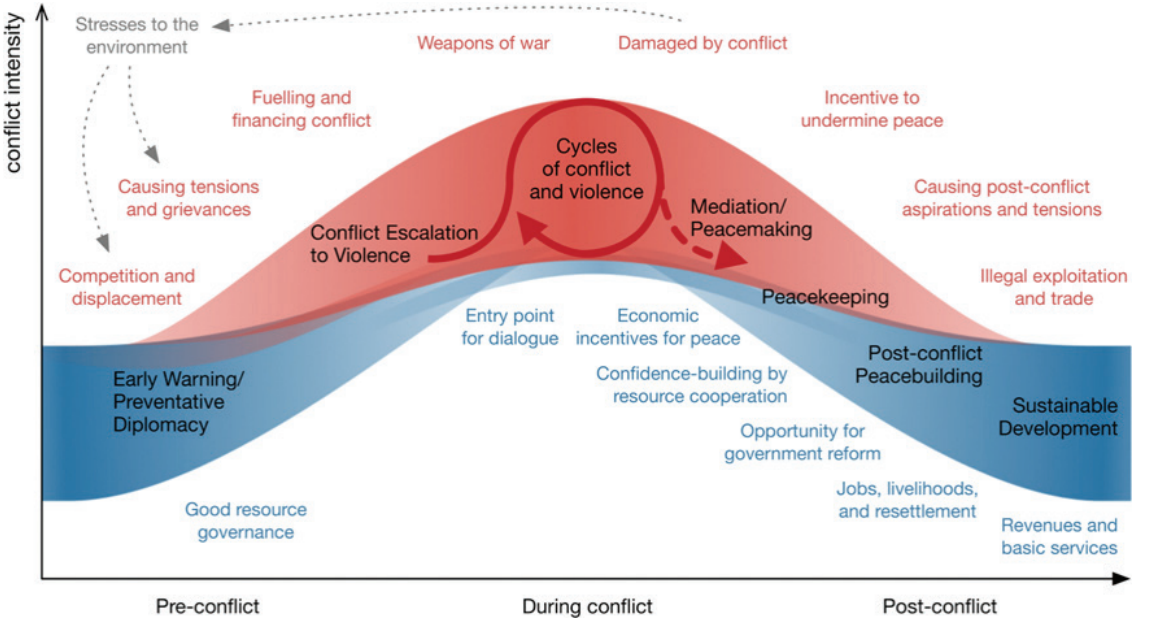
TABLE 1.1 The Four FCV Strategy 2020-2025 Pillars of Engagement and their Practical Application

FCV STRATEGY PILLAR	PRACTICAL APPLICATION
Preventing violent conflict and interpersonal violence	Tackling risks and grievances early on, and strengthening sources of resilience, before tensions turn to crises
Remaining engaged during crises and active conflicts to protect human capital and institutions	Building resilience, protecting essential institutions, and delivering critical services
Helping countries transition out of fragility	Strengthening the capacity and legitimacy of core institutions, renewing the social contract, and supporting private sector development
Mitigating the spillovers and impacts of FCV	Addressing spillovers such as forced displacement, as well as shocks resulting from climate and environmental challenges

The focus on prevention is new for the WBG and marks an institutional shift to go beyond do no harm to "do more good" in supporting the peacebuilding process.

The FCV Strategy explicitly recognizes the importance of climate change as a driver of FCV and as a threat multiplier, as well as the need to address both the environmental impacts and drivers of FCV. The strategy calls for an urgent shift from reactive to proactive, anticipatory responses to address the underlying drivers that jeopardize livelihoods and fuel conflicts, including environment- and climate-related factors. Delivering on the WBG's shift toward preventing conflict underscores the importance of understanding the role that environment and natural resources can have along these four pillars of engagement and the conflict cycle. Figure 1.1 summarizes a suite of environmental risks (above the curve, in red) and opportunities (below the curve, in blue) associated with each phase in the conflict cycle—escalation to violence, during conflict, and post-conflict recovery.

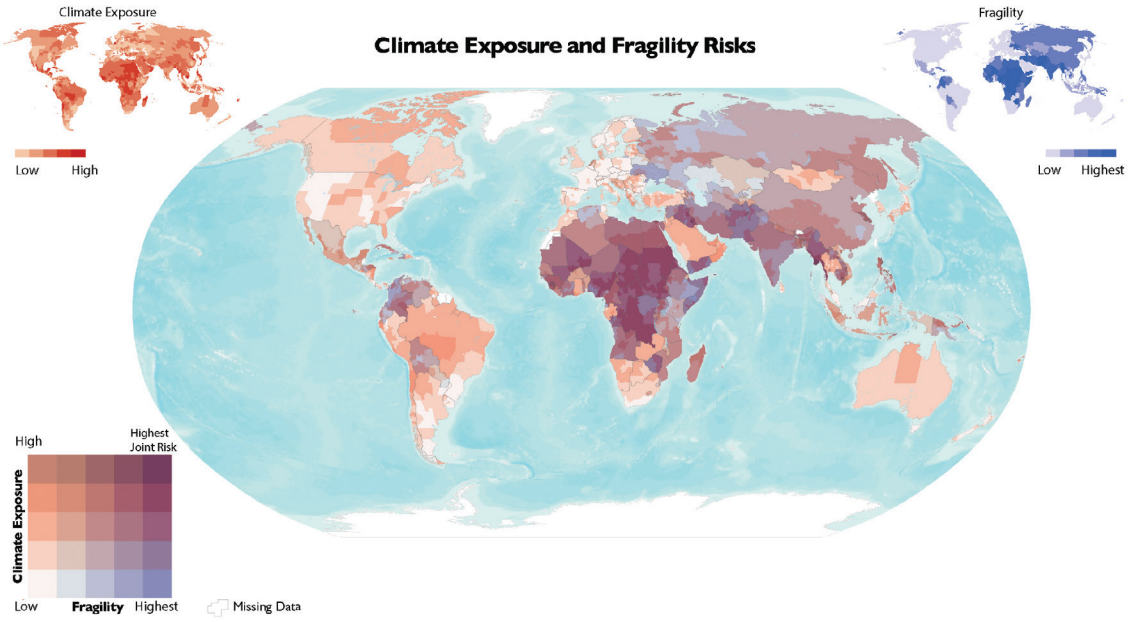
FIGURE 1.1 Environmental Risks and Opportunities Across the Conflict Life Cycle



Source: Schellens and Diemer 2020 adapting UNEP 2016. Reproduced with permission from author; further permission required for reuse.

The World Bank's orientation toward conflict prevention and climate adaptation presents a key opportunity for the many geographies where these objectives converge (Map 1.4). The World Bank is well-positioned to address critical FCV dimensions through its work with governments and communities in FCS at each stage of the conflict cycle. A conflict sensitivity lens applied throughout the various stages of project and program development and implementation contributes to key peacebuilding priorities, while also building resilience into the system and ensuring positive development and environment outcomes are sustained. Therefore, any dollar amount invested can benefit from a better understanding and a more intentional focus on the multiple FCV challenges to alleviate pressure on natural resources, which is increasingly intensified by climate variability and change.

MAP 1.4 Intersection of Global Fragility and Climate Risks



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Existing WBG corporate strategies—such as the WBG FCV Strategy (2020-2025) and the Gender Strategy (2016-2023)—have underscored that women and girls are disproportionately impacted by conflict and fragility due to systemic gender inequalities, harmful gender norms, and increased exposure to risks associated with gender-based violence. These strategies aim to close gender gaps in access to economic opportunities, assets, and human capital, and address harmful gender norms as priority areas of WBG engagement. Despite growing recognition and research on the linkages between gender, conflict, and the environment, these issues often remain siloed in development interventions, and their interplay is rarely integrated at both the strategic and

project levels. Situations of conflict and environmental vulnerability particularly exacerbate existing gender inequalities and disproportionately affect women and girls. Addressing the gender-conflict-environment nexus is, therefore, critical to achieving the sustainable development agenda of the World Bank while reducing or mitigating drivers of fragility. In the environmental and natural resources sector, implementation of the strategy has focused on addressing the health effects of household air pollution, improving women's participation in NRM, and building the capacity of women in natural resource governance, fisheries, and coastal management. In FCV settings in particular, this engagement can include advancing women's participation in NRM for conflict prevention and resolution, addressing the spillovers of FCV, such as the environmental impacts of displacement, and mitigating the gendered impacts of climate-related shocks and conflict-related environmental degradation.

Objectives

The FCV Strategy centers natural resource degradation and climate change as a driver and threat multiplier of conflict, and this documentation supports what can be done operationally and programmatically to respond to this reality. The primary objectives of *Defueling Conflict: Environment and Natural Resource Management as a Pathway to Peace* are to:

- Build a strong narrative on the need for the WBG to engage and invest in environment, NRM, and climate change resilience in FCV-affected situations.
- Strengthen the conflict sensitivity of current and planned operations in a manner that accounts for the linkages between conflict, fragility, gender, and natural resources.

The two objectives are mutually reinforcing. Strengthening the conflict sensitivity of climate change and NRM-related projects leads to more general guidance, which in turn strengthens how the WBG does this type of work and bolsters the case for further investment. The report responds to clear and pressing motivation for ensuring that a conflict-sensitive lens is adopted in development activities, and that this lens accounts for gender inequalities.

To meet these objectives, the report seeks to:

- Clarify environment-conflict linkages and entry points in light of the FCV Strategy and to better sensitize upstream and downstream staff across World Bank Global Practices (GPs) on how environmental interventions may interact with conflict—to seize opportunities, recognize and mitigate risks, and prevent negative impacts on conflict dynamics.
- Serve as a general resource for task teams to draw upon as a tool to empower their programs in FCV, especially at the direction of Country Management Units (CMUs) and other management bodies, with consideration of the respective country context. This applies to both environment projects and projects operating in the context of natural-resource conflict.
- Present a broad suite of options to improve conflict-sensitive design and implementation in the WBG, drawing from internal and external insights. The report translates the

literature and incorporates guidance outside the institution into the World Bank's existing framework, as well as consolidates and captures the work currently undertaken by the WBG and its task teams to advance environmental peacebuilding and sensitivity to the climate-conflict nexus into one strategic document. This comes at a crucial time, when the new focus on prevention makes it important to identify examples to learn from specific projects and build on successful strategies.

» Influence the FCV Strategy and Program at a higher level to consider the important role of natural resources and uphold its relevance in implementation of the FCV Strategy. There is an opportunity to build on the momentum of the FCV Strategy's implementation and mainstream the key role of NRM in corresponding documents and guidance, including the *Revised RRA Methodology Note* (2021); *How to Improve Results in FCV Environments: 12 Recommendations* (2022); good practice notes, including on peace lens development; and others. This work helps inform the implementation of these instruments within the World Bank and highlights the important linkages for other GPs, such as Agriculture, Water, Energy, Extractive Industries, and Social Sustainability and Inclusion (SSI).

Based on desk research and consultations with WBG staff and external experts, *Defueling Conflict: Environment and Natural Resource Management as a Pathway to Peace* is a compendium of concise but detailed information incorporating essential guidance, reference material, and analytical tools for a broad audience with a range of technical expertise. As climate change and NRM are cross-cutting issues, the work does not target a specific GP but rather any projects relevant to the blue, green, and brown sectors. The document is suitable for readers with different ranges of baseline knowledge to support uptake across and beyond the institution. It is designed to facilitate a shared understanding of the issues and opportunities, including for non-experts in gender, FCV specialists that are not familiar with NRM, as well as resource specialists who have not approached the management of natural assets through a conflict lens. With consideration to the needs of different readers, key messages have been summarized in a linear tabular flow for visual learners, an annotated questionnaire for experiential learners, and sections devoted to explaining how and why these dynamics and questions matter for those seeking a deeper understanding.

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SECTION

2

Natural Resources, Climate Change, Fragility, and Conflict Risks and Linkages

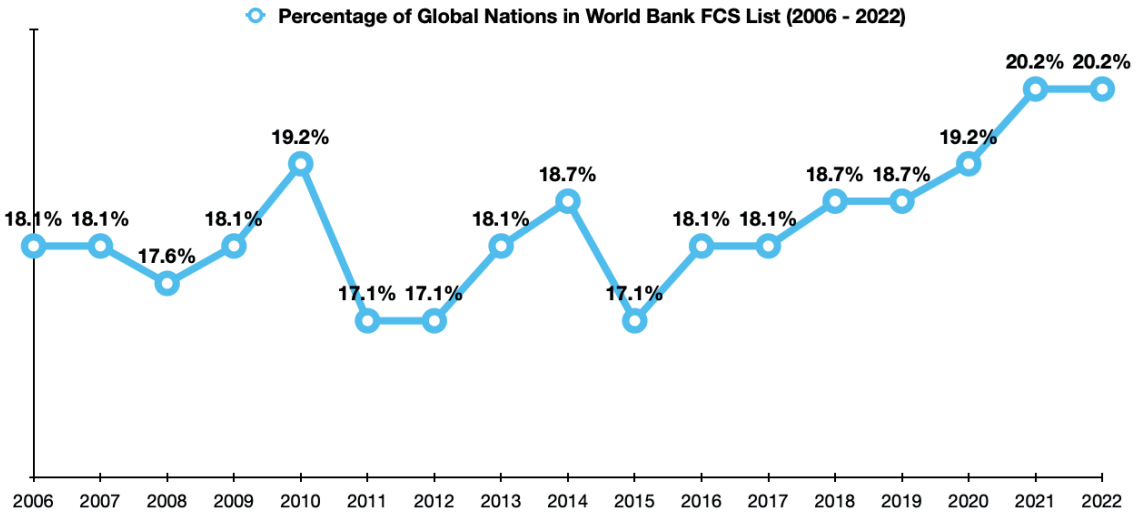
This section answers, what are the risks at the nexus of natural resources, climate change, fragility, and conflict?

- What challenges do FCV communities face? How do these challenges impact natural resources and the environment?
- In what ways do these dynamics and environmental risks change across the conflict cycle: from pre-conflict fragility to active conflict and post-conflict recovery?
- How do NRM and climate change directly and indirectly contribute to fragility and conflict? Why do high natural resource dependence, inequality and marginalization, and a recent history of conflict increase the likelihood that natural resource competition will instigate conflict?
- In FCV contexts, why does any change in natural resource values, positive or negative, have the potential to increase vulnerability or exacerbate tensions?
- What is a climate–conflict trap? How and why are FCV contexts especially vulnerable to compound climate and security risks?
- What are the major typologies of risks and drivers that can be used to understand current and potential conflicts associated with natural resources or a changing climate? How do conflict dynamics typically change between the availability and nature of a given natural resource—whether it is scarce or abundant, renewable, or non-renewable? What are the research-backed pathways through which climate change interacts with social, economic, and political factors to trigger violence?

FCV Challenges

The World Bank recognizes that the global fragility landscape has worsened (World Bank, n.d.-b). The number of FCS has been increasing steadily since the WBG's FCS list was first released in 2006 (Figure 2.1). The FCS list is a tool to help the WBG adapt its approaches, policies, and instruments in difficult and complex environments (World Bank n.d.-a). Transnational global challenges both affect and are affected by FCV: climate change, uneven economic development and rising inequality, resource scarcity, demographic pressures related to migration and population growth, the COVID-19 pandemic, violent extremism, and illicit trafficking and criminal networks (World Bank, n.d.-b). Fragility and conflict are rarely caused by a single driver—issues are complex and usually have multiple, interacting factors prompting them, spanning different geographical scales (local, national, and global).

FIGURE 2.1 Evolution of Countries on the World Bank List of Fragile and Conflict-Affected Situations



Source: World Bank FCS lists from FY06 to FY21.

Fragile contexts exhibit deep governance issues and institutional weaknesses, which limit their ability to adapt and handle shocks (World Bank 2020b). These issues can trigger conflict, which further exacerbates fragility. Fragility has multiple dimensions and is reflected in low state capacity and authority, poverty, and low socioeconomic development as well as in the limited provision of basic services to a population. Fragility can breed high levels of grievance and perceptions of injustice, stemming from real and perceived inequality, lack of opportunity, discrimination, and exclusion. States may undergo periods of fragility, or an otherwise stable state may have pockets of fragility, such as the Mindanao region of the Philippines. A fragile state often struggles (or is unwilling) to manage or mitigate risks,

including mutually reinforcing risks linked to socioeconomic, political, security, environmental, and climate contexts. Left unmanaged, these multiple risks can lead to conflict, locking the country into further instability, eroding governance, and worsening grievances.

Pre-Conflict Fragility and its Impacts on the Environment

Insufficient state capacity to manage natural resources and adapt to climate change poses threats to the environment. NRM in fragile states can suffer from corruption, poor oversight, and a lack of accountability. A fragile government may face difficulties governing and establishing its authority in remote, rural areas that may be resource-rich, but are isolated and disconnected from central services. Insufficient capacity of the state to respond and adapt to climate change impacts threatens the resources many rural communities depend on for survival, but that increasingly face degradation. The resource curse theorizes that countries with an abundance of natural resources have less economic growth and higher risks of violence than countries with fewer natural resources, but research has refined the attribution of these issues to mediating factors related to poor governance and weak institutions underlying fragility (Lederman and Maloney 2007; Ross 2015; Schellens and Diemer 2020).

Active Conflict and its Impacts on the Environment

From 1950 to 2000, more than 90 percent of major armed conflicts with at least 1,000 battle deaths took place in countries with biodiversity hotspots (Hanson et al. 2009). Of these conflicts, 81 percent took place directly within a hotspot. These rich habitats, some of which repeatedly fall under the shadow of violent conflict, cover only 2.3 percent of the Earth, but host half of the world's endemic species (GEF 2020 citing Mittermeier et al. 2004).

Armed conflict directly and indirectly impacts the environment in ways that have long-lasting consequences for development. Violence directed at natural resources can appear to be acute and site-specific, but the impacts of conflict on environmental governing institutions, social and natural capital, and livelihood opportunities may be chronic and long-lasting (UNEP 2009; Bruch et al. 2019a). In a vicious cycle, armed conflict diminishes the assets that support resilience to political, economic, and environmental shocks, including climate change.

Direct Impacts

Violent conflict can drive habitat loss and have significant, consistently negative effects on biodiversity, with these dynamics taking the form of heterogenous and context-specific patterns within various spatial and temporal scales. Conflict was the most important predictor of wildlife decline for large-mammal populations in Africa from 1946 to 2010 (Daskin and Pringle 2018). Conflict in the Democratic Republic of Congo resulted in a 95 percent decline in the country's hippo population (ICRC 2019). Gorongosa National Park lost 90 percent of its wildlife over the course of the Mozambican Civil War (1997-1992); the ivory trade was used to finance the conflict, and elephant populations dwindled from 2,000 to 200 during this period. The effects of conflict on biodiversity are predominantly negative (Hanson 2018). Yet, armed conflict can shield land from development activities by displacing resident populations and imposing access restrictions in connection with landmines, buffer zones, or areas guarded for military cover and training exercises. For example, in El Salvador, mass migration to urban areas and abroad during the country's civil war drove forest recovery (Ganzenmüller, Sylvester, and Castro-Nunez 2022 citing Hecht et al. 2006), and in Sierra Leone, deforestation was significantly lower in areas affected by conflict (Ibid citing Burgess, Miguel, and Stanton 2015). However, the impacts of conflict on deforestation, in particular, are variable. Although land use remained relatively stable during the conflict in Colombia, forest cover decreased by 19 percent near sites within one kilometer of fighting (Murillo-Sandoval et al. 2021). Conflict increased deforestation in the Democratic Republic of Congo, but reduced mining associated with deforestation (Ganzenmüller, Sylvester, and Castro-Nunez 2022 citing Butsic et al. 2015). Although Rwanda did not experience a significant net change in forest cover between times of conflict and peace, local trends demonstrated forest loss near refugee settlements and forest gains due to forced migration (Ibid citing Ordway 2015).

Since the Cold War, natural resource revenues in at least 35 countries have been used to finance armed conflict (Bruch et al. 2019b). *The World Atlas of Illicit Flows* (2018) identifies environmental crime as the largest financial driver of conflict, constituting 38 percent of conflict and non-state armed group financing. Conflict resources tend to exhibit a high value-per-weight and ease of "lootability" as they can be exploited with minimal technology or investments, are diffuse, and are found where governments lack an effective presence, often far from the capital (Bruch et al. 2019a; Le Billon 2001). Examples span high-value semi- or non-renewable resources (such as logging in Myanmar and diamonds in Sierra Leone and Angola), as well as renewable resources (such as bananas and fisheries in Somalia, cocoa in Cote d'Ivoire, and coca in Colombia).

Natural resources have been targeted and used as a weapon of war to intimidate and weaken opposition and control populations living in contested areas. The Islamic State has systematically weaponized water in Iraq and Syria and targeted water infrastructure to break resistance and to establish authority downstream without a physical military presence (Lossow 2016). To exert control and influence, the group has threatened communities with draining (restricting water) or drowning (tactical flooding) and impeded government troops and service provision. It has also used the provision of water to bolster its legitimacy, credibility, and recruitment efforts in conquered territories.

As forces retreat or conflict comes to an end, "scorched earth" techniques can be employed to destroy assets for the opposition and the livelihoods of those associated with them (Bruch et al. 2019a). The Iraqi military set over 600 oil wells on fire as it retreated from US-led forces in Kuwait during the Gulf War—1.5 billion barrels of oil were released into the environment and fires burned for ten months (Gray 2012). The Islamic State looted and

destroyed Iraq's Mosul dam before its acquisition by Kurdish forces (UNEP 2017). Before withdrawing in response to North Atlantic Treaty Organization (NATO) threats, water sources used by ethnic Albanians in Kosovo were poisoned by Yugoslav troops, discouraging the return of refugees to their homes (Smith 1998). Forests and other areas of dense brush may be targeted for their potential to provide cover: Iraq's southern marshes were drained by Saddam Hussein's forces after the first Gulf War in retaliation for the lack of allegiance by its Arab communities and to flush out rebel groups (Reuters 2016).

The disruption and destruction of water, agricultural, industrial, and energy infrastructure can have dire pollution-related consequences. Weapons and explosives release hazardous substances that contaminate the environment. Unexploded ordnance and landmines leach toxic chemicals into soil, groundwater, and surface water sources and prevent land use and management. Debris and rubble from collapsed infrastructure create soil and air pollution, and risks are especially toxic when fighting occurs near refineries, metallurgical plants, chemical factories, and mines. Conflict can also force the neglect of key resource management functions. For example, conflict starting in 2014 in Ukraine's highly industrialized coal basin, the Donbas region, disabled trash removal and wastewater treatment needed to manage the environmental risks posed by active and inactive mines to soil, water, and air quality (Mercantonio and Hook 2020 citing MENR 2018). In addition to the direct destruction of the municipal water system and pipes by artillery, the conflict has prevented Ukraine's Ministry of Ecology and Natural Resources from serving its primary role to monitor, regulate, and manage the over 900 active and inactive mines in the region, and pumping and treatment stations have been left unoperated. Moreover, deliberate and collateral damage to the environment caused by warfare can have prolonged and global consequences, as the fallout is not limited to political boundaries. For example, intense fighting between Russian and Ukrainian forces around Chernobyl or one of Ukraine's four operating nuclear power plants could trigger lasting, radioactive contamination throughout the region.

Indirect Impacts

The breakdown of governance and rule of law during conflict results in the diversion of capacity and resources from environmental governance and NRM. Governments in conflict may struggle to maintain authority, especially in resource-rich, remote parts of the country. As conflict erupts, coping strategies and a governance vacuum over natural resources can prompt the unregulated expansion of illegal natural resource exploitation, including by criminal organizations and rebel groups. Moreover, military priorities may take precedence and open the country to unfavorable resource contracts and concessions driven by an urgent need for cash, weak negotiating power in a high-risk environment, and reduced public oversight (Bruch et al. 2019a).

The rapidly changing security situation lends itself to short-term coping strategies for immediate survival as opposed to sustainable, long-term resource management and use. As uncertainty looms, households may opt for the intense liquidation, exploitation, and overuse of natural assets to cope. Adding to this uncertainty is the threat to tenure security—land records were destroyed over the course of conflicts in Yugoslavia, Timor-Leste, Cambodia, and Afghanistan (Bruch et al. 2019a). Population movement is another adaptation strategy, which can add to resource and governance pressures elsewhere. The delivery of humanitarian aid and peacekeeping operations may also prompt the unsustainable use of natural resources. An evaluation by the United Nations Environment

Programme (UNEP) found that within four years of the conflict in Darfur, the influx of humanitarian and peacekeeping operations drove a construction boom that quintupled the demand for brick, annually consuming over 52,000 trees-worth of firewood (UNEP 2008).

Conflict and large-scale displacement undermine social bonds and state-society relations. Institutions are eroded and formal and informal mechanisms for resolving conflicts, including those related to natural resources, weaken. Large-scale displacement, whether caused by conflict or resource needs, results in the loss of community ties, and subsequently, communities can lose confidence in government. In addition to national strains on governance, community systems for sustainable resource management are vulnerable to disruption.

Post-Conflict Impacts on the Environment

Once conflict ends, there is an important opportunity to transform and (re) build resource systems that, otherwise, may be politically difficult (UNDG and UNECHA 2013). Capitalizing on these opportunities is especially important if natural resources triggered the conflict or threaten the prospects for peace. Conflicts that are linked to natural resources are twice as likely to relapse than other conflicts, on average within five years of a peace agreement (GEF 2020 citing Rustad and Binningsbø 2010). This is especially true for conflicts related to the allocation of land and high-value natural resources such as minerals, oil, and gas. Recognition of natural resources as a source of conflict and conflict financing is reflected in their increased inclusion in peace agreements: between 1989 and 2004, over half of all peace agreements had natural resource provisions (Mason, Sguaitamatti, and Gröbli 2016). Inclusion of natural resource provisions has become more consistent in recent years, with all major peace agreements between 2005 and 2016 containing one or more provisions.

The peace dividends of natural resources are vulnerable to exploitation in the post-conflict period. Areas containing high-value natural resources may have been occupied by armed groups or used to support criminal activities. Even when the fighting has stopped, these areas may serve as an incentive for peace spoiling. Access to previously insecure, biodiverse areas may enable exploitation of environmental resources and the adoption of unsustainable practices. For example, peace agreements can open up biodiverse territory and instigate competition for resources as people seek livelihoods and food security, displaced populations return, and economic sectors such as mining and logging expand. Colombia experienced a 40-percent increase in forest conversion to agriculture in the period following the Andes–Amazon conflict (1988–2011) (Murillo-Sandoval et al. 2021). Such trends underscore the importance of monitoring and managing land use changes and control over land during the post-conflict transition period, building inclusive conservation governance planning into future peace accords, and integrating the objectives of conservation policies and peacebuilding programs.

Conflicts over land tend to escalate post-conflict (UNDG and UNECHA 2013). Displaced populations can return to find their lands have been taken. In Burundi's collines, 75 percent of court cases are linked to land disputes, and violence and conflict have increased as

refugees return from the Democratic Republic of Congo, Rwanda, and Tanzania (Voegele, Kabongo, and Tall 2021). In the aftermath of conflict, lands may be occupied or allocated to reward loyalty, or records may have been destroyed (UNDG and UNECHA 2013). Without access to dispute resolution mechanisms or environmental governance, overlapping land tenure systems, legal pluralism, and competing claims can drive conflict as well as rapid natural resource exploitation. In Afghanistan, over 70 percent of serious crimes, including homicide, are due to land disputes as authorities lack the capacity to address land-grabbing and enforce land rights (UNODC 2019). Humanitarian actors have stepped into this space to diffuse tensions, for example, through peacekeeping missions in Sudan, Côte d'Ivoire, and Chad where they provide land and NRM mediation because of tensions between farming and herding communities (Bruch et al. 2019a).

Post-conflict economies often depend on the extraction of natural resources to rebuild and generate government revenue, on average making up 50 percent to 80 percent of exports (Stahn, Iverson, and Easterday 2017 citing Bruch et al. 2018). After the civil war in Sierra Leone, 72 percent of growth in gross domestic product (GDP) came from two new iron ore mines (Ibid citing Fofana 2014). Similarly, 98 percent of South Sudan's government budget after its secession came from oil revenue (Ibid citing Dewaal 2013). Significant environmental impacts such as water scarcity and waste can follow without appropriate environmental management. In addition to direct impacts on the environment, the extraction of non-renewable resources also poses challenges such as vulnerability to price shocks and minimal immediate employment and benefits to the surrounding community.

Impact of Natural Resource Management and Climate Change on FCV

The global impacts of climate change and natural resource demands have resulted in localized forms of resource competition that impact the most vulnerable. Environmental degradation threatens communities that are dependent on land and agriculture, especially in FCS. Eighty percent of the world's poor live in rural areas and most have livelihoods that depend on natural resources facing degradation (IEG 2021 citing IFAD 2015 and World Bank 2018b). According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2019), 75 percent of terrestrial and 40 percent of marine environments exhibit the impacts of degradation. Since 1974, the global proportion of fish stocks within biologically sustainable levels has declined from 90 percent to 65.8 percent as of 2017. Small-scale fisheries in developing countries employ 90 percent of the world's fishers, and between 90 to 95 percent of all fish caught are used to feed local communities (FAO 2020). As climate change and natural resource degradation impact resource availability and quality, trends like population growth add even more pressure to meet resource demands, precipitating further risks of conflict. Tensions can also ensue over natural resources that are locally abundant but globally scarce and in high demand, such as cobalt in the Democratic Republic of Congo and diamonds in Sierra Leone.

The environment rarely causes conflict directly but can exacerbate the existing social, economic, and political challenges and stressors in FCS contexts. Although the causal pathways are highly contextual and a subject of debate,[4] the consensus in academic, security, and practitioner spheres is that climate change is a threat multiplier and that natural resources may have a triggering role in precipitating the underlying causes of fragility into violence. It is a cross-cutting variable that can have knock-on impacts, including on food security, poverty, political instability and grievances, and displacement. Thus, while the relationship between climate, natural resources, and conflict is neither linear nor direct, there are important mediating variables and risk factors that can provide insight into the triggers and outcomes of fragility.

Conflict Risks

Whether increased competition over natural resources escalates into conflict depends on several risk factors: high natural resource dependence, inequality and marginalization, and a recent history of conflict (Detges et al. 2020). Each risk factor is exacerbated by climate change.

HIGH LOCAL AND NATIONAL DEPENDENCE ON NATURAL RESOURCES

When extracted natural resources provide a substantial part of a country's revenue or large portions of the population are dependent on land and renewable resources, special attention should be paid to the potential for changes in those resources to ignite conflict (UNDG and UNECHA 2013). Note that various types of resources (renewable, non-renewable, land, and water) interact with drivers of conflict and fragility differently.

BOX 2.1

Key Questions for Determining Dependence on Natural Resources

What is the role of natural resources in the national economy?

What percent of the national economy and of export earnings rely on extractive industries as opposed to other sectors?

Are large parts of the population reliant on renewable resources for their livelihoods?

Were/are natural resources used in the conflict economy and as a basis for coping mechanisms and survival strategies?

Source: Excerpt adapted from UNDG and UNECHA 2013.

FCS economies are highly dependent on natural resources. An evaluation of WBG assistance to low-income FCS (2014) found that natural resources account for 28.5 percent of GDP in these countries.[5] In countries such as Angola and the Republic of Congo, that number rises to 60 percent. By contrast, the GDP from natural resource extraction in non-FCS countries is 7.1 percent on average.[6] Agriculture is the largest sector in FCS (30 percent of GDP) and makes up 40 to 70 percent of total employment in countries exhibiting persistent fragility and/or conflict.[7]

4 The study of the relationship between climate change and conflict has evolved from an examination of whether there is a link to the current study of when and how it contributes to conflict. Although the link is largely accepted in the literature, contemporary discussion regards this link as probabilistic, due to no counterfactual, and areas of debate involve the methodological issues and modeling assumptions used and the relative importance of climatic as opposed to non-climatic drivers of conflict (Detges et al. 2020).

5 Based on World Development Indicators and FAOSTAT extractives and forestry data from 2014.

6 Between 2000-2011.

7 World Development Indicators and FAOSTAT data for 2000-2011.

High dependence on a specific natural resource makes local and national economies susceptible to shocks and ripple effects that countries affected by FCV struggle to contain. For example, the sharp decline in oil prices due to a reduction in demand from COVID-19 restrictions severely impacted oil-dependent economies such as Angola and Iraq (IMF 2020; World Bank 2020a). In terms of renewable resources, a high degree of agricultural dependence also translates to climate vulnerability: water scarcity, drought, or a loss in agricultural yields reduce incomes, threaten livelihoods, and decrease food security. Table 2.1 illustrates how such a shock can have cascading, mounting effects on stability, increasing grievances and amplifying existing inequalities in the country. In the face of decreased livelihoods, the income and protections offered by organized crime and terrorist organizations may overshadow the risks associated with engaging in illegal activities. In Sierra Leone, rebel groups recruited young men in rural areas struggling to earn income amidst the increasing scarcity of arable land (Bruch et al. 2019a). Populations may also be faced with limited options and resort to migration as an adaptation strategy, which can further strain state-societal relationships and increase competition over natural resources elsewhere if not managed appropriately. Each knock-on impact and its results culminate in an increased burden on weak governance and add to the underlying drivers of fragility and conflict.

TABLE 2.1 Example of the Potential Cascading Impacts of Climate Change and Environmental Degradation

IMPACTS OF CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION	DRIVERS OF FRAGILITY AND CONFLICT
Low yields	Food insecurity/price spikes
	Loss of livelihoods and poverty
	Inequalities exacerbated
	High levels of real and perceived grievances
Displacement and migration	Lack of social cohesion
	High exclusion
	Increased resource pressure
Increase in competition over resources	Weak state authority—limited presence and provision of basic services to the population
Increased burden on weak governance	

Source: World Bank.

In FCV contexts with limited coping capacities and high dependency on natural resources, any change to the physical landscape can have the potential to destabilize the economic, political, and social landscape. Climate change can shift the equilibrium. It impacts the quality and quantity of natural resources, threatens the economic fabric at the country and household levels, and influences behaviors and demographic shifts. In the Sahel for example, droughts have prompted pastoralists to move their herds beyond traditional boundaries to adapt. At the same time, farmers have expanded their lands to cope with the changes and feed a growing population. One study found that each degree Celsius increase in warming caused a 54 percent increase in the likelihood of conflict between farmers and herders in mixed-use areas and a 17 percent increase in non-mixed areas in the Sahel (Eberle and Rohner 2020). Both positive and negative changes

in the value of natural resources pose risks, whether as a decrease in value through degradation or an increase in value due to global market demand or environmental interventions like restoration or payment-for-ecosystem services. In places affected by FCV, the most degraded land still has value as a social safety net for resource-dependent vulnerable users, and increasing the value of this land risks predation by elites and encroachment, displacing the local population and deepening vulnerability of the most vulnerable (IEG 2021).

INEQUALITY AND MARGINALIZATION

When natural resource dependence is high, exclusion, discrimination, and lack of representation in the management of those resources can entrench poverty, inequality, and grievances (Detges et al. 2020). Vulnerable groups (women, internally displaced persons (IDPs), transhuman pastoralists, community, or religious minorities, etc.) are often excluded from access to resources and from formal methods of resolving resource conflicts due to imbalances in power and rights. The lack of government responsiveness to segments of the population increases the risk of instability and humanitarian emergencies. Even if a country is not on the World Bank's FCS list, Indigenous and local communities living within or on the periphery of protected areas are often resource dependent; have strained state-society relations; and face economic, social, and political exclusion. Both conflict and environmental vulnerability particularly exacerbate gender inequalities and disproportionately affect women and girls.

Inequality, or even the mere perception of inequality, can ignite conflict. Changes in natural resource quantity, quality, and management can accentuate the perceived and real gaps between the haves and have-nots, for instance, rural tensions with the state and pre-existing grievances about poor service provision (Detges et al. 2020; Schwartzstein 2021). For example, in Mali, droughts between the 1970s and 1980s wiped out nomadic herders and their livelihoods, but settled farmers prospered as areas under cultivation and total agricultural production grew (Ghani and Malley 2020). The government provided new wells in the Mopti region to improve conditions for the nomadic population, but violence ensued as the wells attracted farmers who laid claim to the land. Further marginalized from basic service access and protection, some herders turned to jihadi and self-defense groups as authorities failed to address and manage the resulting land-use issues. This case reveals how a well-intentioned intervention that resulted in newfound resource abundance, in this case water, if governed poorly, can precipitate conflict and add to the grievances of those it is meant to protect.

These risks are especially important to consider in the context of natural resource interventions. As the examples above demonstrate, there are winners and losers when resource values change, shaped by power dynamics.

Environmental interventions may prompt grievances or deepen inequalities by introducing new burdens (restricting access), land grabbing, or disputes over access to benefits (like revenues). For example, World Bank sustainable land management (SLM) projects use area closures on degraded hillsides or catchments to allow the land to recover through natural regeneration. These initiatives are designed to increase the productivity of land and the flow of ecosystem services in the long term. The World Bank's Independent Evaluation Group (IEG) found that while the Ethiopia Sustainable Land Management Project (SLMP) I and II significantly reduced land degradation, the limitation imposed on grazing risked harming livestock production and, in the absence of fodder support, increasing vulnerability (2021). To mitigate the effects, communities

in Ethiopia rotated the designated closure areas so that some land could continue to be available. Similarly, the Niger Community Action Program utilized area closures involving tree planting to support vegetation on highly eroded areas that had been sparse for decades. The project was a success in biophysical terms and yielded benefits to some resource users, including temporary employment to work the soil and plant trees and the development of small nursery businesses. However, the effort left transhumant herders and local livestock owners with limited grazing options, and IEG found little evidence that these groups had been consulted. Box 2.2 details key lessons from an IEG evaluation in Niger.

BOX 2.2

IEG Insights: Lessons from the Great Green Wall in Niger

The World Bank's support for the Great Green Wall has been successful from a technical perspective. Vegetation has been successfully established, land has been rehabilitated through large commitments of labor for soil works, and the density of trees and shrubs have increased dramatically at rehabilitation sites. But in a region grappling with food insecurity, persistent violent conflict, and rural poverty, environmental gains supported by investments in the Great Green Wall must also benefit the poor. In these settings, even the most degraded land has value: these are important areas of passage and grazing for livestock, particularly during the rainy season, and are sources of wild plants and wood gathered by women. But the use of area enclosures runs the risk of exacerbating vulnerability; and in the absence of good land governance, possibly causing harm. Some policymakers point to the possibility of benefits "trickling down," but given the very moderate economic benefits of many of the Sahel and West Africa Program (SAWAP) projects, this is unlikely.

Increasing the value of degraded land, as was done by the Great Green Wall initiative, changes the decision-making calculation of land users—with enhanced farm value, these lands can be predated upon by elites, and can lead to encroachment by non-traditional farmers which risks displacing the local population. Such was the case in sites visited by IEG in Niger, where land was effectively restored, but where parcels were also sold outside of the community, in areas that lacked good land governance. Predation also occurs as a result of decisions to support crop agriculture alongside tree planting. While land restoration activities took place on communal land, the introduction of "intercropping" facilitated individualized claims on community land.

A lesson learned is that such projects should be designed with an understanding of customary, flexible tenure arrangements and the coping strategies of vulnerable resource users who access degraded lands as a social safety net. And, importantly, that emphasis should be placed on ensuring that clear, enforceable land-use agreements are in place prior to land restoration activities, to protect the land-use rights of the most vulnerable.

Because land restoration mainly benefits those that have access to land, some women and youth are especially disadvantaged in the Sahel. In Niger, a very large number of women are forced to fend for themselves and their families because their husbands and sons have migrated to other West African countries, such as Nigeria, Côte d'Ivoire, and Senegal, to look for work. This migration is often associated with a lack of access to arable land, especially for male youth. Projects that support land and resource restoration can ensure that women and youth benefit by addressing participation barriers, linked to social and cultural norms. For example, since in some conservative areas, women's participation in cash-for-work programs is prohibited, programs must propose alternative income-generating options to ensure equity.

Source: Excerpt adapted from IEG 2021.

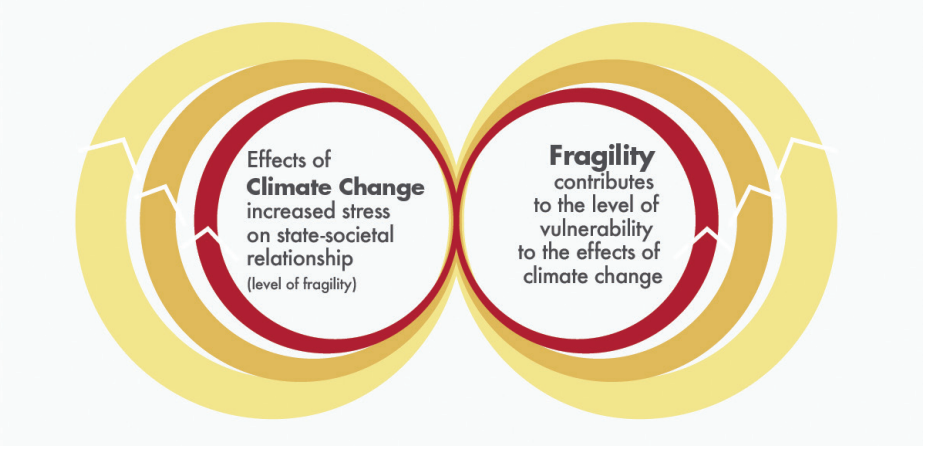
RECENT HISTORY OF CONFLICT

Civil war, ethnic rivalries, and interstate conflict weaken cooperative mechanisms and make arms easily available (Detges et al. 2020). A recent history of conflict signals weak governance and degraded or non-existent institutions that struggle to manage natural resources or prevent disputes from turning violent. Moreover, the intersection of climate change and conflict creates compound climate and fragility risks.

Compound Climate and Fragility Risks

Compound risks emerge from linked climate and security crises, culminating in a climate-conflict trap. FCV contexts are particularly vulnerable to the effects of compound risks because of a relative lack of coping capacity to address the complex, multi-dimensional crises posed by the dual threat. Fragile states struggle to handle shocks, whether they are caused by conflict or climate, or the mutually reinforcing burden of both. In states with large populations, political exclusion, and low levels of human development, up to one-third of conflicts from 1980–2016 followed climate-related disasters (Ide et al. 2020). The effects of climate change can cause increased stress on the state-societal relationship, and the resulting fragility influences the degree of vulnerability to climate change (Figure 2.2). Climate vulnerability is not only influenced by geography, but also by the coping capacity of the individuals, institutions, and systems of a country. For example, in Burkina Faso, traditional and customary mechanisms used to resolve land conflicts through dialogue and consensus have become less effective due to social changes from migration and population growth, land pressures, and a reduced asset base.[8] Conflict and climate change overstretch adaptive capacities and erode the resilience and prevention mechanisms at each of these scales; they each are also leading causes of global hunger and drivers of mass migration.

FIGURE 2.2 Bidirectional Relationship between Climate Change and Fragility



Source: Mercy Corps 2021. Reproduced with permission; further permission required for reuse.

The text boxes below detail some of the chain reactions that demonstrate how climate change and changes to natural resources have aggravated political and economic issues underlying fragile contexts. These cases further illustrate that even when climate change does not directly cause conflict, its effects can lead to environmental impacts that result in socioeconomic tensions in a context of weak governance, high rates of poverty, and inequality.

8 Correspondence with task team lead.

BOX 2.3

Cascading Effects of Climate Pressures on Political and Economic Issues in Fragile Contexts

Syria

Climate pressures: Severe drought, exacerbated by poor water management policies from 2006-2011

Impacts:

- Food Insecurity—75 percent of families dependent on agriculture suffered crop failures and herders lost 85 percent of livestock
- Farming families were forced to move and over 100,000 rural Syrians were displaced

Although the drought did not directly cause conflict, it contributed to the grievances leading up to the 2011 civil conflict. Violent clashes began in cities strained by food insecurity and the population influx, to which the government responded with violence rather than mitigation.

Source: Ghani and Malley 2020.

Pacific Islands

Fragile: Small size, weak infrastructure, limited opportunities, high youth unemployment

Climate pressures: Cyclones, earthquakes, drought, flooding, sea level rise, increase in frequency and intensity of natural disasters (losing 0.5-6.6 of GDP annually)

Socioeconomic Tensions: Threatened livelihoods, exacerbated resource scarcities, contestation, intensified pressure on government to meet the needs of people and people's grievances against it

Source: Van Bronkhorst and Bousquet 2021.

BOX 2.4

WBG Recognition of Compound Climate and Fragility Risks in West Africa

In recent decades, the region has experienced a rise in mean temperatures, a decrease in precipitation, and an increase in drought and flooding. They have also become more severe and prolonged, diminishing the land's productive capacity. Regional models suggest that this is only likely to worsen.

Over roughly the same period, West Africa has also witnessed a substantial rise in political violence. The past five years have been the most violent on record, with over 12,000 conflict events and 50,000 fatalities through June 2019 (OECD and Sahel and West Africa Club 2020).

In Guinea, some 64 percent of the population lives in areas of high compound fragility and climate risk. Some of the most vulnerable populations, including women, youth, and persons with disabilities, regularly experience hazard events including extreme temperatures, rain, flooding, drought, and rise in sea level. Similar hazards are at play in the Lake Chad region, which encompasses Chad, Niger, Nigeria, and Cameroon. These stresses compound the challenges for governments in the region to respond effectively to a complicated set of interrelated drivers of FCV. In Guinea, youth unemployment is expected to have significantly risen as a result of the COVID-19 crisis. Before the crisis, weaknesses in the delivery of services often undermined the Guinean government's legitimacy. Across the Lake Chad region, vulnerable groups are exposed to high inequality, perceived social injustice, a lack of social service provision, and inadequate economic opportunities. All of these serve as drivers of FCV—and climate risks are likely to make them worse.

The result is a "conflict trap" wherein the impacts and added stresses of a changing climate aggravate the political and economic conditions that had originally given rise to the fragility and violent conflict in the region, while creating new risks which increasingly fragile systems struggle to manage.

While West Africa is a prime example of the manifestation of multiple, intersecting crises, this challenge is not unique to the region. Today, persistent climate, FCV, and health crises are a reality for governments and communities across the globe.

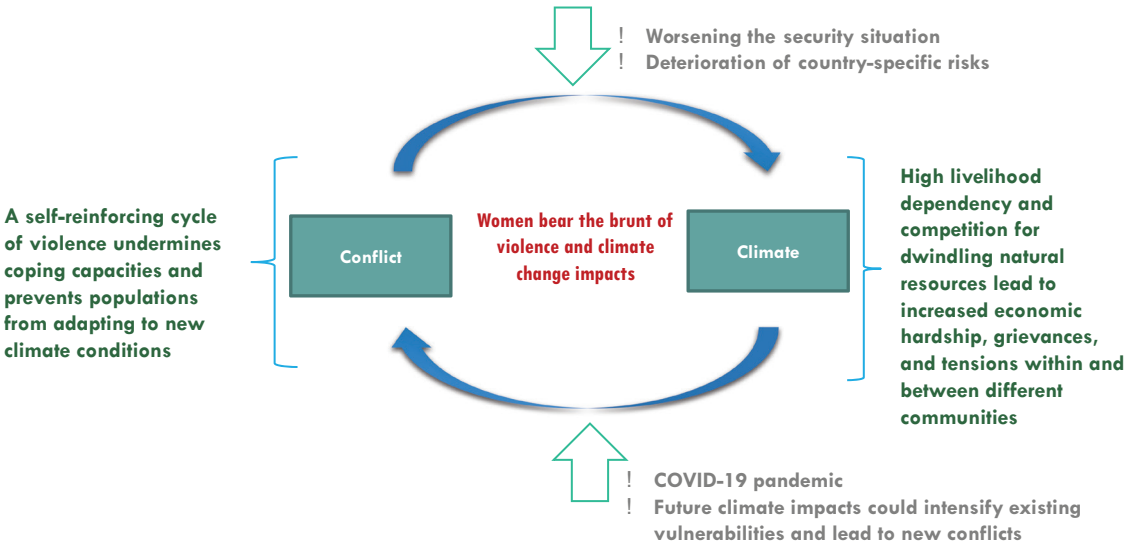
Source: Excerpt adapted from Damboeck et al. 2020.

Gender, Conflict, and Environment

Conflict-environment linkages have deeply rooted gender implications. Gender norms shape how men and women access and control natural resources, are exposed to environmental hazards, and are able to cope with climate-related shocks (UNEP et al. 2020). As the primary providers of food, water, and fuel in many contexts, women are disproportionately affected by changes in the availability of natural resources. They are also often dependent on climate-sensitive natural resources to supplement unpaid or underpaid work to meet their livelihood needs. Structural gender inequalities, discriminatory laws, and adverse gender norms also put them at a further disadvantage to cope with conflict and climate-related shocks when they lack equal access to and control over land, property, and other assets. In Eastern Chad, where rural communities experience chronic food insecurity, droughts, and economic fragility, rigid gender division of labor has constrained women's agency and opportunities to cope with environmental vulnerability. While men migrate to find new livelihoods, women face gendered barriers that prevent them from running a business, earning an income, or owning land (Ide et al. 2021). These gender gaps can be further exacerbated during conflict due to forced displacement, land grabbing, or the death of male family members. For example, estimates indicated that only 9 percent of women in conflict and post-conflict countries own legal titles to land, compared to 19 percent globally (Women for Women International n.d.). In the West Bank and Gaza, only 5 percent of women own land (Arab World for Research and Development and Palestinian Working Women Society for Development 2020). Similarly, only 3 percent of women in Mali are agricultural landholders (Klugman and Quek 2018). Despite their roles in NRM, women are also excluded from natural resource governance. In the West Bank, for example, women manage domestic water needs and use effective water conservation measures to deal with drought or water scarcity; however, they are excluded from formal water management committees (UNEP et al. 2013).

As a global threat multiplier, climate change adds another layer to gender, conflict, and environment linkages by exacerbating the insecurity of vulnerable populations, especially women and girls, through competition over scarce resources, loss of livelihoods, food insecurity, and human mobility (Figure 2.3). In FCV contexts, weak governance, political instability, and violence leave communities particularly ill-equipped to cope with climate-related shocks. Women in FCV contexts also often work in climate-vulnerable sectors and have fewer resources to cope with a changing climate. Close to four in five women who have paid work in fragile and conflict-affected areas work in agriculture, which is a sector characterized by informality and low wages (Christien and Klugman 2020). Research on conditions in Mindanao, Philippines, for example, found that both climate change and conflict increased smallholder female farmers' vulnerability, especially through the loss of livelihoods, financial assets, and agricultural yield. Women were more disadvantaged as they tended to farm smaller plots, work shorter hours, or limit farming to cash crops (Cagoco-Guiam 2013). These structural gender inequalities put them at a disadvantage in situations of FCV and climate vulnerability.

FIGURE 2.3 The Conflict-Gender-Climate Nexus



Source: World Bank. Original figure for this publication comes from a presentation delivered at the webinar "Addressing Gender, Conflict, and Environment Linkages" based on the findings of the Lake Chad Regional RRA (2021).

The conflict-gender-environment nexus also increases the risk of GBV, including sexual violence, intimate partner violence (IPV), sexual abuse and exploitation, and forced/early marriage. In Darfur, research found that women and girls traveled up to six miles per trip to collect scarce resources, including water, and were subject to GBV by local armed groups when leaving displacement camps. Many traveled at night to avoid midday competition and sun; however, traveling at night increased their vulnerability to sexual assaults (Boyer, Meijer, and Gilligan 2020). In Yemen, where 11.2 million Yemenis are in acute need of water and sanitation (WASH Cluster 2020), women have reported being afraid to travel alone to collect water (Al-Ammar, Patchett, and Shamsan 2019). In Mindanao, Philippines, both conflict and climate change have had negative impacts on women and girls that are mutually reinforcing (Chandra and Elizabeth McNamara 2017). Conflict has particularly marginalized female farmers and the widows of those killed in combat. In addition, natural disasters, and extreme weather events, such as typhoons and droughts, have become more frequent. These situations have increased vulnerability to trafficking, prostitution, and sexual abuse to secure food in local areas affected by resource scarcity and conflict (Cagoco-Guiam 2013).

Gender-based violence is an umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed (gender) differences between males and females. GBV includes acts that inflict physical, mental, or sexual harm or suffering: threats of such acts; and coercion and other deprivations of liberty, whether occurring in public or private life (World Bank 2015b).

During and in the aftermath of natural disasters, women and girls are at particular risk of IPV, especially women of lower socioeconomic status (WHO 2002). Poor harvests, livestock loss, lower earnings and livelihoods, and food insecurity due to resource scarcity and environmental degradation can put pressure on men's traditional roles as breadwinners and increase tensions within the household (Gevers, Musuya, and

Bukuluki 2020). Research on the relationship between drought and IPV found that women living in severe and moderate drought faced higher risks of reporting a controlling partner and experiencing physical and sexual violence than women not experiencing drought (Epstein et al. 2020). The study also found a strong association between drought and IPV among adolescent girls and unemployed women.

Climate-induced migration in the context of natural disasters can also increase the exposure of women; lesbian, gay, bisexual, transgender, queer, plus (LGBTQ+) communities; and people with disability to sexual violence, affecting their physical and mental health, due to overcrowding and unsafe conditions in temporary housing, emergency shelters, and IDP camps (CARE 2020). A 2020 CARE International report also found that women and marginalized groups displaced by climate-related impacts often have less access to relief and recovery resources.

Additionally, girls face heightened risks of forced or early marriage in situations of protracted conflict and climate-related shocks (Castañeda Carney et al. 2020). In Yemen, violent conflict and environmental vulnerability have contributed to a threefold rise in already-high rates of child marriage as a result of economic collapse, lack of security, and food insecurity (UNOCHA 2018). In pastoral communities in Djibouti, forced intercommunal marriage has been used as a negative coping strategy to resolve conflict over pasture, livestock, and water to build peace between pastoral communities (Ministère de la Femme et de la Famille - Djibouti 2019).

Conflict-related environmental pollution can disproportionately affect women's health. Poor environmental conditions are associated with leading causes of mortality and morbidity. Pollution can particularly affect the livelihoods of disadvantaged groups, including women who rely on natural resources, through the contamination of water resources and soil, for example (World Bank 2018a). In FCV contexts, the lack of safety and disruption of health services, as well as exposure to the toxic remnants of war, also increase health risks that impact poor and vulnerable groups. In artisanal gold mining in Mali, for example, women especially experience health risks due to their lack of protective equipment while using mercury during the ore washing phase (Rodrigue Koné and Khadidiatou Faye 2021). In Yemen, women in the Ibb countryside, who were the main agricultural workers during the conflict, have been particularly affected by contaminated rainwater, which has increased the risks of cholera and other diseases (Ali 2020).

Natural resource degradation and climate-related shocks also put pressure on traditional norms of masculinity and femininity. These notions exist worldwide, although in different forms. For example, in Northeast Nigeria, norms of breadwinner masculinity and a desire to protect family wealth are often linked to cattle ownership, and stress due to resource scarcity and resulting competition over grazing land have played a role in intensifying conflict dynamics and contributing to men's decision to join violent groups (UNEP et al. 2020). In Niger, scarce resources and a lack of economic opportunities have pitted farmers and herders against each other, increasing tensions that have led to violent clashes between communities. Some herders have also had to change their way of life and choose difficult alternatives, including migrating or joining armed groups (ICRC 2020).

Despite specific risks and vulnerabilities associated with conflict, natural resources, and climate change, women take on new roles during these situations to meet their household needs, including in NRM. In Yemen, shifts in demographics because of the war led rural communities in Ibb to rely on women for agricultural work (Ali 2020). In North Kordofan, Sudan, both conflict and climate change led to the feminization of local communities as men migrated to cities due to economic hardship and resource scarcity (UNEP et al. 2020). This situation has contributed to changing gender roles as women

not only had to fulfill traditional responsibilities, such as housework and managing tasks like fetching water and collecting firewood, but also generate new forms of income in the absence of men. In Aceh, Indonesia, conflict resulted in women adopting new roles in male-dominated sectors, such as fisheries and aquaculture (UNEP et al. 2013). When male ex-combatants returned home, however, changing gender roles contributed to household tensions.

Women play various roles during conflict and can adopt negative coping mechanisms to deal with conflict and environment-related vulnerability, including in the exploitation of natural resources. In South Kivu, the Democratic Republic of Congo, women represented 70 percent of traders of illicit goods including coltan, gold, and copper (World Bank 2015a). In Mali, women play major roles in artisanal and small-scale gold mining, including pulling buckets containing ore from the pits and transporting, crushing, and processing the material (Rodrigue Koné and Khadidiatou Faye 2021). However, they are at the lowest level of the operational hierarchy, are poorly paid, and have difficult working conditions. To deal with these challenges, they engage in both licit and illicit activities, including drug trafficking and prostitution. In Côte d'Ivoire, women also adopted mechanisms such as relying on marriage outside of their ethnic groups to secure access to cash crops to cope with conflict and resource scarcity (UNEP et al. 2013).

Women also play important roles as peacemakers, yet are largely excluded from formal peace processes. The Council on Foreign Relations reports that between 1992 and 2019, women held only 13 percent of roles as negotiators, 6 percent as mediators, and 6 percent as signatories to major peace processes globally (Council on Foreign Relations n.d.). Women peacebuilders often have greater access to certain populations and venues than men (Andreassen et al. 2009). Despite being key actors in building stability and overcoming fragility, women's roles in this process are often overlooked, in part because many women occupy informal or invisible jobs and positions. Those in such informal roles risk exposure to vulnerability and violence, and unpaid and informal jobs are difficult to account for in the environmental impacts and footprint of economic activities.

Typologies of Risks and Drivers of Conflict and Natural Resources

Several different typologies exist to understand the risks and drivers of conflict and natural resources. Many of the linkages at the environment-conflict nexus have already been discussed in the previous sections, but the following is a brief overview of the major lenses that can be applied to understand these dynamics, as well as key considerations.

Scarcity-Versus Abundance-Driven Natural Resource Conflict

The World Bank report, *Renewable Natural Resources: Practical Lessons for Conflict-Sensitive Development* (2009) chapter on "Understanding Natural Resources, Conflict, and

Violence" breaks down the causes, issues, and dynamics of natural resource conflicts to facilitate a broad framework of understanding practitioners can apply in their own work. The report centers these dynamics on a political economy framework in which relative resource scarcity or abundance is a driving component that impacts social, economic, and political functions.

Adapted from the report, Table 2.2 outlines the social and environmental changes that can trigger and escalate conflict. Such a breakdown can help staff to think through the social and environmental changes that can co-produce social-environmental dilemmas, including within their own projects. It supports consideration for the potential of positive *and* negative changes to natural resources to stoke conflict, especially when risk factors (high natural resource dependence, inequality and marginalization, and a history of conflict and fragility) are present.

TABLE 2.2 Social and Environmental Changes that can Trigger and Escalate Conflict

TYPE OF CHANGE	EXAMPLE OF CHANGE	POTENTIAL KNOCK-ON IMPACTS
Natural Resource Changes		
Global trends to consider: Climate change, increased seasonality (flood, drought), reduced biodiversity, pestilence, disease		
Quality	Degradation, pollution and contamination, improvement	Demographic - population movements Economic - constrained productivity/ rent-seeking Livelihood insecurity Food price spikes and food insecurity Weakened institutions Localized and politicized group-identity conflict, coups d'état, insurgency
Quantity	Overexploitation, depletion, growth	
Scarcity-driven conflict Most likely to occur with diffuse, renewable natural resources (water and land) *State failure hypothesis:* "Bottom-up" violence and security dilemma dynamics (i.e., in the Sahel severe degradation contributes to fragility) *State exploitation hypothesis:* "Top-down" violence, elite capture and control of agricultural land, and wildlife smuggling	*1. Supply-induced scarcity* Supply decreases indicate demand cannot be met, i.e., degradation, pollution, breakdown in delivery structure *2. Demand-induced scarcity* Demand increases cannot be met by existing supply, i.e., population growth, new technologies, increased consumption rate *3. Structural scarcity* Inequities in distribution create relative scarcity, i.e., different groups have unequal access	
Abundance-driven conflict Most likely to occur with non-renewable resources, minerals, timber	*1. Honey pot hypothesis* Groups such as insurgents form and fight over abundant supplies of valuable resources *2. Resource curse hypothesis* Abundance produces "Dutch Disease" (de-industrialization or de-agriculturalization perpetuated by a resource-dependent economy) and corrupt, authoritarian rentier states that encourage rebellion	

Continued

TABLE 2.2 Continued

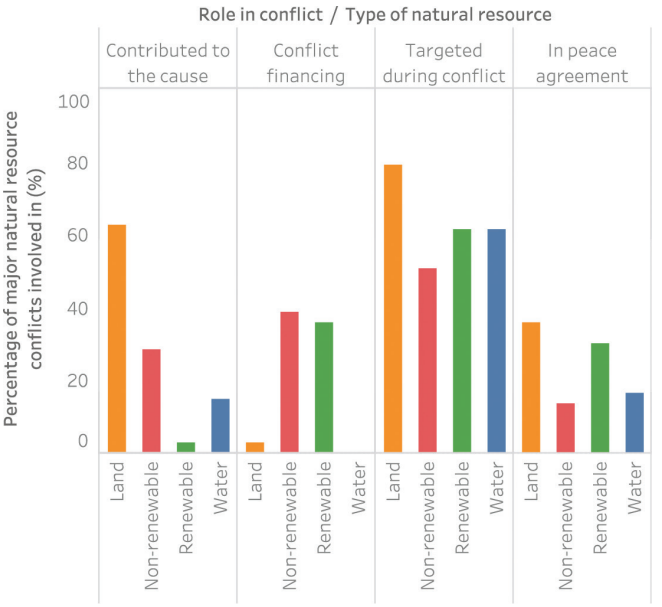
TYPE OF CHANGE	EXAMPLE OF CHANGE	POTENTIAL KNOCK-ON IMPACTS
Temporal	Long-term changes in seasons, i.e., "too much or too little" at the wrong time	
Variability	Unpredictability in natural patterns, i.e., as a consequence of climate change that makes long-term resource availability insecure	
Other Physical Changes		
Global trends to consider: Urbanization, migration, refugee/IDP movements, overdevelopment		
Demographic	Population size, location/proximity, density, and distribution	Coping strategies; increased competition for natural resources Exacerbate inequalities and marginalization Diminished social cohesion
Infrastructure	Quantity/quality, usability, and utility to meet community needs (e.g., war-damaged or neglected) as related to management and access to resources	
Relational Changes		
Global trends to consider: Radicalized belief systems, sociopolitical and ideological division, growing income disparity, policy and institutional and implementation failure, militarization		
Behavioral	Attitudes and behaviors that underpin intra- and inter-group relationships	*Psycho-social individual knock-on impacts.* Perceptions of security change (personal safety, livelihoods, and welfare) or relative economic, social, or political deprivation *Social (intra-group and inter-group) knock-on impacts.* Social fabric strained, social cleavages emphasized, and group identities reinforced *Political knock-on impacts*. Environmental norms, positions, and interests permeate the policy domain, environmental issues elevate from low to high politics, balance of power changes
Parties (individuals and groups)	New and expanded parties, changed group composition and social capital, leadership, objectives, levels of influence, and capacity (formal and informal)	
Institutions	Benefits distributed inequitably Informal: changes in norms Formal: changes in laws/rules that directly affect access, usage, ownership	
Power and influence	Power structures and positions, political economy, politicization	
Conflict tactics	Methods for addressing disputes and dealing with rival groups	
Eco-Economic changes		
Global trends to consider: Modernization/traditionalism, industrialization, market and policy failure, economic and food crises		
Value of and relationship to resources	Social and economic values Resource demand and dependence Domestic and foreign market dynamics	Pressure on livelihoods and increased resource competition may encourage illicit activities

Source: World Bank.

Conflict Risks and Drivers by Natural Resource Category

Figure 2.4 depicts the role of four main natural resource categories (non-renewable, renewable, land, and water) in different phases of the conflict cycle.

FIGURE 2.4 Role in Conflict by Natural Resource Type



Source: Schellens and Diemer 2020 citing Bruch et al. 2019b and UNEP 2016. Reproduced with permission from author; further permission required for reuse.

Certain characteristics of a natural resource impact its role in violent conflict and thus may provide different entry points for peacebuilding and managing risks.

NON-RENEWABLE RESOURCES (EXTRACTIVE INDUSTRIES)

Includes: Oil and gas, minerals, gemstones, timber from old-growth forests

Table 2.3 summarizes the conflict dynamics for non-renewable resources. Non-renewable resources tend to follow the pattern of abundance-driven conflicts.

TABLE 2.3 Non-Renewable Resources (Extractive Industries) Risks and Drivers

OVERVIEW OF RISKS	MAIN DRIVERS OF CONFLICT
High-value natural resources can be used to finance conflict by armed groups	Excluding communities and stakeholders in decision-making
Concentrated benefits in the hands of a few exacerbate inequality, poverty, and corruption	Inadequate benefit-sharing
Can weaken state and society relations when funds from high-value non-renewable resources protect governments from popular demands when other forms of tax collection are not necessary	Adverse impacts on the economy, society, and the environment
Heightens vulnerability to price shocks if the economy is overly reliant on a resource	Mismanagement of resource revenues and financing divisive politics and violence
Commodity price spikes make exports non-competitive	

Source: UNDG and UNECHA 2013.

RENEWABLE RESOURCES

Includes: Water, forests, and productive lands; wind, solar, tidal, and hydro energy; wildlife; timber from forestry; fertile soils; biodiversity; etc. Note that resources are renewable if they are managed, extracted, and used within their regenerative capacity (Schellens and Diemer 2020).

Renewable resources are often associated with scarcity-induced conflict, but an abundant renewable resource can also lead to violent conflict and follow the dynamics associated with extractive industries (Table 2.4).

TABLE 2.4 Renewable Resources Conflict Drivers

Competition over increasingly scarce resources
Supply-induced scarcity
Supply decreases indicate demand cannot be met, i.e., degradation, pollution, breakdown in delivery structure
Demand-induced scarcity
Demand increases cannot be met by existing supply, i.e., population growth, new technologies, increased consumption rate
Structural scarcity
Inequities in distribution create relative scarcity, i.e., different groups have unequal access
Poor governance of natural resources and the environment
Unclear, overlapping, or poor enforcement of resource rights and laws
Discriminatory policies, rights, and laws that marginalize specific groups
Lack of public participation and transparency in decision-making
Transboundary resource dynamics and pressures
Unequal or inflexible allocation or consumption of transboundary renewable resources, i.e. wildlife, fisheries, air and water quality
Negative impacts on renewable resources due to infrastructure, industrial development, and changed land use from neighboring countries
Migration of traditional livelihood practices or wildlife populations across national borders
Illegal exploitation, consumption, and trade of natural resources

Source: UNDG and UNECHA 2013.

LAND

Land is treated as a separate natural resource category due to its holistic nature as a supporting resource for both renewable and non-renewable resources.

TABLE 2.5 Land Risks and Drivers

OVERVIEW OF RISKS	MAIN DRIVERS OF CONFLICT
Depends on stage of the conflict cycle: **Pre-conflict, relative stability:** Latent grievances, access to land or insecure tenure, weak statutory land institutions, elite capture **Active conflict:** Turns violent and results in population displacement, often linked to broader security, livelihood, political, and identity issues **Post-conflict:** Surge in land conflict as populations return home to see their lands have been taken and loyalty rewarded with irregular land allocation	Unequal distribution of land or inequitable access Land tenure insecurity Overlapping land tenure systems and legal pluralism Competing claims and lack of access to dispute resolution mechanisms Displacement and land grabbing

Source: UNDG and UNECHA 2013.

Typical Risks and Drivers Associated with a Changing Climate

This section provides an overview of the potential pathways through which climate change can contribute to conflict and fragility based on *Unpacking the Climate Security Nexus: Seven Pathologies Linking Climate Change to Violent Conflict* (2022), a report by the Hague Centre for Strategic Studies. These are not linear, causal relationships, but rather indicators of the type of dynamic risks that can result from changes to the environment and, consequently, responses at the system, governance, and local levels. The figures below summarize the conflict pathologies, or pathways, through which climate change interacts with social, economic, and political factors to trigger violent conflict. The figures' mediating factors and highlighted regions emphasize the highly contextual nature of the pathways. This resource and others listed in Section 6 evaluate the available evidence, the degree of scientific consensus, and how to address these risks.

The seven pathways below describe how climate factors may lead to conflict:

1. Climate change-related resource scarcity can lead to conflict between pastoralist and sedentary communities.

FIGURE 2.5 Factors Linking Climate Change-Related Resource Scarcity to Conflict Between Pastoralist and Sedentary Communities

Pathology	Climate Factors	Mediating Factors	Conflict	Regions prominently featured in literature
Changes in temperature and precipitation cause forms of scarcity that force pastoralist groups to alter their transhumance routes. This precipitates resource competition between groups, infringes on traditional customary regulations, and increases conflict risk.	Temperature increase, erratic and/or decreased rainfall, droughts, heatwaves.	Resource scarcity, dependence upon agriculture, political and economic marginalization, customary laws and dispute resolution mechanisms, intergroup inequality, presence of water irrigation projects or other forms of human resource use.	Local and lower intensity inter-communal violence.	Africa, Middle East, Central Asia.

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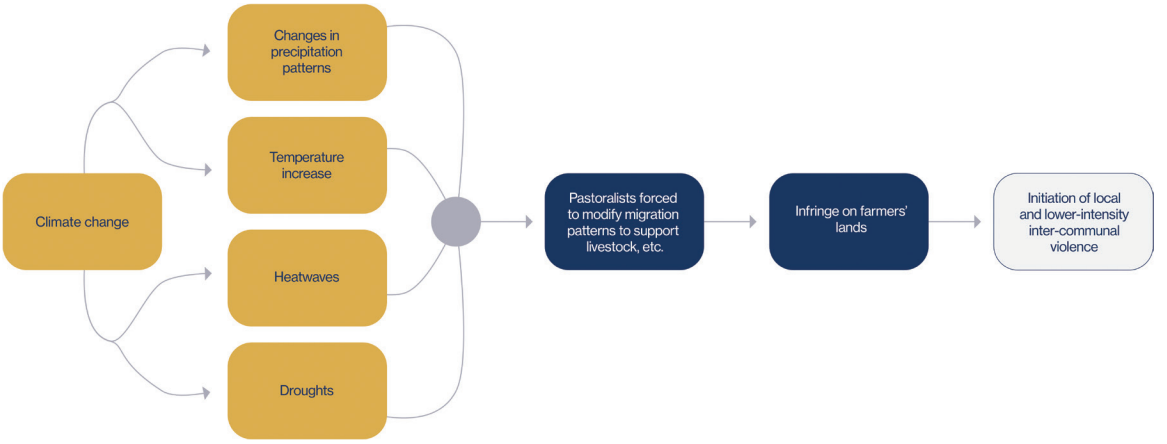
FIGURE 2.6 Pathway Modeling How Climate Change-Related Resource Scarcity Can Lead to Conflict Between Pastoralist and Sedentary Communities



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2. Climate change-related resource scarcity can lead to inter-communal violence and social unrest.

FIGURE 2.7 Factors Linking Climate Change-Related Resource Scarcity to Inter-Communal Violence and Social Unrest

Pathology	Climate Factors	Mediating Factors	Conflict	Regions prominently featured in literature
Climate change-induced scarcity of water, food, and land resources, in combination with social, political, geographic, and economic variables, can trigger inter-communal tensions.	Temperature increase, decreased or erratic precipitation, droughts, heatwaves, and other extreme weather events.	Level of socio-economic development, dependence upon (rain-fed) agriculture, timing (growing-season or not), political instability, demographic pressure, water and road infrastructure, power-sharing arrangements, ethnic fragmentation, political and economic marginalization.	Local, inter-communal, inter-ethnic violence; civil unrest.	Middle East, Sahel and Sub-Sahara Africa, Central and Latin America, Asia.

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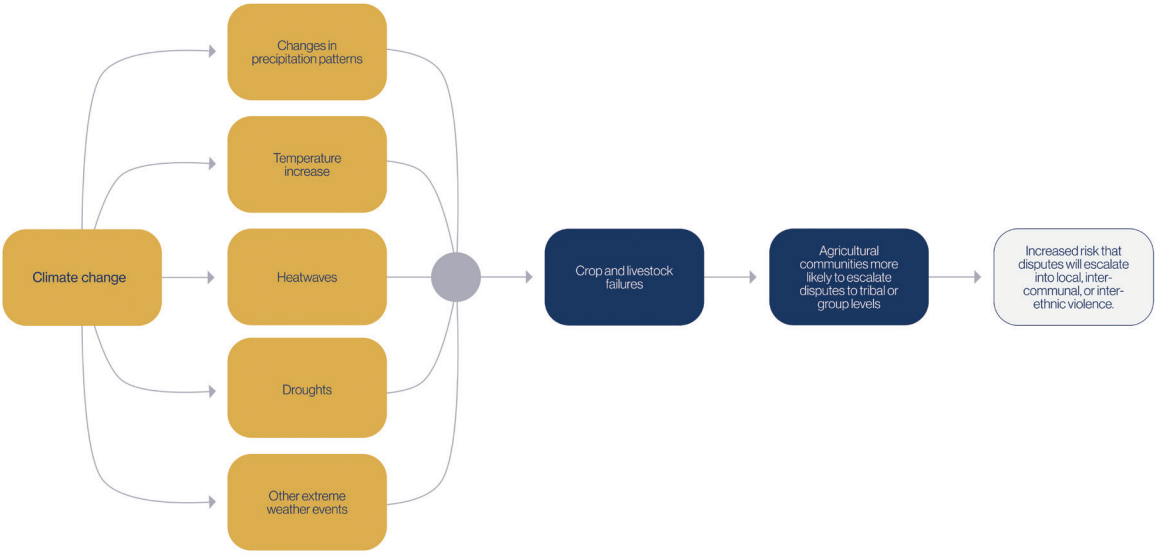
FIGURE 2.8 Pathway Modeling How Climate Change-Related Resource Scarcity Can Lead to Inter-Communal Violence and Social Unrest



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3. Climate change can precipitate internal migration, which may lead to social unrest.

FIGURE 2.9 Factors Linking Climate Change-Related Internal Migration to Social Unrest

Pathology	Climate Factors	Mediating Factors	Conflict	Regions prominently featured in literature
Climate change can lead to migration, whether from rural to urban areas or between rural areas. This can spark social unrest by increasing resource competition and exacerbating feelings of relative deprivation, as well as the severity of inter-cultural clashes.	Rapid onset hazards such as floods, storms, and forest fires. Slow onset hazards such as temperature change, precipitation decrease, and drought.	Institutional capacity, resource scarcity, level of socio-economic development, ethnic fragmentation, demographic growth.	Local and low-intensity conflict, such as social unrest, riots, protesting, and inter-ethnic violence.	Africa, Middle East and North Africa, South Asia, Latin America.

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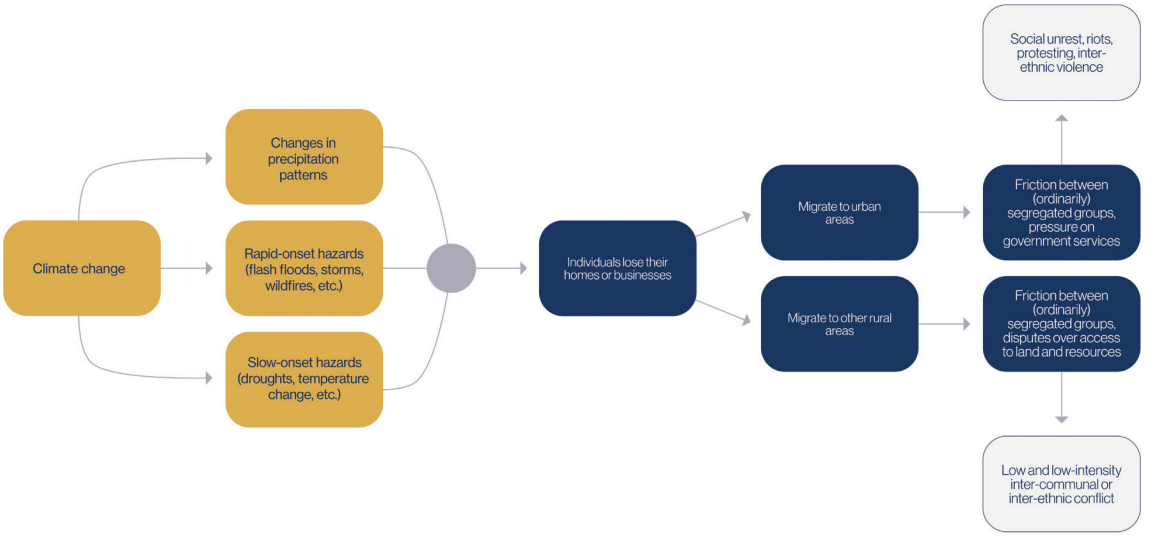
FIGURE 2.10 Pathway Modeling How Climate Change Can Precipitate Internal Migration Leading to Social Unrest



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4. Climate change-related social unrest can empower non-state armed groups.

FIGURE 2.11 Factors Linking Climate Change-Related Social Unrest to the Empowerment of Non-state Armed Groups

Pathology	Climate Factors	Mediating Factors	Conflict	Regions prominently featured in literature
Climate change interacts with state fragility and contributes to livelihood deterioration, creating fertile ground for the emergence and expansion of non-state armed groups (NSAGs).	Temperature increase, erratic and/or decreased rainfall. Extreme weather events such as heatwaves, floods, or storms.	State fragility, dependence upon (rain-fed) agriculture, resource scarcity, level of economic development, quality of infrastructure and public services, unemployment, presence of non-state armed groups, degree of ethnic fragmentation, economic and political marginalization.	Civil armed conflict, including terrorism, guerrilla warfare and insurgencies against the state. Many of these forms of conflict can become internationalized given the correct circumstances.	Africa (Sahel, Sub-Sahara), Middle East, Asia, Latin America.

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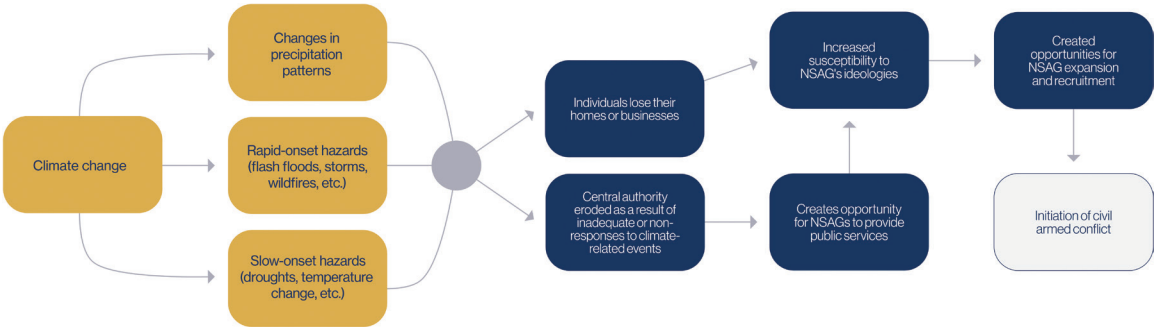
FIGURE 2.12 Pathway Modeling How Climate Change-Related Social Unrest Can Empower Non-state Armed Groups



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5. Interventions aimed at mitigating the effects of climate change can have adverse effects.

FIGURE 2.13 Factors Linking Climate Change Mitigation Interventions to Adverse Effects

Pathology	Climate Factors	Mediating Factors	Conflict	Regions prominently featured in literature
Climate change policies can trigger political exploitation and marginalization of groups, aggravating existing grievances and tensions.	Temperature increase, erratic and/or decreased rainfall. Rapid onset climate events such as floods, or (tropical) storms.	State capacity, degree of foreign development aid; top-down policy mechanisms, presence of non-state armed groups, ethnic fragmentation, political and economic marginalization, strength of civil society.	Terrorism, inter-communal violence, insurgencies and separatist movements against the state, state violence towards inhabitants.	Sahel, Latin America, Asia.

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FIGURE 2.14 Pathway Modeling How Interventions Aimed at Mitigating the Effects of Climate Change Can Have Adverse Effects

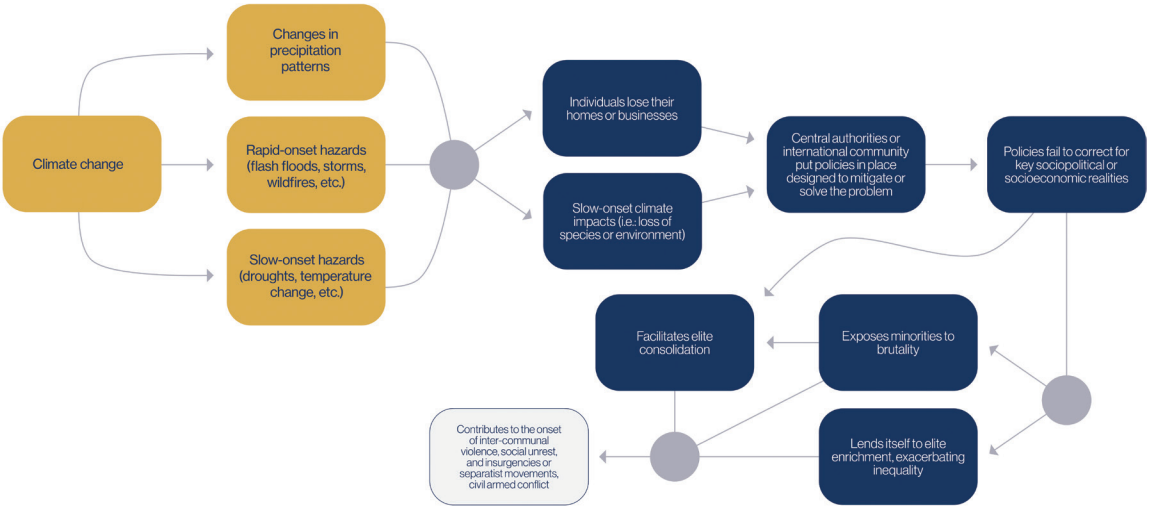

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Table 2.6 lists common climate mitigation policies and the potential pathways to conflict.

TABLE 2.6 Common Climate Mitigation Policies and Potential Pathways to Conflict

POLICY APPROACHES	SAMPLE POLICY OUTCOMES THAT LINK TO CONFLICT PATHWAYS	CONFLICT DRIVER
Economic instruments—taxes, including a carbon/energy tax (domestic)	Changing the relative price of goods as determined by carbon emissions Altering the viability of economic activities as determined by carbon emissions and international demand for carbon permits	Increasing food and fuel prices Loss of targeted livelihoods Adverse distributional effects along pre-existing societal cleavages
Economic instruments—international, regional carbon and permit trading, including the Clean Development Mechanism (CDM) and Reducing Emissions from Deforestation and Degradation (REDD+)	Large financial flows from international trading of permits and emission rights Altering the viability of economic activities as determined by carbon emissions and international demand for carbon permits Altering incentives for the use of land (e.g., REDD+)	Corruption, rent-seeking, and displaced economic activity Unequal distribution of benefits locally and internationally Loss of land tenure and displacement, especially of marginalized groups
Economic instruments—Subsidies	Reducing the price of renewable energy and biofuels Eliminating subsidies for fossil fuels	Increased consumer vulnerability to commodity and trade shocks, especially for major food importers Adverse distributional effects
Standards (low carbon fuel standards, sectoral targets on energy, transportation, and other energy-intensive sectors)	Increasing the price of fossil fuels Increasing the price of specific goods or activities (e.g., electricity or transportation) Altering the viability of specific economic activities Changing agriculture and land use by incentivizing the production of biofuels	Price effects especially challenging for the poor Adverse direct distributional effects by targeted sector Reduced income from international tourism Loss of state revenues for major oil exporters Adverse livelihood effects—loss of small subsistence farmers
Government provision of public goods or services	Altering use of state/national land for mitigation programs Support for research, development, and deployment related to low carbon technologies	Reduced use of and access to public lands for livelihoods and recreation Changes in patterns of economic growth and employment opportunities with winners and losers

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6. Climate change-related social unrest can precipitate large-scale political movements, provoking a government crackdown.

FIGURE 2.15 Factors Linking Climate Change-Related Social Unrest to Large-Scale Political Movements and Government Crackdowns

Pathology	Climate Factors	Mediating Factors	Conflict	Regions prominently featured in literature
Climate hazards can provoke a window of opportunity for violent and non-violent opposition to further undermine authorities. This erodes state capacity and exacerbates social vulnerability. Conflict arises as a result of the state's (violent) crackdown on dissent.	Rapid onset hazards as floods, storms, and landslides.	State capacity, economic development, infrastructure and communication structures, ethnic polarization, strength of civil society.	Social unrest, rioting, terrorism, and state violence against citizens, as well as armed civil conflict.	Africa (Sahel, Sub-Sahara), Middle East, Asia, Latin America.

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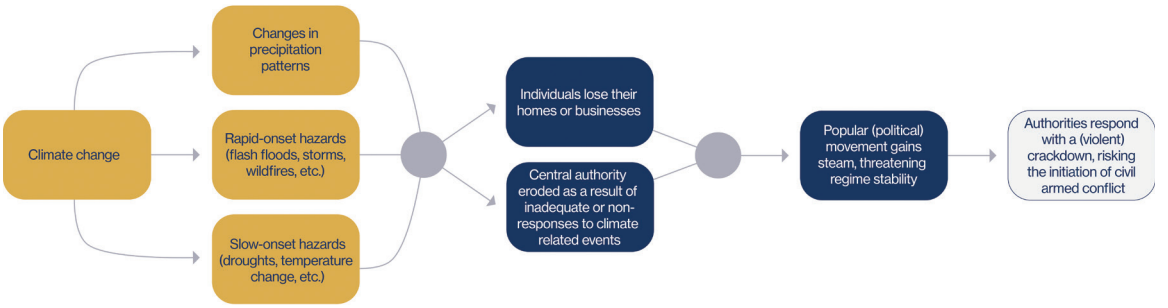
FIGURE 2.16 Pathway Modeling How Climate Change-Related Social Unrest Can Precipitate Large-Scale Political Movements and Government Crackdowns



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7. Disputes over transboundary resources can cascade into intrastate conflict.

FIGURE 2.17 Factors Linking Disputes Over Transboundary Resources to Intrastate Conflict

Pathology	Climate Factors	Mediating Factors	Conflict	Regions prominently featured in literature
Climate change can foster tensions over transboundary resources in three main ways: 1) water scarcity raises tensions over transboundary freshwater resources; 2) temperature increases create a new frontier for disputes in the Arctic; 3) diplomatic disputes over climate mitigation measures and responsibility.	Temperature increase, decreased or erratic precipitation, droughts.	Economic development, size of the shared river basin, population density, existing diplomatic relations, water management structures, political instability.	Diplomatic tensions, local conflict, in extreme cases this can instigate interstate conflict.	1) Arid regions with major cross-boundary river basins, such as the Nile River, the River Jordan, and the Euphrates-Tigris; 2) the Arctics.

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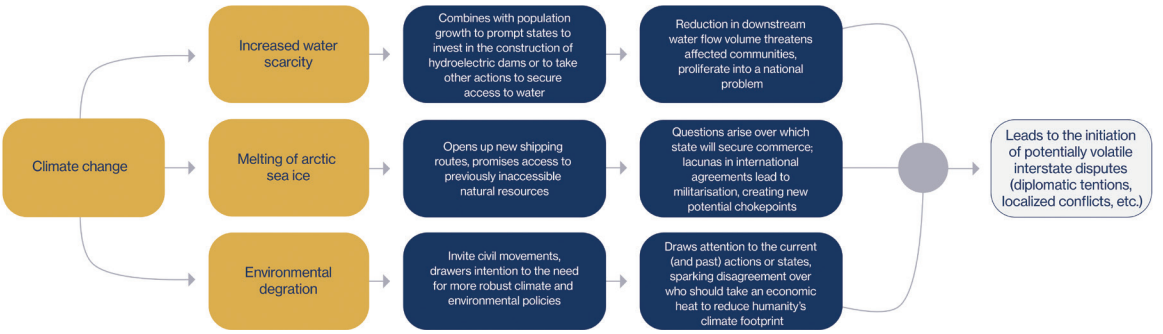
FIGURE 2.18 Pathway Modeling How Disputes Over Transboundary Resources Can Cascade into Intrastate Conflict



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SECTION

3

Aligning with the FCV Strategy

This section answers, what are the environment and NRM-related opportunities and entry points across the conflict cycle? How do these align with the World Bank's FCV Strategy?

- How do environment and natural resource management interventions contribute to peacebuilding priorities? What is their role in preventing violence and building resilience at the pre-fragility, active conflict, and post-conflict stages?
- How can such interventions be designed to mitigate harms and avoid exacerbating conflict and fragility?
- What are the opportunities to support sustainable livelihood opportunities and enhance community resilience? Identify ways to change the inequitable distribution of resources, particularly if the direct use of natural resources is critical to livelihoods in the project area.

PILLARS OF ENGAGEMENT:

Environmental Risks and Opportunities Throughout the Conflict Cycle

This section builds on the previously described environmental risks at each stage of the conflict cycle, with recommendations on the opportunities and strategic entry points for the World Bank.

The FCV Strategy's four pillars serve as an illustrative structure that recognizes the cyclical nature of conflict and its tides. Indeed, the line between post-conflict and pre-conflict fragility is difficult to distinguish. The former term can be misleading—as the recurring countries of the FCS list demonstrate, periods of conflict that end in peace agreements can be followed by new cycles of violence. Peace is a process rather than a stage marked by a ceasefire or negotiation. It is not uncommon for an FCV-affected country to experience all three stages at once across its geography.

The recommendations provided follow this paradigm and are intended to be overlapping, reinforcing, and open to interpretation for those who work and live in FCS. In practice, development teams seize the opportunities available to them and the realities of the local political economy. This work seeks to draw attention to the *potential* sequence of risks and opportunities, but it is important to emphasize that one cannot assume the flow to be linear or uniform over space and that in reality, engagement is often opportunistic. This work aims to help identify such opportunities and their significance to highlight the important role of the World Bank's environment and NRM interventions and of the environment-conflict nexus in mitigating risks.

PILLAR I

Preventing Violent Conflict and Interpersonal Violence Throughout the Conflict Cycle

TABLE 3.1 Pillar I Environmental Risks and Opportunities – Preventing Violent Conflict and Interpersonal Violence Throughout the Conflict Cycle

PRACTICAL APPLICATION OF THE PILLAR	» **Acknowledgement and Conflict Sensitivity:** Tackling risks and grievances early and strengthening sources of resilience before tensions turn to crises
RISKS ASSOCIATED WITH NATURAL RESOURCES AND ENVIRONMENT	» Causing tensions and grievances » Fueling and financing conflict » Competition and displacement increasingly add stress to the environment
WORLD BANK STRATEGY AND PRIORITIES	» **Advance peacebuilding priorities through natural resource management and good resource governance** » **Seize opportunities to acknowledge environment-conflict linkages** » Highlight governance support that accompanies climate mitigation and adaptation efforts » Target issues that are key for resilience against drivers of fragility and conflict » Measure impacts of interventions on target issues and human vulnerability » **Capitalize on opportunities to mitigate risks** » Factor in impacts of conflict and fragility throughout the project cycle » Use gender-sensitive natural resource management for conflict prevention and resolution » Anticipate and manage adverse impacts associated with increasing or decreasing value or quantity of natural resources
EXAMPLES OF WORLD BANK PROGRAMMING	» **Articulate differentiated response to FCV systematically through analytical products identifying key drivers of fragility and factors of resilience** *Program-Level* » Risk and Resilience Assessments » Country Partnership Frameworks » Systematic Country Diagnostics » Peace lens and conflict filters *Project-Level* » Context analysis and integrated solutions with an intersectional lens » Basic safety and security » Provision of basic services » Restoring government functions » Inclusive political processes and dispute resolution mechanisms » Economic employment, revitalization, and livelihoods

The Role of NRM in Preventing Violence and Building Resilience

Building resilience and adaptation to climate in conflict- and climate change-vulnerable settings is key to preventing conflict and fostering sustainable development outcomes. Literature and implementing agencies have described several approaches and pathways by which the management of environmental issues supports conflict prevention, mitigation, resolution, and recovery, which Ide et al. 2021 defines as environmental peacebuilding. The same factors that make a country or community vulnerable to conflict make them vulnerable to climate change, and sustainable livelihoods, social cohesion, and effective governance are key to coping with shocks and stresses associated with both. NRM contributes to peacebuilding priorities identified by humanitarian actors: basic safety and security; provision of basic services; restoring government functions; inclusive political processes and social cohesion; and economic revitalization, employment, and livelihoods (Ide et al. 2021; UNDG and UNECHA 2013; UN-IFTPA 2012b).

Security. The inclusive and sustainable management of natural resources can help avoid tensions related to natural resources from turning violent. The inequitable allocation of natural resource benefits and unsustainable exploitation without regard for the health, livelihoods, and wellbeing of surrounding communities can foment grievances that trigger protests and violence.

Basic services. NRM offers a pathway for delivering sustainable access to basic services, such as water provision, sanitation, food security, and energy.

Restoring government functions. NRM has the potential to support the equitable and transparent distribution of resource benefits and revenue to foster trust in government institutions – demonstrating its ability to meet the needs of its population by providing basic services and to respond to challenges and disputes reliably, peacefully, and with accountability.

Inclusive political processes and social cohesion. Inclusive and transparent NRM systems and meaningful engagement opportunities can help calm conflict risks by addressing tensions around contested issues. Inclusive NRM can support social cohesion in terms of vertical social capital, i.e., the trust between citizens and the government, as well as horizontal social capital, i.e., among members of society. Natural resources can be a valuable entry point for dialogue and confidence-building between divided groups to work toward a common goal with multiple benefits, i.e., peace dividends. Moreover, social inclusion and reduced inequality make growth more resilient, whereas exclusion from basic services, infrastructure, and economic opportunities constrains productivity.

Economic revitalization, employment, and livelihoods. Livelihood insecurity and economic performance are key predictors of peacebuilding failure and fragility (Ide et al. 2021 citing Cederman and Vogt 2017; Gueorguiev et al. 2021). Climate change and natural resource degradation threatens resource-dependent communities and national economies. Effective NRM supports the stability of the economy at the national and local levels and can be used to enable productive, sustainable, and rewarding livelihoods.

With a clear connection between natural resources and peacebuilding priorities, the World Bank can help consolidate peace by addressing some of the root causes of conflict and providing a foundation for long-term sustainable development. Figure 3.1 illustrates how areas of natural resource support offered by World Bank operations, especially those that support mitigation and adaptation strategies, intersect with and advance peacebuilding priorities.

FIGURE 3.1 Mapping Linkages between Natural Resource Management and Peacebuilding

Source: Adapted from UNDG and UNECHA, 2013. Reproduced with permission from UNEP.

The World Bank is well positioned to enhance these critical dimensions described in its work with governments and communities in FCS. For example, the Environment, Natural Resources, and Blue Economy (ENB) GP supports larger peacebuilding priorities by building good governance and trust in governments, public services, social cohesion and relationships between groups, gender equality and social inclusion, and access to livelihood opportunities and public services. The GP takes an integrated landscape approach that contributes to conflict management with natural resources as an entry point for joint management, cooperation, and peacebuilding. For example, the Regional Sahel Pastoralism Support Project uses a range of interventions to support transboundary migration as an adaptation strategy against drought and conflict by pastoralists: migration corridors, shared water points, veterinary services and surveillance for major diseases, and more robust early warning systems and crisis response. In addition to building climate resilience, the ENB GP supports institutional resilience by supporting governance at multiple levels. It supports mechanisms to regulate access to scarce or abundant natural resources and builds up the capacity of local and national institutions so that systems can be inclusive and resilient to shocks. The GP's extensive experience in identifying and seizing opportunities to foster good resource governance includes (a) information gathering, stakeholder mapping, and analysis; (b) community dialogues, establishing measures to build confidence and trust between groups with competing viewpoints; and (c) developing inclusive, transparent, and accountable NRM systems and meaningful engagement opportunities for conflicting parties to prevent escalation around contested issues.[9]

Environment and NRM support to FCS is present in every individual World Bank intervention through application of the Environment and Social Framework (ESF), which provides risk management support to programming.[10] ENB can leverage risk management capabilities to support planning in FCV settings and help inform actions on the ground to reduce the causes of fragility and drivers of conflict while supporting WBG operations. Its presence can help teams within and outside of the GP delineate

9 Environmental peacebuilding strategies for prevention quoted from Ajroud et al. 2017, 12.

10 The objective of the World Bank's Environmental and Social Framework is to prevent and mitigate undue harm to people and their environment in the development process. The ESF, which became effective on October 1, 2018, consolidated and modernized the previous Safeguards Policies, which were established some twenty years previously.

how strategic operations can be steered toward productive sectors and provide strategic support to stabilize local communities. ENB is also involved in NRM across productive uses (agriculture, livestock, forestry, fisheries, etc.), granting it a comparative advantage in reducing conflict over natural resources and supporting resilience across landscapes. IEG has emphasized the importance of an environmental lens at the project level to understand how ongoing and planned interventions in productive sectors may or may not be triggering tensions around natural resources, as well as at the programmatic level through diagnostic tools, such as the RRA and analyses that feed into the Systematic Country Diagnostic (SCD) and are required inputs for Country Engagement Notes (CEN) and Country Partnership Frameworks (CPF) for International Development Association (IDA) FCS.

Conflict-Sensitive Programming and Context Analysis

Environment, conflict, and fragility linkages should be acknowledged throughout the project cycle. The key to conflict sensitivity is the assumption that no intervention is neutral—interventions interact with drivers of fragility and may give rise to positive and/or negative contributions, with different winning and losing parties, intentionally or unintentionally, directly or indirectly. Understanding the aforementioned risks in FCS helps avoid exacerbating or generating conflicts, while also identifying opportunities to prevent violence and advance resilient development efforts. Although projects may not explicitly discuss conflict management, the practices employed by teams reflect a conflict-sensitive approach. Such projects aim to support the resilience of countries by advancing peacebuilding and natural resource linkages, as well as mitigating operational risks by employing strategies that support both. NRM can exacerbate tensions as well as mitigate risks, depending on whether interventions enable or disable the factors driving conflict and fragility. Enabling them warrants attention to the role of the World Bank's environment and natural resource interventions to build resilience, and disabling them to the role of nexus-informed conflict sensitivity. A conflict-sensitive approach grounded in an understanding of the environment-conflict nexus paves the way for anticipating and mitigating negative consequences to ensure sustainable development outcomes.

Gender-sensitive natural resource management can support conflict prevention and resolution. FCV contexts are entry points to advance women's participation in NRM and climate resilience. The gendered implications of conflict are persistent in their impacts on development outcomes and are therefore a critical factor to consider in operations and peacebuilding. Women on the frontlines of climate change not only have specific vulnerabilities, but they have also developed capacities and coping mechanisms to adapt to hazards and a changing climate. They also have played major roles in environmental conflict resolution to address natural resource-induced disputes. Box 3.1 describes examples of gender-responsive approaches for NRM and peacebuilding success.

BOX 3.1

Gender-Responsive Approaches for NRM and Peacebuilding Success

In North Kordofan, Sudan, gender-responsive approaches to NRM for peacebuilding resulted in advancing both women's natural resource-based livelihoods and their participation in community dialogues and local conflict resolution processes to bring pastoralist, farming, and IDP communities and solve conflict over access to land and water (UNEP, UN Women, and UNDP 2019). These approaches, which focused on the development of alternative natural resource-based livelihoods,

Continued

BOX 3.1
Continued

the establishment of cooperatives for women, and capacity-building in leadership, conflict mediation, and management also contributed to changing perceptions and attitudes towards women's participation in NRM and conflict resolution.

In post-conflict Burundi, for example, women's associations replanted over 400,000 native and eucalyptus trees in the Kibira forest to address conflict-related environmental degradation while generating income created by the eucalyptus trees once harvested (UNEP et al. 2013). Women's efforts contributed to the sustainable management of forests while helping prevent future resource-related conflict.

In Colombia, a Mercy Corps project in Chocó and Antioquia strengthened women's leadership in resolving natural resource conflicts among Afro-Colombian and Indigenous communities and promoted their participation in the creation of ethno-territorial plans about land use (Smith, Olosky, and Fernández 2021). Building their capacity in conflict mediation and land titling procedures helped resolve conflicts on more than 200,000 hectares of land and formalize about 500 vacant state land title applications.

Women have also improved conflict resolution in fisheries management by enhancing cooperation and information sharing (Siles et al. 2019). In Somalia, research found that women had a positive deterrence effect on illegal fishing and dissuaded men in their family from engaging in piracy (Lawellin and Monahan 2017).

Ensuring women's participation in NRM and governance is critical for both peacebuilding and increasing shared prosperity. Fostering an enabling environment for women's leadership in these processes builds resilience to climatic and resource pressures by addressing user concerns that may otherwise be overlooked. Gender-inclusive conflict resolution and mediation strategies can also have positive impacts on natural resources, as seen in Sudan and Colombia in Box 3.1. Operational teams can apply these lessons already in the project preparation stage through stakeholder engagement and local studies, and by setting measurable goals related to gender inclusion and resource governance. As projects progress, gender-disaggregated indicators and inclusive M&E practices can help achieve such targets. Flexibility in project design—and where necessary, restructuring—can also help projects adapt to changing circumstances and ensure inclusion.

Women and girls are agents of change, and WBG projects can enable them to play that role through its technical assistance and support to governments. NRM and climate change-related projects represent only one entry point that can help create the enabling environment—others include legal support, norms change, asset transfers, and social protection—and these opportunities are not limited to specific sectors. Two additional ways of enabling include engaging women and girls in NRM- and climate-related projects early through stakeholder engagement, and tailoring projects to engage women as decision makers in the peacebuilding and resource management processes. Yet holding projects and implementers accountable through gender-specific results framework indicators, gender action plans, and ESF engagement can ensure aspirations for engaging women are met with results.

Consider Impacts Beyond the Biophysical

Impacts on land and communities should be assessed and evaluated from the programmatic to the project level. Environmental interventions are a strategic, but not comprehensive tool for supporting peace. Natural resource and climate change adaptation and mitigation solutions must go beyond the biophysical and consider sociopolitical contexts and impacts so that they are sustainable.

IEG's *Natural Resource Degradation and Vulnerability Nexus* (2021) evaluation found that the programs that have yielded the largest benefits environmentally and socially were those where threatened areas *and* vulnerable resource users were carefully targeted. The WBG has had success in measuring the biophysical outcomes of its natural resource interventions, but the evaluation determined that it does not always measure the social welfare and community-level consequences or adequately address the vulnerability of resource-dependent people where resource degradation threats are prominent. This raises the importance of examining the social impacts interventions have on those that are resource-dependent throughout the project cycle to identify the users and their specific needs to mitigate harmful impacts on their livelihoods. The evaluation determined that of nexus countries that exhibit both a high degree of resource degradation and resource dependence among poor resource users, only fifty percent of SCDs and forty percent of CPFs include an analysis of resource degradation and associated human vulnerability. CPFs form the basis of country engagement decisions and eventually lending, and although degradation is mentioned as a threat for FCS, these documents do not always make the connection to human vulnerability.

The WBG's *Action Plan on Climate Change Adaptation and Resilience* (2019) (Appendix C) underscores the important role of social resilience, focusing on the most vulnerable populations, to address adaptation and mitigation efforts. The objective of the Action Plan is to help countries identify key areas of action to achieve more systematic climate resilience, with special attention given to the poor, those affected by FCV, and small island states. The Action Plan specifies better understanding and acting on the potential impacts of climate change in FCV as a priority area and supports scaling up support for climate risks associated with migration, food security, and economic shocks. It provides a framework for mainstreaming systematic climate risk management into development, but these entry points also offer an opportunity for climate and conflict-informed analyses and investments. Along similar lines, the Country Climate and Development Report (CCDR) is a core diagnostic tool to highlight where climate and development intersect, taking into account key issues like social and economic exclusion. The CCDRs are designed to address disconnects between national climate and development policies and to identify actions with potential for high impact in reducing GHG emissions and building climate resilience. While most countries have some form of climate strategy, usually set out within Nationally Determined Contributions (NDCs), current goals remain disconnected from national development policies and economic strategies. CCDRs aim to bridge this gap, providing clarity on responsibilities and accountability across sectors and between government institutions.

Attention to Local and Global Changes in Valuation of Natural Resources

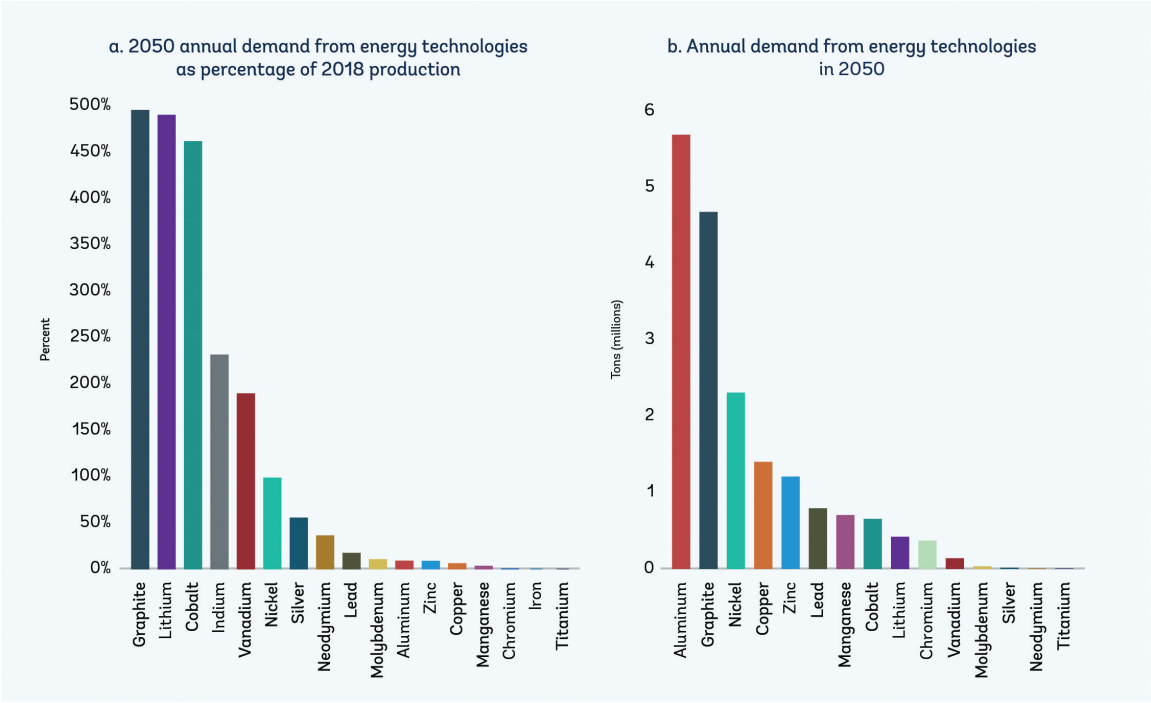
Given the risks associated with changing natural resource values, it is important to anticipate and mitigate conflicts that may arise with changes to the quantity and quality of natural resources, including the transition to renewable energy. Non-renewable mineral resources required for the clean energy transition are primarily available in FCS-affected countries and ensuring a just transition for oil-reliant economies will be critical for stabilizing the loss of government revenues. The World Bank has a role in buffering these shocks with support to livelihoods and building capacity for resource governance.

The occurrence of human rights abuses is rising in the renewable energy sector (Business & Human Rights Resource Center 2021; Tong 2021). Wind and solar energy infrastructure require more land than fossil fuel projects and have raised issues surrounding land rights, land and water grabs, and forced displacement. For some countries, the land that is open and suitable for such expansive projects is predominantly Indigenous.

The Business and Human Rights Resource Center identified 197 allegations of human rights abuses since 2010, 40 percent of which are Indigenous victims. The allegations span a range of renewable energy sources (wind, solar, bioenergy, geothermal, and hydropower) and geographies (Mexico, Chile, Ethiopia, Kenya, Morocco, Taiwan, and Guatemala). Projects have also caused tensions to arise within communities—a single wind farm in Oaxaca, Mexico fomented discontent among community members and resulted in 15 deaths. Benchmark scores evaluating the human rights policies of the 15 largest renewable energy companies are on par with high-risk industries, including extractives, apparel, agricultural products, and information and communications technology (ICT) manufacturing. The renewable energy sector is at a flashpoint between a profit-driven extractives model or a new model with human rights at its center. The WBG not only has a role in making sure that communities will not be harmed, but also that the renewable energy movement, and the WBG as a prominent investor in that movement, do not face reputational risks. GPs such as ENB, SSI, Agriculture, and Water, among others, have experience working with different stakeholders, including Indigenous communities, to elucidate legitimate tenure over land for the equitable, transparent sharing of benefits and are well suited to meet this need.

Minerals are the new fossil fuels needed to make renewable technologies work. The World Bank's GPs working in this space have a key role in ensuring that communities can benefit from the green industrial revolution and avoid exploitative extraction. The World Bank estimates that demand for clean energy technologies could require a 500 percent increase in the production of minerals like graphite, lithium, and cobalt by 2050 (Figure 3.2) (Hund et al. 2020). Over three billion tons of materials and metals are needed for wind, solar, geothermal power, and energy storage infrastructure to meet the Paris Agreement's targets.

FIGURE 3.2 Relative and Absolute Demand Increases of 17 Minerals Key to the Renewable Energy Transition, by 2050



Source: World Bank (Hund et al. 2020).

PILLAR II

Remaining Engaged During Crisis Situations to Protect Human Capital and Institutions

TABLE 3.2 Pillar II Environmental Risks and Opportunities – Remaining Engaged During Crisis Situations to Protect Human Capital and Institutions

PRACTICAL APPLICATION OF THE PILLAR	» **Mitigation:** Building resilience, protecting essential institutions, and delivering critical services
RISKS ASSOCIATED WITH NATURAL RESOURCES AND ENVIRONMENT	» Damaged by conflict directly and indirectly » Coping strategies for immediate survival as opposed to sustainable long-term resource management and use » Habitat, biodiversity loss, and pollution » Extracted to fuel and finance conflict » Weapon of war to intimidate and weaken opposition and control populations living in contested areas » Governance vacuum – neglect of key resource management functions, expansion of illegal and criminal exploitation of natural resources, loss of tenure security » Unfavorable resource contracts and concessions due to urgent need for cash, weak negotiating power in a high-risk environment, and reduced public oversight
WORLD BANK STRATEGY AND PRIORITIES	» **Seize entry points to mitigate risks and build resilience** » Stabilize situations where there is prolonged, medium-intensity conflict and where natural resources may fuel conflict » Provide a development approach that is complementary to humanitarian relief and that is conducive to sustaining livelihoods beyond the immediate-term
EXAMPLES OF WORLD BANK PROGRAMMING	» Environment and Social Framework » Support for livelihoods and food security » Community-driven development approach » Partnerships with humanitarian agencies and local actors (especially women and youth) » Strengthening traditional dispute resolution mechanisms and improving their inclusivity

The FCV Strategy maintains that remaining engaged during conflicts and crisis situations contributes to security, stability, and poverty reduction. It posits disengagement as a last resort, which can impact the most vulnerable, and a commitment to working across the humanitarian-development-peace nexus with organizations that have a presence on the ground to complement each other's work. Operationally, the environment is not treated as a priority during active conflict, but its relevance to extreme natural

resource scarcity makes it imperative to pay attention to the risks and drivers described in this report.

Natural resources are a lifeline for livelihoods and food security in FCS contexts, especially during conflict. The high prevalence of subsistence agriculture in many FCS means people can continue feeding themselves even when trade and markets are compromised (Bruch et al. 2019). However, the threat of conflict, climate change, and population growth due to in-migration compounds the strain on livelihoods, the social fabric, and the resilience of communities living outside of conflict-affected areas in a delicate peace. Natural resources can fuel grievances, and lack of opportunity has been linked to rebel recruitment efforts, highlighting the critical need to provide support for livelihoods (Box 3.2).

BOX 3.2
Violent Extremism in Africa

In 2017, the United Nations Development Programme (UNDP) published the report, *Journey to Extremism in Africa: Drivers, Incentives, and the Tipping Point for Recruitment*, which set out to uncover what prompts individuals to join violent extremist groups. Radicalization, recruitment, and extremism are fueled by perceptions of exclusion and injustice resulting from lack of opportunity, human rights abuses, grievances, lack of trust in state authority, poverty, and inequalities. Findings from the report indicate the importance of inclusive, sustainable solutions:

- The majority of recruits come from borderlands and peripheral areas withstanding generations of marginalization, and center-periphery divides in the region have been exacerbated by Africa's overall economic growth.
- Employment is the most frequently cited need at the time of joining; 55 percent of recruits expressed moderate to severe frustration with their economic conditions.
- 83 percent of recruits believe that government only looks after the interests of a few.
- Though it may be influenced by globalized ideas, recruitment is a highly localized process in Africa that relies less heavily on the Internet than other regions. Local community social networks are very influential.

Source: UNDP Regional Bureau for Africa 2017.

Conflict can thus increase the relevance of World Bank projects focused on the environment and natural resources to build the resilience of communities, deliver critical services, and support livelihoods. A World Bank-financed project on Sustainable Fisheries Development in the Red Sea and Gulf of Aden (SFISH) includes an engagement in Yemen, which faces high-intensity conflict, to address sustainable fishing and mitigate environment-conflict linkages. In Somalia, Asian trawlers function without permits and support is sought to capitalize on this formal source of government revenue, which could be a basis for revenue-sharing with member states. Similarly, although the project area of the Colombia: Connectivity and Biodiversity Conservation in the Colombian Amazon Project was completely under rebel control and inaccessible to project staff, it reported that strategies aimed at improving livelihoods through differentiated production methods (honey, silvo-pasture, etc.) were successful (GEF 2020). The project was seen as an asset to social cohesion, as many ex-combatants secured jobs through its sectors of interest. Environmental management also plays a prominent role in accommodating refugees fleeing conflict. In Syria, host communities sought the support of the World Bank and the ENB GP to address the environmental impacts of displacement and help manage the water and waste management pressures put on municipalities and small towns that became cities.

With financial support from sources such as the GEF and the Forest Carbon Partnership Facility (FCPF), the ENB GP has been able to maintain engagement in FCS countries and, thus, play an important role in building the community development base. When there is no real government presence or IDA funding is lacking and the government is in arrears, grants allow ENB to maintain a consistent presence. In such cases, projects may have started in the prevention, pre-conflict phase, but with grant funding, were able to continue to build the community development base during conflict. In Sudan for example, ENB projects continued to operate, helping stabilize situations with prolonged, medium-intensity conflict and where natural resources may fuel conflict. One staff member remarked on the uniqueness of environmental interventions—that the nature of the work in isolated and protected areas means work can continue and deliver on environmental outcomes. Such is the case in Nigeria, where there are clear conflict hotspots, but the rest of the country is simmering. In Burkina Faso, the Communal Climate Action and Landscape Management Project assessed the security profile in different municipalities to evaluate where project interventions should take place. Because of the focus on governance, the project focused more on areas with medium security risks and areas under pressure with increasing security risk, not active conflict or inaccessible zones. Thus, even during active conflict, opportunities remain to engage and encourage local stewardship.

As the World Bank increasingly enters areas traditionally under the purview of humanitarian actors, it may contribute a development approach that is complementary to humanitarian relief and that is conducive to sustaining livelihoods beyond the immediate term. During protracted conflict, humanitarian and development actors often find themselves working at the same time and there is growing recognition of the complementary nature of efforts. The WBG can foster resilience in ways not covered by traditional humanitarian responses. The FCV Strategy recognizes the WBG's comparative advantage for sustained and long-term engagement to support national systems, strengthen core state functions, build institutional resilience and capacity, engage with a wide range of stakeholders, and leverage finance to address the root causes of fragility.

It is important to note that tensions can emerge where humanitarian and development interests clash or overlap. The humanitarian perspective focuses on social protection, working with urgency to provide basic needs, for example through cash-for-work in community gardens. However, these can fail to support sustainable NRM and strip the community of its resilience with short-term solutions. As the humanitarian side becomes more involved in development, and the development side becomes more involved in humanitarian work, the sphere of competition is livelihoods. The World Bank has only recently begun accepting more risk than it traditionally has, so there is minimal history of overlap, but as conflict bubbled in the northeast of Nigeria, the WBG's task team reported considerable pushback as it was seen as attempting to transition from the humanitarian phase to the development phase "before things were ready."[11]

However, humanitarian actors that have been increasingly working in the development space have taken steps to address the linkages between their work and the environment, recognizing that sustainable outcomes save lives. In the immediate situation in Ukraine, for example, ICRC has been working on freshwater

11 Interview with task team member, November 2021.

delivery to avoid sanitation and waste issues. In response to protracted, long-term conflict that goes through cycles of high and low hostility, the institution has focused on development work geared toward increasing the resilience of populations. Development and humanitarian agencies meet in the middle with a "do no harm" approach, which is expanding beyond preventing harm in terms of human life to avoiding doing harm by exacerbating or perpetuating underlying conflicts over NRM. The ICRC is beginning to look at the environmental impacts of its efforts, using the World Bank's Environmental and Social Management Framework (ESMF) as a model.

The ESF identifies and mitigates environmental and social risks and potential impacts. As such, it is the primary entry point for environment and natural resource considerations in active conflict. Environmental (and social) impact professionals are often the first to arrive and the last to leave in countries experiencing active conflict—whether the project is related to livelihood support, health care, basic education, food aid, etc. This is due to the need to conduct due diligence assessments of potential environmental impacts, even if the area of impact is one of active conflict or adjacent to conflict. In rare cases, ESF due diligence is conducted solely by remote methods. In humanitarian contexts, there are tensions between the urgency of humanitarian needs and what should be done to protect the underlying natural resource assets. In the words of one WBG staff member, "This is where do no harm comes to question—to what extent do we push the envelope on ESF requirements in support of humanitarian outcomes of the interventions." Any time the ESF is implemented, there is the potential to continue engagement, albeit limited, with government and non-governmental organization (NGO) counterparts on environmental and NRM issues. Project resources to underpin ESF implementation may include baseline and/or continuing data collection, local supervision (including M&E) of the potential environmental impacts of projects, and continuing institutional capacity-building to support such supervision. These relatively small ESF-related interventions may sustain parts of core environment and natural resource ministry functions when most donors have exited the country. In addition, ESF implementation to support sustainable resource use in areas of forced displacement may pilot new approaches to be scaled up in a post-conflict area.

Collaboration with humanitarian agencies helps support the most vulnerable. Humanitarian agencies have their own comparative advantages to working in FCS. The World Bank works with governments, although it will sometimes work through United Nations (UN) agencies in the absence of a formal governing structure. As a result, humanitarian agencies such as the UN and ICRC have valuable access not available to the WBG, given their ability to work with state and non-state actors to address the needs of communities in FCS. In the midst of high-intensity conflict, there are areas that are not secure in which even local governments struggle to have a presence. Humanitarian agencies have the flexibility to maintain a consistent presence on the front lines to contribute to the resilience of populations and understand the real-time drivers, tensions, and needs beyond the government's interpretation of beneficiaries' needs.[12]

Box 3.3 illustrates multiple examples in Yemen's natural resource and climate change space that demonstrate the valuable work the WBG has done at the intersection of humanitarian aid, development, and peace.

12 Insights from panelist Bann Zahir in Kelly et al. 2022.

BOX 3.3

Humanitarian and Development Synergies in Yemen

DESERT LOCUST RESPONSE PROJECT

In Yemen, the Desert Locust Response Project provided immediate assistance to help poor and vulnerable farmers, herders, and rural households overcome the loss of crops and income in one of the worst upsurges of locust swarms in decades. The $25 million World Bank-funded project, in full partnership with the UN's Food and Agriculture Organization (FAO), provides targeted social safety nets like cash transfers while investing in the medium-term recovery of agriculture and livestock production systems and other aspects of rural livelihoods in areas affected by this crisis. Yemen's food security crisis is one of the world's largest human-made crises, with the impact of locusts compounded by the country's devastating conflict, which has created severe constraints on food production and imports, limited supply and distribution, and reduced people's ability to buy food. Currently, over 20 million people are food insecure in Yemen, with a staggering 10 million at risk of famine.

Source: Excerpt adapted from Van Bronkhorst and Bousquet 2021.

YEMEN INTEGRATED URBAN SERVICES EMERGENCY PROJECT

Launched in November 2017, the project's mandate is to help restore access to critical urban services in cities where the most conflict-related damage has occurred. The project had been working with local institutions through the Yemen Integrated Urban Services Emergency Project and the United Nations Office for Project Services (UNOPS) to help people navigate this difficult and volatile environment.

Project interventions have had a positive impact on people's lives and livelihoods by improving municipal services, solid waste management, and urban water and sanitation systems and by paving streets, maintaining urban roads, and providing the energy needed for key services like hospitals and schools.

The project has been able to support the generation of 11,350 megawatts of solar power, which has proven to be an efficient solution to the current development crisis in Yemen. Electricity has been restored to some hospitals, schools, and water utilities, and is also bringing back business, providing opportunities, creating jobs, and igniting hope.

The project has created 635,546 working days. These temporary jobs have helped many people from particularly vulnerable segments of the community, IDPs, and youth, to secure income.

Despite significant constraints in terms of access and security and a very volatile situation on the ground, the Yemen Integrated Urban Services Emergency Project is helping build a sense of safety and trust within communities affected by the conflict. It includes a participatory, gender-inclusive investment planning process, giving people a voice in selecting projects and helping ensure that funds can adjust to changing circumstances and go to the areas, both geographic and sectoral, most in need of support.

Source: Excerpt adapted from World Bank 2019.

YEMEN FOOD SECURITY RESPONSE AND RESILIENCE PROJECT

The project focuses on delivering immediate support to beneficiary households through cash-for-work opportunities and provision of nutritious food products to vulnerable households, as well as building the longer-term resilience of Yemeni households by supporting restoration of agricultural production and value chain building activities, to increase the sales of nutritious crops, livestock, and fish products.

"Yemen's food security crisis is dramatic and multi-faceted, with compounded challenges which adversely impact food prices and households' incomes. A comprehensive response will require even greater resource mobilization, strong partnerships across the humanitarian-development nexus, and addressing the root causes of food insecurity" said Tania Meyer, World Bank Country Manager for Yemen.

The support to affected farmers will include funds for the purchase of eligible agricultural inputs, cash transfers to small farmers and women involved in agriculture, provision of small agricultural equipment, and protective equipment, as well as technical support.

The project will be implemented by FAO, UNDP, and the World Food Programme (WFP) in partnership with local institutions ensuring project activities reach throughout the whole country.

Source: Excerpt adapted from World Bank 2021.

PILLAR III

Helping Countries Transition out of Fragility

TABLE 3.3 Pillar III Environmental Risks and Opportunities – Helping Countries Transition Out of Fragility

WHAT THE PILLAR MEANS IN PRACTICE	» Strengthening the capacity and legitimacy of core institutions, renewing the social contract, and supporting private sector development » Breaking cycles of conflict/violence at a critical time
RISKS ASSOCIATED WITH NATURAL RESOURCES AND ENVIRONMENT	» Incentive to undermine peace » Illegal exploitation and trade of natural resources » Post-conflict tensions, including disputes associated with internally displaced persons/ refugee returnees
WORLD BANK STRATEGY AND PRIORITIES	» **Seize opportunities for environmental peacebuilding and establish a foundation for long-term sustainable development** » Support natural resource management government reform, including in peace agreements » Environment and natural resource management technical assistance as a key entry point for dialogue » Complement post-conflict rehabilitation with longer-term sustainable development » Build trust in local and national institutions through inclusive natural resource cooperation and capacity-building » Restore productive capacity and resilient livelihoods
EXAMPLES OF WORLD BANK PROGRAMMING	» Natural resource management projects aligned with government priorities » Pollution abatement investments to clean the consequences of warfare » Extraction governance and due diligence that fosters inclusive growth and jobs » Climate-smart agriculture and livelihood diversification » Supporting the reintegration of returnees and ex-combatants

The latest Operational Policy (OP) 2.30 on Development Cooperation and Conflict underscores the position of the World Bank to inform peace agreements. GPs working on environmental or NRM topics (e.g., Agriculture, Water, ENB) can provide valuable support to efforts to improve resource ownership, access, and management. Peace dividends can act as an incentive to sustain negotiations, supported by insights on governance and legal frameworks; transparent sharing of natural resource revenues and benefits; and confidence-building measures to foster the long-term management of natural resources and support the country's transition out of conflict and on a path to sustainable development. At the same time, it is critical that natural resource provisions in peace agreements, the peacebuilding process, and post-conflict operations are sensitive to the existing and future role of the environment in the conflict. This includes incorporating a climate lens to reflect the effects of climate change in risk reduction strategies.

The transitional period offers an opening to take advantage of heightened political will to establish reforms (UNDG and UNECHA 2013). The post-conflict period marks an opportunity to establish environmental and social reforms for sustainable, inclusive NRM to seize economic and political incentives for peace, revenues, and basic services. There is the potential to address land tenure issues and encourage community-based processes for equitable resource access, in addition to transparent natural resource contracts, payments, and expenditures of resource revenues. Building national capacity to manage natural resources, especially high-value ones, is key to attracting private sector investment, negotiating fair resource contracts, managing revenues transparently, investing responsibly, supporting economic diversification, and mitigating the social and environmental impacts of extraction. Poor choices at an early stage can get locked in, emphasizing the importance of early action.

The environment and natural resources are a key point of entry for dialogue in challenging contexts where the humanitarian stakes are high. Natural resources can encourage stakeholders to consider long-term time horizons on issues that may be less-politically charged than others (Ide et al. 2021). As one expert in Afghanistan shared, "We have seen consistently in various places how the environment will be used, can be used, as a bridge when nothing else can really be discussed. Usually, at least we can talk about football and the environment if nothing else…In the case of Afghanistan, it may only be the environment" (Hessami 2022). With 80 percent of the population relying directly or indirectly on agriculture and natural resources for their livelihoods (Afghanistan Ministry of Finance 2020), post-conflict reconciliation will need to formalize property rights and create a workable system for resolving land disputes in order to stabilize the rural economy as well as integrate the internally displaced and returning refugees. Inaction puts the Afghan people in a more precarious situation. The year 2021 marked the country's worst drought in decades, displacing 700,000 people and leaving much of the country highly food insecure (IFRC 2021).

Pollution abatement and environmental safety investments are needed to remediate the toxic byproducts of warfare and address remaining landmines and unexploded ordnances. Afghanistan is among the countries most affected by land mines (Human Rights Watch 2001). Landmines and unexploded ordnances deny access to potentially resource-rich areas that may be valuable to agricultural livelihoods and leach toxic material into soil and groundwater. Support is needed to tackle the expensive and technically difficult task of locating and removing explosives planted since the 1980s (Hessami 2022). Although livelihoods are in danger, arable land remains unused even if it is just rumored to have land mines. It is also important to note that clearly identified land titles may no longer exist in mined areas that have not been used for an extended period of time, highlighting the importance of land-use and access considerations in advance to ensure valuable land is not grabbed by elite actors or foreign interests (Bruch et al. 2019).

Projects must be aligned with government priorities. Program design should be conflict-sensitive and support conflict management through platforms for dialogue and mediation to identify and de-escalate conflicts over land and other natural resources. For example, after decades of conflict with the Revolutionary Armed Forces of Colombia (FARC), the 2016 Peace Accord included provisions regarding water, land access, extractives, agriculture, territorial planning, and women's empowerment (Bruch et al. 2019). At the urgency of the CMU responsible for the country, teams embedded these priorities into World Bank projects in Colombia. The government has sought to establish authority to prevent conflict financing or illegal resource extraction, as well as support social cohesion through basic service provision to underserved populations. Many ENB projects include a component aimed at improving local livelihoods, and the GP has experience in developing the capacity for implementation while reducing the impacts of measures on artisanal miners or coca planters, for example.

BOX 3.4

Sustainable Low Carbon Development in Colombia's Orinoquia Region Project

The project addressed sectors that were priorities for post-conflict peacebuilding and rebuilding. The Revised Project Information Document notes that "biodiversity conservation strategies and climate change mitigation efforts in the Orinoquia—in particular, those related to agriculture and forestry (AFOLU)—would be aligned with peacebuilding priorities" because the FARC had a strong presence in the region. The Scientific and Technical Advisory Panel (STAP) review also commended the project for seeking "to incorporate the issues of conflict and peace into the design of the project to effectively address the environmental and social issues—both of which are priorities for Colombia following the end of the decades-long civil war."

The intervention adopted an approach of building back better with an eye toward future conflict prevention. "By implementing activities for controlling deforestation hot-spots, it is anticipated that the [integrated land-use planning] component will also contribute to improving State presence in areas affected by violence and illicit activities, thus reducing illegal land acquisition and land-related conflicts." The project claimed that on a broader level, the sustainable land use and management component "will contribute to reduce the historical disparity between urban and rural areas, one of the structural causes of the Colombian conflict."

Source: Excerpt adapted from GEF 2020.

However, WBG and government interests do not always align. Although the conflict in Colombia has scaled back, there are still areas of contention in the periphery bordering Venezuela. The government of Colombia wanted a presence in these "hot areas" for the GEF 7 Food Systems, Land Use, and Restoration Impact Program (FOLUR), however safety concerns were of major concern to the World Bank.[13] Ultimately, the government and the task team were able to agree to support the authorities' geographical interests and include the "hot spots" as a contingency area. Similarly, at the programmatic level, initial project design included a significant private sector component with FOLUR. However, as rebuilding public trust was critical to post-conflict peacebuilding, the project instead pivoted to focus on social benefits and livelihoods.

Resource cooperation can help build confidence and trust in local and national institutions. GPs working in the NRM space have expertise in stakeholder engagement and the creation of joint decision-making spaces that promote the co-management of natural resources such as water, timber, or minerals. Thus, the WBG is in a position to bridge the interests of the state with local or traditional structures for conflict and conflict resolution, enhancing bidirectional legitimacy.

Post-conflict rehabilitation in the short-term should complement medium- to longer-term sustainable development and ensure that social protection measures do not undermine or degrade natural resources and hinder longer-term development. For example, a sector strategy for agriculture in an FCS can also support agricultural policy and remove broader constraints like weak institutions (World Bank 2014). It can support livelihoods to withstand climate-related shocks through investments in climate-smart agriculture and diversifying the economy, while also connecting these efforts to economic planning at scale to ensure its sustainability. The WBG is well-positioned to pair long-term development strategies through sustainable and equitable use of resources while enhancing service provision.

13 Interview with project staff member, November 2021.

Diversifying the economy, mobilizing financing, and engaging formal and informal sectors can revitalize rural livelihoods. In terms of non-renewable resources, the WBG has provided support to fostering inclusive growth and jobs in FCS-affected contexts in terms of investments in extractive industries. For example, in Afghanistan analytical work was conducted on the development of resource corridors around mining investments, multimodal infrastructure, and links to the local economy (IEG 2014). In Liberia and Sierra Leone, the WBG has fostered services and industries to increase benefits to the local economy. While conflict prevention strategies are critical for the pre-conflict stage, in post-conflict, the WBG must respond to the *potential* for conflict by steering industries toward making a positive contribution to stabilizing peace (UN-IFTPA 2012a). The WBG has a role in improving extraction governance and due diligence, especially when conflict resources rely on international trade and access to markets. It can provide support where there is instability and conflict over natural resource revenues by recognizing and redirecting financial flows when profits go to the government and private sector and not back to communities.

Renewable resources are especially critical, and in post-conflict countries, 50 percent to 60 percent of livelihoods are agrarian (Stahn, Iverson, and Easterday 2017 citing Bruch et al. 2018). Renewable natural resources play a critical role in restoring the productive capacity of lands degraded by conflict, negative coping mechanisms, and neglect. Job creation and food security opportunities exist in reforestation and forest restoration, renewable energy programs, and sustainable agriculture, community forestry, fisheries, etc. At the macro level, natural resources are key for the provision of basic services, while at the micro level, effective and sustainable management is key for achieving water security, food security, and access to agricultural inputs post-conflict (Ide et al. 2021 citing Bruch and Muffett 2016). Responsible, equitable, climate-smart approaches to natural resource use can provide new, inclusive opportunities to sustainably support employment and livelihoods, revenues, and the provision of basic services.

BOX 3.5
Addressing Drivers of Climate Fragility in Burundi

High resource dependence, high vulnerability: Burundi loses almost 38 million tons of soil and 4 percent of its GDP to land degradation. The coffee sector exemplifies people's dependence on natural resources for their livelihoods: half of the country's households live off the sector, which accounts for 90 percent of the country's foreign revenue. However, in the past 40 years, severe soil erosion led to a two-thirds decrease in coffee production, pushing millions back into poverty.

Building resilience through integrated, inclusive solutions: A series of World Bank-financed projects have supported the government's efforts to build resilient ecosystems and livelihoods. The $4.2 million Coffee Landscapes Project transformed Burundi's fragile environment by addressing the causes and consequences of land degradation. The approaches piloted were replicated and scaled up in the $55 million Coffee Competitiveness Project, the $30 million Landscape Restoration and Resilience Project, and the $6 million GEF Additional Financing. Together, they sustain the efforts by extending system-level landscape restoration, terracing works, and community livelihood resilience activities. These include land certification for vulnerable groups with 50 percent going to women farmers. A total of 192,117 hectares of degraded lands in 31 collines will be put under integrated landscape management practices by 2023.

Source: Excerpt adapted from Voegele, Kabongo, and Tall 2021.

BURUNDI AGRICULTURAL REHABILITATION AND SUSTAINABLE LAND MANAGEMENT PROJECT

Project documents demonstrate the high relevance of natural resource-related priorities in the post-conflict context. "The prevalence of poverty and history of serious internal conflict in Burundi [means that] there is no other feasible development alternative to reducing poverty than agricultural and rural development. The immediate priority of the government is the revival of the agriculture sector in order to ensure basic food security and the rehabilitation of the several thousands of displaced persons returning since the cessation of major conflict." The project set out to identify how it will rebuild livelihoods, infrastructure, capacity, and ecosystems as part of the broader post-conflict recovery process and stated that one of its broad goals was to "help restore productive capacity and livelihoods in a country that is just emerging from severe conflict by revitalizing and diversifying its agricultural production on a sustainable basis."

Source: Excerpt adapted from GEF 2020.

Natural resources are a vital element of the success of the disarmament, demobilization, and reintegration (DDR) of ex-combatants, a key step in preventing the recurrence of violence (Stahn, Iverson, and Easterday 2017; Berdal and Ucko 2009). 50 percent to 80 percent of ex-combatants return to agriculture-based livelihoods (Stahn, Iverson, and Easterday 2017 citing Bruch et al. 2018). Projects have built social cohesion by reintegrating returnees and ex-combatants, for example, the Orinoquia Forest Project in Colombia used former combatants as forestry monitors because of their familiarity with the project area. Hence, working with communities to avoid land and resource competition as well as mediating disputes as combatants and IDPs return is imperative.

PILLAR IV

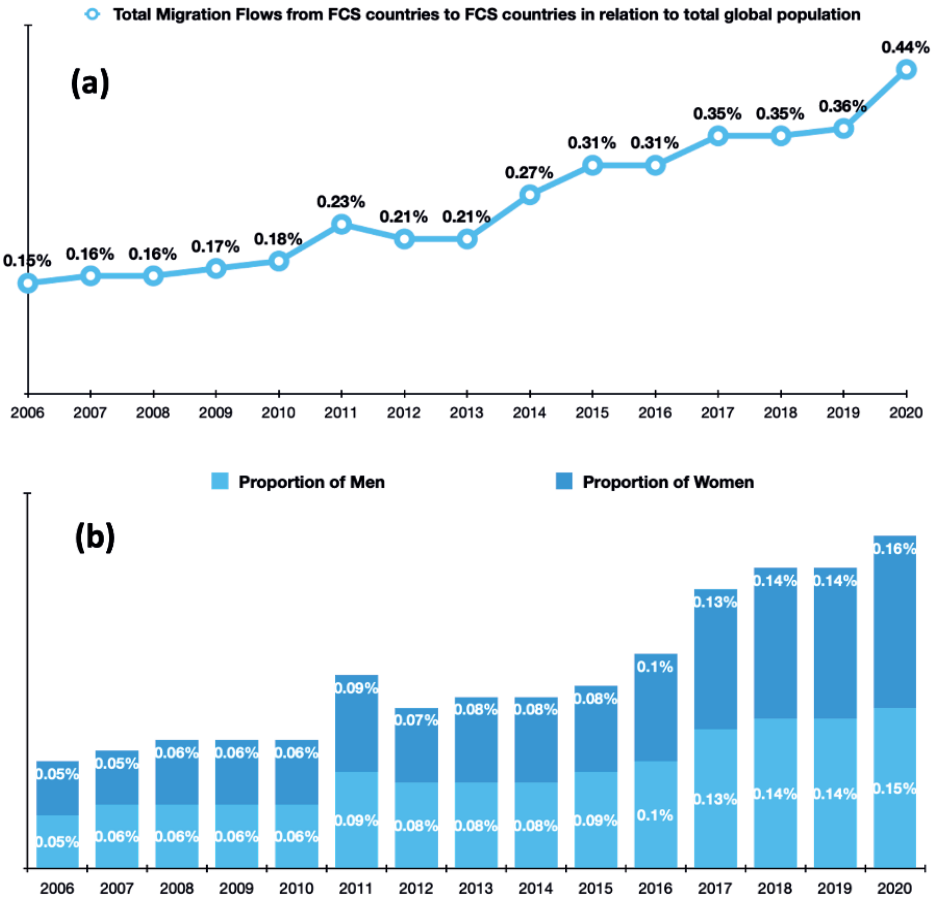
Mitigating the Spillovers and Impacts of Fragility, Conflict, and Violence

TABLE 3.4 Pillar IV Environmental Risks and Opportunities – Mitigating the Spillovers and Impacts of FCV

WHAT THE PILLAR MEANS IN PRACTICE	» Addressing spillovers such as forced displacement, as well as shocks resulting from climate and environmental challenges
RISKS ASSOCIATED WITH NATURAL RESOURCES AND ENVIRONMENT	» Conflict between IDPs/refugees and local communities due to competition over natural resources » Decreased carrying capacity » Vulnerability enhanced by climate stressors
WORLD BANK STRATEGY AND PRIORITIES	» Address the needs of displaced communities » Strengthen inclusive and sustainable resource governance at the local, national, and transboundary level » Acknowledge and detect disputes before they escalate » Climate-sensitive development
EXAMPLES OF WORLD BANK PROGRAMMING	» Regional cooperation over shared natural resources » Early-warning tools and monitoring » Climate-risk modeling » Conflict-sensitive, adaptive management to contain emerging risks

Underlying Pillar IV is the recognition that the effects of FCV are not limited to countries in active conflict but are broadly felt. Forced displacement can exert pressure on host communities and countries and can intensify desertification, deforestation, and other forms of resource scarcity. Forced displacement around the world is at a record high, with total migrant population flows from FCS-to-FCS steadily increasing (Figure 3.3). In 2021 alone, 23.7 million new internal displacements were caused by natural disasters, compared to the 14.4 million caused by conflict and violence (IDMC 2021). According to *Groundswell Part II: Acting on Internal Climate Migration* (2021), internal climate migrants in Sub-Saharan Africa could reach 86 million; East Asia and the Pacific, 49 million; South Asia, 40 million; North Africa, 19 million; Latin America, 17 million; and Eastern Europe and Central Asia, 5 million.

FIGURE 3.3 Evolution of Total Migrant Population Flows from FCS-to-FCS Countries as a Proportion of the Global Population



Source: UNHCR 2022.

(a) Depicts the percentage of total migrant population from 2006-2020 (from FCS to FCS)

(b) Depicts women and men of all ages as proportion of total migrant population from 2006-2020 (from FCS to FCS).

While Pillars I-III above aim to contain the spillovers of FCV by improving community resilience through adaptation and mitigation at the local and national levels, Pillar IV advocates for immediate, concerted action to reduce global emissions and green, inclusive, resilient development could reduce the scale of climate migration by 80 percent (Clement et al. 2021). The NRM and environment-related entry points throughout the conflict cycle align well with the emphasis in the *Action Plan on Climate Change Adaptation and Resilience* (2019) on the need to go beyond immediate crisis management, and take a longer-term approach to providing support for communities to stay in place when viable adaptation options exist, as well as to help communities move when climate risks are unavoidable and make sure that sending and receiving areas are adequately prepared (Van Bronkhorst and Bousquet 2021).

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SECTION

4

Guiding Principles and Strategies at the Programmatic and Project Levels

Potential entry points and strategic focus can be maximized through concerted programmatic and project-level strategies that can address local and/or regional FCV dynamics. Section 4 looks at how programmatic and project-level strategies applied in FCV settings are able to consider multiple dimensions of fragility. This section answers, where can we maximize environmental peacebuilding and conflict sensitivity at the program and project level?

- What are the general guiding principles for climate change adaptation and mitigation programming in FCS?
- What are the key pathways that conflict and fragility impact projects? How can this influence project relevance, effectiveness, and efficiency?
- What are conflict-sensitive approaches and mitigation measures at the programmatic and project levels that can alleviate these risks? What guiding principles of the FCV Strategy support these efforts?
- What examples can teams turn to? Learn how select World Bank teams and projects have addressed various dimensions of the gender-conflict-environment nexus.

General Principles for Programming in Fragile and Conflict-Affected Situations

Guiding principles that can be adapted and utilized in conflict-sensitive programming in FCS need to be mainstreamed into project and programming efforts concerned with climate, environment, and human development. This is especially important as national governments and donors acknowledge that inequalities in natural resource access threaten efforts to end extreme poverty, particularly in FCV.

Table 4.1 provides an overview of guiding principles for climate change adaptation and mitigation programming in FCS.

TABLE 4.1 General Principles for Programming in FCS

RECOMMENDATION	GUIDANCE
Context as a starting point	Programming must take account the current situation, vulnerabilities (e.g., political, social, and climate-related), and social and institutional capacity. Contextual changes could exacerbate existing tensions or create new tensions related to the environment and natural resources.
Ensure all activities are conflict-sensitive	At a minimum, activities need to be conflict-sensitive and follow the "do no harm" principle. Include consultations with the local population, respond to the needs of the people, take power distribution and social order into account, and avoid pitting groups against each other. Given the long-term goals of programming related to climate change adaptation, peacebuilding, and sustainable livelihoods, the key to sustainable outcomes is ensuring that approaches foster or complement efforts to improve governance. Conflict analysis should inform the design and implementation of responses in conflict-affected and fragile areas.
Focus on bolstering institutions and good governance	Programs should aim to strengthen local social and institutional capacity to understand and manage climate and conflict risks, including support for effective adaptive capacities and conflict management mechanisms. There are opportunities to bolster general resilience by strengthening governance structures and ensuring that they are capable of adapting to changing circumstances.
State a clear, credible theory of change	To the extent that climate initiatives intend to influence peace and security dynamics or that peacebuilding intends to reduce climate vulnerability, programs should have clear theories of change and conduct conflict-relevant baseline analysis to inform their monitoring and evaluation plans.
Address state and society dimensions of the challenge	Both a top-down and a bottom-up approach to project planning are necessary and should be linked. An exclusively top-down approach fails to account for local-level vulnerabilities and presumes that local communities trust state government and other formal structures, which is often not the case in FCS contexts. At the same time, an exclusively local-level strategy ignores the role and responsibility of the state government for providing local services and ensuring sustainable systemic changes; it also risks further weakening the central governance structures and exacerbating local perceptions of an illegitimate and ineffective government.

Continued

TABLE 4.1 Continued

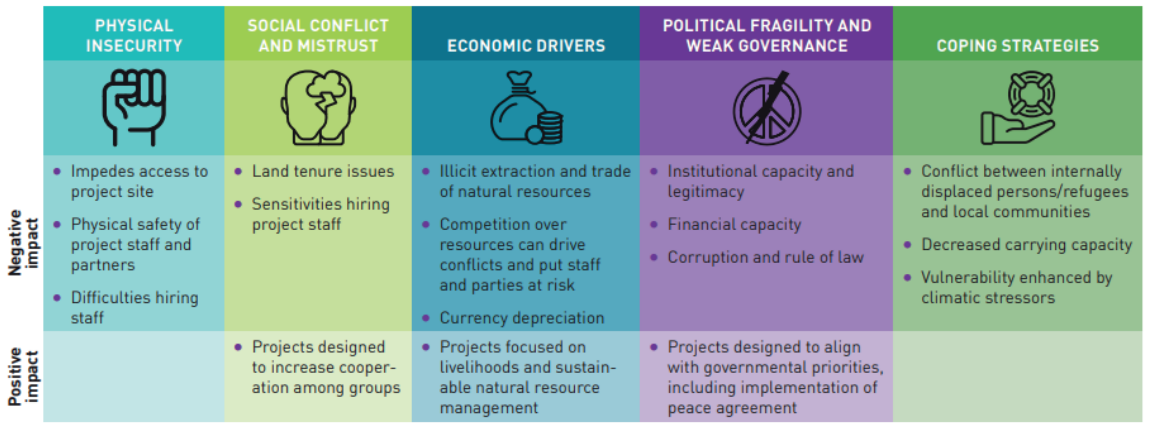
Approach climate change adaptation holistically	Climate change funding should not be limited to "narrow and technical interpretations of adaptation." The ability of individuals and communities to cope with climate variability is linked to the context and trends of their day-to-day lives, such as the strength of their governance structures, market access, and the availability of social services. Sometimes a non-climate solution will be the most effective way to enhance adaptive capacity (e.g., education or conflict resolution).
Ensure flexibility	Due to the uncertainty about how specific climate changes and conflict risks will develop, funding decisions, policies, and program responses must incorporate a significant amount of flexibility and adaptability. Institutions need to accommodate responses in a way that permits experimentation and adjustments as programs evolve.

Source: UNEP and EU 2022, © UNEP. Reproduced with permission from copyright holder; further permission required for reuse. Adapted from the Organization for Economic Cooperation and Development (OECD)-Development Assistance Committee's Principles for Good Engagement in Fragile States and Situations and based on the United States Agency for International Development (USAID) Climate and Conflict Annex to the USAID Climate-Resilient Development Framework.

The Impact of Conflict and Fragility on Project Success

The *Evaluation of GEF Support in FCS* (2020), which included a suite of World Bank projects, establishes that conflict and fragility are major factors impacting project performance. The analysis identified five critical pathways through which conflict and fragility affect the relevance, effectiveness, efficiency, and sustainability of projects (Figure 4.1). Recognizing these pathways paves the way for thinking ahead and taking into account the risks and resources needed to mitigate them.

FIGURE 4.1 Key Pathways by which Conflict and Fragility Affect Projects



Source: GEF 2020. Reproduced with permission from author; further permission required for reuse.

BOX 4.1
Conflict and Fragility Impacts on Project Relevance, Effectiveness, and Efficiency

Conflict can enhance the **relevance** of GEF projects, particularly those designed to be conflict-sensitive in addressing livelihoods, food security, cooperation, and essential services. However, armed conflict and fragility can shift the focus and priorities of a state and community away from environmental and other initiatives that require cooperation and toward efforts that directly affect conflict dynamics or provide relief.

Conflict and fragility can also undermine the **effectiveness** of GEF projects by blocking access to target sites, creating security risks for project staff, and—in extreme cases—causing projects to be canceled.

The **efficiency** of projects can also be affected by conflict and fragility, for example, by requiring project restructuring, delays, or additional costs for security. Finally, project sustainability is undermined by conflict and fragility, particularly by sociopolitical instability and outbreaks of violence.

Source: Excerpt adapted from GEF 2020.

Conflict-Sensitive Approaches and Mitigation Measures at the Programmatic and Project Levels

Conflict sensitivity is increasing at the WBG, but it is important to examine to what extent these efforts are incorporating environmental considerations. There are entry points for discussing conflict sensitivity upstream at the programmatic level through downstream at the project level.

This section does not provide specific guidance, but a broad suite of options to improve conflict-sensitive design and implementation and advance key outcomes at the environment-conflict nexus. It outlines some of the opportunities and approaches that can be used by WBG staff and provides supporting examples and how they align with the FCV Strategy's guiding principles and approaches.

Differentiated Engagement

Differentiation is a guiding principle of the FCV Strategy—there are no one-size-fits-all solutions since conflict drivers and dynamics vary (World Bank, n.d.-b). Preventing conflict requires directly addressing key drivers of fragility and strengthening factors of resilience, and the World Bank's FCV Strategy has committed to strengthening its ability to analyze both. The differentiated responses to these dynamics are to be articulated systematically and through analytical products, including RRAs that are then translated to the SCD, the CPF, and ultimately WBG operations; regional approaches for cross-border challenges; conflict-sensitive portfolio analyses and lenses; and FCV sensitivity in results frameworks and monitoring and evaluation.

PROGRAMMATIC LEVEL

Risk and Resilience Assessments

The RRA methodology was designed to increase understanding of the multi-dimensional and context-specific drivers of fragility and resilience. It identifies drivers of FCV, sources of resilience, and risks. Per the IDA policy commitment, it functions as an input into the CPF and Country Engagement Notes (CEN) for IDA FCS. In practice, this means the RRA is prepared in advance of the SCD as an input, though it is not part of the policy commitment.

The RRA for the Sahel was the first application of the World Bank's RRA methodology on a regional scale (World Bank 2021d). In alignment with the FCV Strategy, the RRA focused on prevention and was designed to build consensus on the causes, risks, and impacts of conflict in the region. Competition over natural resources is a major focal point in the document. UNEP provided valuable spatial data and visualizations to the analysis—the *RRA Methodology Note* (2021) references the engagement as an example where partners provided extensive FCV analyses that not only support the RRA process, but can also bring ongoing expertise, data, and depth to the issues raised in the document. Box 4.2 describes the catalytic outcomes from the RRA.

BOX 4.2

Using Risk and Resilience Assessments to Catalyze Funding and Mitigate Natural Resource Conflict

Building on the findings of the 2020 Sahel Regional RRA, Burkina Faso's IDA-19 Prevention and Resilience Allocation (PRA) recognizes that competition over natural resources and poor land management generate significant conflict risk. Burkina Faso was one of the first countries to access the IDA-19 PRA, opening the door to an additional $650 million to respond to conflict risks.

The Communal Climate Action and Landscape Management project (CCALM, P170482) is aligned with the principles of Burkina Faso's IDA-19 PRA and supports the country's strategy for mitigating conflict and violence risks, which was adopted as one of its three principles to ensure equitable access to natural resources by communities. The project will promote sound local governance by helping establish inclusive land and natural resource governance arrangements at the local level, supporting local structures in preventing and managing conflict, and providing economic opportunities for rural populations.

Building on what works: The CCALM project scales up the successful experience of the Decentralized Forest and Woodland Management Project (DFWMP, P143993), which piloted an innovative participatory land use planning methodology (TerriStories). It was designed to promote dialogue between different land users (including vulnerable groups) and collectively define strategic development and land use choices that benefit the whole community. The project then funded communal investments to make these choices viable and generate economic opportunities. This approach has helped reduce conflicts over land use and strengthen social cohesion.

Source: Correspondence with task team lead.

Country Partnership Frameworks / Systematic Country Diagnostics

According to the IEG report, *The Natural Resource Degradation and Vulnerability Nexus* (2021), SCDs, CPFs, and lending programs for SLM, forest resources, and groundwater could more adequately address factors that drive resource degradation. Such factors include weak regulatory and governance arrangements that undermine sustainable use and negatively affect vulnerable resource users as well as poorly defined resource and land use rights that fail to appropriately address customary, flexible common property arrangements. Half the SCDs (45/89) identify the risk of resource-related conflict, but 70 percent of the associated CPFs do not refer to these risks. However, the evaluation report notes greater consistency in the treatment of resource-related conflict risks for FCV SCDs, especially in the Sahel.

BOX 4.3
Model SCD and CPF Examples Identified by IEG

SYSTEMATIC COUNTRY DIAGNOSTICS

Republic of Cameroon: Priorities for Ending Poverty and Boosting Shared Prosperity. Analyses the soil fertility-poverty trap.

Honduras: Unlocking Economic Potential for Greater Opportunities. Links soil degradation to deforestation.

Sahel SCDs. Consistently refers to risks related to competition over arable and grazing land due to degradation and water scarcity, which are exacerbated by drought and demographic growth.

COUNTRY PARTNERSHIP FRAMEWORKS

CPF for the Republic of Honduras for the Period FY16–FY20. Supports resource dependent populations in the Corredor Seco, where 92 percent of the population lives below extreme poverty.

Source: IEG 2021a.

Peace Lenses and Conflict Filters

The FCV Strategy encourages the wider adoption of peace lenses and conflict filters to ensure portfolios and operations identify and address fragility drivers and conflict risks where relevant. Peace and inclusion lenses or conflict filters take the form of "matrices and questionnaires developed for the portfolio and/or individual projects to identify and address conflict risks and identify opportunities for projects to contribute to peacebuilding. These filters and lenses aim to identify key project risks—related to the choice of geographic areas, how benefits are divided, how the consultation process is undertaken, etc.,—and potential mitigating measures" (Kang and Barron 2019). Although a peace lens approach to project preparation in FCS is currently voluntary for WBG operations, its application is considered good practice and is rapidly expanding.

Teams have used these tools to direct programming and projects toward specific peace and security aims, covering topics for discussion and analyses to frame dialogue between the CMU and operational teams. These lenses serve as a useful tool for differentiation and adaptive learning that can be referred to at each point in the project cycle to continuously factor in key dimensions of the conflict context, considering the risks of the conflict to interventions as well as the risks of an intervention to the conflict.

After the 2015 Rohingya crisis in Myanmar, the CMU required the application of an Inclusion and Peace Lens (IPL) for project approval. The IPL was designed based on the social inclusion portfolio review done by the social development team and the conflict filter that was prepared by the country team. The Promoting Inclusion and Peace in Myanmar Programmatic Advisory Service and Analytics (ASA) activity was executed for the deployment, application, and improvement of the IPL, which was applied to all operations and knowledge products under the country program. A task team leader from the Myanmar Forest Restoration, Development, and Investment Program noted that the lens tool and collaboration with the IPL team introduced important opportunities for enhancing inclusion in the project.[14] Although Myanmar has multiple land contestations, the peace lens did not include questions about environmental sustainability. These issues did come out in the ESF, which examined the environment as one point of contestation, but not as a source of the problem.

Similarly to Myanmar, the CMU for Colombia committed to applying the peace lens process to all WBG operations to ensure a concrete contribution to peace; in preparing the CPF, the country's ministry of finance had emphasized that the key cross-cutting theme for the country was the construction of peace (World Bank 2018). There, the peace lens methodology recognized the role of natural resources on the conflict economy, illegal armed groups, and high levels of inequality and grievances. Thus, as part of a project in the Orinoquia region focused on mitigating deforestation for coca production, ex-combatants of the FARC, who occupied the area and were looking for employment, were hired as forestry monitors. The task team lead described the Colombia Peace Lens as

14 Project staff member, September 2021.

a marked shift, "differ[ing] from previous conflict filters because it does not simply attempt to prevent 'doing harm', rather, it seeks to ensure that all interventions are 'doing good' – making a positive contribution to the construction of peace, regardless of the type of investment or sectoral affiliation" (Fabre 2017).

Surrounding the peace lens discussion at the WBG are debates as to whether these lenses should be mandatory. A key lesson from the internal review of the World Bank's experiences using conflict filters and peace lenses by Kang and Barron (2019) is that the success of these instruments relies heavily on dedicated financial resources and hands-on support to project teams. The incentive of a task team tends to be based on individual interest or pressure from the CMU or GP. It is a collective undertaking and represents a cultural shift – the value and need was clear to the Myanmar country office, whereas it has been seen as an extra layer of review and an added burden to limited budgets and capacities of other CMUs.

Kang and Barron (2019) also advocated task teams work closely with safeguards teams. Teams leading the Kyrgyzstan Conflict Filter, Democratic Republic of Congo 'Conflict Proofing Support', and Sectoral Specific Filter for Livestock Projects coordinated efforts with the safeguards teams on project preparation and helped enforce the view that conflict sensitivity is important to mitigate social risks and enhance project impacts. The livestock filter team also worked in close collaboration with the safeguards team to ensure that findings were linked and incorporated into the new ESF, highlighting the utility of the filter.

BOX 4.4
World Bank Peace Lenses and Conflict Filters

RESOURCES:

World Bank (forthcoming). Peace and Inclusion Lenses Good Practice Note. The guidance is generic so that country teams can adapt it to the realities of their country—it is not intended to be applied uniformly. This note can be adapted with a focus on NRM and climate change considerations.

World Bank (2019). A Review of the World Bank's Experiences Using Conflict Filters and Peace Lenses.

EXISTING PEACE LENSES AND CONFLICT FILTERS:

(*) highlights environmental projects that either applied a conflict filter or sought the insights of a peace lens advisory group.

Sectoral Specific Filter for Livestock Projects – Conflict Sensitivity and Prevention Check List*

Myanmar Inclusion and Peace Lens (2018)

- Myanmar Forest Restoration, Development, and Investment Program P168254*
- Ayeyarwady Integrated River Basin Management Project P146482*

Colombia Peace Lens (2015-2017)

- Colombian Amazon Heart Project P156239*
- Colombian Amazon Heart Project – Additional Financing P158003*
- First Programmatic Territorial Development Policy Financing P158520*
- Colombia Cadaster TA Support P160524*
- Sustainable Low-Carbon Development in Orinoquia Region Project P160680*
- Sustainable Development and Green Growth Development Policy Loan (DPL) P161642*
- Coca-Growers in a Post-Conflict Development Agenda P162026*

Ukraine Governance, Anti-Corruption, and Conflict Filter (2015-2016)

DRC 'Conflict Proofing' Support (2015-2016)

Macedonia Social Filter (2014-2015)

Nigeria Governance, Gender, and Conflict Filter (2013)

Liberia Fragility Lens (2012)

Sri Lanka Conflict and Reconciliation Filter (2010)

Nepal Peace Filter (2009)

Kyrgyzstan Conflict Filter (2012-2015)

COUNTRY LENSES AND FILTERS UNDER DEVELOPMENT:

Mindanao Peace Lens

Iraq Political Economy Analysis (with a peace lens component)

Tajikistan Inclusion and Resilience Lens

Yemen Peace and Inclusion Lens

Source: World Bank.

PROJECT LEVEL

Context Analysis and Integrated Solutions

Given the tendency of the effects of conflict to spill over into non-conflict-affected areas, it is important to identify and plan for potential changes to have the necessary mitigation measures in place and to enable a prompt response. In terms of project design, some WBG projects acknowledge armed conflict and insecurity in a project area and opt to avoid areas with identified conflict drivers without accounting for conflict-related risks in project implementation. An evaluation of the World Bank's engagement in FCS found that 43 percent of projects that sought to avoid operations in conflict-affected areas were nonetheless impacted by conflict-related challenges during implementation (IEG 2021b). Box 4.5 and Box 4.6 provide examples of environment and natural resource projects that work to understand the social context to enhance their success by informing risk management and by paving the way for integrated solutions.

BOX 4.5
Examples of Projects in which Consideration of Social Issues Supported Project Implementation

BURUNDI AGRICULTURAL REHABILITATION AND SUSTAINABLE LAND MANAGEMENT PROJECT

Foresaw that "land tenure conflicts [were] likely to be a serious issue for the rural population," exacerbated by the reintegration of returnees after the war. However, the Terminal Evaluation notes the project's success in reinforcing social cohesion through producers' organizations "whose members are drawn from all three ethnicities (Tutsi, Batwa, and Hutu)."

SUPPORT TO THE CONGOLESE INSTITUTE FOR NATURE CONSERVATION'S PROGRAM FOR THE REHABILITATION OF THE DEMOCRATIC REPUBLIC OF CONGO'S NATIONAL PARKS NETWORK

Explained that its "proposed integration of Simba communities into project activities is an important element of the project," given the group's presence and history of rebellion in the area surrounding the Democratic Republic of Congo's Maiko National Park.'

Source: Excerpts adapted from GEF 2020.

BOX 4.6
Integrated Approach to Building Resilience and Adapting to Climate Change Impacts in the Middle East and North Africa

IRAQ SOCIAL FUND FOR DEVELOPMENT

Iraq is highly vulnerable to climate change, particularly, increasing temperatures and water scarcity, decreasing precipitation, and more frequent extreme weather events (i.e., floods, droughts, and heat waves). These changes have direct and immediate impacts on sectors crucial to Iraq's economic and social development (agriculture, water, and public health), in addition to recovery and reconstruction efforts following decades of conflict.

The Iraq Social Fund for Development, approved in February 2018, will finance community-level subprojects that incorporate climate adaptation into their design, including the rehabilitation and maintenance of irrigation canals, drainage structures, and roads, and the construction of small-scale water supply and reservoirs. These subprojects are expected to contribute to increased agricultural productivity, enhanced infrastructure resilience to extreme weather events such as more intense and frequent storms

Continued

BOX 4.6
Continued

and increase the quality and quantity of water resources. Overall, the $300 million project expects to benefit 1.5 million households and create over 10 million employment days, leading to improved, sustainable access to basic services and increased social cohesion. Inclusive community engagement is a crucial element to prioritizing and then implementing sub-projects in an effective, and conflict-sensitive manner. Local representatives, with a strong showing from women, have already participated in planning and decision-making discussions.

DJIBOUTI RURAL COMMUNITY DEVELOPMENT AND WATER MOBILIZATION PROJECT

More than 23 percent of Djibouti lives in extreme poverty and unemployment is high at 39 percent. Many, particularly those in rural communities, have limited access to adequate water resources, including safe drinking water. This is further threatened by climate change, which is expected to increase rainfall variability, extreme weather events (i.e., floods and droughts), and sea level rise, all of which impact the quantity and quality of water resources. Water resources are additionally stretched due to population growth, an influx of displaced people from neighboring conflicts, and climate change.

The Rural Community Development and Water Mobilization Project (PRODERMO) aims to increase access of rural communities to water and enhance their capacity to manage water and agro-pastoral resources in the project areas using a participatory approach to community-based development. Project activities target both women and men and include the promotion of innovative approaches to mobilizing surface and groundwater for consumption and small-scale community agricultural and livestock production, including the construction and rehabilitation of cisterns, open-air reservoirs, wells, and fisheries. It also has worked to strengthen related fragile institutions and public services through capacity-building activities at the community level, as well as for regional implementing agencies. So far, more than 6,100 households have benefited from water mobilized from the project activities. Women have been particularly impacted by the project, as improved water mobilization has opened time for other productive activities. Inclusive community engagement is a crucial element to prioritizing and then implementing subprojects in an effective, and conflict-sensitive manner. Local representatives, with a strong showing from women, have already participated in planning and decision-making discussions.

Source: Excerpt adapted from Sieghart, Betre, and Mizener 2018.

Inclusion and People-Centric Interventions

Scaling-up community approaches to address fragility and support resilience is an area of special emphasis for the FCV Strategy and is seen as critical for strengthening citizen participation and fostering inclusion, accountability, and trust — particularly where discrimination and exclusion are strong and risk precipitating violence (World Bank, n.d.-b).

PROGRAMMATIC LEVEL

Gender in Context

Ensuring ownership of projects within and across practice groups and boosting visibility of gender- and conflict-sensitive efforts can aid the WBG in integrating gender, conflict, and the environment in order to address the root causes of FCV drivers and inequality. Integrating WBG tools specifically designed to address conflict and gender can also further this conversation. The WBG's FCV Core Course, for example, currently includes modules on Gender and on Sexual Orientation and Gender Identity (SOGI) Issues in FCV Settings and is working to integrate climate and natural resource linkages. Within the context of environmental and climate-related projects and beyond, ensuring that conflict-focused actions, activities, publications, and training are gender-sensitive, and that gender-focused initiatives are conflict-sensitive, can help mainstream inclusive peacebuilding.

Without this integration, development operations miss a critical opportunity to enhance the sustainability of poverty reduction by creating durable solutions and protecting critical environmental resources.

The Development Response to Displacement Impacts Project in the Horn of Africa illustrates how integrating gender, FCV drivers, and the environment can contribute to advancing sustainable development, closing gender gaps, and reducing fragility (Box 4.7).

BOX 4.7

Impact of the Development Response to Displacement in the Horn of Africa

The Development Response to Displacement Impacts Project in the Horn of Africa (P152822) has addressed forced displacement impacts by improving access to basic social services, expanding economic opportunities, and enhancing environmental management for communities hosting refugees. Through Community-Driven Development (CDD), the project includes citizen participation and engagement in prioritizing development needs, improving the self-reliance of refugee-hosting communities, and improving social cohesion between refugees and host communities. Development Response to Displacement Impacts Project subprojects focus on sustainable environment and NRM to decrease the environmental impacts of the protracted refugee presence, which has resulted in the deterioration of the natural resource base, deforestation from the overexploitation of wood and non-timber forest products, and soil erosion.

Project interventions related to NRM consider the responsibilities of women with respect to providing fodder for animals and fuel for the household. Activities are designed to reduce women's exposure to GBV risks while collecting wood for fuel and fodder for animals through ensuring routes are well-lit and reducing the need to collect wood for cooking (Puerto Gomez and Vemuru 2020). This also includes supporting off-grid lighting and heating for cleaner fuel and fuel-saving cookstove technologies to increase women's and girls' available time for economic activities and lessen women's exposure to indoor air pollution. To integrate GBV prevention, the project also includes a communication strategy to raise awareness about existing GBV services and engage men and boys through dialogue groups about positive messages, equal gender norms, and healthy conflict resolution (Hanmer et al. 2019).

The project has made progress toward achieving development outcomes. In Djibouti, over 34,000 people have benefited from improved energy sources, including solar power and clean cooking stoves to enhance environmental conditions and reduce dependence on firewood (World Bank 2021b). Over 1,000 people (60 percent women and 40 percent youth) are benefitting from sustainable livelihood activities, such as income-generating agricultural activities and small business activities. In Uganda, more than 1,570 subprojects are focusing on tree planting, access to renewable energy, small-scale irrigation, and fishponds to address environmental damage caused by the consequences of forced displacement. Women have also represented 67 percent of beneficiaries of sustainable livelihood activities, which include crop and livestock farming. The project has also strengthened GBV prevention and response in hosting communities and refugee settlements.

Source: World Bank.

Adopting an Intersectional Lens

Adopting an intersectional lens can help to integrate the interplay between gender, race, ethnicity, sexual orientation, and age across projects in order to address the differentiated needs and impacts of conflict and environmental degradation on various groups. Factoring in how social inclusion intersects with gender can improve the design of interventions and gender analyses to identify specific groups that have been affected by the gender-conflict-environment nexus and their needs. Specific groups include wartime

widows, poor female smallholder farmers, female ex-combatants, Indigenous women, LGBTQ+ communities, and racial minorities. In Nepal, for example, female ex-combatants became further marginalized and unable to reintegrate into society because the DDR process did not address structural barriers to accessing the land (UNEP et al. 2013). They were denied support that was given to male ex-combatants, such as access to land or disbursement of cash to buy land. In Colombia, Afro-Colombian women, who are often rural farmers, have been particularly affected by GBV, land-grabbing, and displacement during the conflict (Bratspies 2020). Disaggregating data by racial and ethnic lines is therefore critical to understand how structural inequality, discrimination, and conflict affect access, use, and control of natural resources. Addressing the specific needs of different groups in this way can avoid further marginalizing them and creating additional security risks.

Despite progress through the WBG's gender tag, which helps track operational efforts to close gender gaps, a 2021 IEG evaluation on SLM and human vulnerability found that while gender is almost always cited in World Bank project documents, gender and women appear to be perceived as a homogenous category, without accounting for differences in voice and agency that influence access to SLM benefits.

The *Intersectionality Resource Guide and Toolkit* (2021) developed by UN Women and the UN Partnership on the Rights of Persons with Disabilities provides a "how to" for addressing intersectionality in policies and programs. This guide and toolkit may be a useful reference for project teams.

Community-Driven Development

Community-Driven Development (CDD) is "an approach to local development that gives control over planning decisions and investment resources to community groups (including local governments)" (World Bank n.d.-c). This departs from traditional approaches to development that focus on central governments and has been a proven, effective instrument for empowering communities and delivering services to remote and insecure areas. CDD programs have been especially prominent in FCV and are among the most common operational approaches in the portfolio. In June 2020, the CDD portfolio included 73 percent of the countries on the FY20 Harmonized List of Fragile Situations (27 out of 37 countries) and 15 countries experiencing subnational conflict, hosting IDPs or refugees, or recovering from conflict (World Bank 2022a). The World Bank has launched a global innovation and learning program to understand the contribution of CDD in conflict prevention and combatting the impacts of climate change on vulnerable populations has become a key frontier area. Community development projects with this climate focus include the Lake Chad Region Recovery and Development Project and the Guinea Support to Regional Governance Project, which have sought to build links between local, national, and regional levels to reinforce the resilience of communities as well as regional coordination. Box 4.8 describes some of the innovative opportunities for addressing climate-related conflict inspired by these efforts in the Lake Chad Region and Horn of Africa.

BOX 4.8

Addressing Climate-Related Conflict through Community-Driven Development: Potential Avenues for Innovation

Leveraging technology to coordinate action and share information. ICT can be used to create two-way communication channels between communities, national governments, and regional organizations. For example, mobile applications can inform local planning with regional weather information, climate projections, and market prices to help farmers monitor local-level climate and FCV impacts. More broadly, improving the accessibility and transparency of analytics on climate change impacts and mitigation policy is especially crucial in contexts with social polarization and weak institutions where the distribution of costs and benefits pose real risks to social unrest and conflict.

Creating space for dialogue around NRM. Bringing communities together around climate scenario planning and NRM can serve a dual purpose. It can establish the "rules of the game" to create a more equal playing field for community members typically excluded from such fora, such as women and youth. This more inclusive approach can also help ease competition over natural resources—particularly access to and/or control over land, pasture, and water. Increasing local ownership of management strategies improves the chances of success and boosts biodiversity and water security.

Leveraging local knowledge. By channeling funds directly to communities and engaging them in decisions about how that money is spent, CDD projects put those closest to the challenges in charge of their solutions. The Guinea Support to Local Governance Project, for example, developed a tool to harness local knowledge on the most direct climate-FCV risks and integrate this feedback into multi-year planning cycles. Capturing this knowledge helps ensure that infrastructure investments are more resilient to disasters and enables people to exit conflict traps.

Supporting diversified livelihoods and strengthening voices. Grants and training can help households diversify to off-farm livelihoods that are less sensitive to climate-related agricultural shocks but should be connected to local economic planning to ensure sustainability and scalability. Creating equal opportunities for all members of the community to participate in that planning can play a small but important role in addressing social exclusion, thus lowering conflict risks.

Source: Excerpt adapted from Arnold, Myint, and Pattison 2021.

BOX 4.9

Examples of Local Partnerships to Mitigate Risks at the Environment-Conflict Nexus

CONGO BASIN STRATEGIC PROGRAM'S FOREST AND NATURE CONSERVATION PROJECT

The project was implemented in the Democratic Republic of Congo shortly after the 2008 peace agreement with Rwanda and incorporated several local partners into its project design to accommodate rapidly changing conditions in the country. The project had "a simple and flexible design, involving partnerships with local and international NGOs that have continued to work on the ground during the recent conflicts and have the capacity to suspend and restart operations quickly."

CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY IN THE ANDES REGION PROJECT

A partnership with the Humboldt Institute, which had experience working in conflict-affected parts of Colombia, allowed the project to work in rural areas and avoid security problems.

THE INTERNATIONAL GORILLA CONSERVATION PROGRAM (IGCP)

The IGCP was a joint initiative between Flora and Fauna International, World Wide Fund for Nature, and the African Wildlife Foundation and attributed its success to being built at the field level rather than imposed from the top-down to foster collaboration between Uganda, Rwanda, and the Democratic Republic of Congo. The project "demonstrated that it is possible to achieve effective trans-border cooperation for conservation, even between warring parties, by getting them to rally around a common cause."

Source: Excerpt adapted from GEF 2020.

PROJECT LEVEL

Local Partnerships

Projects have leveraged the experience of local organizations and partners to build resilience and support coordinated implementation in rapidly changing conditions. This has helped mitigate conflict-related risks and build local project ownership and enabled successful project implementation even when conflict erupts. Box 4.9 lists several examples.

Multi-stakeholder Access as an Intervention

World Bank projects often strengthen in-country M&E capacity and systems and highlight the value of the local communities' role in M&E. In doing so, M&E becomes an intervention in itself that supports community empowerment and strengthens national, local government, and civil society linkages and coordination, as illustrated by the example in Box 4.10.

BOX 4.10

"Participatory Local Development" Tool for Climate, Disaster, and FCV Risk Identification and Response

With support from the Global Facility for Disaster Reduction and Recovery (GFDRR) and the International Institute for Environment and Development (IIED), the WBG has partnered with the governments of Guinea, Cameroon, Chad, Niger, and Nigeria to develop an innovative participatory local development tool for climate, disaster, and FCV risk identification and response.

The project empowers local communities and institutions by providing those closest to climate and FCV challenges with a toolbox to identify, plan, and respond to current and potential future risks themselves. The tool empowers communities to:

- Better understand the relationship between climate change, social equity, and FCV;
- Integrate local knowledge into planning activities; and
- Develop their own plans for adaptation and risk management.

Communities can thus integrate climate, disaster, and FCV considerations into their plans for development, for example, deciding the location of community markets by integrating climate risks into planning so that when storms strike, community resilience and investment are protected. The tool will be applied at the preparation, identification, validation, and implementation stage and is designed to support the most marginalized groups, i.e., women, youth, and persons with disabilities, to engage in climate decision-making.

The tool will be tested and adapted to the Guinea Support to Local Governance Project and the Lake Chad Region Recovery and Development Project. It is expected that the tool will demonstrate new operational approaches to Disaster Risk Management (DRM) in FCV contexts by promoting dialogue between the climate change, DRM, conflict prevention, and peacebuilding communities in West Africa and promoting research on the intersection of these themes.

Source: Excerpt adapted from Damboeck et al. 2020.

The World Bank has also promoted NRM platforms for dialogue and peacebuilding that are community-driven and has designed dispute resolution mechanisms (Box 4.11 and Box 4.12). Shared natural resources can support peace by bringing opposing groups together to discuss solutions. There is an opportunity to build trust and common cause between actors involved in project implementation, even from the project design phase.

BOX 4.11
Examples of NRM as a Peacebuilding Tool

NILE TRANSBOUNDARY ENVIRONMENTAL ACTION PROJECT

Drafters highlighted that the Nile Basin Initiative's past programming showed that "developing trust and personal relations among riparian delegations from countries that have often been in conflict for decades or more is a key ingredient to moving the process further." This illustrates the potential for person-to-person relationships to break through international tensions.

SUPPORT TO THE CONGOLESE INSTITUTE FOR NATURE CONSERVATION'S PROGRAM FOR THE REHABILITATION OF THE DEMOCRATIC REPUBLIC OF CONGO'S NATIONAL PARKS NETWORK

Intercommunal conflicts over land management—especially between traditional practices and government-led conservation—were hampering the project's objective of intercommunal land management. Consequently, the project pursued an approach of generating dialogue and project planning workshops, including conflict resolution mechanisms and grievance redress, enabling local leaders to view the project as "their project."

Source: Excerpt adapted from GEF 2020.

BOX 4.12
Innovative Participatory Land Use Planning Methodologies in Burkina Faso—TerriStories

The TerriStories methodology is implemented through participatory land and social diagnostics, organized in each participating municipality in the form of stakeholders' workshops based on simulation and role-play. The objective is to bring together different groups of land users (often with competing interests) to identify the issues that affect them individually and collectively and propose consensus-based solutions for a better management of natural resources, with support from local and customary authorities. The innovative role-play approach introduces environmental, economic, and social uncertainties, prompting participants to shape operational management rules according to their own collective and individual needs, considering the risk of conflicts. The application of the TerriStories methodology is led by a specialized firm, with local facilitators trained in managing tensions related to land use.

"It's a long process, but it's a process that helps to promote dialogue and understanding between the land users and to negotiate sensitive issues. All of the decisions end up being based on consensus and form the basis for investments that are going to be financed by the project. It's really the process itself [that] is as important as the result."

The outcomes include: (i) land use zoning plans; (ii) rules for accessing and using natural resources in common land; and (iii) identification of communal investments to be financed by the project. In addition, the process by which those decisions are taken is an important outcome.

The project also responds to conflict drivers through a decentralized approach by empowering local municipalities to execute those investments. Connecting these efforts can improve community engagement in local planning to restore the interface between local governments and citizens.

After successful application in the Decentralized Forest and Woodland Management Project (DFWMP, P143993), the methodology was expanded in the Communal Climate Action and Landscape Management project (CCALM, P170482). The CCALM project (with financing of $125 million and an implementation period from 2022-2028) targets 96 local municipalities, including 32 previously targeted by the DFWMP.

Source: Correspondence and discussions with task team lead.

There are benefits to strengthening existing conflict resolution mechanisms that have traditionally managed natural resources. Nevertheless, it is important to note that mechanisms of resilience that once worked to cope with fragility can evolve into sources of fragility themselves or lose efficacy over time. Inclusion is key. One task team leader noted that youth are common disruptors to cooperatives and traditional mechanisms, which tend to be led by village elders. Facing unemployment, lacking land, and without a voice in traditional cooperatives, youth do not have an incentive to support the stability of traditional structures.

Gender

Existing WBG engagement addresses the environment-gender-conflict dimension in projects to close gender gaps and advance women's participation in sustainable NRM and climate resilience. Box 4.13 provides a selection of projects illustrating the WBG's efforts to address this dimension in their design.

BOX 4.13
Incorporating Gender Dimensions in Bank Project Design

NORTHERN MOZAMBIQUE RURAL RESILIENCE PROJECT

The Northern Mozambique Rural Resilience Project aims to improve NRM and livelihoods of vulnerable communities in selected areas of Northern Mozambique with a special focus on IDPs, women, and youth. Northern Mozambique has experienced an insurgency in the gas-rich province of Cabo Delgado, rapid population growth, and environmental degradation and extreme-weather events including cyclones. Women are particularly affected by conflict and environmental vulnerability due to their unequal access and control over productive and natural resources, high rates of GBV, lower access to education, and higher unemployment than men. The project sees women's inclusion in NRM as essential for enhanced resilience to help Northern Mozambique transition out of fragility. The project design addresses the needs of women and youth by building their capacity in establishing and managing savings and credit schemes, trainings in governance accountability and financial management, vocational training, and job opportunities through a cash-for-work program. Some activities also focus on fisheries and supporting female-owned businesses to fill the gap in financing opportunities for women.

NIGERIA FOR WOMEN PROJECT

The Nigeria for Women Project has identified women small-scale farmers as the group most vulnerable to climate-related shocks because of their dependence on rainfall and seasonal agriculture in the northern part of the country. The context of conflict and natural resource degradation in northeast Nigeria and deteriorating security situation due to kidnapping, attacks on oil and gas infrastructure, and renewed militancy in the Niger Delta also contribute to elevated levels of poverty and inequality, especially among women and youth. The project aims to address these vulnerabilities by ensuring that women and their households use climate-resilient crop varieties and cropping practices to withstand climate impacts while introducing innovations in renewable energy and energy efficiency into the rural space. The project uses community mobilization, capacity support, group decision-making, and behavior change activities to create an enabling environment for women.

SUPPORT FOR RESILIENT LIVELIHOODS IN THE SOUTH OF MADAGASCAR PROJECT (MIONJO)

MIONJO shows how intersectionality, water vulnerability, gender, and fragility can be integrated into project design. The project's design is particularly sensitive to how women and young men are exposed to different types of violence, including gang violence, GBV, and human trafficking as a result of rising insecurity in the South, limited state presence, and the impact of climate-related shocks like drought. The project has also identified specific disadvantages faced by young boys and girls, including high rates of early pregnancy, lack of education and economic opportunities, and harmful gender norms that contribute to push and pull factors of engagement in gang violence among young boys. The project's dimensions related to addressing drought and climate resilience through local governance and livelihood opportunities in the South also show that the WBG is integrating linkages between gender, fragility, and climate vulnerability. To inform project design, the World Bank has conducted consultations with key stakeholders including women's groups, a GBV portfolio review, and mapping of donor financing projects in southern Madagascar. The donor mapping exercise found that economic activities focused on engaging women were short-term (six-to-nine months) and lacked an integrated approach to respond to women's needs. This time frame was found to be insufficient to provide long-term mentoring and capacity-building for women's empowerment programs. The WBG has incorporated these lessons into the project design and focused on a sustained multi-year presence at the community level to improve infrastructure, socioeconomic opportunities, and local governance. Project Development Objective (PDO) indicators have also been disaggregated by gender and age, and project monitoring and evaluation has a beneficiary feedback loop to ensure that the needs of women and youth are addressed at various stages of the project cycle. Women and youth have also participated in the planning and budgeting of local development plans to foster participation in local governance.

Source: World Bank.

FCV Appropriate M&E

The FCV Strategy calls for stronger monitoring systems, adapted results frameworks, and new tools, methods, and technology (World Bank, n.d.-b). The Strategy encourages the use of perception surveys, iterative beneficiary monitoring, and participatory tracking to identify problems early and course correct or improve project design, data collection, and use of available information. This section recognizes the challenges faced by programs and project teams in systematically applying adaptive management, especially given that country-level results systems may not provide the basis for data to be applied in FCV contexts. However, the information in this section presents a wealth of concrete examples of how FCV appropriate M&E can be utilized and leveraged for the better orientation of results at the project and program levels.

ADAPTIVE MANAGEMENT

Engagement in FCV contexts benefits from the inclusion of adaptive management decisions made at both project and program levels. Adaptive management as a tool to enable iterative approaches to decision-making at program and project levels allows for interventions and portfolios to be adjusted based on evidence and evolving fragility contexts. Through adaptive management, teams working in FCV countries can adapt their engagement to external shocks, evolving governance, and stakeholder priorities.

Simple, Flexible Design that Builds on what Works

Flexibility needs to be built into projects to address shifting dynamics associated with fragility and conflict and specify how a project will adapt if security conditions change, i.e., mid-course correction. Projects can learn from positive and negative experiences internally and externally to inform future programming, both in terms of assessing risks and also to ensure that the objectives are realistic (Box 4.14). Many task team leaders reported the importance of being careful and realistic about the delivery of results and of choosing less complicated interventions in complex FCV environments.

BOX 4.14
Examples of Flexible Project Design

SUPPORT TO THE CONGOLESE INSTITUTE FOR NATURE CONSERVATION'S PROGRAM FOR THE REHABILITATION OF THE DEMOCRATIC REPUBLIC OF CONGO'S NATIONAL PARKS NETWORK

The project was approved in 2007, just a few years following the end of the Second Congo War and one year after the adoption of the current constitution. Proponents chose to focus on limited activities in a few locations. They also included time in their projected schedule to hold annual coordination meetings to adapt project activities to the evolving conflict context. Notably, the choice to pursue this model was influenced by a dedication to learning from past projects implemented in this context. The Project Document explains the rationale for the project design and uses lessons learned from past projects instituted by the World Bank, UNDP, and the GEF to help develop an inclusive and flexible model.

CONSERVATION AND SUSTAINABLE DEVELOPMENT OF THE MATAVEN FOREST IN COLOMBIA

A general adaptive approach was proposed to allow for modification of project activities. This approach included a number of measures, including a conflict resolution mechanism, and "a flexible design that would allow the modification of some activities according to the security situation (e.g., meetings to be held outside of the region), without affecting project development objective." It was

Continued

BOX 4.14
Continued

also noteworthy that the project remained adaptable to address human rights considerations, particularly Indigenous peoples' rights to autonomy and governance over their historic lands. Initially, the project had intended to create a new national park, but after consultation, this became a community-managed reserve. Based on the experience of the National Parks Association's creation of Tuparro National Park, local communities in the Matavén Forest "discarded the option of creating a national park" because the previous case "generated conflict with the region's Indigenous people over the degree of co-management to be allowed and resulted in the death of various Indigenous people as well as of the park's administrator." This example demonstrates the importance of being able to pivot strategies in response to such developments.

BURUNDI AGRICULTURAL REHABILITATION AND SUSTAINABLE LAND MANAGEMENT PROJECT

The project utilized a careful selection process for project sites and tried to limit localities to ensure better manageability. One of the components focused on the selection, funding, and implementation of a variety of "subprojects." The project design included an extensive list of criteria to be used in evaluating these potential subprojects. One of these criteria was that subprojects be classified as "lacking in conflict" or "stable" prior to approval, giving the project staff the choice to reject subprojects they deemed too risky.

INTEGRATED NATIONAL ADAPTATION PLAN: HIGH MOUNTAIN ECOSYSTEMS, COLOMBIA'S CARIBBEAN INSULAR AREAS, AND HUMAN HEALTH

Project sites were changed when local conflicts affected project activities. The project had to relocate and restructure four years after implementation had begun in reaction to a growing "situation of social unease." According to the project's Terminal Evaluation, a "public security situation made it impossible for any of the Project's key partners to work in the area of Las Hermosas." Consequently, the project moved away from the site specified in the initial project design. Notwithstanding the additional costs of this disruption and subsequent restructuring, the project was able to conclude with satisfactory outcomes.

BURUNDI ENERGY EFFICIENCY PROJECT

The project's Terminal Evaluation noted that the "project design was kept simple considering the country's post-conflict environment" and assessed that that was a justified mitigation measure given the conflict-related risks.

TRANSBOUNDARY CONSERVATION OF THE GREATER VIRUNGA LANDSCAPE

Adaptation requires resources, emphasizing the importance of considering these costs in FCS budgets. Project documents highlighted the need to evaluate "what it will cost now and projected into the future under various scenarios (good security to intermittent security)."

Source: Excerpt adapted from GEF 2020.

A critical demand exists for measuring the impacts of local community approaches to NRM. These approaches are generally regarded as conducive to conflict reduction and improved livelihood outcomes. However, without a baseline to measure the impacts of natural resource and climate adaptation and mitigation interventions by the World Bank and build the evidence base, a key opportunity is missed. Testing the assumptions around the different entry points and approaches helps enhance the WBG's offer and the promotion of community-based livelihoods.

Monitoring the Security Situation and Early Warnings

The *Evaluation of GEF Support in FCS* (2020) points out that detecting disputes before they escalate relies on monitoring, periodic evaluation, and an ability to adjust strategies to address new information and developments. A team may deliberately choose not to work in conflict-affected areas but still must consider, monitor, and mitigate the potential impacts of conflict. Monitoring is not meant to disqualify, but to signal areas of attention to task team leaders to take proper account of and time to prepare for potential crises. Staff may directly monitor conflict indicators or utilize diagnostics and updates that are available from other agencies. For example, FAO's work in Colombia relied on the UN Department for Safety and Security's Country Risk Assessments and followed its security advice for project staff. Select monitoring tools and relevant indicators at the environment-conflict nexus are listed in Table 4.2.

TABLE 4.2 Monitoring Tools and Relevant Indicators at the Environment-Conflict Nexus

EARLY-WARNING MONITORING TOOLS
World Bank Global Crisis Risk Platform. Seeks to identify and monitor multidimensional, interconnected risks, including food insecurity, disease outbreaks, conflict, and economic shocks. Develops mechanisms to monitor FCV early warning signals, including through partnering with EU and UN organizations to share monitoring data, analysis, and approaches.
UNEP Strata. Climate security data tool for programming and policy support. Identifies and monitors environment and climate stress hotspots in real time. Visualizes how hotspots overlap with socioeconomic risks, potentially driving maladaptation, displacement, or conflict.
Water Peace Security Global Early Warning Tool. Employs machine learning to predict where water risks can lead to conflict 12 months ahead of time in Africa, the Middle East, South Asia, and Southeast Asia. Reports success in forecasting more than 90 percent of ongoing conflicts and 60 percent of emerging conflicts. Factors in a range of community, demographic, food, and governance-related indicators.
Water Peace Security Regional Tool. Assesses local water-related conflict dynamics to inform local decision-making and dialogue.
Food Crises
International Food Policy Research Institute (IFPRI) Food Security Portal. Provides a number of tools for tracking food crisis risks and houses an Early Warning Hub, which brings together information from across early warning systems related to food crises and related drivers in one place, spanning tools developed by FAO, WFP, IPFRI, and others.
Famine Early Warning System Network (FEWS.NET) by USAID. Provides food security alerts, special reports, warnings, and predictions of future food crises at sub-national levels.
Violence and Fragility
Armed Conflict Location and Event Data (ACLED) Project Database. Widely used real-time data and analysis source on political violence and protests around the world. Includes non-fatal events (injuries, etc.) and non-violent events (arrests, troop movements, demonstrations, etc.)
Uppsala Conflict Data Project (UCDP) Armed Conflict Dataset. Conflicts are based on a minimum fatality threshold.
World Bank List of Harmonized Fragile and Conflict-Affected Situations. List released annually by the World Bank's FCV group that should not be considered comprehensive. Defines fragile countries as those with one or more of the following: • Weak institutional and policy environment based on a Country Policy and Institutional Assessment (CPIA) score for IDA below 3; • UN peacekeeping operation; and • Flight of over 2,000/100,000 persons in its population, regarded internationally as refugees in need of protection. Countries affected by violent conflict are identified based on the number of conflict-related deaths relative to the population by the ACLED and UCDP beyond a specific threshold.
Fund for Peace Fragile States Index. Ranking of 178 countries across a dozen indicators related to social, economic, and political risks and vulnerabilities that best serves as a dynamic tool to see change over time. Environment is considered a cross-cutting factor that relates to the framework's examination of factionalized elites, external intervention, public services, and others.
Uppsala Violence Early Warning System (ViEWS). Subnational conflict forecasts for Africa.
Displacement and Migration
International Organization for Migration Displacement Tracking Matrix. Gathers and analyzes multi-layered information on the mobility, vulnerabilities, and needs of displaced and mobile populations.
International Displacement Monitoring Center (IDMC). Provides verified, consolidated, and multi-sourced estimates of the number of people internally displaced or at risk of becoming displaced by conflict, violence, disasters, and development projects. This includes the Global Internal Displacement Database and Global Displacement Risk Model Tool.
United Nations High Commissioner for Refugees (UNHCR) Refugee Population Statistics Database. Covers information about forcibly displaced populations such as refugees, asylum seekers, and internally displaced people, including their demographics.
Changing Resource Values - Local Supply and Global Demand
Consider changes in international commodity prices and the global market to anticipate disruptions to national and local FCV-affected economies with high natural resource dependence.
United Nations Office on Drugs and Crime (UNODC) Integrated Illicit Crops Monitoring System (SIMCI). Annual information on the levels of illegal crop cultivation that can be used to evaluate impact on the surrounding landscape.

Source: World Bank.

BOX 4.15

Lessons Learned from Modeling Burundi's Fragility Hotspots

The Burundi Climate PROGREEN ASA: Diagnosing Drivers of Climate and Environmental Fragility in Burundi's Colline Landscapes Project (P176579) developed a national-level multi-risk model and analysis, Diagnosing Drivers of Climate and Environmental Fragility of Burundi's Colline Landscapes, in collaboration with Natural Capital Project at Stanford University and the Red Cross Red Crescent Climate Centre. The report, *Diagnosing Drivers of Climate and Environmental Fragility of Burundi's Colline Landscapes* (2021) and story map go into further detail about the project's methods and results. It produced new data on short, near, and long-term climate impacts on Burundi's vulnerability: temperature effects over time, major hotspots, climate projections, sectoral impact analysis, and cascading climate impacts.

Operational Strategy: The team emphasized the importance of helping countries collect high-resolution data for observing environmental trends to inform management responses. Data and modeling require significant resources. Hence the importance of identifying free, open-source data such as the Stanford Natural Capital Project's InVEST tool, which can show promising results before going into a more resource-intensive deep dive.

The work was designed to contribute analytics to Burundi's PRA to demonstrate where and how climate and environmental risks are key drivers of fragility in Burundi and leverage finance to scale SLM across the country as an investment in resilience. Building on the Burundi Landscape Restoration and Resilience Project and GEF Additional Financing for 31 collines, the ASA provides the evidence base for scaling the work to 2,608 and pave the way for future investments to get to the root of the issues the country faces. This includes informing the development of the national investment plan to restore resilience in Burundi's colline landscapes and analytical basis for future-cross-sector investment planning and the CPF re-alignment.

The task team shared the following highlights on the meaningful evidence for climate-fragility linkages uncovered by the ASA:

- Using multi-criteria spatial assessment methods, the Burundi climate and fragility ASA reveals the country is extremely vulnerable to climate risks, land degradation, and conflicts related to land—all drivers of socioeconomic fragility in Burundi's rural collines. The ASA uncovered the communities, crops, and assets (roads) most at risk from a triangulation of climate, land degradation, and conflict risks and identified hotspots of fragility where WBG interventions are most urgently needed. Burundi's coping and adaptive capacities remain too low to address these compounded and cascading impacts.
- In the context of Burundi's small, densely populated, overwhelmingly rural setting, highly exposed to climate shocks, climate change impedes socioeconomic progress, deteriorates natural resources and scarce productive lands, and undermines ecosystem services provisions and functions. Key impacts of climate change in Burundi include recurrent landslides in western regions with increasing pluvial and fluvial floods, especially along the banks of Lake Tanganyika, and extreme droughts in the southern regions. In 2020 alone, 100 percent of IDPs in Burundi had been driven out of their home by climate-related disasters.
- Looking ahead at Burundi's adaptation needs in 2030-2050, booming demography and intensifying climate events are shrinking the availability of arable land per capita whilst cities and the rapid urbanization rate are not providing the growth they are typically expected to generate. Climate projections in Burundi indicate that higher temperatures in the future will lead to increased evaporation, thus affecting agricultural productivity. It is expected that land will remain a continued source of conflict in Burundi, in particular intra-communal land conflict.

In terms of next steps, the research and analyses derived from this work must be validated and translated from technical diagnostics to informed future operations as an investment in resilience. Colline-level validation workshops will be held to validate the drivers of fragility identified in the study and identify relevant implementation modalities, i.e., a community-driven approach. The local-level plans will be aggregated into a national-level investment plan.

Source: Correspondence with task team; Red Cross Red Crescent Climate Centre, 510 of the Netherlands Red Cross, and University of Cape Town, 2021; and World Bank 2021a.

WBG staff have employed innovative techniques and digital tools using frontier technologies to identify the most salient risks. Box 4.15 describes one such example.

Communities play an influential role in identifying and addressing risks. The power of participatory M&E at the community level has been recognized in *How to Improve Results in FCV Environments: 12 Recommendations* (Martin et al. 2022). Local knowledge and needs can be integrated into larger, national datasets. Real-time data to and from communities can support the transparent sharing of information, improve coordination and collective action across different scales, and serve as an early warning system to support resilience against environmental challenges and violence. Conversely, participatory and community data collection has risks—it can be intrusive, provide a false sense of understanding, be subject to manipulation, or even exacerbate conflict (Ide et al. 2021). Box 4.16 describes examples of successful interventions from the Global Facility for Disaster Reduction and Recovery (GFDRR).

BOX 4.16
World Bank GFDRR Disaster Risk Management-FCV Nexus Program

The DRM-FCV Nexus Program was designed to support systematic cross-fertilization and collaboration across disaster risk management, conflict prevention, and peacebuilding communities to increase resilience to climate and disasters. The program aims to develop integrated multi-risks analysis tools and tailored capacity-building to provide technical expertise and analytical knowledge and to forge partnerships with humanitarian and development partners to assist World Bank client countries in integrating DRM and FCV engagements in their strategic plans, work programs, and operations.

The success of recent engagements and their connection to conflict prevention are listed below as follows:

Papua New Guinea. The DRM-FCV Nexus Program supported the government of Papua New Guinea in developing a sub-regional risk profile analysis in the southern highland provinces and the autonomous island province of Bougainville, which found that the lack of clear attribution of conflict sensitivity to climate change or disaster could create conflict due to misplaced blame.

Mozambique. The DRM-FCV Nexus Program has financed a detailed vulnerability map of Maputo, which is helping the government prioritize funds from existing infrastructure investments to benefit 200,000 citizens in the capital city's most vulnerable neighborhoods. This research was action-oriented, innovative, and done collaboratively, focusing on the intersectionality of poverty, urban crime, gender-based violence, and climate change in Maputo. Through a data-driven approach, multiple geospatial layers were analyzed to capture key aspects of disadvantaged neighborhoods and a prioritization framework was developed which included three primary components: flood risk; poverty levels; and access to infrastructure services. This project shows that machine learning techniques can address data and information gaps, particularly in an FCV context where local-level data and information may not easily available.

Source: Excerpt adapted from World Bank n.d.-a.

GENDER-SENSITIVE M&E

Adopting affirmative action measures to promote gender equality can help advance women's participation in sustainable NRM and governance. The World Bank and Climate Investment Fund Gender Study found that Dedicated Grant Mechanism (DGM) for Indigenous Peoples and Local Communities, with specific gender assessments and robust gender targets of more than 30 percent for women's participation, saw more obvious and positive changes in closing gender gaps in sustainable forest management (Canpolat et al. 2022). In the same study, gender quotas to allocate subprojects and capacity-building opportunities led by women or geared toward women were found to be critical in closing gender gaps and promoting women's participation.

In North Kordofan, Sudan, local Dialogue Forums, which were created with the support of UN agencies to resolve conflict over access to land water among pastoralist, farming, and IDP communities, set specific inclusion mechanisms for women from the start (UNEP, UN Women, and UNDP 2019). These participatory processes contributed to doubling women's participation in local conflict resolution from 10 to 20 out of 50 members. Women also increasingly participated in these committees from first being only observers to becoming mediators, following their participation in capacity-building activities in leadership and conflict mediation.

Projects that identify gender gaps in the analysis and integrate specific actions to address them as part of project objectives and components should ensure that the results framework helps adequately measure progress toward addressing these gaps. Failure to do so can limit the project's ability to capture project outcomes related to advancing gender equality and women's participation in NRM. For example, while the Northern Mozambique Rural Resilience Project includes an analysis of the gender-conflict-environment nexus and has specific components to address these issues, only one PDO-level indicator is disaggregated by gender and age to measure beneficiary perceptions. The PDO-level indicators that measure local communities directly benefitting from improved NRM initiatives and livelihood activities do not disaggregate by gender and age, which does not help measure women's participation in NRM. It is therefore critical for the results framework to align with project components in order to measure progress in closing gender gaps. The *Gender Tag for Impact: Good Practice Note* (2022) also provides guidelines to ensure alignment between the gender gap analysis, proposed actions, and the M&E framework.

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SECTION

5

Natural Resource Management in Fragile, Conflict, and Violence-Affected Contexts: Questionnaire for Upstream Analytics and Downstream Operations

This questionnaire is intended as a complementary tool to the *Defueling Conflict: Environment and Natural Resource Management as a Pathway to Peace* report. It is designed to support upstream analytics and downstream operations to consider the interplay between conflict, climate, and environment, along with gender and social inclusion considerations.

The questionnaire is divided into two sections—Situational Analysis and Project Design. The first is a series of macro-level guiding questions that are especially useful to inform RRA, CPF, and SCD development at a strategic level. Task teams and on-the-ground operations also benefit from the linkages covered in the Situational Analysis. The Project Design questions go one step further to support teams with the integration of these dynamics into the preparation of specific projects and to enhance the conflict sensitivity of operations. The questionnaire is a tool to encourage environmental specialists and task teams working on natural resource or climate-related projects or programs in FCV countries to think about the role of their interventions in this context and to advocate for their importance to WBG management and country decision makers. This questionnaire does not aim to be prescriptive or serve as a "checklist," but instead to help teams ask the appropriate questions to integrate these dimensions into WBG projects in the environment sector or operating in an area with natural resource-related conflict. The questionnaire can be adapted to the country and local contexts.

SITUATIONAL ANALYSIS	CONCEPTS TO CONSIDER
Key Orienting Questions: • Were natural resources a factor in the conflict? • Have disputes over natural resource access, use, or control contributed to triggering or perpetuating the conflict? How so? • Were natural resources used in the conflict economy and as a basis for coping mechanisms and survival? Consider the role of different natural resources in the conflict economy at the national, regional, and local scales. • Do the military, armed groups, or criminal networks either informally or formally control some aspect of the resource value chain they use to fund themselves? **Determining Natural Resource Dependence:** • Is there high dependence on natural resources in the economy at the national and/or local levels? • What percent of the national economy and of export earnings rely on extractive industries as opposed to other sectors? • Are large parts of the population reliant on renewable resources for their livelihoods?	Environmental factors do not always stoke conflict directly, but can contribute to and exacerbate the existing social, economic, and political challenges and stressors in FCV contexts. Whether increased competition over natural resources escalates into conflict depends on several risk factors: high natural resource dependence, inequality and marginalization, the strength of institutions, and a recent history of conflict.
Availability and Quality of Natural Resources: • How have the management, access, availability, and quality of these resources changed? Have conflict, demographic growth and displacement, climate, or global markets changed natural resource availability or value? • When conflicts linked to natural resources arise, who are the actors responsible for resolving them and what are their processes? Who is excluded from conflict resolution and how? **Gender and Social Inclusion:** • How do women and men access, use, and control natural resources in this context? • How are these resources managed, and who is excluded? Consider relevant factors of identity, including gender, ethnicity, religious association, socioeconomic status, age, etc.	Think through the following groups of natural resources: land (an economic asset and intrinsically tied to culture, heritage, identity, and community), renewables (agriculture, crops, livestock, non-timber forest products, and water), extractives (industrial and artisanal mining, commercial forestry, oil, and gas). When natural resource values change, whether a decrease in value due to degradation or an increase in value due to global market demand or restoration, there is a risk of conflict when there is a lack of effective governance or a management framework. Reflect on women's and men's different NRM roles and responsibilities and the added barriers for women. Consider how conflict-environment linkages can affect traditional gender norms.
Characteristics of natural resources that play an important role in conflict dynamics and the onset, conduct, and ending of conflicts include: – Type of natural resource (renewable, non-renewable, land) – Energy provision (fuel vs. non-fuel) – Spatial distribution (point vs. diffuse) – Distance to main governmental control (e.g., the capital) – Market value (Rigterink (2020) found that as international resource prices rose, the intensity of violence increased in resource-rich subnational areas, but not on a national level) – Lootability (market value, ease of extraction, high-value-per-weight) – Characteristics of the extraction process (scale, impacts on local livelihoods) – Stakeholders involved in the extraction (winners and losers in resource ownership, access, and use)	**TIP:** Remember that conflict can ensue over scarce or abundant natural resources. For example, abundance of a natural resource at a local scale can instigate conflict and competition over its control if it is a high-value, globally scarce good.

SITUATIONAL ANALYSIS	CONCEPTS TO CONSIDER
Climate Change: • What are the current and projected climate change-related stressors? • How are disasters such as droughts, storms, and floods affecting the population? • What are the long-term effects of climate change in the region (e.g., temperature increase, sea-level rise)? • What are predicted future impacts? • What are the knock-on impacts of these stressors that exacerbate climate-conflict risks? • Are there specific regions, groups, communities, or economies that are particularly exposed to climate change-related stressors?	Climate-related shocks include rapid onset disasters (cyclones, storms, wildfires, drought, heatwaves) and slow onset changes (desertification, sea level rise, salinization, changing rainfall patterns, temperature increase). Climate-conflict risks: – Natural resource competition/conflict – Livelihood insecurity – Migration and displacement – Disasters challenging governance – Volatile food prices and provision – International tensions – Unintended, negative impacts of environmental and climate change interventions Consider the magnifying effect of multiple levels of marginalization (e.g., women who are also part of vulnerable ethnic minorities) and identify the most resource-dependent. Impacts may vary between: – Highlands vs. plains/coastal areas – Rural communities vs. urban areas – Resource-dependent Indigenous peoples and local communities – Gender – Vulnerable groups Use a gender and social inclusion lens by thinking through how different groups of men, women, boys, and girls based on ethnicity, socioeconomic status, age, and race are affected by these climate-related risks.
Coping Capacity and Resilience: • How do livelihoods differ among various groups (women, men, ethnic groups, etc.)? • How have environmental degradation and climate-related shocks affected the livelihoods of different groups? How are they likely to affect these groups in the future? What are the gender-differentiated impacts? • How have conflict and fragility affected the livelihoods of different groups? • How are the impacts of climate change and environmental vulnerability affecting human mobility (seasonal migration, displacement, long-term migration, etc.)? Are these changes impacting social cohesion? • What are some livelihood practices that can contribute to environmental degradation (such as mining, woodcutting)? • How is the government responding to the situation? What is the impact of their response? Consider institutional and governmental coping capacities.	Consider the following livelihood practices: – Animal husbandry – Agriculture – Transhumance – Mining – Fishing – Hunting – Trade **TIP:** These practices will change depending on the context of your assessment (e.g., rural vs urban areas).

SITUATIONAL ANALYSIS	CONCEPTS TO CONSIDER
Conflict and Peace: • How do climate change and environmental issues affect existing conflict/fragility dynamics? • What factors of fragility apply to the project area and how do they interact with NRM? • What role does the natural resource situation play in existing conflict dynamics? • What role does livelihood insecurity play in the existing conflict dynamics? • How do climate change and conflict challenge the ability of the government to fulfill its role? • How do environmental vulnerability and climate change exacerbate pre-existing inequalities and the exclusion of certain groups? • What have been existing efforts and mechanisms to prevent or resolve conflicts? Who has participated, and who has been excluded? What were the outcomes? **Gender and Social Inclusion:** • Which roles do different actors and genders play in conflict prevention, peacebuilding, and climate change adaptation?	Reflect on the following: – Root causes of conflict – Main conflict actors – Whose voice is not heard – Effects of conflict – Factors and processes that can contribute to conflict resolution or prevention – Customary practices for conflict resolution – Growing demand from production or demographics – What contributes to conflict resolution or prevention – Elite capture Factors that exacerbate climate and security risks: – Horizontal and vertical grievances (between communities, herders, and farmers; local actors and the state; two neighboring states) – Real and perceived inequality and exclusion – Low state capacity and authority – Poverty and low socioeconomic development – Limited provision of basic services to the population – Food insecurity – Urban-rural divide – Climate change – Demographic challenges – population growth, migration

PROJECT DESIGN	CONCEPTS TO CONSIDER
How does the situational analysis above inform the project's objectives and activities? How do project activities tackle some of these problems? **Does the project design incorporate strategies to address the problems and issues unique to the situation of conflict presented and mitigation measures for identified risks? Is the project responsive to the conflict-climate context?**	
Key Orienting Questions: • What are the environmental risks and opportunities in a project area? Consider the conflict intensity and what opportunities are feasible based on the reality on the ground. • Has a conflict analysis or fragility assessment been conducted at the local, national, or sectoral level? Does it include an assessment of underlying conflict factors and power dynamics, as well as a stakeholder analysis? Refer to those conducted by the RRA, SCD, UN, and humanitarian agencies to inform the design of the project.	Environmental risks: – Competition and displacement – Causing tensions and grievances – Fueling and financing conflict – Weapons of war – Damaged by conflict – Incentive to undermine peace – Causing post-conflict aspirations and tensions – Illegal exploitation and trade Environmental opportunities: – Good resource governance – Entry point for dialogue – Economic incentives for peace – Confidence-building by resource cooperation – Opportunity for government reform – Jobs, livelihoods, and resettlement – Revenues and basic services

PROJECT DESIGN	CONCEPTS TO CONSIDER

Objectives and Components:

- How can peacebuilding priorities be maximized through the project?
- What causes of conflict and fragility does the project address? Consider what mediates climate and security risks:
  - Gender equality and social inclusion
  - Mobility with dignity
  - Social cohesion (horizontally between communities and vertically between local and traditional governance to national governance)
  - Access to livelihood opportunities and public services
  - Institutions for conflict management
  - Sustainable livelihood opportunities
  - Community resilience
  - Equitable distribution of benefits
  - Inclusion, participation, transparency, accountability
- Can the project generate peace dividends and incentives for cooperation through natural resources? Consider land and property rights and improvements in livelihoods, governance, and the economy.
- Are there opportunities to support sustainable livelihoods and enhance community resilience? Identify ways to change the inequitable distribution of resources, particularly if the direct use of natural resources is critical to livelihoods in the project area.

TIP: Identify the plans and commitments for peacebuilding that can be strengthened by World Bank operations.

Gender:

Consider using gender-sensitive NRM as an entry point for conflict resolution and prevention.

- How does the project address gender gaps in NRM and how FCV contexts and climate change can exacerbate these inequalities?
- How do you integrate a gender lens in climate resilience components of the project and advance women's participation in climate resilience and sustainable NRM?
- Do one or more project components directly or indirectly address gender-conflict-environment linkages? How so?
- How are women and men from various backgrounds (based on race, ethnicity, disability, sexual orientation, age, etc.) included in the project and how does the project address their differentiated needs?

Site-Level Factors:

- Is the project near or in an area that has been affected by armed conflict or climate change (natural disasters, degradation, etc.) within a particular period of time? Delve deeper into overlapping conflict, natural resources, and climate issues discussed in the situational analysis to understand trends at the local level. Consider violent crime rates at the country versus community level.
- What have been the major direct and indirect impacts of conflict on the area of study and its natural resources?
- Identify the existence of conflict economies that may impact the design and implementation of productive activities.
- Have large populations relocated within the region in the past few years? Why?
- What has been the relationship between conflict and land-use change in the area of interest before, during, and after the conflict?
- Are there militias/criminal groups operating in the area of interest? Have they used natural resources to fund themselves, inspire grievances against the state, or control local populations?
- Does the community have historic grievances against the state? Consider the presence and relations between territorial authorities and between the state and the region.
- Are there groups who are particularly vulnerable to natural resource changes in this area?

TIP: According to IEG, the programs that have yielded the largest benefits environmentally and socially are those where both threatened areas and vulnerable resource users were targeted carefully.

PROJECT DESIGN	CONCEPTS TO CONSIDER

- How engaged are people and affected communities in the management of or decisions about land and natural resources?
- Are there traditional conflict resolution and/or resource management mechanisms in place to empower all stakeholders to participate in project implementation?
- To what extent are the traditional conflict resolution and/or natural resource management mechanisms inclusive and representative?
- How will the project enhance the resilience of these mechanisms to be resilient in the face of scarcity as well as changes to social dynamics?

Risk Management:

- How might the project influence or interact with the conflict context?
- Have you considered whether and how project activities could worsen conflicts or spark new ones?
- How might conflict affect the project's success?
- How do you plan to monitor and manage these risks? Can the project do something to minimize conflict or promote peacebuilding?
- How would the project respond if conflict increased within or close to the project sites?
- How are different groups/stakeholders likely to perceive the project? Could differences in perception potentially lead to violence? Who benefits and who "loses" from project activities?

Gender:

- What can be some of the unintended consequences of the project that could exacerbate gender inequality, GBV, fragility, and conflict dimensions? How do you plan to monitor and mitigate these risks?
- What are the underlying values and attitudes about gender that may drive gender inequalities? How might these inequalities affect your project, and how might your project affect these values and attitudes?

Common triggers of natural resource conflicts:

- Rising grievances between the haves and the have-nots (real or perceived)
- Changing natural resource values and availability (increase or decrease)
- Elite capture
- Exclusion from decision-making or benefits

Key pathways by which conflict and fragility affect projects:

- Physical insecurity
- Social conflict and mistrust
- Difficulties hiring staff
- Economic drivers – illicit trade of natural resources, resource competition driving conflict, currency depreciation
- Political fragility and weak governance – corruption, limited financial capacity, land tenure issues
- Coping strategies – conflict between IDPs/refugees and local communities

Unintended consequences can include exacerbating various forms of GBV (IPV, sexual assault and rape, early/forced marriage, sexual abuse, and exploitation) and intensifying exclusion and conflict dynamics.

TIP: Think through how the project might fuel social tensions and conflict at the household level, at the community level, at the national level, between conflict parties, between minority and majority groups, etc.

PROJECT DESIGN	CONCEPTS TO CONSIDER
Conflict-Sensitive and Resilience-Building Strategies Employed by Teams: Context analysis to inform differentiated engagement and integrated solutions — RRAs, CPFs, peace and inclusion lenses, safeguards, conflict analyses Inclusion and people-centric interventions – Adopting an intersectional lens – CDD approach – Partnerships with humanitarian agencies and local actors, including women and youth groups – Inclusive, participatory approaches to project design, monitoring, and implementation – Dispute resolution mechanisms FCV Appropriate M&E – Monitoring the security situation and early warning of climate and conflict risks, including partnerships for data sharing – Adaptive management – simple, flexible design that builds on what works; budgeting and planning for potential changes in advance	
Stakeholder Engagement: • Are members of the communities involved in decision-making, planning, and implementation of program design, implementation, and monitoring? Do the program implementation plans include feedback and accountability mechanisms? • How did you select the project beneficiaries and partners? • Was the selection process informed by a conflict analysis (e.g., did it account for divisions along ethnic, political, or social lines)? • Were the selection criteria developed with members of the local communities, including both direct beneficiaries and surrounding communities? • What lessons have you learned from previous attempts to engage stakeholders? How can they inform your project now? **Gender and Social Inclusion:** • Has there been an analysis of exclusion dynamics in the sectors of interest? • Are measures incorporated to remove barriers to the participation of people most involved in the conflict issues and who may feel threatened to engage in the development processes? (e.g., victims of violence from minority ethnicities in an ethnic conflict) • Are gender-differentiated needs, preferences, knowledge, and roles within a community taken into account?	Consider who will or will not benefit from the project or intervention, for example, marginalized and resource-dependent groups who may not be welcome in traditional resource management structures or recognized by the government as beneficiaries. **TIP:** Understand and access difficult-to-reach populations in need by working with local actors, humanitarian agencies, and CDD approaches.

PROJECT DESIGN	CONCEPTS TO CONSIDER
Monitoring and Evaluation: • Does your M&E framework reflect the conflict dynamics? • What is the team's plan to continuously monitor the impact of conflict on project implementation, as well as the project's effects on conflict? How can the context be effectively monitored to inform adaptive management decisions? • Are other organizations monitoring conflicts (related and unrelated to natural resources) and/or conflict dynamics in the area? • How do you engage beneficiaries in M&E? How is your approach inclusive/participatory? • Have you considered the ways in which mechanisms for engagement can either help ease tensions or exacerbate them? • How do you capture lessons and build the evidence base of what works? Collect evidence beyond the biophysical to examine impacts of interventions on conflict and the welfare of local communities. • How can you share those lessons and evidence back with stakeholders in a way that promotes the objectives of the projects? **Gender:** • Do PDO-level and intermediate indicators have a gender lens and capture how the project will contribute to addressing gender gaps through project components and activities? • Do you collect sex-disaggregated data for all relevant indicators? **TIP:** Consider disaggregating the data based on other factors of social inclusion to capture intersectionality, including ethnicity, race, disability, age, location, etc.	Consider the following: – How indicators can help measure progress towards closing gender gaps through project components and activities, as well as for other vulnerable groups – How to build in a participatory approach and feedback loop mechanism to engage beneficiaries and get their feedback in order to inform project implementation and course correct as needed – How technology can be used to ease monitoring constraints – How participatory monitoring may be used as an intervention in itself to build capacity and improve coordinated responses to climate and security risks – How the way you monitor your project may either ease or exacerbate tensions

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This questionnaire builds on Adelphi and UNEP's "Climate, Peace, and Security: Understanding Climate-Related Security Risks Through an Integrated Lens" summary note (2022). It has been adapted and modified to fit the needs of Bank Staff, and has also been influenced and informed by the following:

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Rüttinger, Lukas, Janani Vivekananda, Christian König, and Barbara Sedova. 2021. *Weathering Risk Methodology Paper*. Berlin: Adelphi; Potsdam: The Potsdam Institute for Climate Impact Research (PIK). https://weatheringrisk.org/sites/default/files/document/Weathering%20Risk%20Methodology%20Paper_0.pdf.

Schellens, Marie K., and Arnaud Diemer. 2020. "Natural Resource Conflicts: Definition and Three Frameworks to Aid Analysis." In *Partnerships for the Goals*, edited by Walter Leal Filho, Anabela Marisa Azul, Luciana Brandli, Amanda Lange Salvia, and Tony Wall. Encyclopedia of the UN Sustainable Development Goals. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-71067-9_81-3.

Tänzler, Dennis, and Nikolas Scherer. 2018. *Guidelines for Conflict-Sensitive Adaptation to Climate Change*. Germany: Umweltbundesamt.

UNDG (United Nations Development Group), and UNECHA (United Nations Executive Committee on Humanitarian Affairs). 2013. "Natural Resource Management in Transition Settings." Guidance Note. https://unsdg.un.org/sites/default/files/UNDG-ECHA_NRM_guidance_Jan2013.pdf.

UNEP (United Nations Environment Programme). 2022. *Addressing Climate-Related Security Risks: Conflict Sensitivity for Climate Change Adaptation and Sustainable Livelihoods - Guidance Note*. Nairobi: UNEP. https://wedocs.unep.org/20.500.11822/40330.

UNEP (United Nations Environment Programme). 2022. *Addressing Climate-Related Security Risks: Conflict Sensitivity for Climate Change Adaptation and Sustainable Livelihoods - Toolbox*. Nairobi: UNEP. https://wedocs.unep.org/20.500.11822/40329.

UNEP (United Nations Environment Programme) and EU (European Union). 2022. *Addressing Climate-Related Security Risks: Conflict Sensitivity for Climate Change Adaptation and Sustainable Livelihoods - Monitoring and Evaluation Note*. Nairobi: UNEP. https://wedocs.unep.org/20.500.11822/40332.

SECTION

6

Select Resources for Task Teams

This section contains a list of select relevant internal and external resources that can be used for in-depth analysis and with the objective of producing deeper insights and guidance to support the implementation and strengthening of conflict sensitivity in environment, climate change, and NRM-related projects.

6.1 Key Tools and Orienting Material for Understanding and Managing Natural Resource Conflicts

Courses and Platforms

Bruch, Carl, David Jensen, Marc Levy, Richard A. Matthew, and Erika Weinthal. 2019. “Textbook for Massive Open Online Course on ‘Environmental Security and Sustaining Peace.’” Environmental Peacebuilding Association, Washington, DC.

Environmental Peacebuilding Association. 2022. Environmental Peacebuilding Knowledge Platform.

UNEP (United Nations Environment Programme). “Climate Change, Peace, and Security.” UN CC: Learn (online course).

World Bank. Fragility, Conflict, and Violence (FCV). Open Learning Campus Course.

WBG Resources

Bannon, Ian, and Paul Collier, eds. 2003. *Natural Resources and Violent Conflict: Options and Actions*. Washington, DC: World Bank.

Barron, Patrick, Suh Yoon Kang, and Nikolas Myint. Forthcoming. "Peace and Inclusion Lenses Good Practice Note." World Bank, Washington, DC.

IEG (Independent Evaluation Group). 2021. *The Natural Resource Degradation and Vulnerability Nexus: An Evaluation of the World Bank’s Support for Sustainable and Inclusive Natural Resource Management (2009–19)*. Washington, DC: World Bank.

IEG (Independent Evaluation Group). 2021. *World Bank Engagement in Situations of Conflict: An Evaluation of FY10-20 Experience*. Washington, DC: World Bank.

Kang, Suh Yoon, and Patrick Barron. 2019. “A Review of the World Bank’s Experiences Using Conflict Filters and Peace Lenses.” World Bank, Washington, DC.

Pohl, Wolfhart, Ella Humphry, and Ella Victoria. *A Practical Handbook for Environmental Regulators and Legislators Working in Situations Affected by Fragility, Conflict, and Extreme Violence.* Washington, DC: World Bank.

United Nations and World Bank. 2018. *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict.* Washington, DC: World Bank.

World Bank. 2020. *World Bank Group Strategy for Fragility, Conflict, and Violence 2020-2025.* Washington, DC: World Bank.

External Strategies and Toolkits

Ajroud, Brittany, Nathalie Al-Zyoud, Lydia Cardona, Janet Edmond, Danny Pavitt, and Amanda Woomer. 2017. *Environmental Peacebuilding Training Manual*. Arlington, VA: Conservation International.

Crawford, Alex, and Angie Dazé. 2016. *Migration and Conservation: A Toolkit for Conservation and Development Practitioners.* Winnipeg: International Institute for Sustainable Development.

FAO (Food and Agriculture Organization). 2020. *The Programme Clinic: Designing Conflict-Sensitive Interventions – Approaches to Working in Fragile and Conflict-Affected Contexts.* Participant's Workbook. Rome: FAO.

Hammil, Anne, Alec Crawford, Robert Craig, Robert Malpas, and Richard Matthew. 2009. *Conflict-Sensitive Conservation Practitioners' Manual*. Winnipeg: International Institute for Sustainable Development.

ICRC (International Committee of the Red Cross). 2020. *When Rain Turns to Dust: Understanding and Responding to the Combined Impact of Armed Conflicts and the Climate and Environment Crisis on People's Lives.* Geneva: ICRC.

Mercy Corps. 2021. *Addressing the Climate-Conflict Nexus: Evidence, Insights, and Future Directions*.

Schellens, Marie K., and Arnaud Diemer. 2020. "Natural Resource Conflicts: Definition and Three Frameworks to Aid Analysis." In *Partnerships for the Goals*, edited by Walter Leal Filho, Anabela Marisa Azul, Luciana Brandli, Amanda Lange Salvia, and Tony Wall. *Encyclopedia of the UN Sustainable Development Goals*. Cham: Springer International Publishing.

Tänzler, Dennis, and Nikolas Scherer. 2018. *Guidelines for Conflict-Sensitive Adaptation to Climate Change*. Germany: Umweltbundesamt.

UNDG (United Nations Development Group) and UNECHA (United Nations Executive Committee on Humanitarian Affairs). 2013. "Natural Resource Management in Transition Settings." Guidance Note.

UNDPA (United Nations Department of Political Affairs) and UNEP (United Nations Environment Programme). 2015. *Natural Resources and Conflict: A Guide for Mediation Practitioners*. New York: UNDPA and UNEP.

UNEP (United Nations Environment Programme). 2022. *Addressing Climate-Related Security Risks: Conflict Sensitivity for Climate Change Adaptation and Sustainable Livelihoods - Guidance Note*. Nairobi: UNEP.

UNEP (United Nations Environment Programme). 2022. A*ddressing Climate-Related Security Risks: Conflict Sensitivity for Climate Change Adaptation and Sustainable Livelihoods - Toolbox*. Nairobi: UNEP.

UN-IFTPA (United Nations Interagency Framework Team for Preventative Action). 2011. "Conflict-Prevention in Resource-Rich Economies." Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict.

UN-IFTPA (United Nations Interagency Framework Team for Preventative Action). 2012. "Strengthening Capacity for Conflict-Sensitive Natural Resource Management." Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict.

External Analyses and Lessons Learned

Black, Richard, Joshua Busby, Geoff Dabelko, Cedric D. Coning, Hafsa Maalim, Claire McAllister, Melvis Ndiloseh, et al. 2022. *Environment of Peace: Security in a New Era of Risk.* Stockholm: Stockholm International Peace Research Institute.

Cao, Yue, Tilly Alcayna, Adriana Quevedo, and Jim Jarvie. 2021. *Exploring the Conflict Blind Spots in Climate Adaptation Finance*. Synthesis Report. Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises (SPAC).

Ide, Tobias, Carl Bruch, Alexander Carius, Ken Conca, Geoff Dabelko, Richard Matthew, and Erika Weinthal. 2021. "The Past and Future(s) of Environmental Peacebuilding." *International Affairs* 97 (1): 1–16.

GEF (Global Environment Facility). 2020. *Evaluation of GEF Support in Fragile and Conflict-Affected Situations*. Washington, DC: GEF Independent Evaluation Office.

Mercy Corps. 2015. *Pathways from Peace to Resilience: Evidence from the Greater Horn of Africa on the Links Between Conflict Management and Resilience to Food Security Shocks.* Mercy Corps and USAID.

Mercy Corps. 2020. *Climate Change and Conflict: Lessons from Emerging Practice*. Edinburgh: Mercy Corps.

Rüttinger, Lukas, Raquel Munayer, Pia van Ackern, and Florian Titze. 2022. *The Nature of Conflict and Peace: The Links Between Environment, Security, and Peace and Their Importance for the United Nations.* Gland: WWF International; Berlin: Adelphi.

UNEP (United Nations Environment Programme). 2009. *From Conflict to Peacebuilding: The Role of Natural Resources and the Environment.* Nairobi: UNEP.

6.2 Resources for Specific Natural Resources

Land

Boudreaux, Karol, and Daniel Abrahams. 2022. *Land & Conflict: A Toolkit for Intervention 2.0*. Washington, DC: USAID.

UN-IFTPA (United Nations Interagency Framework Team for Preventative Action). 2012. "Land and Conflict." Guidance for Preventing and Managing Land and Natural Resources Conflict.

Water

Kim, Kyungmee, Emilie Broek, Elizabeth Smith, David Michel, Erwin De Nys, and Nicolas Salazar Godoy. 2021. *Water Cooperation in the Horn of Africa: Addressing Drivers of Conflict and Strengthening Resilience*. Stockholm: Stockholm International Peace Research Institute.

Patel, Ekta, Erika Weinthal, Geoff Dabelko, Carl Bruch, Jack Daly, and Nikki Behnke. 2022. *Water & Conflict: A Toolkit for Programming*. Washington, DC: USAID.

Ruckstuhl, Sandra. 2012. "Conflict Sensitive Water Supply: Lessons from Operations." Social Development Working Paper No. 127, World Bank, Washington, DC.

Catalogues challenges faced by teams and lessons learned/examples of how they were addressed and proactive actions that can be taken.

Rüttinger, Lukas, Arne Janßen, Christopher Knupp, and Laura Griestop. 2014. *From Conflict to Collaboration in Natural Resource Management: A Handbook and Toolkit for Practitioners Working in Aquatic Resource Systems*. Collaborating for Resilience.

Sadoff, Claudia W., Edoardo Borgomeo, and Dominick de Waal. 2017. *Turbulent Waters: Pursuing Water Security in Fragile Contexts*. Washington, DC: World Bank.

Renewables

Harwell, Emily, Douglas Farah, Arthur G. Blundell. 2011. *Forests, Fragility, and Conflict: Overview and Case Studies*. Program on Forests (PROFOR). Washington, DC: World Bank.

Ruckstuhl, Sandra. 2009. *Renewable Natural Resources: Practical Lessons for Conflict Sensitive Development*. Washington, DC: World Bank.

UN-IFTPA (United Nations Interagency Framework Team for Preventative Action). 2012. "Renewable Resources and Conflict." Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict.

Non-Renewables

Ríos, Mauricio O., Florian Bruyas, and Jodi Liss. 2015. *Preventing Conflict in Resource-Rich Countries: The Extractive Industries Value Chain as a Framework for Conflict Prevention.* Washington, DC: World Bank.

UN-IFTPA (United Nations Interagency Framework Team for Preventative Action). 2012. "Extractive Industries and Conflict." Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict.

USAID (United States Agency for International Development). 2004. *Minerals & Conflict: A Toolkit for Intervention*. Washington, DC: USAID.

Includes key issues on the relationship between valuable minerals and violence, lessons learned in developing programs to deal with conflict commodities, program options, survey with key questions related to minerals and conflict, and supplementary resources.

6.3 Review of the Evidence: Studies on Climate Change and Conflict Risk

Detges, Adrien, Daniel Klingenfeld, Christian König, Benjamin Pohl, Lukas Rüttinger, Jacob Schewe, Barbora Sedova, and Janani Vivekananda. 2020. *10 Insights on Climate Impacts and Peace: A Summary of What We Know*. Berlin: Adelphi; Potsdam: The Potsdam Institute for Climate Impact Research (PIK).

Summarizes the security risks related to climate change and synthesizes and contextualizes the existing scientific evidence. It does not reflect all aspects of the debate that have emerged across social science but focuses on those that are particularly relevant at the political level.

Mercy Corps. 2020. *Addressing the Climate-Conflict Nexus in Fragile States: Understanding the Role of Governance*. Washington, DC: Mercy Corps.

Mobjörk, Malin, Maria-Therese Gustafsson, Hannes Sonnsjo, Sebastian Van Baalen, Lisa Maria Dellmuth, and Niklas Bremberg. 2016. *Climate-Related Security Risks: Towards an Integrated Approach*. Stockholm: Stockholm International Peace Research Institute.

Mobjörk, Malin, Florian Krampe, and Kheira Tarif. 2020. "Pathways of Climate Insecurity: Guidance for Policymakers." Policy Brief, Stockholm International Peace Research Institute, Stockholm.

Mosello, Beatrice, Lukas Ruttinger, and Lisa Sauerhammer. 2019. *The Climate Change-Conflict Connection - The Current State of Knowledge*. Climate Fragility Discussion Paper. Berlin: Adelphi.

Summarizes evidence from quantitative and qualitative peer-reviewed research articles and grey literature from development organizations and agencies on the links between climate change, fragility, and conflict.

Nett, Katharina, and Lukas Rüttinger. 2016. *Insurgency, Terrorism, and Organised Crime in a Warming Climate: Analysing the Links Between Climate Change and Non-State Armed Groups.* Berlin: Adelphi.

Peters, Katie, Mairi Dupar, Sarah Opitz-Stapleton, Emma Lovell, Mirianna Budimir, Sarah Brown, and Yue Cao. 2020. *Climate Change, Conflict, and Fragility: An Evidence Review and Recommendations for Research and Action*. London: Overseas Development Institute (ODI).

Reiling, Kirby, and Cynthia Brady. 2015. *Climate Change and Conflict: An Annex to the USAID Climate-Resilient Development Framework*. Washington, DC: USAID.

Sweijs, Tim, Marleen de Haan, and Hugo van Manen. 2022. *Unpacking the Climate Security Nexus: Seven Pathologies Linking Climate Change to Violent Conflict.* The Hague: The Hague Centre for Strategic Studies.

6.4 Gender Resources

WBG Resources

Program on Forests (PROFOR). 2017. “Gender and Forest Landscapes: Enhancing Development Impacts of Projects and Programs." Brief.

World Bank. 2015. *World Bank Group Gender Strategy (FY16-23): Gender Equality, Poverty Reduction, and Inclusive Growth*. Washington, DC: World Bank.

World Bank. 2018. *Environment and Natural Resources Global Practice: Towards Implementing the WBG Gender Strategy Follow-up Note (FY19-FY21).* Washington, DC: World Bank.

World Bank. 2022. *Gender Tag for Impact: Good Practice Note*. Washington, DC: World Bank.

External Resources

Castañeda Carney, Itzá, Laura Sabater, Cate Owren, and A.E. Boyer. 2020. *Gender-Based Violence and Environment Linkages: The Violence of Inequality.* Edited by Jamie Wen. Gland: IUCN.

Joint Programme on Women, Natural Resources, and Peace. 2022. Knowledge Platform on Gender, Natural Resources, Climate, and Peace.

Siles, Jackelline, Maria Prebble, Jamie Wen, Corinne Hart, and Heidi Schuttenberg. 2019. *Advancing Gender in the Environment: Gender in Fisheries—A Sea of Opportunities.* Washington, DC: IUCN and USAID.

Smith, Elizabeth S. 2022. "Gender Dimensions of Climate Insecurity." Insights on Peace and Security No. 4, Stockholm International Peace Research Institute, Stockholm.

Smith, Jessica M., Lauren Olosky, and Jennifer Grosman Fernández. 2021. *The Climate-Gender-Conflict Nexus: Amplifying Women’s Contributions at the Grassroots*. Washington, DC: The Georgetown Institute for Women, Peace, and Security.

UNEP (United Nations Environment Programme), UN Women (United Nations Entity for Gender Equality and the Empowerment of Women), UNDP (United Nations Development Programme), and DPPA (United Nations Department of Political and Peacebuilding Affairs) / PBSO (Peacebuilding Support Office). 2020. *Gender, Climate, & Security: Sustaining Inclusive Peace on the Frontlines of Climate Change*. Nairobi and New York: UNEP, UN Women, DPPA/UNPBSO, and UNDP.

UNEP (United Nations Environment Programme), UN Women (United Nations Entity for Gender Equality and the Empowerment of Women), and UNDP (United Nations Development Programme). 2019. *Promoting Gender-Responsive Approaches to Natural Resource Management for Peace in North Kordofan, Sudan*. Nairobi and New York: UNEP, UN Women, and UNDP.

UNEP (United Nations Environment Programme), UN Women (United Nations Entity for Gender Equality and the Empowerment of Women), UNPBSO (United Nations Peacebuilding Support Office), and UNDP (United Nations Development Programme). 2013. *Women and Natural Resources: Unlocking the Peacebuilding Potential*. Nairobi and New York: UNEP, UN Women, UNPBSO, and UNDP.

Indicators Framework

Boyer, A.E., Seline S. Meijer, and Molly Gilligan. 2020. *Advancing Gender in the Environment: Exploring the Triple Nexus of Gender Inequality, State Fragility, and Climate Vulnerability.* Washington, DC: IUCN and USAID.

> *The framework is based on a theoretically grounded approach to conceptualizing the prevalence of gender inequality, state fragility, and climate vulnerability using 27 quantitative country-level indicators, sourced from reputable, internationally recognized databases. The triple nexus prevalence scores 122 countries. Ten countries showed a very high prevalence of the triple nexus (starting with the highest score): Somalia, Yemen, South Sudan, Afghanistan, Chad, Democratic Republic of the Congo, Central African Republic, Sudan, Mauritania, and Syrian Arab Republic. The scores for gender inequality, state fragility, and climate vulnerability are positively correlated with one another, meaning that countries with relatively higher values in one issue area tend to have relatively higher scores in the other issue areas.*

Georgetown Institute for Women, Peace, and Security and PRIO Centre on Gender, Peace, and Security. 2022. Women, Peace, and Security Index.

> *The index captures and quantifies the three dimensions of women's inclusion (economic, social, political), justice (formal laws and informal discrimination), and security (at the individual, community, and societal levels) through 11 indicators.*

6.5 Resources on Fragility, Conflict, and the Green Transition

Business & Human Rights Resource Center. 2021. *Renewable Energy & Human Rights Benchmark: Key Findings from the Wind & Solar Sectors.* London: Business & Human Rights Resource Center.

Business & Human Rights Resource Center. Transition Minerals Tracker.

> *Regional deep dives and resources tracking the human rights implications of the mineral boom powering the transition to a net-zero carbon economy.*

Church, Clare, and Alex Crawford. 2018. *Green Conflict Minerals: the Fuels of Conflict in the Low-Carbon Economy.* Winnipeg: International Institute for Sustainable Development.

> *Examines the extent to which increased demand for minerals critical to green energy technologies could affect FCV in producing states and explores what would be required of the international community to mitigate these local and national threats. Analyzes solar panels, wind turbines, electric vehicles, and energy storage batteries.*

De Jong, Terah, Titus Sauerwein, Ludivine Wouters. 2021. *Mining and the Green Energy Transition: Review of International Development Challenges and Opportunities.* Washington, DC: USAID.

IISD (International Institute for Sustainable Development). 2019. Green Conflict Minerals Hotspots.

6.6 Post-Conflict Tools and Resources

UNEP (United Nations Environment Programme). 2013. *The Role of Natural Resources in Disarmament, Demobilization, and Reintegration: Addressing Risks and Seizing Opportunities.* Nairobi: UNEP.

Policy Briefs and Checklists

Coyle, Ilona, Carl Bruch, David Jensen, Alec Crawford, and Adam Harris. 2014. "Natural Resource Programming in Post-Conflict Situations." Policy Brief No. 8, UNEP and the Environmental Law Institute, Nairobi and Washington, DC.

Hegazi, Farah, and Katongo Seyuba. 2022. "The Social Side of Climate Change Adaptation: Reducing Conflict Risk." Policy Brief, Stockholm International Peace Research Institute, Stockholm.

Jensen, David, Alec Crawford, and Carl Bruch. 2014. "Water and Post-Conflict Peacebuilding." Policy Brief No. 4, UNEP and the Environmental Law Institute, Nairobi and Washington, DC.

Jensen, David, Alec Crawford, Peter Whitten, Carl Bruch, Adam Harris, and Gwen Brown. 2013. "Land and Post-Conflict Peacebuilding." Policy Brief No. 3, UNEP and the Environmental Law Institute, Nairobi and Washington, DC.

Jensen, David, Alec Crawford, Peter Whitten, Ilonna Coyle, Carl Bruch, Mohammad Aslami, and Gwen Brown. "High-Value Natural Resources and Post-Conflict Peacebuilding." Policy Brief No. 1, UNEP and the Environmental Law Institute, Nairobi and Washington, DC.

Jensen, David, Peter Whitten, Ilonna Coyle, Carl Bruch, Mohammad Aslami, and Gwen Brown. "Assessing and Restoring Natural Resources in Post-Conflict Peacebuilding." Policy Brief No. 2, UNEP and the Environmental Law Institute, Nairobi and Washington, DC.

Meijer, Karen, and Katongo Seyuba. 2022. "The Role of Development Actors in Responding to Environment and Security Links." Policy Brief, Stockholm International Peace Research Institute, Stockholm.

Books with Case Studies

Bruch, Carl, Carroll Muffet, and Sandra S. Nichols, eds. 2017. *Governance, Natural Resources, and Post-Conflict Peacebuildin*g. London: Routledge.

Jensen, David, and Steve Lonergan, eds. 2012. *Assessing and Restoring Natural Resources in Post-Conflict Peacebuilding*. London: Routledge.

Lujala, Päivi, and Siri Aas Rustad, eds. 2011. *High-Value Natural Resources and Post-Conflict Peacebuilding*. London: Routledge.

Unruh, Jon, and Rhodri C. Williams, eds. 2013. *Land and Post-Conflict Peacebuilding*. London: Routledge.

Weinthal, Erika, Jessica Troell, and Mikiyasu Nakayama, eds. 2014. *Water and Post-Conflict Peacebuilding*. London: Routledge.

Young, Helen, and Lisa Goldman, eds. 2015. *Livelihoods, Natural Resources, and Post-Conflict Peacebuilding*. London: Routledge.

6.7 Monitoring and Evaluation Resources

Environmental Law Institute and Environmental Peacebuilding Association. Forthcoming. "Environmental Peacebuilding Toolkit for Practitioners."

"Geospatial Information Technology (GIT) in Fragile Contexts." World Bank Group Open Learning Campus (online course).

Kim, Jeeyon, Ryan Sheely, and Carly Schmidt. 2020. *Social Capital and Social Cohesion Measurement Toolkit for Community-Driven Development Operations*. Washington, DC: World Bank.

Martin, Diego Garrido, Kamal Siblini, Sarah Craig, Peter Isabirye, Macha Kemperman, Wolfgang Koehling, and Brett Libresco. *How to Improve Results in Situations of Fragility, Conflict, and Violence: 12 Recommendations*. Washington, DC: World Bank.

Mason, Simon, Andrew Kruczkiewicz, Pietro Ceccato, and Alec Crawford. 2015. *Accessing and Using Climate Data and Information in Fragile, Data-Poor States.* Winnipeg: The International Institute for Sustainable Development.

UNEP (United Nations Environment Programme) and EU (European Union). 2022. *Addressing Climate-Related Security Risks: Conflict Sensitivity for Climate Change Adaptation and Sustainable Livelihoods – Monitoring & Evaluation Note.* Nairobi: UNEP.

UNEP (United Nations Environment Programme). Forthcoming. *Frontier Technologies for Environmental Peacebuilding.* Nairobi: UNEP.

The report explores the opportunities and risks of using data and digital technologies for peace practitioners to better manage the environmental dimensions of early warning, diplomacy, peacemaking, peacekeeping, and peacebuilding.

APPENDIX

A

Theory of Change

Excerpt from *Addressing Climate-related Security Risks: Conflict Sensitivity for Climate Change Adaptation and Sustainable Livelihoods - Guidance Note* (UNEP and EU 2022):

Theory of Change: Linking Climate Adaptation and Peacebuilding will Increase Resilience to Climate-Fragility Risks

Climate change risks and fragility are interconnected, so the responses to them must also be interconnected. The framework we are using to connect these concepts is the well-established concept of sustainable livelihoods. Our underlying theory of change is based upon two insights from the existing research:

- Climate-fragility risks emerge when climate change interacts with other political, social, economic, and environmental pressures, such as rapid urbanization, inequality, economic shocks, and environmental degradation; and,
- By linking climate change adaptation and peacebuilding, we can increase resilience to climate-fragility risks.

Our guidance is based on two hypotheses that have been tested and proven through empirical research:

- If sustainable livelihoods are the foundation of human security and for successfully coping with and recovering from stresses and shocks, then building capacities that support sustainable livelihoods can build resilience and may also mitigate conflict; and,
- If social cohesion and inclusive and effective governance are key to coping with shocks and stresses (including violent conflict and climate change), then strengthening social cohesion within and between groups, as well as developing inclusive and effective governance, makes it possible to manage shocks peacefully. Social cohesion and improved governance can mitigate the factors that exacerbate fragility and conflict in times of stress, as well as mitigate the impacts of climate change.

Vulnerability is the lack of power or capacity to reduce the risk of a disaster or violent conflict. Addressing climate and fragility risks requires empowering and enabling people to take actions that enhance their power and ability to bring about and facilitate transformational change. Conflict sensitivity is a critical component of the approach to ensure that the changes brought about do not inadvertently increase the risk of conflict.

FIGURE A.1 Theory of Change Linking Climate Adaptation and Peacebuilding to an Increase in Resilience to Climate Fragility Risks

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APPENDIX

B

Entry Points for Conflict Sensitivity in WBG Operations

Excerpt from *Renewable Natural Resources: Practical Lessons for Conflict-Sensitive Development* (Ruckstuhl 2009):

TABLE B.1 Renewable Natural Resources Conflict Management Mechanism "Tool Box"

CONFLICT-SENSITIVE PROJECT ADMINISTRATION MECHANISMS **Capitalize on opportunities inherent in the project cycle by incorporating conflict considerations into requisite procedures and documentation.**	
• Pre-project assessment and other social analysis (EIA, PSIA, PE, micro, macro) • Stakeholder consultations • Public communications • CDD approaches	• Resettlement Action Plans • M&E indicators and logical frameworks • Terms of reference • Human resources (conflict expertise on task team, local/social context-specific expertise)
NON-OFFICIAL AND TRADITIONAL CONFLICT RESOLUTION INTERVENTION MECHANISMS **Support conflict resolution through targeted procedures and dedicated organizational bodies.**	
• Conflict analysis and mapping • Stakeholder-driven Conflict Resolution Plan • Grievance mechanisms • Facilitation • Informal consultations	• Conflict resolution committees • Support to community-based CR mechanisms (e.g., *shura, jurga)* • Third-party mediation and mediated agreements • Pilot mediation programs • Ombudsman
STAKEHOLDER ENGAGEMENT AND SOCIAL ACCOUNTABILITY MECHANISMS **Address political economy, mitigate powerful interests, and ensure equity by fostering broad participation of representative stakeholder groups and building process ownership.**	
• Community planning and decision-making • Benefit- and income-sharing mechanisms • Local community development plans • Participatory analytics (conflict assessment, social auditing, evaluation, and impact assessment) • Stakeholder participation recruitment programs • Equity standards in procedural guidelines • Open enrollment policies	• Strengthening territorial rights • Payment to communities for environmental services • NGO and CSO development • Transparency and inclusion as institutional mandates • Consensus-building exercises • Local-federal administrative linkages • Inter-communal coordination • Cross-border cooperation • Trust-building activities
NATURAL RESOURCE MANAGEMENT MECHANISMS **Slow or reduce environmental pressure by supporting sustainable management and consumption policies and micro-level initiatives.**	
• Conservation • Protection • Sustainable resource management and development	• Demand management • Climate change mitigation • Climate change adaptation

ECONOMIC AND (GREEN) TECHNOLOGY DEVELOPMENT MECHANISMS

Reduce resource dependence and expand the "size of the resource pie."

- Income generation and livelihood improvement programs
- Non-land-based livelihood development
- Incentives for technological innovation (tax cuts, public competition)
- Value-adding resource processing activities
- Community reinvestment and "self-help groups"
- Green infrastructure and services development and improvement
- Climate change adaptation solutions (low and high technology)
- Micro-financing schemes (particularly those that support conflict mitigating and green investments)
- (Green) business development incentives and technical support

POLICY, LEGAL, AND JUDICIAL MECHANISMS

Strengthen renewable natural resource governance and leadership by formalizing and enforcing a robust regime characterized by joint management responsibility, equitable access, and shared benefits.

- Conflict-focused policy research
- Legitimizing Indigenous rights
- Reconciliation of ancestral land claims
- Policy that facilitates protection of land by owners
- Strengthening traditional and national/federal levels of authority
- Linking traditional and national/federal institutions
- Governance and maintenance partnerships (with civil society, private sector)
- Co-management agreements (between state, public, private, and common actors)
- Delimiting and demarcating territorial boundaries
- Transboundary policy harmonization
- Regional agreements or treaties
- Establishing and relegitimizing legal and policing bodies
- Community policing
- Communal titling
- Patrolling borders
- Cross-border police coordination
- Physical protection of boundaries and resources
- Utilization of government court systems (including adjudication)
- Judicial development programs
- Political advocacy
- Leadership gestures
- "VIP" and policy maker workshops
- Anti-corruption measures
- Building conflict-resolution trained/conflict-sensitive police capacity

COMMUNICATIONS AND EDUCATION MECHANISMS

Empower stakeholders and fill "knowledge gaps" through information and training, building awareness, facilitating sensitization, and improving technical capacity.

- News and entertainment media integration (newspapers, magazines, radio, television, Internet)
- Public sensitization and information campaigns (radio, magazines, TV, informational posters, Web)
- Blogging and online social networking
- Dissemination of lessons and topical materials
- Environmental education programs
- Announcements and information dissemination via community bulletin boards and regular public meetings
- Action or experiential learning (e.g., through implementation)
- Online e-training modules
- Technical resource sciences and management training
- Conflict resolution training
- Leadership and strategic planning training
- Legal training
- Business training (finance and project management)
- Monitoring training
- Handicrafts training
- Impact assessment and analytical training

Source: World Bank (Ruckstuhl 2009).

APPENDIX

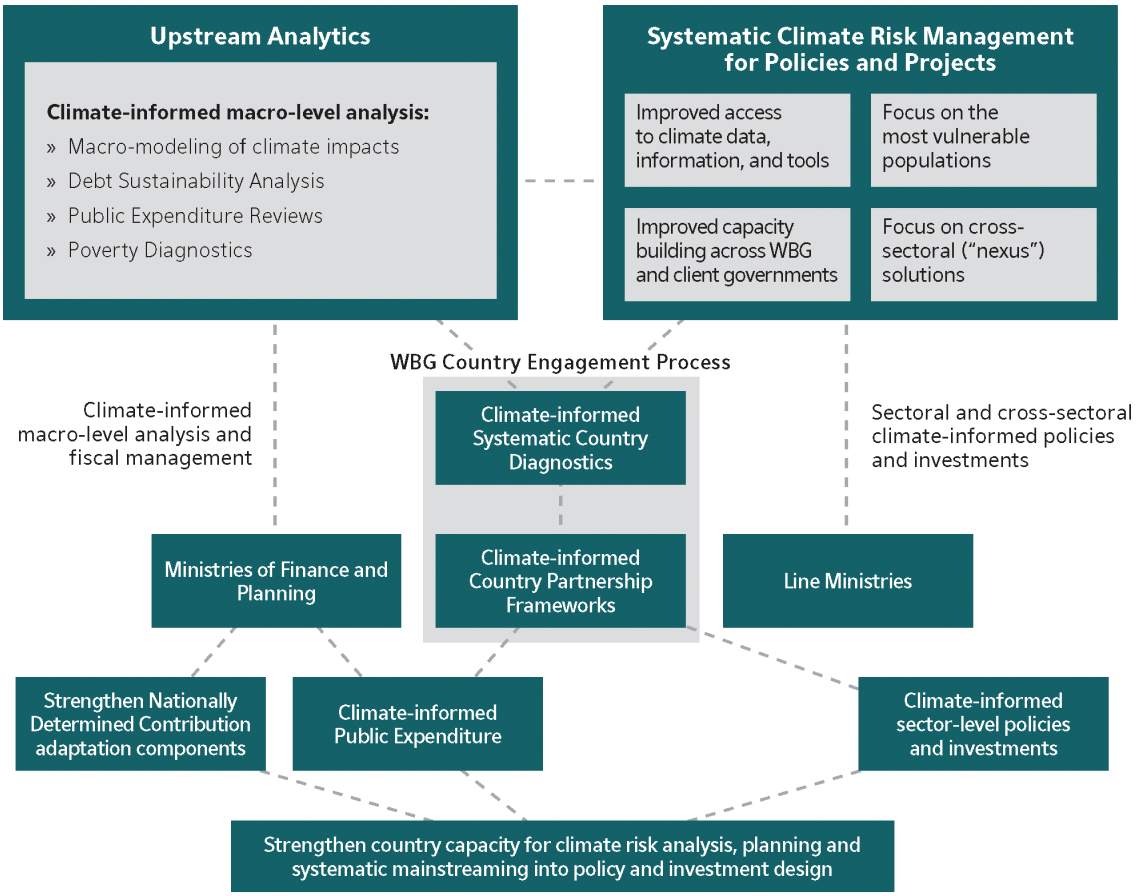
Action Plan on Climate Change Adaptation and Resilience: Framework for Mainstreaming Systematic Climate Risk Management into Development

Excerpt adapted from *The WBG's Action Plan on Climate Change Adaptation and Resilience: Managing Risks for a More Resilient Future* (Tall and Carter 2019):

Full integration of development planning and climate change adaptation requires integrating climate risks and opportunities at every level of policy planning, investment design, implementation, and evaluation. Such integration is rarely done, often because of the lack of a well-targeted national plan, weak cross-ministerial coordination, inadequate climate information services to guide adaptation planning, misaligned behavioral incentives, or weak capacity. Improved technical knowledge that promotes collaboration across ministries is needed. Success in mainstreaming climate adaptation should be measured by the extent to which all government expenditures are climate informed.

This Action Plan commits the WBG to supporting systematic climate risk management in client countries through its analytics, financing, and convening power. Entry points range from upstream analysis (often with ministries of finance and planning) to downstream project design, implementation, and evaluation (often at the local level). These entry points are shown on the left and right sides of Figure C.1, respectively. The WBG SCD and CPF provide the basis for integrating this support.

FIGURE C.1 Framework for Mainstreaming Systematic Climate Risk Management into Development



Source: World Bank (Tall and Carter 2019).


WORLD BANK GROUP