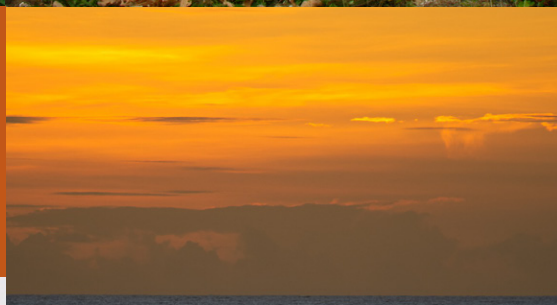
Primer on Monitoring and Evaluation of Environmental Peacebuilding



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0.1. Introduction

This Primer complements the *Toolkit on Monitoring and Evaluation of Environmental Peacebuilding*. It provides background on key concepts related to the monitoring and evaluation (M&E) of environmental peacebuilding. Those who are already proficient in M&E and environmental peacebuilding may proceed directly to the Toolkit, while environmental peacebuilders who are new to M&E and M&E practitioners who are new to environmental peacebuilding are invited to read the respective sections.

Over the past three decades, a growing body of experience and scholarship has highlighted the many ways in which environment, conflict, and peace are related. This scholarship ranges from the environmental causes of conflict, including the resource curse,[1] water wars, and climate security, to conflict resources[2] as well as the environmental impacts of conflict, environmental cooperation as peacemaking, and the environmental dimensions of post-conflict peacebuilding. The breadth of the scholarship is substantial.

1. The "resource curse" describes the observed negative correlation between one country's wealth in terms of natural resources and its "economic, social, or political well-being" (Ross 2015, 240). For further information, see the glossary appended to the Toolkit.
2. "Conflict resources" are natural resources whose extraction, exploitation, and trade generates revenues that finance and/or drive armed conflict (UN DPA & UNEP 2015; see also Global Witness 2014). For more information, see the glossary appended to the Toolkit.

In addition to an impressive collection of case studies and anecdotes, quantitative analyses have highlighted some important findings:

Between 1946 and 2008, natural resources were involved in at least

40%

of all intrastate conflicts; in some years, it was as high as

65%

according to the United Nations Environment Programme (UNEP 2009).

Natural resource-related conflicts are more likely to relapse into conflict and do so twice as fast as those unrelated to natural resources (Rustad & Binnigsbo 2012).

Between 1989 and 2018, combatants in

more than 35

major armed conflicts (i.e., conflicts with more than 1,000 battle-related deaths) used profits from a variety of natural resources to finance their efforts (Bruch et al. 2019). These range from diamonds, gold, timber, and coltan, with which many people are familiar, to bananas, fungus, marble, and other conflict resources that are less commonly known.

Since 1945, approximately

15%

of peace agreements have included provisions on the environment and natural resources (Blundell & Harwell 2016). Between 1989 and 2005, the percentage rose to

50%

of peace agreements. Since 2005, every major peace agreement has had environmental provisions, and often more than one.

From 1946 to 2018, 336 UN Security Council resolutions, which were

14.4%

of all resolutions, addressed natural resources and/or the environment (Aldinger, Bruch, & Yazykova 2018). It is also striking that 89 percent of these resolutions were operational.

While these numbers demonstrate that the importance of linking the environment and peace is well understood, the challenge has been knowing which environmental peacebuilding solutions might work and under what circumstances. Given this limited evidence base, environmental peacebuilding efforts have had widely ranging results; practitioners have had to innovate as theory has lagged. With a growing body of experience in environmental peacebuilding, researchers and practitioners alike are starting to rigorously analyze and reflect on those experiences.

0.2. Environmental Peacebuilding

Environmental peacebuilding is a dynamic new field of practice and research at the intersection of environment, conflict, and peace.

There is, as yet, no standard definition of "environmental peacebuilding." For the purposes of this Primer and the accompanying Toolkit, environmental peacebuilding may be defined as:

> **a meta-framework comprising multiple approaches and pathways by which management of environmental issues is integrated in and can support conflict prevention, mitigation, resolution, and recovery** (Ide et al. 2021, pp. 2-3).[3]

As a field of practice, environmental peacebuilding has emerged from many experiences (many of which have not been called "environmental peacebuilding") over the past few decades. As a field of research, environmental peacebuilding has grown through empirical research, statistical analyses, case studies, review papers, and reports with contributions from both practitioners and academics.[4] The exchange of experiences, learning, and insights between practitioners, researchers, and decision makers is integral to the ongoing evolution of environmental peacebuilding.

3. For a more detailed summary of environmental peacebuilding and its dimensions, see Bruch, Jensen, & Emma 2022.

4. For a brief history of the emergence of environmental peacebuilding, see Ide et al. 2021 and Bruch et al. 2019.

Environmental peacebuilding includes both (1) the environmental dimensions of peacebuilding and (2) the peace and security dimensions of environment-focused work. As such, it aims to strengthen peacebuilding by considering environmental factors as both conflict risks and peacebuilding opportunities. Figure 0.1 illustrates these factors, with the risks shown in red above the curve and the opportunities in black below the curve. Activities related to these opportunities are common in many environmental peacebuilding interventions and are discussed at more length below.

At the same time, environmental peacebuilding encompasses the peace and security dimensions of environmental-focused work, including sustainable development, natural resource management, environmental conservation, and climate change. This idea is captured in Sustainable Development Goal (SDG) 16, which is a cross-cutting goal to "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels."[5] SDG 16 recognizes that peace is essential to sustainable development. There are also numerous examples of environmental conservation and climate change work that incorporate a peacebuilding lens.

The linkages between peace and conflict and the SDGs are substantially more extensive than SDG 16. Analysis of the 17 SDGs and their 169 targets shows that every SDG both affects and is affected by environmental peacebuilding (see Figure 0.2).[6] Most of these linkages are mutually reinforcing.

In Figure 0.2, percentages indicate the percent of targets for a particular goal that are affected by environmental peacebuilding (arrow pointing from "Environmental Peacebuilding" toward the goal) and that affect environmental peacebuilding (arrow pointing from the goal toward "Environmental Peacebuilding"). In some instances, environmental peacebuilding may affect a target while efforts to achieve the target may not necessarily affect environmental peacebuilding; and vice versa.

Conflict sensitivity is an essential approach for environmental peacebuilding programming that integrates considerations of peace and security into design, implementation, monitoring, and evaluation. In short, conflict-sensitive programming recognizes that even well-intended interventions can be both affected by conflict and can generate or aggravate conflict (Ide et al. 2021). Accordingly, it is crucial for those designing, implementing, monitoring, and evaluating environmental peacebuilding programs to analyze, understand, and program around the conflict context. Organizations that fail to do so risk project failure, potentially serious negative impacts on the conflict context, and reputational harm (GEF IEO 2020).

5. UNGA 2015, goal 16.

6. GEF IEO 2020.

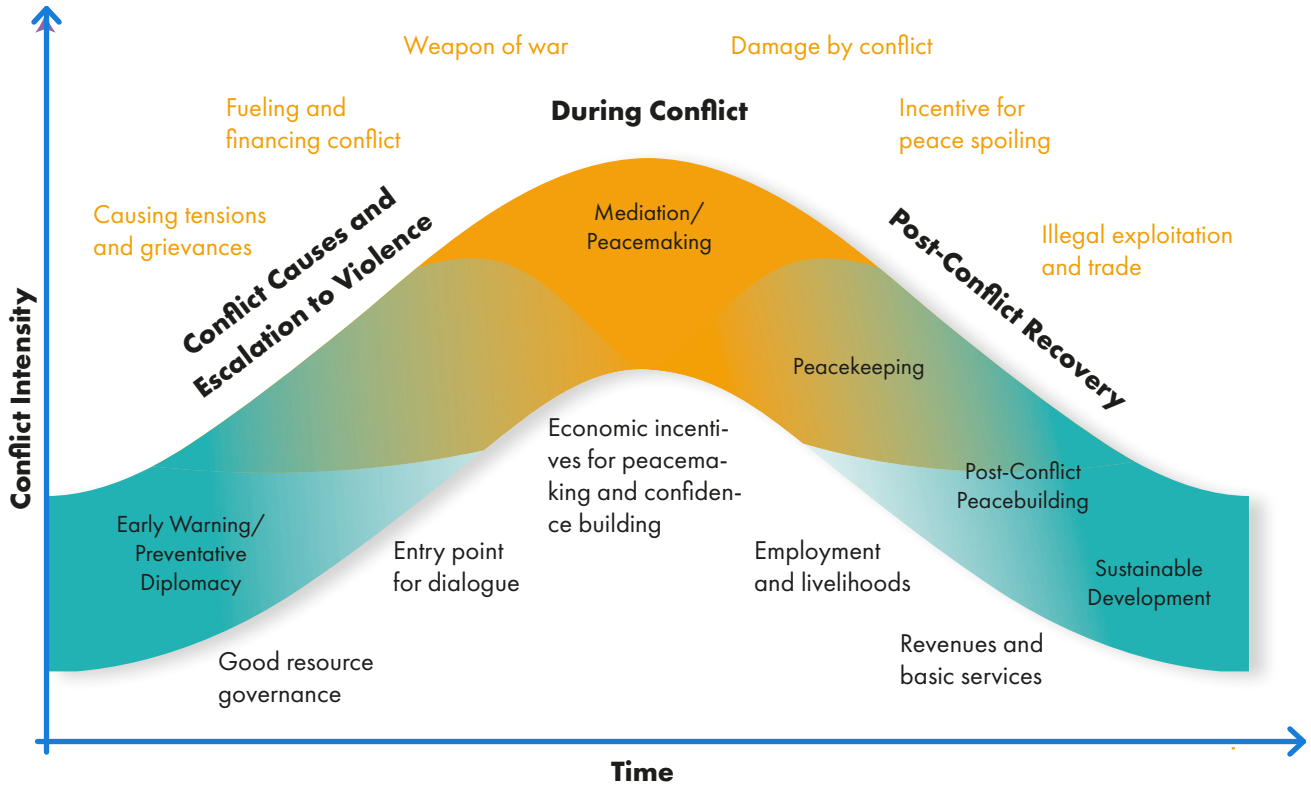


Figure 0.1: Environmental Dimensions of Conflict and Peace
Source: Bruch et al. 2019, p.10144.

Environmental peacebuilding often seeks to take a systems approach, improving the linkages between different interventions (for example, by humanitarian, security, development, and environmental actors) **as well as the linkages across time** (before, during, and after conflict). It recognizes, for example, that post-conflict livelihood recovery activities will be most effective when they are designed with consideration of relevant conflict causes (such as the inequitable distribution of land), what took place during the conflict (such as deforestation and land grabbing), and what has happened since the conflict (such as a peace agreement that establishes a land redistribution process). Environmental peacebuilding efforts might also recognize that activities aimed at reintegrating ex-combatants, strengthening livelihoods and food security, rebuilding the economy, and reforming governance can all relate to the same limited natural resource (as was the case, for example, with forest resources in Liberia).

The relationship between the environment and peace/conflict can function in both causal directions. The environment can be both a contributing cause (for example, via scarcity and degradation) and a casualty (for example, due to pillage and targeting) of armed conflict. Similarly, after conflict, natural resources can be an asset in post-conflict recovery, or they can be an incentive for peace spoilers.

As illustrated in Figure 0.1, **environmental peacebuilding comprises activities before, during, and after conflict.** Environmental peacebuilding efforts often focus on post-conflict peacebuilding, seeking to transform conflict and consolidate peace. These efforts range from ensuring security (for example, by

providing agricultural livelihoods to reintegrating combatants and securing conflict resources) to providing basic services (especially around water and sanitation, but also often energy), to improving livelihoods, economic recovery, and inclusive governance (especially around land, minerals, and forests) (Bruch, Jensen, & Emma 2022). In some cases, environmental peacebuilding seeks to address the underlying causes of conflict (e.g., through land reform processes), while in others it addresses the impacts of conflict (e.g., reforestation in Afghanistan), and in others it provides peace dividends (e.g., provision of water services after conflict).

Figure 0.2: Relationship between the SDGs and Environmental Peacebuilding
Source: GEF IEO 2020.
Note: Percentages indicate the percent of targets for a particular goal that are affected by environmental peacebuilding (arrow pointing toward the goal) and that affect environmental peacebuilding (arrow pointing toward "Environmental Peacebuilding").

Environmental peacebuilding often emphasizes cooperation, inclusion, and confidence building to build a positive peace around shared interests in the environment. In many cases, shared water resources have served as a context for cooperation (Conca & Dabelko 2002). For example, EcoPeace Middle East's "Good Water Neighbors" project illustrates how environmental conversations may alter attitudes and behaviors, supporting sociopolitical changes and policy alignment (Dresse et al. 2019; Mehyar et al. 2014). Since its inception in 2001, this project has promoted sustainable water management among Israeli, Jordanian, and Palestinian communities. It has produced numerous trans-boundary capacity-building workshops and field trips with the aim of fostering a sense of shared identity based on the interdependence of regional water resources. There are also many cooperative peacebuilding experiences related to protected areas and biodiversity.[7] Shared environmental interests—including around climate change—can bring together former adversaries. For example, at the Malta Summit, then-US President Bush highlighted climate change as an area for increased cooperation between the United States and the USSR as they emerged from the Cold War (Bruch et al. 2019).

Environmental peacebuilding operates in a wide range of conflict contexts—from armed conflicts and wars to social conflicts and politically fragile settings—**and on multiple scales** ranging from the local (such as cooperation between communities in conflict in Pakistan, Indonesia, Rwanda, and Nicaragua) to the national and international levels. For example, since the late 1990s, the UN

7. See, for example, Westrik 2015; Walters 2015; Kakabadse, Caillaux, & Dumas 2016; Carius 2007.

Many people are doing environmental peacebuilding, even if they do not refer to it as such. This is due on the one hand to the relative newness of the field and, on the other, to its interdisciplinary nature. As a result, practitioners and scholars alike use a variety of terms to describe their work at the intersection of the environment, conflict, and peace. Some terms are fairly common and clear, such as climate security, environmental diplomacy, ecological diplomacy, science diplomacy, environmental peacemaking, and peace ecology. Other terms are less clear and may include livelihoods, economic recovery, inclusive governance, food security, basic services, and confidence and trust-building, among other terms—with their link to environmental peacebuilding only clear upon examination of the context and the work itself.

This Primer and the accompanying Toolkit take a functional approach to environmental peacebuilding: regardless of its terminology, **an activity is probably an environmental/natural resource dimension and a peace/conflict/security dimension.** The dimensions may be intentional (e.g., designing a project to foster cooperation and confidence building around shared environmental interests) or may be contextual (e.g., environmental programming in a post-conflict situation).

Environment Programme (UNEP) has undertaken post-conflict environmental assessments and promoted the integration of environmental concerns into post-conflict peacebuilding processes in more than 20 post-conflict areas (Jensen 2012). These assessments and subsequent programming are diverse, reflecting the particular contextual realities and needs in each place. For example, Afghanistan's assessment and programming included fertile land, rangelands, woodlands, protected areas, water resources, urban environmental infrastructure, waste management, and institutional capacity for environmental governance. In contrast, in the Former Republic of Yugoslavia, UNEP's work focused on damaged industrial sites and environmental hot spots.

It is also worth noting that **environmental peacebuilding involves renewable natural resources** (such as land, water, and fisheries), **non-renewable natural resources** (such as minerals, oil, and gas), **and ecosystems** (including the climate and ecosystem services) (Bruch et al. 2019). Each environmental dimension has its own characteristics (importance to life, economic value, accessibility, geographic spread, etc.) that shape both its conflict and peacebuilding potential.

Different natural resources may be more important at different stages of a conflict or peacebuilding and for different purposes. Resources important for macroeconomic recovery may be different from those important for livelihoods. For example, in post-war Angola, more than 99 percent of Angola's exports—which generated substantial government revenues—were from oil, gas, and gemstones (particularly diamonds); in contrast, more than 80 percent of Angola's workforce was in the agricultural sector (Baumgartner 2016).

In many cases, a particular natural resource is important for both macroeconomic recovery and livelihoods. Sometimes there are synergies, as in Côte d'Ivoire, where cacao contributed a substantial percentage of both livelihood incomes and national revenues (Yoboué 2016). Often, though, there is the potential for competition over access to and use of these natural resources, as with forests in Liberia and South Sudan, land in Sierra Leone, and mining in the Democratic Republic of the Congo (DRC). In such instances, artisanal farmers and miners may compete with large-scale commercial operations, which can result in social conflict that may quickly lead to a relapse into violence.

Finally, **environmental peacebuilding efforts build both negative and positive peace.** Negative peace is "the absence of violence, absence

of war," while positive peace "is the integration of human society" (Galtung 1964, p. 2). Positive peace goes beyond the absence of violence to focus on the attitudes, institutions, structures, and relationships that create the conditions for a sustainable peace (Institute for Economics and Peace 2020). Environmental peacebuilding work may seek to limit violence by securing control of conflict resources and trade routes (contributing to negative peace) and by creating a context for cooperation and integration (contributing to positive peace).

A. Key Characteristics of Environmental Peacebuilding Interventions

While environmental peacebuilding operates in a wide range of social and economic sectors, environmental peacebuilding interventions tend to have three key characteristics—albeit to varying degrees.

First, **environmental peacebuilding should be inclusive.** Environmental peacebuilding seeks to bring in diverse voices and perspectives through participatory processes that include civil society, indigenous peoples, different gender groups, and others. Participatory approaches recognize the agency and capacity that exist at the local level. This is essential for creating a win-win, equitable, and transparent intervention that can address the challenges faced by socially and economically marginalized groups, especially those that are negatively affected by the unequal distribution of or access to natural resources and the environment (Ide et al. 2021).

Second, **environmental peacebuilding seeks to adopt a systems approach.**[8] As such, it is both forward-looking and backward-looking, with both top-down and bottom-up approaches (Bruch et al. 2019). A systems approach is critical for understanding the multiple ways that environmental issues affect and are affected by peace and conflict. It also shapes how M&E systems are understood, designed, and implemented.[9] To account for new contextual

8. A "systems approach" is a conceptual and operational framework for understanding and managing situations in which there are multiple interacting elements and dynamics, often characterized by feedback loops and adaptive management (von Bertalanffy 1968; Senge 1990; Richmond 1993; Sweeny & Sterman 2000).

9. For more on complexity and systems approaches, see the discussion in Chapter 2 of the Toolkit.

dynamics and to enable corresponding course corrections, environmental peacebuilding interventions can adopt early warning systems, dynamic theories of change, and adaptive management with robust monitoring or real-time evaluations that enable course correction.

Third, **environmental peacebuilding usually considers the political economy and power relations.** An examination of the political economy and power relations is essential to understanding many conflicts that are driven by grievances related to inequitable access to land, forest resources, water, and other natural resources (Dresse et al. 2019).

B. Common Environmental Peacebuilding Activities

While environmental peacebuilding comprises a wide range of objectives, techniques, and methods, these may be grouped as follows:

Preventing conflicts over territory and other natural resources by providing peacekeepers and securing conflict resource extraction sites that might finance further violence (e.g., Bruch, Muffett, & Nichols 2016; Lujala & Rustad 2012);

Providing peace dividends by producing quick gains such as those that support livelihoods, delivering basic services (such as water, sanitation, and energy), and providing temporary employment for reintegrating ex-combatants (e.g., McCandless 2012); and

Building positive peace by conceiving of shared environmental challenges as incentives for joint problem-solving and confidence building and otherwise supporting a foundation for a sustainable peace (e.g., Krampe, Hegazi, & VanDeveer 2021; Ide et al. 2021; Conca & Dabelko 2002; Bruch, Muffett, & Nichols 2016; Young & Goldman 2015).

Each of these groups of environmental peacebuilding activities has its own theories of change,[10] with varying levels of evidence regarding their respective effectiveness.[11]

In practice, environmental peacebuilding activities often advance specific sectoral objectives. Based on experience in multiple conflict-affected countries, the UN Secretary-General has identified four key areas of peacebuilding activities in the immediate aftermath of conflict: establishing security, delivering basic services, restoring the economy and livelihoods, and rebuilding governance and inclusive political processes (UNSG 2009, 2010, 2012). Each of these peacebuilding areas has environmental dimensions:

Establishing security: natural resources and the environment are often a factor in the demobilization, disarmament, and reintegration (DDR) of ex-combatants, especially when ex-combatants are reintegrated into agriculture or other resource-dependent livelihoods (UNEP & UNDP 2013). In many post-conflict countries, 50-80 percent of reintegrating ex-combatants seek to return to agriculture, which requires access to land, water (if not rainfed), inputs (such as seed and fertilizer), and capacity development opportunities. Limited available agricultural land undermined the reintegration of ex-combatants in Uganda (Kingma 1997; Colletta et al. 1996).

Where militaries have become involved in the extraction and trade of resources, security sector reform (SSR) needs to address environmental considerations, particularly by removing military, rebel, and other forces from extraction, trade, and other forms of engagement in natural resource sectors (UNEP & UNDP 2013). In countries where landmines were used during a conflict, demining is often a central element of re-establishing security. Moreover, demining can significantly increase the amount of land available for agriculture (for example, increasing available arable land in Cambodia by 135 percent after its civil war) (Young & Goldman 2015). However, demined land can lead to land grabbing and new land-related conflicts (Unruh & Shalaby 2012; Shimoyachi-Yuzawa 2011).

Delivering basic services: access to basic services—particularly, water, sanitation, and energy—is essential to human life, health, and well-being. Conflict often degrades water, sanitation, and energy infrastructure, both through deliberate targeting (Gleick 2019) and through neglect and collateral damage (Sowers, Weinthal, & Zawahri 2017; Tignino 2016). Because of its importance to human welfare, the provision (or restoration) of basic services is often seen as important for both humanitarian reasons and for peace reasons as a peace dividend[12] (McCandless 2012).

10. A "theory of change" is a methodology to describe how and why a desired change will happen in a particular context (Taplin & Clarke 2012; Brest 2010). It identifies the desired long-term goals as well as the outcomes and often the outputs and activities that must be achieved for the goals to be realized—and how they are related causally.

11. For a review of the most common theories of change for environmental peacebuilding, see Chapter 2 of the Toolkit.

12. In the context of environmental peacebuilding, a "peace dividend" is a "timely and tangible deliverable, which in particular contexts can facilitate social cohesion and stability, build trust in the peace process and support the state to earn legitimacy under challenging conditions" (McCandless 2012, p.16; see also UNSG 2009).

Restoring the economy and livelihoods: livelihood insecurity and a weak economy are key determinants of violent conflict and peacebuilding failure (Ide et al. 2021). Most conflict-affected countries depend substantially on natural resources for both livelihoods and their national economies. Good environmental management is essential to advancing these goals. For agriculture, forestry, aquaculture, and other livelihoods that depend on renewable resources, it is often possible to improve livelihoods and food security in one growing season (Young & Goldman 2015). In contrast, it can take extractive industries (including oil, gas, and minerals) years to become operational, as bidding and due diligence take time, and large-scale mining often requires substantial infrastructure development (roads, railroads, electricity generation and transmission, water infrastructure, etc.) before extraction can begin. Extractive industries frequently generate a substantial portion of government revenues (Lujala & Rustad 2012). Given these factors, it is often prudent to pursue the development of renewable and extractive resources in parallel.

Over the course of 30 years of conflict, many areas of Afghanistan suffered from substantial deforestation, including pistachio orchards that had provided livelihoods for many rural communities. To address the environmental damage caused by the conflict and to provide jobs for reintegrating ex-combatants, the Afghan Conservation Corps employed ex-combatants and members of disadvantaged groups to reforest the pistachio woodlands and the eastern conifer woods (UNEP & UNDP 2013). They completed 350 projects in 23 provinces, repairing and conserving 108 nurseries and 32 public parks, planting 226 hectares of pistachio seeds in seven provinces, as well as 150,000 conifers and 350,000 fruit trees.

Rebuilding governance and inclusive political processes: in the aftermath of conflict, there are often opportunities to revise environmental laws to be more equitable, inclusive, and effective, and in so doing to build both peace and environmental rule of law (Nichols & Al Moumin 2016; Conca & Wallace 2012). Mismanagement of extractive resources has driven secessionist movements in Aceh (Indonesia) and Southern Sudan (now South Sudan), among other places (Bruch et al. 2019). Revising laws and rebuilding governance are often undertaken to address the environmental causes of a conflict (e.g., inequitable benefit sharing or access to resources), as well as to strengthen governance for a sustainable peace (Bruch, Muffett, & Nichols 2016). Rebuilding environmental governance can generate peace dividends in the

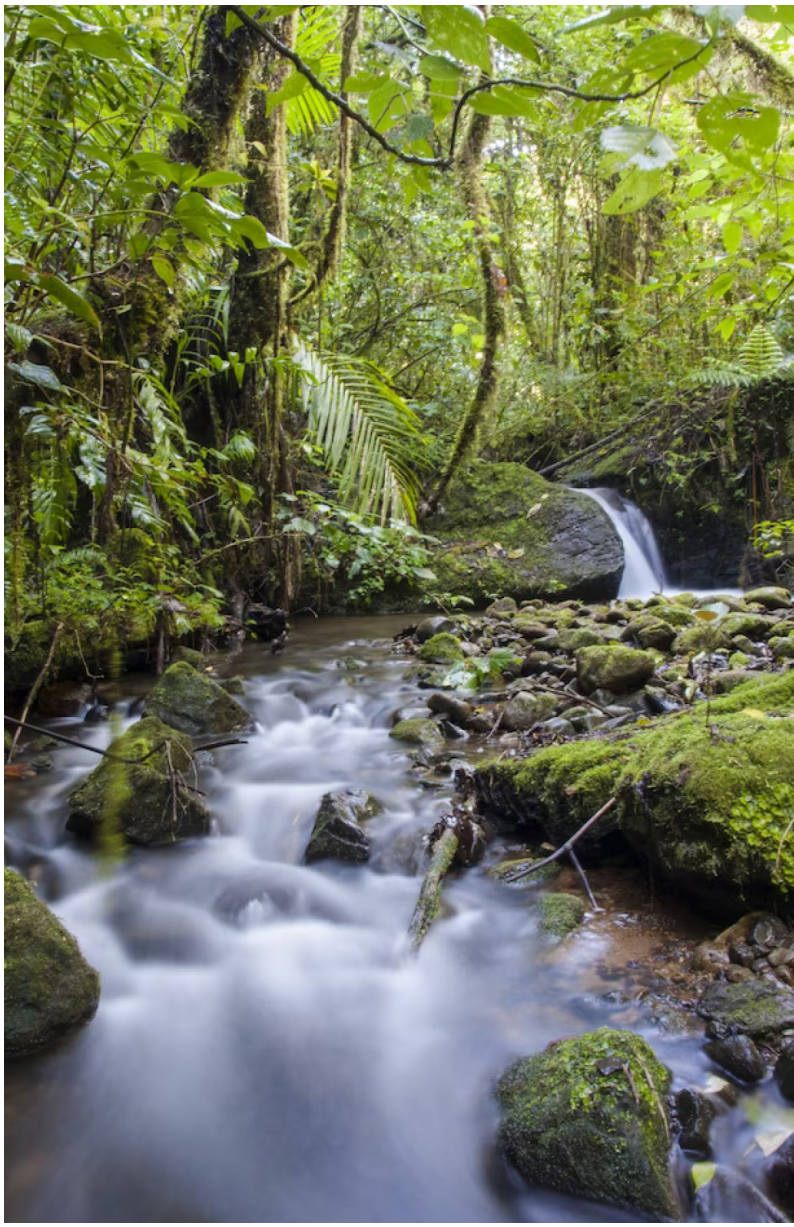
near-term while also promoting economic development, social equity, and inclusion in the long-term.

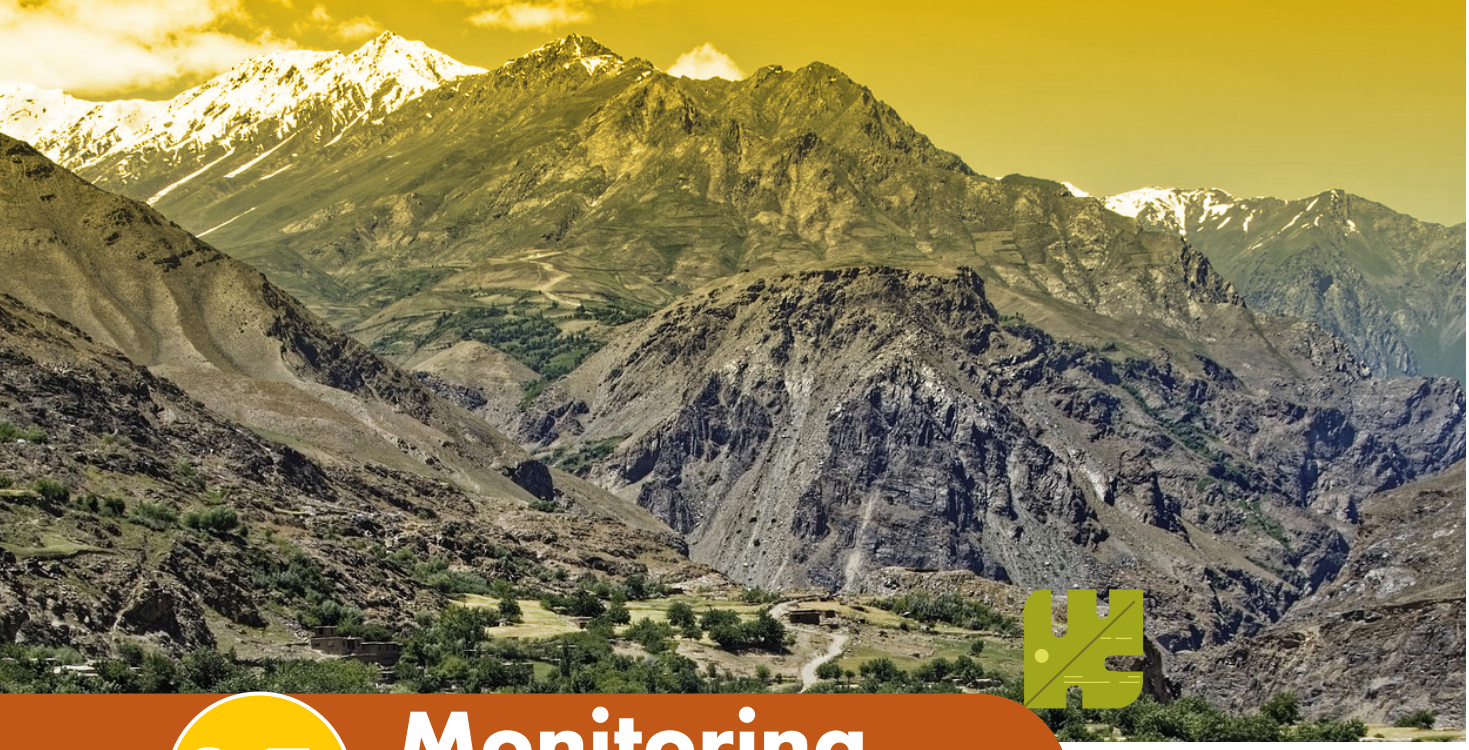
Environmental cooperation can also provide the means and context for enhancing inclusive political processes. Environmental issues can provide the potential for cooperation when they cut across political boundaries, are less politically sensitive than other issues (i.e., "low politics"), and require people to contemplate longer timelines (Ide et al. 2021). Water, conservation areas (also known as peace parks), and wildlife have typically been the natural resources around which people have collaborated and built trust most frequently.

In addition to these four core areas of peacebuilding (within which much environmental peacebuilding occurs), there is a growing focus on **gender-positive approaches** to environmental peacebuilding (UNEP et al. 2013; Karuru & Yeung 2016). The inclusion of women, women's networks, and gender-sensitive forms of knowledge has been shown to open new pathways for discourse, trust-building, and collaboration. Many organizations have begun to integrate gender perspectives into their work at the intersection of environment and peacebuilding (Ide et al. 2021). Women make up a sizeable portion of the agricultural labor force in conflict-affected countries, and there is strong evidence that including women in project design and implementation substantially increases a project's success and sustainability (Narayan 1995). At the local level, the knowledge and experience that women may have of a particular natural resource due to their roles and responsibilities can provide an entry point to involve them in decision-making processes. For example, in Eastern DRC, women "learned about the link between contaminated water and disease while living in refugee camps in Tanzania and Burundi"; returning to their villages, they sought to address the water problems, reached out to other villages, and then engaged the men in providing safe drinking water to their villages and eventually others (Burt & Keiru 2014, p. 99). Through this experience, women proved themselves essential to community water management, and when the community water management institutions were formalized women held half of the management positions.

In addition to contextualizing environmental peacebuilding within the broader context of peacebuilding, **many environmental peacebuilding activities are also framed within the broader context of environmental programming.** Where local conflicts revolve around land, water, forests, or minerals, environmental peacebuilding interventions may seek to improve governance and the peaceful resolution of disputes around those resources. In such circumstances, while the initial motivation for the project may have been peacebuilding and conflict prevention, in practice, the project becomes an environmental project with corresponding environmental objectives and indicators and is managed, monitored, and evaluated as an environmental project. This was the case, for example, with the USAID-sponsored ECOGOV project in Mindanao, Philippines; and while project staff believed that the project was preventing future conflicts, there was little evidence to support those perceptions (Brady et al. 2015).

A growing number of environmental peacebuilding projects relate to disaster risk reduction (DRR) and climate change adaptation. Both adaptation and DRR provide opportunities to bring people together to cooperate around shared needs and interests. Moreover, when integrated into environmental peacebuilding, climate change adaptation and DRR can help conserve local ecosystems, enhance human development, resolve grievances and livelihood insecurity that contribute to armed conflict, and help incorporate climate-related issues into peacebuilding (Peters 2019). After Pakistan suffered devastating floods in 2010, donors and nongovernmental organizations (NGOs) undertook DRR projects to increase resilience to future disasters while delivering aid and supporting peace (Ide 2020). Finally, adaptation can help climate-proof peacebuilding efforts.





0.3. Monitoring and Evaluation

Monitoring and evaluation frameworks establish a transparent set of processes to gather and analyze information, reflect upon and learn from that information, and accordingly adapt interventions. These frameworks are thus an essential part of effective project or program management, as the information and opportunities for reflection they provide can support the achievement of outcomes, ensure accountability, maximize knowledge exchange, and increase the added value of the intervention. These frameworks should also support the identification and exploration of unintended outcomes or consequences of an intervention, both positive and negative.

"Monitoring" and "evaluation" refer to two related, and sometimes overlapping, but conceptually different sets of activities that contribute to a better understanding of the implementation of a project, program, activity, or policy (i.e., "intervention").

Monitoring is the ongoing and organized process of collecting, analyzing, and using information about an intervention's activities and effects (Nanthikesan & Uitto 2012). This information is then used in the day-to-day management of an intervention to track progress against the intervention's initial plans, using what is learned to guide activities and make informed decisions and improvements. Monitoring information can function as an early warning system by providing the first indications that something might be wrong, warranting an adjustment or response.

While there is often some overlap with evaluation, monitoring is generally descriptive (i.e., *what* is happening) and relies on quantitative and qualitative indicators.

Evaluation is a systematic assessment of an ongoing or completed intervention's design, implementation, and effects to determine its worth, quality, value, and importance (Nanthikesan & Uitto 2012). Evaluations often utilize monitoring information in addition to collecting more in-depth information that focuses on the *how* and the *why* of an intervention. These can take place at various points during the intervention's implementation, from the beginning to interim points to the end of the intervention, and even after its conclusion.

Decisions regarding when and how to evaluate should be driven by the objective(s) of the evaluation. Each evaluation should have a clearly defined objective that corresponds to the intervention objectives, the intervention timeline or milestones achieved, the intended users of the evaluation, and the available resources for the evaluation (time, money, expertise, etc.). This means that the "why," "when," "for whom," and "with what" of the evaluation will, taken together, determine the evaluation objective. The objective will, in turn, determine the approaches or methods used.

Evaluation criteria usually depend on the specific context of an intervention. That said, many evaluation frameworks include the six core evaluation criteria established by the OECD-DAC (2021):

Relevance: Whether an intervention is doing the right things.

Effectiveness: Whether the intervention was successful at achieving its objectives, and to what degree.

Impact: What difference the intervention makes over the long-term.

Coherence: Whether the intervention fits within the larger set of work being done.

Efficiency: How well resources are being used by the intervention.

Sustainability: Whether the intervention and its positive effects will last over the long-term.

There is a wide range of M&E-related terminology in use today, each with its own framing and emphasis. Some include learning (Monitoring, Evaluation, and Learning, or "MEL") (Kumar & Palanisami 2021). Others also include accountability (Monitoring, Evaluation, Accountability, and Learning, or "MEAL") (Walden 2013). And still others highlight the importance of the design phase, where key decisions are made with respect to both the design of the project and the design of the appropriate monitoring and evaluation framework (Design, Monitoring, and Evaluation or "DME") (Nejmeh & Vicary 2009). **This Primer and the accompanying Toolkit use the term "Monitoring and Evaluation" (or "M&E") to refer to the system comprising design, monitoring, evaluation, and learning measures.**

While monitoring and evaluation do sometimes overlap, and there are exceptions to every rule, the main differences between them are summarized in Table 0.1.

	MONITORING	EVALUATION
PURPOSE	• Help to ensure the intervention is on track • Inform adjustments during intervention implementation based on ongoing reflection and learning • Early warning	• Deep understanding of the intervention's effects and how they happened to support learning • Ensure accountability to various stakeholders • Inform long-term programmatic strategy • Contribute to the evidence base
LEVEL	Operational	Strategic
TIMING	Ongoing throughout the life of the project	At specific points in time. These might include: • Prior to or at the beginning (formative evaluation) • Mid-way (mid-term evaluation) • End-of-intervention (final evaluation; summative or outcome evaluation; impact evaluation; programmatic evaluation)
SOURCES OF INFORMATION	Defined indicators (both qualitative and quantitative)	Based on evaluation purpose/objective questions
PERSONS RESPONSIBLE	Team members; those regularly involved with the project	Often external actors, such as an evaluation office or consultants. In practice, often team members

Table 0.1: Comparing and Contrasting Monitoring and Evaluation
Source: ELI.

A. Objectives of Monitoring and Evaluation

Monitoring is often described as the process of examining whether an intervention is "being done right" (Knight 2001). That is to say, **monitoring seeks information to understand whether the intervention is proceeding as planned.** As such, monitoring typically has four key objectives (Crawford & Bryce 2003):

- It collects information to **ascertain if an intervention is on track.**
- Monitoring helps to **determine when adjustments to intervention design or implementation are necessary** to achieve objectives or more appropriately reflect the context, and what those adjustments might be. This information enables more informed adaptative management, which is especially important for environmental peacebuilding because the theories of change are still being refined and because the operating environment for environmental peacebuilding is insecure, volatile, and dynamic.
- It can provide **early warning** regarding problems that may rapidly escalate. This is particularly important in volatile and fluid contexts in which environmental peacebuilding often occurs, where there is often an abiding risk that disputes over land, minerals, and other natural resources can escalate rapidly to violence.
- It collects timely **data for use in evaluations.**

Team members and others regularly involved with the intervention tend to be responsible for monitoring tasks, although external actors may also be involved.

In contrast, **evaluation seeks to understand whether an intervention is meeting or has met its objectives, and why (or why not).** This is important for:

- **Accountability** to various stakeholders (see Figure 0.3);
- **Learning** for various stakeholders, both internal to the intervention and external (including understanding what approach is appropriate under which circumstances, unintended consequences, and blind spots);
- **Showing impact**;
- Encouraging **innovation** (by supporting the testing of new approaches); and
- Informing the design and implementation of **future interventions**.

While external actors, such as evaluation office staff or consultants, may conduct evaluations, in practice, team members are often responsible for performing them.

It is important to recognize that different stakeholders will likely prioritize different aims for M&E, and this difference in priorities may generate tensions. For example, funders often focus on upward accountability, which primarily emphasizes understanding whether the intervention achieved its stated objectives and at what cost. In contrast, implementers and partners may focus more on learning, which might necessarily involve a discussion of problems, challenges, or obstacles

that a funder would consider sensitive. The more problematic and sensitive a project is, the less likely the implementer (and even the funder) will want to publicly advertise challenges and the reasons for those challenges. Accordingly, there is growing interest in "fail festivals" and other forums through which people can share difficult or awkward experiences with minimal risk to their reputation or their institution's reputation (Chambers, Massarella, & Fletcher 2022; Zeppenfeld 2020).

In environmental peacebuilding projects, M&E should not be seen as separate from the intervention. Rather, it is a crucial piece of the intervention and can serve to either undermine or support intervention objectives (see Figure 0.4). For example, joint monitoring can be a trust building exercise that helps to build peace.[13]

13. See, for example, Hug & Mason 2022; van Noordwijk, Namirembe & Leimona 2017; Aeby 2021; Mason & Sigfried 2013; Bayer & Waters-Bayer 2002.

For instance, monitoring mechanisms created by conflict parties that use technology (such as drones, cameras, acoustic sensors, satellite imagery, etc.) for the implementation of ceasefire agreements can serve as a tool to build trust beyond ending violence (Hug & Mason 2022). An illustration of this can be the establishment of a Verification and Monitoring Team (VMT) in South Sudan that monitored, investigated, verified, and reported violations of the cessation of hostilities agreement between Sudan and South Sudan (Clayton et al. 2019).

Alternatively, if monitoring is not done in a conflict-sensitive way, it can escalate conflict or undermine peace. The same goes for evaluations. For example, if only some individuals or groups are asked to contribute to M&E, this can inflame feelings of inequality and exclusion among community members and increase tensions. Additionally, if M&E processes are opaque or sensitive M&E information is shared with the wrong stakeholders, this can degrade trust and put people at risk.

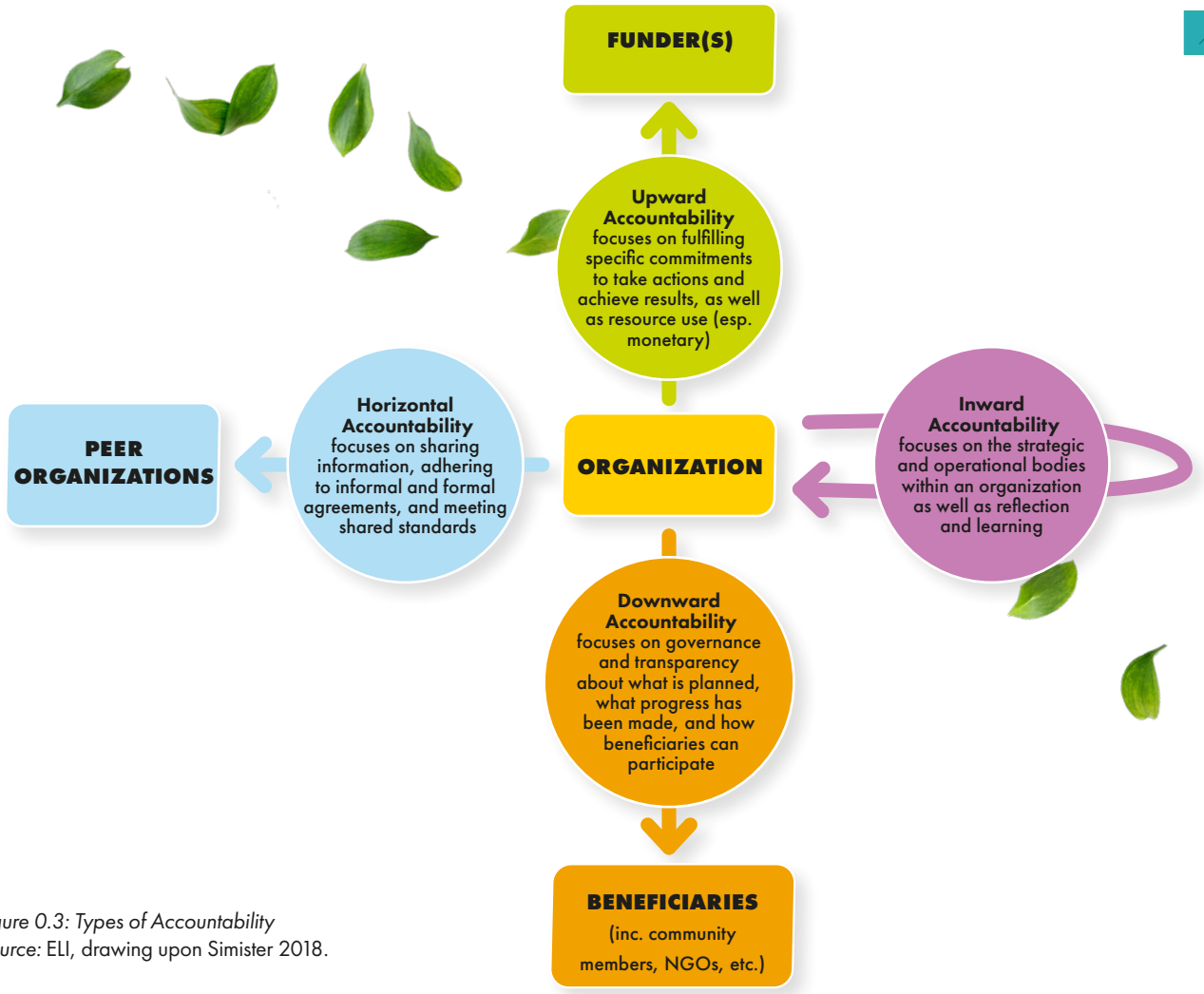


Figure 0.3: Types of Accountability
Source: ELI, drawing upon Simister 2018.

Upward Accountability: Accountability from implementers to their funders. Related actions may include writing formal reports as well as less formal communications and interactions with donors (Masdar 2015).

Horizontal Accountability: Accountability between peers and peer institutions for meeting the shared values and standards to maintain the standards and reputation of the sector (Cavill & Sohail 2007).

Downward Accountability: Making plans and results transparent to the beneficiaries. Downward accountability is essentially about transparency, good governance, and the extent to which beneficiaries are involved in system design and monitoring (Wongtschowski et al. 2016).

Inward Accountability: Accountability of staff to their organization's mission and objectives as well as working within their personal and societal norms and expectations (Cavill & Sohail 2007).

Figure 0.4: Reasons for Undertaking Monitoring and Evaluation
Source: ELI.

B. Monitoring and Evaluation Frameworks

As explored in further detail in Chapter 2 (on Design) of the Toolkit, environmental peacebuilding takes place within a set of interacting complex systems; accordingly, it is important for M&E processes to incorporate a systems approach that is adaptive. As a practical matter, though, an M&E practitioner often must work within the institutional, procedural, and financial constraints of a particular innovation. As such, it is necessary to right-size the M&E system based on the particular context and organization or intervention. The Toolkit highlights options for right-sizing aspects of design, monitoring, evaluation, and learning.

Environmental peacebuilding interventions necessarily involve a multitude of actors, each approaching the intervention with a potentially different set of objectives, values, timelines, and expectations. Given this multitude of actors, M&E frameworks should seek to address as many of the stakeholders' needs as possible, including the project team, donors, partners, intended beneficiaries, practitioners, and peer organizations involved in similar work. However, M&E cannot do everything, and it is important to explicitly acknowledge the intended users and audience.

Funders or donors will often have their own reporting template or similar document that will serve as a fundamental part of any intervention's M&E framework. This template typically features metrics centered on outputs and short-term outcomes, such as communication and dissemination (e.g., publications and presentations), training and mentoring (e.g., the number of students), and any new knowledge, understanding, or skills gained. Collection of this information is a form of fiscal and programmatic accountability, ensuring that funds committed to an activity were used as outlined in the original proposal and that any deviations are addressed in a timely manner that reduces risk to the funder.

M&E information collected by one project can inform new strategies and approaches, even in seemingly unrelated fields. Lessons learned from stakeholders in one region may be scaled or applied in other regions. The return on investment for M&E information increases when evidence from projects and programs is well-documented, M&E processes follow ethical sharing guidelines, and information is openly and easily accessible.

Evolution in Funder M&E Frameworks

A recent push for transparency in the use of taxpayer dollars for research has increased the number of reports requiring information about data and digital products created by a project, with accessible links to these items available on the Internet. Less common but also gaining traction are reporting questions that are more narrative in style, focused on experiential learning, and outcomes written in lay language for greater public understanding. Additionally, there can be tension between newer demographic questions focused on diversity and inclusion, including self-identification of gender and race, and personal protection guidelines that bar projects from collecting that information. Typically, information of this nature can only be shared publicly in aggregate, but it is critical to some organizations with the mandate to support underrepresented or marginalized groups.

0.4. Challenges of Monitoring and Evaluation of Environmental Peacebuilding

Monitoring and evaluating environmental peacebuilding have many challenges, some of which are particular to environmental peacebuilding and others that are shared with environmental, peacebuilding, or development interventions (see Table 0.2). There are several challenges that are specific to monitoring and evaluating environmental peacebuilding:

Environmental peacebuilding is a young and emerging field. This means there is less evidence about what works and under what circumstances, including when it comes to M&E. This simple fact drives many of the other challenges.

The state of knowledge regarding the effectiveness of various environmental peacebuilding interventions means that a necessary priority of environmental peacebuilding M&E is to learn from related experiences. It is only through learning from the various ongoing efforts that the international community can build the evidence base, refine theories of change and the design of interventions, implement more effective interventions, and ensure accountability.

The theories of change for environmental peacebuilding projects are in many respects underdeveloped. While there are specific examples of successful environmental peacebuilding interventions, particularly at the local level, the evidence base regarding many of the environmental peacebuilding approaches is largely anecdotal and/or

deductive (i.e., derived logically from an analysis of the problem, but without actual evidence that the particular approach works, let alone under the particular circumstances at hand) (Ide et al. 2021). The uncertainty in the robustness of the theories of change undermines the willingness of funders to support environmental peacebuilding interventions. It also generates risks to reputation and mission. Theories of change may over-promise their potential transformative effects: it is important to note that while environmental peacebuilding can contribute to environmental and peacebuilding outcomes, it may not by itself be sufficient to achieve peace. As such, assessment of and reflection on environmental peacebuilding efforts are particularly important to support learning, testing, and refining the theories of change, building the evidence base, and ultimately improving environmental peacebuilding interventions. Finally, the interaction of environmental peacebuilding interventions between scales—from the local to the national to the international—is only beginning to be understood.

Environmental peacebuilding often focuses on building resilient, adaptive systems that can be difficult to measure. This requires creating a culture of learning and transforming how project staff, beneficiaries, funders, and partners conceptualize the programming. It also requires a systems approach to M&E that accounts for resilience and adaptation. Environmental peacebuilding often intersects and engages with multiple interacting complex systems, including environmental, economic, socio-cultural, and political systems. As such, the systems approach is often more complicated than those adopted by purely environmental programming. Finally, environmental peacebuilding M&E requires consideration of power dynamics and equity, particularly how the intervention might change inequitable power dynamics or unintentionally reinforce them.

In many instances, environmental peacebuilding interventions are environmental projects undertaken for peacebuilding reasons. If undertaken entirely by environmental professionals (often with limited peacebuilding training or expertise), though,

they are likely to be conceptualized, framed, monitored, and evaluated as environmental projects without considering whether the project achieved its objective of preventing conflict, peacefully resolving conflicts, or otherwise building peace.[14]

Many of the practitioners undertaking environmental peacebuilding have *either* environmental or peacebuilding expertise. As such, there are often gaps in their objectives, training, and capacity that may—particularly in fragile and conflict-affected situations that are volatile—lead to problems that are not detected or addressed early on and thus quickly escalate. This is particularly a concern for environmental staff that do not have training in conflict sensitivity or peacebuilding.

Similarly, **evaluators assessing environmental peacebuilding interventions tend to have either an environment/development or peacebuilding background.** Accordingly, they tend to ask certain questions, but not others. Moreover, they may not know what to look for in terms of linkages between environment, conflict, and peace.

Environmental peacebuilding interventions frequently have urgent timelines and take place in pressing, dynamic situations. In these contexts, a lack of capacity, baseline data, and other information may be coupled with an urgent need to act quickly. This can create challenges in intervention design (such as taking the time to develop a conflict-sensitive approach), as well as M&E (such as when the

design of indicators or the collection of indicator data is overlooked until later). Adaptive approaches that include early warning of difficulties and adjustments to the intervention can help address this challenge.

There frequently are unintended impacts of environmental peacebuilding interventions. This is due in part to environmental peacebuilding being a young field with limited evidence about what works in what circumstances. It is also due to the volatile and dynamic contexts in which environmental peacebuilding interventions take place. Additionally, it can be a result of a lack of training and experience among staff. Unintended impacts are often negative, but they can also be positive. To reduce the negative impacts and reinforce the positive impacts of environmental peacebuilding, it is crucial to learn

14. See the discussion above on the EcoGov project in Mindanao, Philippines (Brady et al. 2015).

from M&E processes. Box 0.1 highlights some of the risks of environmental peacebuilding to which M&E practitioners should be alert.

There is a dearth of M&E practices on environmental peacebuilding. In many instances, it is possible to track environmental changes and peace/conflict changes, but it is often difficult to show the relationships or connections between the two. That is to say that while there may be objective, quantitative indicators showing increased access to water or parcels of land with individual titles, and there may also be clear indicators showing greater trust and peace, it can be difficult to objectively or quantitatively know (let alone show) whether the increases in water access or land titles contributed to the increased peace, let alone how much. How do we know that the causal arrow does not go the other way (i.e., that there is more increased access to water because there is more peace)? Recognizing that quantitative measures may not be able to ascertain the relationship between these indicators, a growing number of environmental peacebuilding M&E initiatives are applying mixed (quantitative and qualitative) approaches—often using a systems lens—to environmental peacebuilding program design, monitoring, and evaluation.

	DESIGN	MONITORING	EVALUATION	LEARNING
CHALLENGES SPECIFIC TO ENVIRONMENTAL PEACEBUILDING	• EP is a young and emerging field • TOCs are underdeveloped • Development of a robust TOC is impeded by the lack of locally contextualized data and analysis on environmental change leading to insecurity and conflict • E/NRM projects adopted for peace purposes may have only environmental indicators • There is a dearth of indicators and practices specific to environmental peacebuilding • Urgent timelines and dynamic situations make it harder to implement the "Do No Harm" principle	• Different indicators, tools, and expertise for environmental and for peacebuilding dimensions • Capturing synergies between environmental and peacebuilding dimensions of the project • Importance of early warning and adaptive management	• Evaluating the synergies between environmental and peacebuilding impacts • Evaluating outcomes and impacts occurring at different scales and on different timelines • Most practitioners (and evaluators) have either environmental or peacebuilding expertise	• Developing a learning agenda is challenging when TOCs are undefined or underdeveloped
CHALLENGES SHARED WITH OTHER PROGRAMMING	• Limited time and donor support to invest in evidence-based design (including participatory methods)	• Financial and time costs to monitor (right sizing) • Limited data and local capacity to collect data (inc. costs of data) • Conflict makes monitoring context dangerous	• Long time horizons • Attribution difficulties • Evaluating the process vs. evaluating the outcome • Capturing unintended consequences • Tension between accountability (and learning) and transparency/what should be said publicly	• Many organizations utilize M&E for accountability but not for learning • Fear of sharing failures (and losing funding)

Table 0.2: Challenges Associated with Monitoring and Evaluating Environmental Peacebuilding Interventions.
Source: ELI.

Note: "Other programming" includes peacebuilding, environmental, and developmental programming.

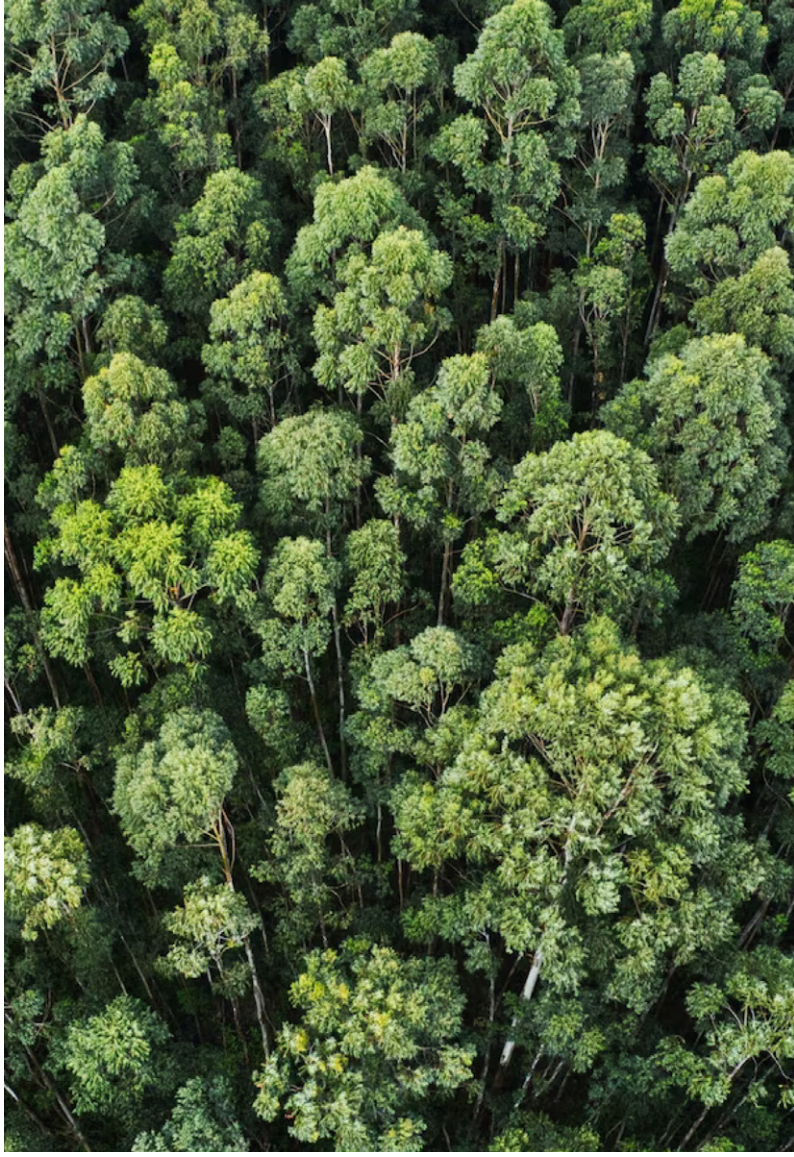
In addition to the challenges that are particular to the environmental peacebuilding context, there are a number of M&E challenges that are also associated with the M&E of environmental, peacebuilding, or development interventions. These key common challenges include:

Impacts can occur over **long time horizons** and may be difficult to capture in the short term, including at the end of a project when many evaluations are completed. One growing approach to managing this challenge is the development of programmatic evaluations that allow for the analysis of longer-term impacts, linkages between projects, and synergies across sectors and donors.

Even when a project appears to be successful, it can be **difficult to attribute** success to a particular project due to the multiple institutions and individuals working in that space, as well as the delayed effects of previous projects. One increasingly common approach is to shift from attribution to contribution, often supplemented by an emphasis on theories of change.

Fragile and conflict-affected **operating environments are often volatile,** leading to difficulties or disruptions in data collection, analysis, dissemination, and learning. The growth of telecommunications technology and remote sensing, coupled with the reliance on local partners for M&E, can ameliorate these risks, but these technologies are imperfect and have their own limitations (e.g., regarding accessibility, voice, and equity).[15]

15. See Chapter 3 for a discussion on remote sensing and other technologies. For further information on these technologies, see UNEP 2019; Pandey & Sharma 2021; UNITAR 2020 for examples using these technologies.



Many organizations **utilize M&E for upward accountability but not for organizational or discipline-wide learning.** In such situations, there are fewer resources available to undertake M&E and the approaches tend to be more basic. Moreover, the results are shared with the funder but may not be shared internally, let alone with outside actors, greatly reducing the opportunities for learning. A modest but growing number of institutions—including the World Bank, the Stockholm International Water Institute, and the Global Environment Facility—have been incorporating institutionalized learning into their M&E processes.

Box 0.1: Risks of Environmental Peacebuilding for Consideration in M&E

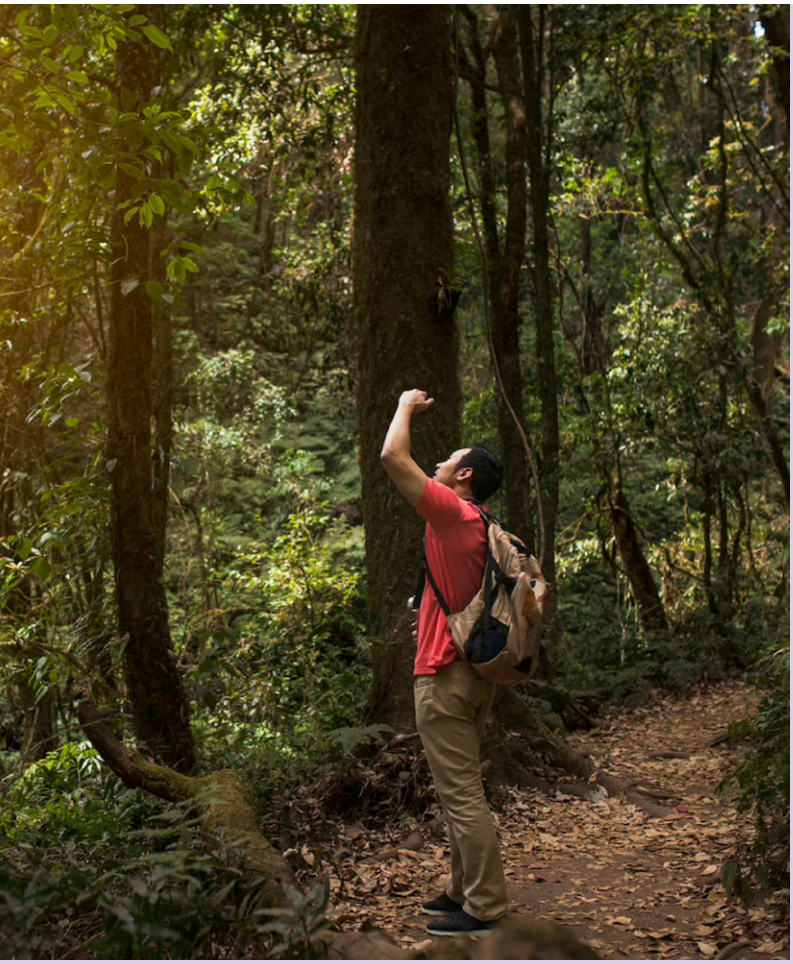
Critical research has highlighted a growing number of risks associated with environmental peacebuilding (e.g., Ide 2020). Not all environmental peacebuilding practices or projects have these negative consequences or risks, and if they do, they may coexist with beneficial consequences. Like other peacebuilding, environmental, and development programs, environmental peacebuilding may benefit some while incurring costs on others, resulting in winners and losers. The following measures can help account for these risks:

Note the politics behind the scientific view: Environmental stresses are addressed with seemingly neutral or objective technical solutions suggested by scientific evidence. However, environmental issues may be caused by continued divisions, unequal power relations, and persistent welfare gaps based on long-term policies. In order to offer a lasting solution, environmental peacebuilding must understand and address the underlying political issues.

Question socio-economic divisions and climate change: The failure to question who benefits from and who is adversely affected by environmental peacebuilding can lead to ethnic, social, economic, or gender discrimination. Furthermore, the observed and potential consequences of climate change (on water availability, food security, and disease burden, among others) may exacerbate social conflict or hinder peacebuilding.

Be aware of the resource curse and scarcity conflicts: Scarcity, resource depletion, and environmental degradation may exacerbate socioeconomic or political insecurity, which are more direct drivers of conflict. Scarcity may not result in violent conflict, but it may exacerbate the problems and costs faced by those impacted, heighten their despair, and strengthen the idea that many wars are zero-sum. Armed disputes may erupt as a result of grievances over the unequal distribution of gains from natural resources.

Engage local and indigenous communities: When local populations are not consulted in the design of environmental projects and practices, are not compensated



for their losses, and their objections are frequently ignored, violence may be provoked, and the conflict's underlying causes of political inequality worsen.

In addition, M&E practitioners should be alert to the following dynamics when designing and implementing M&E processes for environmental peacebuilding interventions:

Delegitimization of the state: When citizens regard the state as participating in actions such as depoliticization, displacement, discrimination, conflict, or environmental destruction, this may lead to the state's delegitimization. It may appear that government agencies' influence and credibility are deteriorating as essential duties connected to environmental peacebuilding are increasingly delegated to international organizations, donors, or NGOs.

Environmental cooperation may lead to unexpected effects: As long as an unsustainable political and economic order persists in post-conflict settings, environmental cooperation, which is viewed as a means of establishing trust between opposing parties, may complicate the resolution of structural or distributional fault lines.

Depoliticization of disasters: Responding to disasters is generally a highly politicized process, but it is frequently portrayed as apolitical. Natural disaster response entails information management, monitoring, accountability, and protection; this is especially evident when disasters occur in areas impacted by authoritarian and politically polarized conflicts.

As the Toolkit illustrates, there are many ways to address these challenges and strengthen environmental peacebuilding M&E. Table 0.3 highlights some of the strategies for addressing these challenges. The Toolkit explores these strategies in more detail.

	DESIGN	MONITORING	EVALUATION	LEARNING
STRATEGIES SPECIFIC TO ENVIRONMENTAL PEACEBUILDING	• Planning to test the TOCs • Develop TOC by contextualizing and integrating data on local environmental change leading to insecurity and conflict • Integrating environmental and peacebuilding indicators	• Qualitative, open-ended indicators to test TOC • Early warning for conflict-sensitive programming • Linking across time scales for environment (often longer) and peace/conflict/security (often short-term, as well as longer)	• Use of narratives (qualitative) to assess causal relationship between environmental improvements and peace improvements	• Focus on learning because TOCs tend to be underdeveloped • Refining TOCs • Refining understanding of the context • Informing the ongoing refinement of context assessment tools
STRATEGIES SHARED WITH OTHER PROGRAMMING	• Dynamic TOCs • Mixed methods (qualitative and quantitative indicators)	• Conflict sensitivity and conflict integration approaches	• Programmatic evaluations • Seeking contribution	• Refining TOCs • Refining understanding of the context • Informing the ongoing refinement of context assessment tools
CROSS-CUTTING	Right-sizing			

Table 0.3: Strategies for Addressing Challenges Associated with Monitoring and Evaluating Environmental Peacebuilding Interventions.
Source: ELI.
Note: "Other programming" includes peacebuilding, environmental, and developmental programming.

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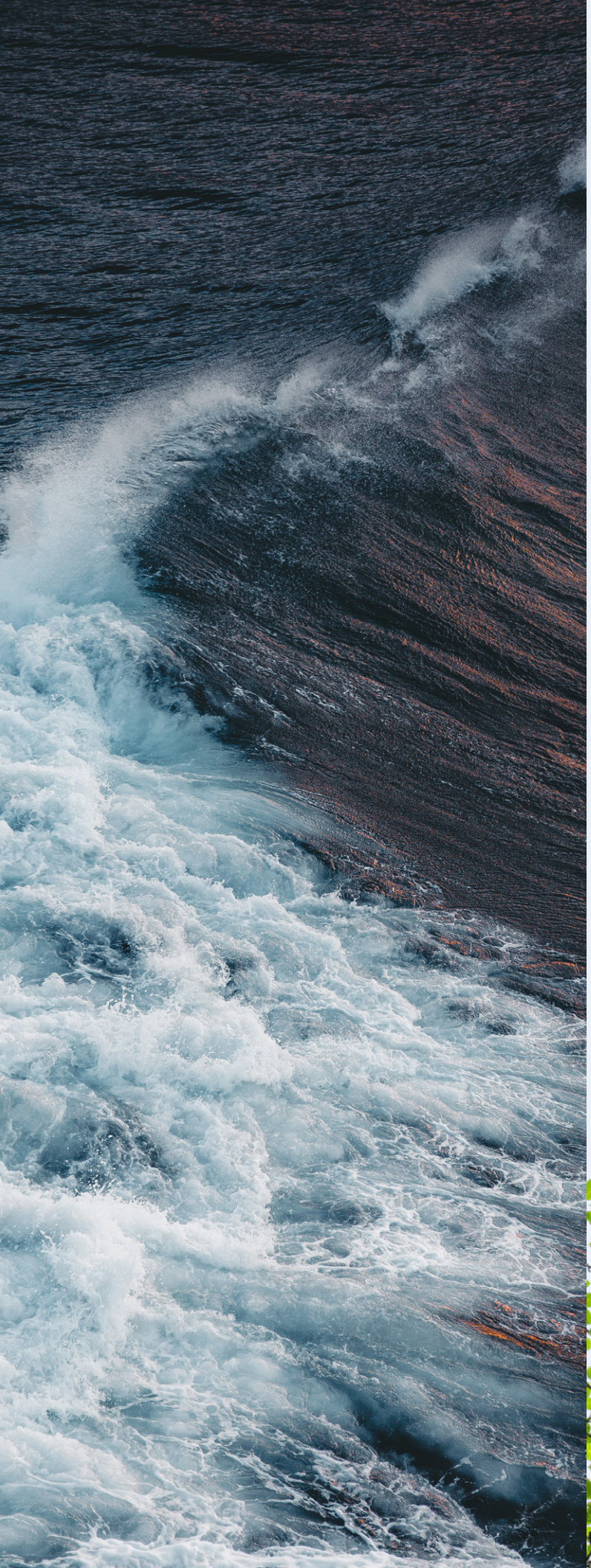

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