



Harnessing Natural Resources for Peacebuilding: Lessons from U.S. and Japanese Assistance

A guide to managing natural resources
to build peace following conflict



The Environmental Law Institute (ELI)

ELI is an independent, non-partisan environmental education and policy research center focused on advancing environmental protection by improving law, policy, and management. ELI is an internationally recognized source of authoritative information and policy research on a wide range of topics in the field of environmental law and governance. ELI delivers timely, insightful, impartial analysis to opinion makers, including government officials, environmental and business leaders, and journalists.



The Global Infrastructure Fund (GIF) Research Foundation Japan

GIF provides research for the development of infrastructure around the globe to support the sustainable development of developing countries and the global community, while protecting the environment for future generations.



The Center for Global Partnership of the Japan Foundation

CGP is dedicated to strengthening the global US-Japan partnership and cultivating the next generation of public intellectuals necessary to sustain this partnership. To carry out its mission, CGP supports an array of institutions and individuals, including nonprofit organizations, universities, policymakers, scholars, and educators, and believes in the power of broad-based, multi-channel approaches to effect positive change.

Authors:

Carl Bruch, Environmental Law Institute
Mikiyasu Nakayama,
University of Tokyo Graduate School of Frontier Sciences
Ilona Coyle, Environmental Law Institute

Cover design and layout by Ilona Coyle.
Cover photo of the Mekong River by Lisa Goldman.

Acknowledgements:

This policy brief is based on a book presenting the results of a three-year research project, *Harnessing Natural Resources for Peacebuilding: Lessons for U.S. and Japanese Assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle (Washington, D.C.: Environmental Law Institute, 2011). Financial support for the project was provided by the Center for Global Partnership of the Japan Foundation, the Global Infrastructure Fund (GIF) Research Foundation Japan, the University of Tokyo (Graduate School of Frontier Sciences, Department of International Studies, Alliance for Global Sustainability, and Human Security), Japan Society for the Promotion of Science, and Zonta Club of Tokyo I.

Table of Contents

Executive summary	2
Introduction	4
Project summary	5
Integrating natural resources into post-conflict peacebuilding	6
Natural resources cut across peacebuilding priorities	6
Understanding the natural resource context.....	8
Mainstreaming natural resources into peacebuilding	10
<i>Conflict-linked resources</i>	10
<i>Relating natural resources to specific peacebuilding priorities</i>	10
<i>Program and project design</i>	12
Adapting natural resource management interventions to post-conflict situations	13
The conflict continuum	13
Conflict assessments	15
Eight characteristics of post-conflict situations.....	15
<i>Focusing on peacebuilding priorities</i>	15
<i>Devastated in-country capacity</i>	16
<i>Volatility and rapid change</i>	17
<i>Unsustainable coping practices</i>	17
<i>Lack of trust and community cohesion</i>	17
<i>Unresolved grievances and persisting tensions</i>	18
<i>Lingering insecurity</i>	18
<i>Uncertain rights and overlapping claims</i>	19
Natural resources and development challenges	20
Supporting long-term commitments.....	20
Coordination	20
Public engagement	
Monitoring and Evaluation	
Adaptability	
Institutional learning and memory	28
Way forward	29
References	30

EXECUTIVE SUMMARY

The United States and Japan are leading sources of support to post-conflict and conflict-affected states (OECD 2010). This assistance has evolved over the past few decades to increasingly focus on the longer-term processes of establishing security, providing basic services and infrastructure, rebuilding the economy and livelihoods, and restoring governance and political processes—four core areas of post-conflict peacebuilding (Bruch et al. 2012).

The appropriate selection and implementation of

peacebuilding approaches influence whether a cessation of armed conflict becomes a lasting peace. The risk of relapse into conflict is significant. In the 2011 *World Development Report*, the World Bank noted that “Every civil war that began since 2003 was a resumption of a previous civil war” (World Bank 2011, 58).

Natural resource management (NRM) offers opportunities to improve the effectiveness of post-conflict peacebuilding. U.S. and Japanese experiences over the past few decades illustrate this potential. For example, local management of coastal resources in the Philippines has provided alternate livelihoods to excombatants, promoted dialogue between warring factions, and served as a platform for introducing democratic decision making.

This policy brief highlights practices and lessons from U.S. and Japanese interventions where post-conflict peacebuilding and natural resource management meet.

These lessons fall into three categories: (1) integrating natural resources into post-conflict peacebuilding;

(2) adapting NRM interventions to post-conflict situations; and (3) designing NRM interventions to address development challenges.

[A] just peace includes not only civil and political rights – it must encompass economic security and opportunity. For true peace is not just freedom from fear, but freedom from want.

It is undoubtedly true that development rarely takes root without security; it is also true that security does not exist where human beings do not have access to enough food, or clean water, or the medicine and shelter they need to survive.

President Barack Obama, 2009 Nobel Peace Prize acceptance speech (Obama 2009).

The lessons on integrating NRM into peacebuilding focus on understanding that NRM is relevant, and often critical, to peacebuilding. Natural resources cut across peacebuilding priorities, both as inputs and constraints on peacebuilding efforts. For example, arable land can provide livelihood

opportunities for disarmament, demobilization, and reintegration of combatants (DDR). Yet, the same DDR program may be constrained by the amount of arable land available, the security of land tenure rights, and the productive capacity of the land (i.e. how much land an excombatant would need to support a family).

Collecting information related to natural resources is essential to understand specific post-conflict situations, the risks, and the opportunities. This information is key to deciding what types of interventions are needed, prioritizing natural resource interventions, and tailoring interventions to support multiple peacebuilding objectives by:

1. Identifying conflict-linked natural resources, and
2. Identifying which natural resources are relevant to which peacebuilding priorities in the specific context.

During program and project design, one can then evaluate which method of program implementation will respond to the most community needs and peacebuilding priorities.

Because post-conflict contexts are so different from developing countries that have not experienced conflict, practitioners leading NRM interventions need a comprehensive understanding of and sensitivity to conflict and post-conflict dynamics. This sensitivity is necessary to appropriately adapt standard NRM practices and tools to the post-conflict context.

Some of the most successful NRM experiences highlighted in this book have been designed and implemented with peacebuilding in mind. By explicitly supporting peacebuilding priorities, natural resource interventions can engage communities, governments, and donors who might not otherwise be interested in

In the transition phase from conflict to peace, early and comprehensive social and economic reconstruction and development activities play crucial roles. Especially necessary infrastructures must be built to enable the co-existence among diverse elements. While humanitarian organizations are aware of the most basic requirements needed by victims, development agencies have larger resources and greater management expertise.

Sadako Ogata, President, Japan International Cooperation Agency (Ogata 2010).

natural resource issues. Understanding the post-conflict context is also essential to empowering communities. For example, if the often substantial lack of trust, community cohesion, and in-country capacity are understood in advance, projects can be designed both to cope with and address these limitations so that post-conflict communities and governments can eventually assume responsibility for the long-term management of development initiatives. Finally, post-conflict programming requires constantly monitoring public security, tensions between groups, and economic and social circumstances that can change rapidly and affect the project.

While projects often serve multiple peacebuilding objectives, they tend to be developed within a specific strategic category: economic growth, democracy and governance, natural resource management, and so forth. The specific category often dictates the way the project is framed, implemented, monitored, and evaluated. For example, natural resource management projects may

collect extensive data on the project's impacts on natural resource indicators without including conflict mitigation indicators in their monitoring and evaluation (M&E). Improving M&E measures and procedures for projects with both natural resource and peacebuilding dimensions is important to enhancing the long-term effectiveness of peacebuilding interventions.

In addition to lessons relating specifically to the nexus of natural resources and peacebuilding, this guide highlights six major challenges that relate broadly to the nature of development. These challenges include: the need to adopt long-term approaches; coordination among donors and among stakeholders; engagement

of community members and government officials; monitoring and evaluation using both qualitative and quantitative indicators; adaptability to the volatile nature of post-conflict situations; and the promotion of institutional learning by improving institutional memory. Experience from natural resource-related interventions in addressing these challenges provides insights for improving post-conflict peacebuilding and development generally.

Practitioners and policy makers in the U.S., Japan, and elsewhere are recognizing the importance of natural resources to various aspects of post-conflict peacebuilding, as are the UN Secretary-General (UNSG 2009, 2010), World Bank (2011), the United Nations Environment Programme (UNEP 2009), and the United Nations (UN 2011). By building on their experiences, the U.S. and Japan can continue their leadership in developing policies, toolkits, training initiatives, and methodologies that improve natural resource management to support peacebuilding.

INTRODUCTION

Both the United States and Japan base their official development assistance (ODA) on the understanding that peace is not just the product of a single agreement or the decisions of political leaders. Peace must be built through the efforts of many local, national, and international actors working to together. The effectiveness of these collaborative peacebuilding efforts determine whether a post-conflict situation relapses into conflict.

Peacebuilding objectives

There is currently no standardized conceptual or operational framework for post-conflict peacebuilding. However, experience shows that as countries emerge from violent conflict, they face four main challenges. These challenges are: (1) insecurity, militarization, and lawlessness; (2) the disruption of basic services; (3) low economic performance and livelihood insecurity; and (4) poor governance and pronounced societal divisions (UNDESA 2011). This guide adopts a framework for post-conflict peacebuilding that focuses on activities that support four broad post-conflict peacebuilding objectives (UNSG 2009; UN 2011; Bruch et al. 2012): (1) establishing security; (2) providing basic services; (3) restoring the economy and livelihoods; and (4) rebuilding governance and inclusive political processes.

These four objectives are similar to U.S. and Japanese peacebuilding frameworks (USIP and U.S. Army PKSOI 2009; JICA 2011).

NRM is tied inextricably to peacebuilding

Natural resources play varied roles in conflicts and in post-conflict settings, from timber in Liberia and poppies

in Afghanistan to fisheries in the Philippines and arable land in Cambodia. There are four broad categories of natural resources relevant to post-conflict peacebuilding: land (such as land near new highways in Afghanistan and demined land in Cambodia), water (such as the Iraqi Marshlands and transboundary waters in the Mekong River), other renewable resources (such as timber in Nepal and agriculture in Timor-Leste), and extractive

Four post-conflict peacebuilding objectives:

1. Establishing security;
2. Providing basic services;
3. Restoring the economy and livelihoods;
4. Rebuilding governance and inclusive political processes.

UNSG 2009; UN 2011; Bruch et al. 2012.

natural resources (such as oil and gas in Aceh and diamonds in Sierra Leone) (Bruch et al. 2012; Suzuki and Nakayama 2011*; Nakayama 2011*; Brady et al. 2011*; Satoh, Suzuki, and Miyazawa 2011*). How these

resources are managed can determine whether they exacerbate conflict (such as through the poppy trade in Afghanistan) or support peace (such as by engaging excombatants to manage coastal areas in the Philippines).

The United States and Japan: Leading donors, diverse approaches

The United States and Japan play a substantial role in helping countries to recover from conflict. In 2008, the United States and Japan contributed 42 percent and 22 percent, respectively, of their ODA to post-conflict, conflict-affected, and fragile states (OECD 2010). Moreover, both the United States and Japan are the leading donors to several countries. The United States is the top donor to Afghanistan, Iraq, Sudan, and Kenya, among others (OECD 2010). Japan is the top donor to Sri Lanka and Myanmar (JBIC Institute 2003; OECD 2010). Accordingly, U.S. and Japanese policies for ODA play a substantial role in determining whether these states build a lasting peace.

* Citations marked with asterisks refer to chapters in *Harnessing Natural Resources for Peacebuilding: Lessons from U.S. and Japanese Assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle (Washington, D.C.: ELI 2011), www.eli.org/program_areas/spcsd/.

The United States and Japan utilize different approaches in providing assistance. The United States tends to give more ODA directly through bilateral aid, giving slightly less than 6 percent of its ODA through multilateral development partners (OECD 2010). By contrast, Japan delivers almost half of its ODA through multilateral development partners, such as the United Nations Environment Programme's International Environmental Technology Centre (UNEP-IETC) or the United Nations Development Programme (OECD 2010; Suzuki and Nakayama 2011*; Miyazawa 2011*).

The vast majority of Japanese bilateral aid is channeled through the Japan International Cooperation Agency (JICA), which administers all of Japan's grant aid and ODA loans. JICA operates technical cooperation projects that send Japanese aid workers and partner organizations abroad to undertake on-the-ground development projects (JICA 2009). The JICA Research Institute also conducts and collects research on prominent issues and challenges facing developing countries, focusing on three research areas: peace and development; environment and development/climate change; and growth and poverty reduction (JICA-RI n.d.a, n.d.b, n.d.c).

The United States provides bilateral aid through many government agencies, and aid to post-conflict states is

characterized by interventions from diverse combinations of agencies (Lund 2010). In 2009, the U.S. Agency for International Development (USAID) and Department of State each distributed approximately 35 percent of the U.S. foreign economic assistance (USAID n.d.b). The U.S. Department of Agriculture (7 percent), the Department of Defense (6 percent), the Millennium Challenge Corporation (5 percent), and other agencies (12 percent) are also responsible for administering significant portions of U.S. foreign assistance (USAID n.d.b).

This leads to complex interagency dynamics, because multiple U.S. agencies often work in a single country, and the same project may require coordination among multiple agencies. One example is the Liberia Forest Initiative (LFI), which involved U.S. Department of Agriculture's Forest Service, the State Department, and USAID (Nichols and Goldman 2011*).

The United States, Japan, and this guide

Despite their differences, U.S. and Japanese peacebuilding experiences have faced common challenges, developing innovative approaches for mainstreaming natural resources into peacebuilding. This guide highlights lessons from these case studies, and examines how the U.S. and Japan can more effectively plan natural resource interventions to support peacebuilding.

Harnessing natural resources for peacebuilding: A three-year journey

This guide focuses on lessons, technical insights, and policy recommendations developed in *Harnessing Natural Resources for Peacebuilding: Lessons from U.S. and Japanese Assistance* (Bruch, Nakayama, and Coyle 2011). The book was a product of a three-year project coordinated by the Environmental Law Institute (ELI) and the Global Infrastructure Fund (GIF) Research Foundation Japan, with the support of the Center for Global Partnership of the Japan Foundation. The project analyzes experiences and identifies lessons regarding the role of natural resources in post-conflict peacebuilding and diplomacy. It examines a sampling of experiences from U.S. and Japanese assistance programs in a range of post-conflict settings from Iraq and Afghanistan to Sri Lanka and Liberia. While this project focuses on U.S. and Japanese efforts primarily in Asia, it also builds upon and complements another global initiative coordinated by ELI, the United Nations Environment Programme (UNEP), the University and Tokyo, and McGill University (see www.eli.org/Program_Areas/PCNRM).

THE ROLE OF NATURAL RESOURCES IN POST-CONFLICT PEACEBUILDING

By understanding the role of natural resources in peacebuilding, practitioners can both increase the positive impacts of peacebuilding efforts and avoid unintended consequences that could undermine peacebuilding initiatives. This section reviews:

- How natural resources can be important to almost every peacebuilding priority, both as inputs and potential constraints on peacebuilding efforts;
- What information is needed to understand the natural resource context of specific post-conflict situations, including how natural resources affect conflict dynamics and peacebuilding objectives; and
- How to mainstream natural resource initiatives into post-conflict peacebuilding programming.

Natural resources cut across peacebuilding priorities

Natural resources are important to almost all peacebuilding priorities, including reintegrating excombatants, supporting basic services, restoring livelihoods and the economy, and reforming governance. Natural resources are assets and inputs to these activities, providing both opportunities and constraints.

As inputs to peacebuilding, natural resources and their revenues are increasingly addressed in peace agreements (Mason, Sguaitamatti, and Gröbli 2012). Agricultural production has been important to post-conflict livelihoods and macroeconomic recovery in many countries, including Afghanistan and Timor-Leste (Unruh and Shalaby 2011*; Satoh, Suzuki, and Miyazawa 2011*). Natural resources can form the basis for international cooperation and diplomacy, even among states with histories of tense relations (Bruch, Wolfarth, and Michalcik 2011*; Nakayama 2011*). The table on page 7 provides additional examples

of the various ways that natural resources affect post-conflict peacebuilding.

Natural resources may also act as constraints on peacebuilding that must be factored into planning and programming. Conflict resources—such as timber in Liberia and opium poppy in Afghanistan—can be used to finance conflict and may need to be controlled in order to establish security (Nichols and Goldman 2011*; Catarious and Russell 2011*). Development professionals must keep in mind that natural resources may also limit program planning. For example, “[i]n the refugee camps that are established to provide basic shelter, food and protection, natural resources are critical assets, providing land, water, construction materials, and renewable energy. Damage to natural resources not only undermines the delivery of humanitarian aid, but can also cause conflict with host communities” (UNEP 2009, 15).

Understanding natural resources to avoid unintended consequences

Even when interventions do not initially appear to relate to natural resources, development and security professionals need to understand the relationship between communities and their natural resources to avoid unintended consequences. For example, road building in Afghanistan caused extensive land grabbing because development agencies did not effectively consider the increased value of arable land near roads and the weakness the local land tenure system (Unruh and Shalaby 2011*). Such land grabs are particularly serious since they affect both homes and livelihoods; approximately 80 percent of Afghanistan’s population relies on agriculture (Islamic Republic of Afghanistan Ministry of Finance 2011, 64).

ROLES OF NATURAL RESOURCES IN ADDRESSING PEACEBUILDING PRIORITIES

PEACEBUILDING PRIORITY	HOW NATURAL RESOURCES CAN ASSIST OR AFFECT THE PEACEBUILDING PRIORITY
Establishing security	
Achieving and maintaining security	Where natural resources are a key cause or driver of conflict, they must be secured and addressed to resolve conflicts and prevent resource capture (e.g., compare forests in Cambodia and Liberia) (Wallace and Conca 2011*).
DDR	Natural resources can support reintegration by providing excombatants with sources of livelihood (e.g., agriculture in Afghanistan, patrolling coastal fisheries in the Philippines) (Sato 2011*; Brady et al. 2011*).
Providing basic services	
Supplying basic services and transportation	Efforts to supply basic services and transportation sometimes go hand in hand with natural resource management (e.g., supplying drinking water systems and restoring marshlands in Iraq), and they sometimes undermine existing natural resource management regimes (e.g., road construction affecting land tenure and ownership in Afghanistan) (Suzuki and Nakayama 2011*; Unruh and Shalaby 2011*).
Restoring the economy and livelihoods	
Rebuilding livelihoods	Communities often use natural resources as a primary source of income. Well-designed interventions support livelihoods that promote rather than undermine peacebuilding (e.g., compare demining and land use in Cambodia with poppy production in Afghanistan) (Shimoyachi-Yuzawa 2011*; Catarious and Russell 2011*).
Promoting macroeconomic recovery	Natural resources have the potential to support macroeconomic recovery (e.g. timber in Liberia, oil and coffee in Timor-Leste) (Nichols and Goldman 2011*; Rasmussen 2009; Satoh, Suzuki, and Miyazawa 2011*).
Rebuilding governance and political processes	
Restoring governance	Natural resource management can be a vehicle for effectively introducing democratic governance structures and practices on a local or national level (e.g., community land use management in the Philippines, public involvement in the development of forestry regulations in Liberia) (Brady et al. 2011*; Nichols and Goldman 2011*).
Confidence building and cooperation	Joint natural resource management and infrastructure redevelopment can help build confidence and cooperation both within local communities (e.g., reforestation in Timor-Leste) and among states internationally (e.g., coal and steel in Europe, and international management of the Mekong River) (Miyazawa 2011*; Nakayama 2011*; Bruch, Michalcik and Wolfarth 2011*).

Understanding the natural resource context

Security and development professionals can maximize the effectiveness of conflict analyses by familiarizing themselves with the natural resource context of a post-conflict situation. To determine the importance of a natural resource to peacebuilding or, conversely, how a particular peacebuilding initiative may affect natural resources that are important to other peacebuilding priorities, security and development professionals should consult with natural resource management professionals to analyze the role of the natural resource in the particular post-conflict situation (Carius and Maas 2012). Important factors to consider include:

- the role of the resource in the conflict
- the social relevance of the resource (history, political context, culture, spiritual beliefs)
- the relationship of communities to the resource (the number and variety of stakeholders interested

in the resource, markets for trade in the resource, livelihoods sustained by the resource, importance to human health, etc.), and

- the characteristics of the resource itself (economic value, abundance, accessibility, and lootability).

One way to facilitate consultation between security and development practitioners and natural resource management practitioners is for agencies (such as USAID and JICA) to develop searchable online rosters of experts in the fields of security, development, and natural resource management. These rosters could be structured to facilitate searches by the experts' sector (natural resource management, security, etc.), specialty (DDR, agriculture, etc.), and geographic experience. Such a resource could include experts both within and outside the U.S. and Japanese governments.

Forests, conflict, and peacebuilding

Forests exemplify the variety of roles that a single resource can play in different conflict-related contexts. Disputes over forests spark conflicts in Asia (e.g., the Philippines and Nepal) but less often in Africa; however, regardless of the cause of the conflict, warring factions in post-conflict situations in both Asia and Africa (e.g., DRC and Indonesia) export timber to finance continuing hostilities (Wallace and Conca 2011*).

In peacebuilding, forests have even more varied functions. They support livelihoods and economic recovery in countries from Liberia and the DRC to Nepal and the Philippines. By introducing democratic forest management planning processes, communities in the Philippines have been able to develop inclusive systems of decision making that have allowed them to resolve land use disputes and encourage reconciliation (Brady et al. 2011*). Forests have been used as a platform for introducing democratic governance on a national level in Liberia (Nichols and Goldman 2011*).

Forests can also foster reintegration and cooperation. Local forest management groups in Nepal have become respected enough in local communities that they help reintegrate internally displaced persons by mediating differences between members of formerly warring factions after the cessation of hostilities (Sanio and Chapagain 2012). One reforestation project in Timor-Leste was used as a vehicle to reintroduce cooperative action and communal savings and loans (Miyazawa 2011*).

MAINSTREAMING NATURAL RESOURCES INTO PEACEBUILDING

	IMPLICATIONS FOR SECURITY AND DEVELOPMENT PROFESSIONALS
<p>Natural resources are important to almost all peacebuilding priorities.</p>	<p>Natural resources can be inputs for peacebuilding (e.g., giving excombatants access to arable land) or they can be constraints on peacebuilding (e.g., where the amount of arable land available for distribution is limited).</p>
<p>A wide array of information needs to be collected in order to understand the diverse natural resources and their relevance to different sectors of society in particular post-conflict situations.</p>	<p>When considering how to mainstream and prioritize natural resources within peacebuilding, consider:</p> <p><i>The role of the resource in the conflict</i></p> <p><i>Social relevance of the resource</i></p> <ul style="list-style-type: none"> • History, political context, culture, and spiritual beliefs <p><i>Relationship of communities to the resource</i></p> <ul style="list-style-type: none"> • Number and variety of interested stakeholders • Markets for trade in the resource • Livelihoods sustained by the resource • Importance to nutrition and human health <p><i>Characteristics of the resource itself</i></p> <ul style="list-style-type: none"> • Economic value, abundance, accessibility, lootability <p>Consultations with natural resource management practitioners and local communities can assist in identifying which natural resources may be relevant to peacebuilding efforts, and how they are relevant. Consultations can also improve community support for the ultimate interventions.</p>
<p>Information on natural resources should be evaluated and categorized to develop peacebuilding strategies that mainstream natural resources into peacebuilding.</p>	<p>To mainstream natural resources into national or regional-level strategic planning for peacebuilding, one must use information collected about the natural resource context to:</p> <ol style="list-style-type: none"> 1. Identify conflict-linked natural resources; and 2. Relate specific natural resources to the various peacebuilding priorities. <p>Conflict-linked resources are high-value or scarce resources that have been a factor contributing to the cause of conflict, an asset traded to finance conflict, or both (UNEP 2009).</p> <p>Peacebuilding priorities should be identified for both conflict-linked resources and for resources that are not conflict-linked. Natural resources may be related to one, two, or many peacebuilding priorities, depending on the particular natural resource and the particular post-conflict situation.</p> <p>Program and project design should take the large scale peacebuilding priorities identified and evaluate alternative plans for implementing the natural resource interventions—based on how they can most effectively meet the needs of the target sector or population identified in conflict assessments and needs assessments.</p>

Mainstreaming natural resources into peacebuilding

When an agency or organization first engages in a post-conflict situation, it collects information to determine what kinds of interventions are needed and to prioritize and sequence interventions. This includes an assessment of which peacebuilding priorities need to be reinforced through international support in the particular post-conflict situation. The next step, increasingly, is for international, bilateral, and national organizations to develop a peacebuilding strategy based on this information that prioritizes and sequences interventions.

To mainstream natural resource interventions into this planning process, one must use information collected about the natural resource context to analyze and prioritize how natural resource interventions can best support peacebuilding. This includes two steps:

1. Identifying conflict-linked natural resources, and
2. Identifying which natural resources relate to one or more peacebuilding priorities.

Conflict-linked resources are high-value or scarce resources that have been a factor contributing to the cause of conflict, exploited to finance conflict, or both.

Where conflict-linked resources are identified in a particular post-conflict situation, they must be addressed during the peacemaking and peacebuilding processes to reduce the likelihood of a relapse into conflict (UNEP 2009). When such resources are not addressed, peacemaking and peacebuilding may be undermined if any faction feels that its access to conflict-linked resources or the revenues therefrom may be limited. Natural resource-linked conflicts are more likely to relapse into conflict within five years after hostilities have ceased (Rustad and Binningsbø 2010).

Interventions targeting conflict-linked resources must be launched early in the peacemaking and peacebuilding processes. Shortly after the cessation of hostilities, there is a limited window of opportunity to address grievances through comprehensive changes. These can include re-forms to natural resource management regimes, such as land reform. This is because the post-conflict situation is in flux, and due to often substantial interventions of international actors. Major reforms are harder to accomplish after that period, even though they may prove essential to preventing a relapse into conflict (Bruch et al. 2012).

Conflict-linked resources are high-value or scarce resources that have been a factor contributing to the cause of conflict, exploited to finance conflict, or both.

Where conflict-linked resources are used to finance hostilities, efforts should also be made to secure the resources, transit points, and markets that could be captured by warring groups (Global Witness 2010).

Relating individual natural resources to the specific peacebuilding priorities of a particular post-conflict situation is the next step of mainstreaming natural resources into peacebuilding.

Both conflict-linked resources and natural resources unrelated to conflict may relate to one or, sometimes, many peacebuilding priorities. Some resources are particularly important because they relate to many facets of the post-conflict society. All of these interests should be considered when developing interventions both to enhance synergetic programming and to avoid unintended consequences, such as where one peacebuilding effort undermines other efforts that rely on the same resource.

Liberian forests are an example of a resource that touches on multiple peacebuilding priorities. They are conflict-linked and relate to security, macroeconomic development, livelihoods, and governance. The regime of Charles

Curbing international trade in conflict-linked natural resources

International trade in high-value natural resources such as timber, diamonds, oil, or opium poppy has fueled many localized conflicts (UNEP 2009). In such situations, development and security professionals may need to address a broad range of actors involved in the lifecycle of the natural resource, both in the conflict-affected country and internationally.

Regulating or reducing the demand for the export of a product can change the dynamics of the conflict. Examples of this approach include the Kimberley Process governing the trade in rough diamonds and Section 1502 of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act requiring companies to disclose the use of conflict minerals originating in the Democratic Republic of the Congo (KPCS 2002).

The Responsible Asia Forestry and Trade program (RAFT), launched by the Nature Conservancy and supported by USAID, engages actors throughout the supply chain to reduce the trade in illegal timber, support conservation objectives, and increase legal timber (Wallace and Conca 2011*). Through RAFT, timber-processing countries such as Vietnam and China, NGOs, and the private sector work together to discourage the purchase of timber from uncertified timber sources where logging finances conflict.

Taylor sold timber concessions to pay for arms and military training (Nichols and Goldman 2011*). The Liberian government also stopped following the prescribed procedures and keeping records of forest concessions, slowly losing its capacity to govern timber concessions, which were one of the country's main economic industries. Community-managed forests are also important to livelihoods and food security. Traditional Liberian religious beliefs are closely tied to forests. And forests house immense biodiversity.

Once the natural resource information has been related to specific peacebuilding priorities, development professionals can design natural resource interventions to focus on individual peacebuilding objectives; to target multiple peacebuilding objectives through holistic interventions; or to use a combination of strategies.

In Liberia, the UN Security Council placed sanctions on Liberian timber and empowered the UN Mission of Liberia

(UNMIL) to address the role of natural resources in the conflict (Nichols and Goldman 2011*; Global Witness 2010). The United States fostered the creation of the Liberia Forest Initiative—including 15 international partner organizations—to build Liberia's capacity to reform and manage legal timber concessions, a task essential to economic recovery and governance in Liberia (Nichols and Goldman 2011*). Projects have also addressed community forestry, livelihoods, and conservation, but progress has been slower on these fronts.

Natural resources may be linked to one, two, or many peacebuilding priorities, depending on the particular natural resource and the particular post-conflict situation.

While conflict-linked resources must be addressed to reduce the likelihood of conflict relapse, other resources can be prioritized based on the combination of natural resources that will most effectively support the identified peacebuilding priorities. Collecting information

on a wider variety of natural resources and relating them to peacebuilding priorities creates a more flexible bank of information that can be developed into multiple peacebuilding strategies. For example, a community land use

management program may improve security by demining land, build capacity for governance by supporting community-based decision making for land use after demining, and rebuild livelihoods by giving plots of arable land to households (Shimoyachi-Yuzawa 2011*). Because the land use management program does not address macroeconomic development, other types of peacebuilding interventions are needed to complement it. Such initiatives might include programs to use inland waterway transport to improve the transportation of goods and services within the country (Ishiwatari 2011*) or programs to develop exportable commodities, such as coffee (Satoh, Suzuki, and Miyazawa 2011*).

The **program and project design** of individual natural resource interventions can also be geared toward addressing multiple needs within beneficiary communities. Program designers may wish to consider a range of alternative program methodologies that meet the primary objective and determine which could also

Program designers may wish to consider a range of alternative program methodologies that meet the primary objective and determine which could also meet other needs within the community.

meet other needs within the community. To conduct such an analysis, program designers must either review the needs assessment for the community or sector, if one exists, or conduct such an assessment.

For example, where food security is a problem and the national strategy calls for an increase in the production of staple foods, a program manager may wish to consider a variety of program

alternatives, such as automated agriculture, traditional agriculture, the nutritional value and exportability of different seed strains, cooperative farming techniques, and family farming techniques. Then, the program designer can narrow down the most appropriate options based on the needs and peacebuilding priorities of the individual community. Where a post-conflict community suffers from a general lack of social cohesion and a high rate of unemployment, agricultural programs may support the development of cooperative agriculture that will be labor intensive to address unemployment while also slowly developing community cohesion.

Effective project design: Demining and land use in Cambodia

The Cambodia Mine Action Center Land Use Plan Unit (CMAC LUPU) is a demining program that was designed and implemented to engage communities on land use, land tenure, livelihoods, governance, basic services, and economic recovery (Shimoyachi-Yuzawa 2011*). Using inclusive processes, the CMAC LUPU brought communities together before demining operations commenced to create land use plans that allocated the newly available land to farming, schools, roads, and other uses. Teams of community members were trained and paid to perform demining as an income generating activity. Because access to land is integral to livelihoods and the economy of Cambodia, it made a strong base for engaging communities on other peacebuilding activities.

The CMAC LUPU intervention is important because it considered how a particular natural resource (demined land) could be linked to multiple peacebuilding objectives. The program plan also considered a variety of post-conflict needs. Other demining initiatives in Cambodia simply use mechanical brush cutters to demine land (an issue of security) without considering the broader context or using demining to advance additional peacebuilding objectives. While faster, mechanical brush cutters have, however, been criticized for damaging soil productivity (Shimoyachi-Yuzawa 2011*).

ADAPTING NATURAL RESOURCE INTERVENTIONS TO POST-CONFLICT SITUATIONS

Post-conflict situations are substantially different from non-conflict contexts, which means that successfully adapting natural resource interventions to post-conflict situations requires an understanding of and sensitivity to conflict and post-conflict dynamics. If not adapted to the post-conflict context, NRM practices developed in non-conflict contexts may be ineffective or even harmful (Hammill et al. 2009). This means being aware of the potential implications of interventions on individual communities and the broader conflict dynamics. To effectively incorporate these considerations, NRM practitioners working in post-conflict contexts must adopt a broader view. In particular, they need to familiarize themselves with the theories and practices of peacebuilding and consult with security and development professionals when developing and implementing natural resource initiatives.

This section reviews key concepts and characteristics of post-conflict situations and suggests how natural resource interventions can be adapted to meet these challenges. After a brief discussion of the **conflict continuum** and **conflict assessments**, this section examines **eight common aspects of post-conflict contexts** that have implications for how natural resource programming is undertaken:

- (1) emphasis on peacebuilding priorities;
- (2) devastated in-country capacity;
- (3) volatility and rapid change;
- (4) unsustainable coping practices;
- (5) lack of trust and community cohesion;
- (6) unresolved grievances and persisting tensions;
- (7) lingering insecurity; and
- (8) uncertain rights and overlapping claims.

The conflict continuum

Programming in the broader conflict context needs to be responsive to the conflict continuum. Conflicts ebb and flow, blurring distinctions between pre-conflict, during conflict, and post-conflict. This means that there may be substantial uncertainty when violence flares up, as it is unclear whether there is a relapse to conflict or simply a bump in the road to peace.

Conflicts do, however, have junctures (such as peace agreements) which present opportunities when “post-conflict” approaches can address these issues especially effectively, such as when Liberia was compelled by UN Security Council sanctions to address the management of conflict timber (Nichols and Goldman 2011*).

Different communities may be at different stages of conflict within the continuum because conflicts are often localized (Brady et al. 2011*; Sugiura 2011*). For example, the MANRECAP program in Sri Lanka was able to operate for quite some time, even after conflict had reignited in other communities in northern and eastern Sri Lanka (Sugiura 2011*).

This means that natural resource programs should be tailored to the individual communities in which they are working because the levels of security and the political dynamics vary significantly even from locality to locality. Program managers must also stay abreast of changes within the community, so they can identify both opportunities for progress and emerging risks or challenges.

HOW THE POST-CONFLICT CONTEXT AFFECTS NRM INTERVENTIONS

	IMPLICATIONS FOR NRM PROFESSIONALS
Conflict continuum: Conflicts ebb and flow, blurring distinctions between pre-conflict, during conflict, and post-conflict	Look for junctures when post-conflict interventions are especially effective, like peace agreements. Conflict is often localized, meaning that different communities may be in different stages of conflict and programming should be localized.
Post-conflict dynamics	Conduct a conflict assessment to understand (<i>quoting</i> USAID 2005a, 29): <ol style="list-style-type: none"> 1. Incentives for violence 2. Access to conflict resources 3. Institutional and social capacity for managing violence 4. Regional dynamics 5. Windows of opportunity and vulnerability
EIGHT CHARACTERISTICS OF POST-CONFLICT CONTEXTS	
<ul style="list-style-type: none"> • <i>Peacebuilding priorities drive donor, country, and community efforts.</i> 	Getting funding, political support, or community support for activities targeted purely toward NRM is difficult. Natural resources can and often should be integrated into peacebuilding objectives.
<ul style="list-style-type: none"> • <i>In-country capacity is often devastated (human, information, natural resources, and infrastructure capacity).</i> 	Programs should devote significant, long-term investments of resources to rebuild the capacity of the government, natural resources, infrastructure, and information. Engage local communities, drawing on their knowledge to fill gaps in information.
<ul style="list-style-type: none"> • <i>Post-conflict situations undergo rapid changes and uncertainty.</i> 	Projects must be flexible and adaptable. Build “pause points” into programs to assess whether plans and projects are still appropriate to the circumstances.
<ul style="list-style-type: none"> • <i>Unsustainable, short-term coping strategies undermine long-term plans.</i> 	Focus on strategies that respond to short-term needs while supporting long-term sustainability.
<ul style="list-style-type: none"> • <i>Trust and community cohesion take time to rebuild after conflict.</i> 	Programs and projects should use community-based development models to rebuild trust and support community reconstruction.
<ul style="list-style-type: none"> • <i>Unresolved grievances, lingering suspicions, and persisting tensions affect how assistance is perceived.</i> 	Programs and projects should be implemented equally across groups to avoid creating a perception of favoritism toward one group. Utilize customary institutions to implement projects and resolve disputes.
<ul style="list-style-type: none"> • <i>Lingering insecurity undermines programming.</i> 	When international staff cannot access the site: <ul style="list-style-type: none"> • Engage local staff who have access to insecure areas, and perform capacity building outside of the post-conflict situation. • Consider partnering with the military to provide assistance in insecure environments (e.g., PRTs). If a project is underway and the security situation deteriorates: <ul style="list-style-type: none"> • Adapt the scope of the project so it can be completed in some form even if international aid workers are evacuated. • Develop and maintain procedures to keep both government agents and contractors abreast of the state of public security to improve their ability to adapt their projects accordingly.
<ul style="list-style-type: none"> • <i>Uncertain rights and overlapping claims create the potential for new conflicts and relapses into conflict.</i> 	Practitioners should be aware of and, where appropriate, work to resolve competing claims for natural resources. Where resolving competing claims is not feasible, practitioners should consider whether interventions will affect property or resource values.

Conflict assessments

Before launching natural resource management projects in post-conflict situations, natural resource practitioners should conduct, or at least review, a conflict assessment of the country where they plan to work to understand how managing the resource fits into the broader circumstances surrounding the post-conflict situation. USAID, the U.S. Department of State, and JICA all highlight the importance of conducting conflict assessments, although they categorize the relevant factors slightly differently. The

consensus on conflict analyses is that they are necessary to understand how any given assistance project will interact with the existing conflict dynamics to ensure that the project will alleviate rather than exacerbate factors contributing to the conflict (Woocher 2011). Conflict assessments can expose the challenges underlying the conflict, which are often intertwined with livelihoods, social inequality, corruption, and governance, all of which have been relevant to U.S. and Japanese peacebuilding efforts.

Three conflict assessment frameworks

USAID divides conflict assessments into five broad areas:

1. Incentives for violence
2. Access to conflict resources
3. Institutional and social capacity for managing violence
4. Regional dynamics
5. Windows of opportunity and vulnerability

Quoted from USAID 2005a, 29.

The **U.S. Department of State** led an interagency working group that divided conflict assessments into four main steps:

Step One: Evaluate the Context of the Conflict

Step Two: Understand Core Grievances and Social/Institutional Resilience

Step Three: Identify Drivers of Conflict and Mitigating Factors

Step Four: Describe Opportunities for Increasing or Decreasing Conflict

Quoted from U.S. Department of State 2008, 6.

JICA uses two primary principles:

- (1) Consideration not to foster conflict factors (avoiding negative impact by the project)
- (2) Assistance to actively remove conflict factors (promoting positive impact by the project)

Quoted from JICA 2011, 12.

This includes an analysis of “present political, administrative, security, economic, and social environment that affect the whole country, as well as the background of the conflict, causes of occurrence and recurrence of the conflict” (JICA 2011, 12).

Eight characteristics of post-conflict situations

Where NRM practitioners have taken into account the unique characteristics of post-conflict situations, the resultant programs have tended to be more effective. This section focuses on eight key characteristics of post-conflict situations and suggests opportunities to improve the conflict sensitivity of natural resource interventions.

Emphasis on peacebuilding priorities

In post-conflict situations, countries, communities, and donors focus on peacebuilding priorities such as security,

basic services, the economy, livelihoods, and governance—environmental conservation and natural resource management are rarely if ever an explicit priority. It is difficult to secure funding, political support, or community support for activities that are purely targeted toward NRM; however natural resources can and often should be integrated into peacebuilding objectives. For example, in Fiscal Year 2010 assistance to Afghanistan, the U.S. spent US\$5 million on environmental programs out of a total assistance budget of US\$4,144.9 million—about 0.1 percent

(Foreignassistance.gov n.d.). Even where funding is available for NRM projects, it can be difficult to mobilize communities to pursue NRM unless the project also implicates peacebuilding objectives. For example, in Timor-Leste, the communities of Ainaro and Manatuto were not interested in the long-term profits from reforestation activities unless there was a short-term livelihood component (Miyazawa 2011*).

Natural resource interventions in post-conflict situations must be framed, designed, and implemented to address both peacebuilding objectives and NRM objectives. Both donors and communities will be more supportive of programs that respond to needs assessments and conflict assessments. This means that a forestry program that rebuilds governance, livelihoods, and cooperation is more likely to be funded than a simple forest conservation program. Moreover, it may be necessary to frame the project based on its relevance to peacebuilding, rather than its conservation values.

Devastated in-country capacity

In post-conflict situations, human, infrastructure, information, and natural resource capacity have often been devastated by the conflict and by unsustainable coping strategies. People flee the conflict; records (including land registry offices) are destroyed; equipment is commandeered, stolen, or destroyed; and buildings, transportation, and communications infrastructure are targeted.

This leaves post-conflict countries with many priorities for rebuilding, but without the capacity to effectively manage large amounts of funding or coordinate the armies of international actors providing technical assistance and building capacity. For example, five years after Timor-Leste had gained independence, the National Directorate of Forestry and Water Resources under the Ministry of Agriculture, Forestry and Fisheries still had only 19 percent of the staff that it had during the

In post-conflict situations, human, infrastructure, information, and natural resource capacity has often been devastated by the conflict and by unsustainable coping strategies.

Indonesian administration (Miyazawa 2011*). Post-conflict countries often lack both information and the human resources capacity needed to collect information (Suzuki and Nakayama 2011*; Fischer and Levy 2011*).

The infrastructure of post-conflict countries is often inadequate to support NRM projects. For example, dilapidated or nonexistent transportation infrastructure in Timor-Leste and Afghanistan makes it difficult to transport agricultural commodities to market, undermining efforts to strengthen livelihoods (Satoh, Suzuki, and Miyazawa 2011*; Sato 2011*). Natural resources may also be casualties of conflict, especially when they are looted to fund armed conflict as in Timor-Leste or Liberia (Miyazawa 2011*; Nichols and Goldman 2011*).

The best NRM projects are aware of the capacity gaps of a particular post-conflict situation, rebuild in-country capacity where possible, and find ways to cope with capacity gaps where capacity cannot be rebuilt in either the short or long-term. Rebuilding human capacity may include training government staff on a range of technical and administrative subjects from the management of port facilities to wetlands restoration, as well as providing equipment and training to maintain the equipment (Ishiwatari 2011*; Suzuki and Nakayama 2011*). Rebuilding infrastructure often includes repairing roads and creating market facilities (Satoh, Suzuki, and Miyazawa 2011*; Sugiura 2011*).

Coping with a lack of in-country capacity is essential where local capacity has not yet been rebuilt. It is particularly important for small-scale interventions that lack the resources to rebuild certain types of capacity, such as capital-intensive infrastructure. An example of a coping mechanism in Timor-Leste was an NGO that bought its beneficiary coffee cooperative a truck to handle the dilapidated roads (Satoh, Suzuki, and Miyazawa 2011*).

Volatility and rapid change

Post-conflict situations are often volatile and subject to rapid change (JICA 2011; USIP and U.S. Army PKSOI 2009). The conclusion of a peace agreement depends on political concessions—often granted grudgingly—to significant governance, social, and economic reforms. Following the peace agreement, though, there are often tensions around implementation of these political concessions. Parties may resist the reforms, or effectively seek to renegotiate the terms of the peace agreement. Factions may feel that their needs were unmet by the peace process.

A significant portion of the population may also be in the process of re-integrating into civilian life after fighting in the conflict for years, or even decades.

Simultaneously, post-conflict countries often face a flood of donor assistance, and, as international actors become engaged in local communities, dynamic relationships rapidly emerge between the international community, the national government, ethnic groups, civil society, local communities, and the private sector. This volatility creates a context in which disputes can quickly escalate to violence.

This volatility can affect the projects in post-conflict situations in a myriad of ways (UNDG and World Bank 2007; USIP and U.S. Army PKSOI 2009). The population demographics of local communities may also shift dramatically when internally displaced persons (IDPs) return or as people move to urban areas for jobs or security. National priorities and counterparts may change as the balance of power shifts among competing groups. A program's understanding of community priorities may change as new information is collected or as the needs of formerly marginalized populations are assessed.

In order to cope with this constant change, it is important to manage change adaptively. [Developing adaptable programs is discussed further below.]

Unsustainable coping strategies

People often respond to the volatility and hardship of conflict and post-conflict situations by adopting short-term coping strategies at the expense of long-term approaches necessary for sustainable livelihoods (USAID 2005b, 2005c). For example, communities during and immediately after conflict often engage in mass deforestation for fuelwood, even though such deforestation

undermines the capacity of the forest to provide food or livelihoods and can lead to long-term environmental vulnerability to flooding and other threats (Miyazawa 2011*; Fischer and Levy 2011*).

NRM programs often focus

on long-term strategies that advance sustainable development. In order to succeed, though, these programs must also address and redirect these negative coping strategies. For example, the International Development Center of Japan introduced energy-efficient cookstoves to reduce the demand for fuelwood near Dili, the capital of Timor-Leste (Miyazawa 2011*), although cookstoves have had a mixed record globally.

Lack of trust and community cohesion

Populations traumatized by conflict do not trust each other, the government, or development agencies. Community-based development programs can help rebuild trust (USAID 2007; USIP and U.S. Army PKSOI 2009; JICA 2011). Several NRM and infrastructure development programs have recognized this challenge and successfully integrated community-based development models into their interventions (Brady et al. 2011*; Sugiura 2011*). Conversely, NRM programs that do not address the lack

In order to cope with this constant change, it is important to manage change adaptively, "*through constant learning and calibration of strategies to particular country circumstances that are always in flux.*"

USIP and U.S. Army PKSOI 2009, 5-32.

of trust may experience significant difficulties obtaining community support for their programs, as was experienced with the initial phase a reforestation program in Timor-Leste (Miyazawa 2011*).

Unresolved grievances and persisting tensions

Although there may be a peace agreement, tensions and distrust often remain among the formerly warring groups (JICA 2011). Programs and projects should be implemented across groups as equally as possible to avoid creating a perception of favoritism toward

one group (USAID 2007). In Nepal, community forest user groups include former members of warring factions and have successfully mediated interpersonal disputes related to the conflict to help IDPs return to the community (Sanio and Chapagain 2012).

Lingering insecurity

Insecurity often remains after the conclusion of peace agreements or a military victory (USIP and U.S. Army

PKSOI 2009; Davitt 2003). This insecurity may curtail or even prevent development practitioners from accessing certain areas, such as when the U.N. pulled out of Iraq for the safety of its international personnel (Suzuki and Nakayama 2011*). However, it is often the most insecure areas that need development assistance to support

Insecurity may curtail or even prevent development practitioners from accessing certain areas; however, it is often these insecure areas that most need development assistance.

livelihoods, to provide peace dividends, and to lay the foundation for a long-term peace. Moreover, if a project assists a secure region but not an insecure one, this can reinforce local suspicions that international assistance supports one group over another.

Some NRM interventions have engaged local staff who can operate more effectively and safely in insecure areas. The local staff attend trainings and capacity building events in more secure places, gain the skills needed, and administer projects in insecure areas when they return. Because the UN withdrew staff from Iraq, the UNEP-IETC Iraqi Marshland Restoration Project used an Iraqi coordinator and personnel to administer its program while monitoring the restoration of the marshlands remotely using satellite technology (Suzuki and Nakayama 2011*).

Conflict-sensitive community forest management in Mindanao, Philippines

The EcoGov project sought to improve environmental governance, addressing forests, coastal areas, and other resources (Brady et al. 2011*). Because EcoGov was designed with the post-conflict context in mind, it has been able to successfully engage potential peace spoilers to develop resource use plans. For example, in one community, EcoGov offered a three-day workshop to which all community members were welcome, including members of rebel groups, one of whom brought a perimeter defense map to assist in the planning process. By ensuring that the planning process was inclusive, the project helped build trust among the formerly warring factions. The land use plan was even used to mediate local armed hostilities over competing claims over pasturelands.

The project assisted local government units to build participatory decision-making capacity so that they could then develop and administer plans on their own (Brady et al. 2011*). This included long-term technical assistance and capacity building on governance, monitoring, and evaluation.

EcoGov also worked with local communities to find alternative livelihoods for excombatants, such as guarding local marine protected areas and raising mudcrabs and shellfish (Brady et al. 2011*).

Another approach to working in insecure areas is for development workers to partner with the military to provide services while maintaining a secure environment.

The United States pioneered this approach through the deployment of provincial reconstruction teams (PRTs) in Iraq and Afghanistan, and other countries have since deployed PRTs in these countries (Civic 2012). PRTs include a variety

of diplomats, development professionals, and government and private sector experts in fields like urban planning or agribusiness (White House 2007). In Afghanistan, PRTs included international team members as well (Civic 2012). PRT team members simultaneously work toward multiple development objectives, such as installing water purification systems or teaching farmers' cooperatives business skills (Civic 2012). The interventions were, however, only three months long and limited in scope, avoiding activities such as extending microloans for fear of upsetting the balance of power among beneficiary communities (Civic 2012).

If the security situation starts to deteriorate when a project is underway, project managers need to be prepared to adapt, downsize, or even halt a project (Sugiura 2011*). Finally, it is important to have procedures to keep both government agents and contractors abreast of the state of public security to improve their ability to adapt their projects as the security situation changes.

Uncertain Rights and Overlapping Claims

Many developing countries have weak, overlapping, or conflicting statutory and customary systems of rights to property and other natural resources; however, the challenge of resolving competing claims to land and resources becomes increasingly urgent and complex in post-conflict situations. Competing claims for land and other natural resources can be a cause of conflict, and

even where land was not a cause of conflict land can be a source of tension in post-conflict situations (USAID 2005c; JICA 2011). IDPs often return to their properties

only to find that, during their absence, their lands were occupied by others (USIP and U.S. Army PKSOI 2009).

Systems of property ownership or resource rights may also break

down due to changes in leadership or because parties in the conflict targeted property records, as in Timor-Leste and Bosnia-Herzegovina (USAID 2005c).

Where possible, interventions should work to resolve competing claims to property and resources and develop systems of compensation that use inclusive and transparent processes (USIP and U.S. Army PKSOI 2009). Both the EcoGov project in the Philippines and the CMAC LUPU demining project in Cambodia specifically focused on developing the capacity of local governments to resolve competing claims for land and other natural resources in transparent and inclusive ways, thereby reducing local tensions (Brady et al. 2011*; Shimoyachi-Yuzawa 2011*).

Interventions that do not directly address rights to natural resources or land must still be sensitive to the potential impacts that their interventions may have on property ownership. For example, the construction of roads in Afghanistan increased the value of nearby land, inadvertently causing massive land grabs of over 80 percent of agricultural land in six provinces along the new Ring Road (Unruh and Shalaby 2011*). This means that professionals designing interventions in post-conflict situations must consider factors such as whether interventions will affect property or resource values, whether resources rights are firmly established, and whether local institutions are strong enough to resolve competing claims to resources and enforce their determinations.

Property resolution processes raise complex questions that bring with them risks of increased instability.

USIP and U.S. Army PKSOI 2009, 10-194.

NATURAL RESOURCES AND DEVELOPMENT CHALLENGES

This section analyzes how specific natural resource interventions in post-conflict situations have addressed six major challenges that relate more broadly to the nature of development:

- supporting **long-term commitments** for post-conflict natural resource initiatives;
- **coordinating** multiple actors working in the same post-conflict situation;
- **engaging the public** and the government of the conflict-affected countries;
- strengthening **monitoring and evaluation** for a more comprehensive understanding of project effectiveness;
- **adapting** projects based on changing circumstances, evaluations, and new information; and
- improving **institutional memory** by collecting and exchanging information from interventions.

Supporting long-term commitments

Post-conflict peacebuilding is a multi-year process, and long-term commitments are essential. In the first ten years following the end of violent conflict, the political, economic, and social discourses focus substantially on the legacy of the conflict (Bruch et al. 2012). As a practical matter, it is necessary to design programs to meet immediate needs and objectives; however, the objectives must also link to long-term development goals (USIP and U.S. Army PKSOI 2009; JICA 2011). Short-term projects often have limited impact and their impacts are harder to measure (Davitt 2003; Hammill et al. 2009). In Timor-Leste, Liberia, and elsewhere, capacity building and legal reforms have taken longer to execute than expected, even for relatively successful projects (Nichols and Goldman 2011*; Satoh, Suzuki and Miyazawa 2011*; UNDG and World Bank 2007).

Securing long-term assistance budgets is often difficult because donors are uncertain as to how long the peace process will persist (and the likelihood of relapse) and the nature of donor country appropriations processes. Before the 1990s, USAID programs often lasted for ten years, with a five-year review to see if changes were needed (Natsios 2010). Now, programs for countries in transition usually last from one to three years. For other countries, USAID calls for five-year assistance plans (USAID 2010).

Long-term strategic plans can often address this challenge by using short-term milestones to justify funding for subsequent steps. Another strategy is to plan to gradually reduce external assistance and transition from financial to technical assistance in conjunction with a slow transition to management by local groups (Fischer and Levy 2011*).

Coordination and collaboration

Post-conflict situations have many needs and even more actors, all trying to help. Coordination and collaboration are needed to reduce overlap, improve efficiency, and enhance the effectiveness of interventions (JICA 2006; USIP and U.S. Army PKSOI 2009). Coordination is the process of organizing international actors to ensure that priority issues are addressed and to reduce overlap. Through collaboration groups work together to implement programs.

Over the last decade, coordination has been increasing through activities such as donor conferences. Donor

conferences allow donor agencies, NGOs, and national actors to develop a shared strategy for peacebuilding and to allocate interventions among the various actors. Donor conferences are often held at the beginning of a post-conflict process and periodically thereafter. Donor conferences help to ensure that international assistance addresses a range of needs without emphasizing any particular geographic area to the detriment of others. Interventions are assigned to different actors by geographic area and sector, such as DDR or governance (Fischer and Levy 2011*; Sato 2011*; Catarious and Russell 2011*).

CARPE: Long-term strategy, short-term milestones

The Central African Regional Program for the Environment (CARPE) has effectively managed for the long-term despite the brevity of funding cycles. CARPE is a USAID initiative to support management of the Congo Basin's forest ecosystem, which included four post-conflict countries: Central African Republic, Democratic Republic of the Congo, Rwanda, and Burundi (CARPE 2010a, 2010b). Launched in 1995, CARPE has just developed a new eight-year strategic plan for work through 2020 (Resch 2011). Its planning process began with efforts to envision an ideal end-state for the Congo Basin's forests—that of African governments sustainably managing resources in a way that equitably shares the benefits and costs of that management. The program designers then asked how long it would take to achieve the end-state and what milestones could be identified. In designing individual steps, program staff developed discrete objectives to be met at the end of each funding cycle but which would also indicate next steps in a strategic process. For example, by the end of one cycle, the program had developed studies analyzing the causes of deforestation and loss of biodiversity in the basin, which then identified the focus of pilot projects. The evaluations of pilot projects then determined which experiences were replicable and scalable. Finally, the program also partnered with other U.S. government agencies (e.g., the U.S. Forest Service, Department of State, and U.S. Fish and Wildlife Service), NGOs (e.g., the World Wildlife Fund, Wildlife Conservation Society, African Wildlife Foundation, and Conservation International), and universities (e.g., the University of Maryland) to broaden its impact and diversify its funding base (CARPE 2010b).

When, however, donor conferences geographically group interventions by administrative boundaries, they miss the cumulative impacts of interventions on ecosystems, such as watersheds or forests. For example, flood prevention efforts in Haiti focus on the downstream administrative districts impacted by severe flooding, but do not promote efforts upstream where watershed restoration could most effectively control flooding (Fischer and Levy 2011*).

Organizations operating on the ground may also use coordinating meetings to develop a broad vision for implementation strategies. For example, the Managing Conflict in Asian Forest Communities project convened a meeting in which USAID and the World Wildlife Fund brought together environmental, conflict-resolution, and humanitarian-relief NGOs to discuss the impacts of forest conflicts; to develop strategies for intervention by government, NGOs, donors, and industry; and to work to

engage more participants (Wallace and Conca 2011*). Other innovative examples of coordination engaged new stakeholders, such as private enterprise in timber management or militaries in environmental disaster management (Wallace and Conca 2011*; Dabelko and Rogers 2011*).

Collaboration throughout project implementation can reduce the duplication of efforts when multiple actors work on related projects or in the same sector (Nichols and Goldman 2011*; Wallace and Conca 2011*; Sugiura 2011*; Nakayama 2011*). For example, the LFI in Liberia included representatives from fifteen international partners such as U.S. government agencies, the World Bank, and NGOs that worked with Liberian institutions to provide funding and technical support throughout the assessment, redesign, and implementation of the forest concession framework in Liberia (Nichols and Goldman 2011*).

Public engagement

The most successful and sustainable programs engage local communities and the public every step of the way (JICA 2006; Davitt 2003). Community engagement is particularly important for natural resource interventions

because many communities in post-conflict contexts depend substantially on farming, forests, fisheries for livelihoods and food security. Accordingly, interventions should engage all sides of a conflict, local and national governments,

business interests, local NGOs, and media (USIP and U.S. Army PKSOL 2009).

implement Liberia's new forestry law (Nichols and Goldman 2011*).

While there is broad agreement regarding the importance of public engagement, peacebuilding interventions by the United States, Japan, and others do not always engage the right people at the right times and in the right ways. This uneven engagement has led to uneven results.

Consult broadly and create coordination mechanisms with the host nation population to build trust, prevent dependency, and ensure ownership, paying particular attention to women and minorities who may have special needs.

USIP and U.S. Army PKSOL 2009, 9-133.

Community engagement is also essential to project development (including the environmental impact assessment (EIA) process), implementation, and post-project evaluations. In Maasim, Philippines, the EcoGov project convened a three-day workshop for the initial project planning that engaged stakeholders, including members

Public engagement can be initiated at the earliest stages of conflict analyses and during the development of national-level programs. In Liberia, the Liberian government worked with various partners, including the LFI, to perform its final forest concession review due to pressure from civil society groups that rejected earlier assessments (Nichols and Goldman 2011*). The LFI also worked with the government of Liberia develop a notice and comment process to review the draft regulations to

of the local government and the rebel group (Brady et al. 2011*). Similarly, in Labangan, Philippines, technical working groups made up of local stakeholders designed, raised public awareness of and enforced marine protected areas as part of the EcoGov project. In a number of activities, EcoGov also used participatory monitoring and evaluation. Locally directed land use planning and implementation has also been effective when coupled with demining efforts in Cambodia (Shimoyachi-Yuzawa 2011*).

MANRECAP in Sri Lanka

The JICA-sponsored MANRECAP project in Sri Lanka effectively combined local coordination and donor engagement (Sugiura 2011*). MANRECAP sought to rebuild local infrastructure in the village of Santhipuram. However, the project budget was insufficient to address all of the infrastructure gaps identified in the community needs assessment. To fill the unmet needs, MANRECAP staff (particularly a Japanese consulting firm implementing the project) worked with leaders of community groups to obtain financial, political, and technical support for the remainder of the project by engaging and coordinating local government entities and several international donors.

The project was designed to empower community members by engaging them in negotiations with government officials and international donors. This new confidence was especially notable because the community was largely composed of Tamil IDPs who had not previously engaged in cooperative action with groups in the community, with the government of Sri Lanka, or with the international community.

When deteriorating public security in Sri Lanka made it difficult and costly to obtain construction materials for a water supply project, MANRECAP staff adapted to the changes by redesigning it to reduce the scope of the construction but still complete the project. JICA personnel also demonstrated flexibility by administratively approving the redistribution of funding for the project from other areas.

Monitoring and evaluation

USAID and JICA both recognize the importance of evaluations to organizational learning (USAID 2011; JICA 2006, 2010). This includes learning through periodic evaluations during project implementation, organizational learning for broader program planning, and the adaptation of similar projects in new situations (USAID 2011; JICA 2006, 2010). Nevertheless, even successful interventions have experienced difficulties in effectively measuring and documenting the outcomes of their projects (e.g., Brady et al. 2011*; Suzuki and Nakayama 2011*).

When designing monitoring and evaluation (M&E) plans for development projects, the indicators and procedures selected tend to be sector specific. NRM projects have their own sets of indicators and M&E procedures, as do projects that focus on building security, providing basic services, or rebuilding the national economy.

Even projects that serve multiple peacebuilding objectives tend to be developed within a specific strategic category: economic growth, democracy and governance, NRM, and so forth. The specific category then dictates how the project is framed, implemented, monitored, and evaluated. For example, the EcoGov project in the Philippines, was an NRM project that collected extensive data on the project's impacts on natural resource indicators; however, it did not include conflict mitigation indicators (Brady et al. 2011*).

The impacts of the post-conflict situation on project performance are difficult to accurately predict during design of programs and projects, and post-conflict benchmarks are often based on ordinary development assistance criteria. As a result, peacebuilding projects have trouble meeting benchmarks that do not account for the post-conflict context (JICA 2011). JICA's peacebuilding guidelines suggest adapting the scope and benchmarks for activities in post-conflict situations and to develop new evaluation factors that consider "the

political process, conflict/instability factors, and from the viewpoint of peacebuilding, . . . elements such as the time of initiating the assistance, content of cooperation, selection of the target area and population, relevance of the implementation structure, and the impact" (JICA 2011, 37; see also OECD-DAC 2008a, 2008b).

In the United States, the USIP engaged multiple government agencies and departments to develop the Measuring Progress in Conflict Environments (MPICE) Metrics Framework, which provides indicators, measures, and suggested methodologies for peacebuilding evaluation (Agoglia, Dziedzic, and Sotirin 2010; see also MSI 2006).

The U.S., Japanese, and OECD resources provide a general foundation for M&E in post-conflict programming, but lack fleshed out discussions of the role of natural resources. MPICE briefly mentions natural resources in the context of looting and the need for governance (Agoglia, Dziedzic, and Sotirin 2010). JICA's Handbook for transition assistance discusses M&E in post-conflict situations and discusses natural resources; however, it does not include NRM indicators (JICA 2006).

Improving M&E measures and procedures for projects with both natural resource and peacebuilding dimensions is important to enhance the long-term effectiveness of peacebuilding interventions. It is necessary to develop guidance for M&E for projects at the nexus of NRM and peacebuilding. Such guidance would address the development and use of appropriate indicators, as well as use of other M&E procedures.

Historically, projects have relied on quantitative data for monitoring; however, it is difficult to capture the full effects of NRM projects by counting the number of people trained, hectares planted, or wells drilled (Fischer and Levy 2011*). Both Japanese and U.S. projects have had trouble identifying, monitoring, and evaluating project

impacts on community and individual quality of life (Suzuki and Nakayama 2011*; Catarious and Russell 2011*). The Iraqi Marshlands Project aimed to improve the quality of life of people that depended on the marsh for their livelihoods and drinking water; however, the project lacked qualitative data to determine whether marshland restoration had the desired impacts on peoples' lives (Suzuki and Nakayama 2011*). Accordingly, there has been movement toward collecting both quantitative and qualitative M&E data.

USAID's 2011 Evaluation Policy commits at least 3 percent of USAID's program office budget to external evaluation (USAID 2011). The policy states that "[f]indings should be specific, concise and supported by quantitative and qualitative information that is reliable, valid and generalizable" (USAID 2011, 11). It also recommends designs that include observational, quasi-experimental, and experimental data (USAID 2011).

Findings should be specific, concise and supported by quantitative and qualitative information that is reliable, valid and generalizable.

USAID 2011, 11.

JICA created an advisory committee on evaluation in October 2008 to improve its evaluation processes (JICA n.d.). The committee found that cost-examination evaluations of projects should consider "cost comparisons, . . . specifications, lifespan, and transfer technology, . . . qualitative effects[,] . . . the cause-effect relationship and . . . quantitative explanations of the impact . . ." (JICA 2010, 18). JICA has been building staff capacity for M&E through guidance manuals and workshops (JICA 2010).

Technology also plays a role in the development of new techniques for monitoring and evaluation. The United States, Japan, and others have made many advances in the use of satellite technology to monitor natural resources. These advances have been instrumental in monitoring the restoration of the Iraqi marshlands, as well as tracking trends in cultivating and eradicating

opium poppies in Afghanistan (Suzuki and Nakayama 2011*; Catarious and Russell 2011*). These remote monitoring techniques are sometimes coupled with on-the-ground monitoring by community members or project staff to ground-truth the remote sensing (Suzuki and Nakayama 2011*).

For projects designed to be eventually turned over to the community and managed locally, it is often necessary to build the capacity of the target communities to perform M&E (Fischer and Levy 2011*). Local community members must have the necessary basic equipment and training to collect quantitative and qualitative data on project performance (Suzuki and Nakayama 2011*). The EcoGov project in the Philippines was particularly effective at including community members in project monitoring

and evaluation; as a result, communities developed a stronger sense of the program's accomplishments (Brady et al. 2011*).

Another challenge for M&E is determining the impacts of a single donor's intervention where multiple donors were involved in the same project. For example, the evaluation process for the MANRECAP initiative in Sri Lanka was limited in scope to activities that JICA financed directly (Sugiura 2011*). This meant that the evaluation did not consider project components where other donors funded the bulk of the construction or implementation even though these project components would not have been possible without significant technical support and coordination performed by MANRECAP staff.

Finally, it may be advisable to take a broad view of M&E, and to communicate the results of the achievements to the donor nation's public. This can build the public awareness needed to maintain long-term taxpayer support for programs. For example, UNEP-IETC rarely communicated with the Japanese press about the Iraqi Marshlands Project, even though Japan funded the project largely due to an

outpouring of public concern for the marshlands (Suzuki and Nakayama 2011*). In contrast, as part of the Obama administration's commitment to transparency, the 2011

USAID Evaluation Policy commits to sharing findings from evaluations "as widely as possible, with a commitment to full and active disclosure" (USAID 2011, 7).

Adaptability

Program adaptability is important for all international development projects; however, it is particularly important for projects in post-conflict situations due to the lack of information that donors have before launching projects—particularly related to natural resources—and due to the volatility of post-conflict situations.

Assistance projects are often launched quickly after the end of hostilities because donor countries wish to help former combatants feel the benefits of peace—the

"peace dividend"—as quickly as possible to reduce the likelihood of a relapse into conflict (USIP and U.S. Army PKSOI 2009; JICA 2011). Because programs must be implemented quickly, projects are often launched with only a basic understanding of the social or economic situation or the state of natural resources. Baseline data is usually lacking or limited (Davitt 2003; Fischer and Levy 2011*).

Accordingly, the assumptions underlying a project may be incorrect or become outdated. For example, in a rice production project in Timor-Leste, JICA staff believed that the Timorese population was reduced in the conflict, leaving farms short-handed (Sato, Suzuki, and Miyazawa 2011*). Later, the population was actually found to be increasing and have a high rate of unemployment, which was problematic because the project was mechanized to reduce the number of workers needed to produce rice.

Similarly, the United States did not initially understand that Afghan farmers grow opium poppies primarily due to their need for sustainable livelihoods (Catarious and Russell 2011*). Since refining its understanding of the

underlying dynamic, the United States has adapted its counter-narcotics initiatives from eradication to focus on providing Afghan farmers with alternative livelihoods.

In response to the uncertain information and the dynamic post-conflict context, NRM projects in post-

conflict settings need to be designed to be flexible in their approach, timing, and sequencing (USIP and U.S. Army PKSOI 2009). USAID's Office of Transition Initiatives recognizes the

importance of adaptability by performing quarterly reviews of programs in complex, high-threat environments (USAID 2010). Regular monitoring and periodic evaluations of projects help make sure that the projects are still responsive to current circumstances.

Sometimes adapting a project to changing circumstances requires additional funding. For example, deteriorating public security may drive up the costs of construction materials. This can result in projects that remain incomplete. One way to plan for and respond to this need is to create a special trust fund (or other mechanism) to help programs adapt to changes in post-conflict situations. Such a fund could be designed as a scaled-down version of the Complex Crises Fund, which gives USAID the authority to disburse funds quickly to respond to "emerging opportunities" and "unforeseen complex crises" (Serafino 2011, 4).

Interventions may also be designed to adapt their practices based on feedback obtained through local engagement. After JICA rehabilitated the port facilities in Juba City, in then-Southern Sudan, the new government agencies had trouble managing the new system, resulting in

Evaluations inform program staff of progress, creating natural opportunities to revise the program's approach, timing, or sequencing.

low levels of traffic at the port. In response, JICA added a capacity building component to its intervention to train local government officials on administering the port (Ishiwatari 2011*). Likewise, in Timor-Leste, Peace Winds Japan adapted the coffee-harvesting practices and the structure of the cooperative to respond to the community wishes (Sato, Suzuki, and Miyazawa 2011*).

The adaptability of these projects reflects JICA's philosophy that changing a project during the course of its implementation is not failure, but simply reflects the need to adapt to new circumstances. JICA is currently amending its evaluation process for projects in post-conflict situations to examine how well projects adapt to changing circumstances (JICA 2011).

Institutional learning and memory

Both JICA and USAID highlight the need to mainstream information from project evaluations into future programs (USAID 2011; JICA 2006, 2010). In a 2010 review of JICA's evaluation processes, 73 percent of the JICA employees surveyed stated that evaluations were important to organizational learning (JICA 2010).

Developing public clearinghouses for the collection and exchange of a broad array of information on development initiatives is essential to advancing institutional learning and strengthening institutional memory; however, this information needs to extend beyond evaluations and include a wider range of project documentation. USAID's online

Development Experience Clearinghouse contains a large number of documents related to USAID projects; the information is searchable by country and sector, with the option for an advanced search by keyword (USAID n.d.a). In practice, however, the amount of documentation available to outside researchers varies dramatically from project to project. Project researchers who evaluated JICA case studies found that, although the some of the information was available online, much of the documentation for JICA projects was available only from the field offices, and not at JICA's offices in Tokyo (JICA 2001). In the United States, many documents are maintained online; however, the amount of documentation varies from project to project.

A current challenge is to expand the available online documentation to include more projects, more documents, more consistently. The additional information could include studies performed and data collected for the project, interviews, handbooks, forms, templates, and more. If easily accessible and searchable, such documentation could be used for institutional

learning, project development, and external analysis of performance.

Information-sharing mechanisms, like web portals and wiki pages, could also improve knowledge exchange and coordination between government agencies launching NRM interventions in post-conflict situations.

Every step of USAID's programming model—from design to implementation to evaluation—will be undertaken from the perspective not only of achieving development objectives, but of contributing to the broader goal of learning from experience.

USAID 2011, 10.

Information sharing can extend beyond those experts and agencies working in international development to include technical experts in domestic line agencies. For example, if information on Japan's domestic experience on capacity building and the use of inland water transport in emergencies were readily available, JICA personnel could more easily incorporate it into JICA's international responses to emergencies (Ishiwatari 2011*). In the United States, the State Department sometimes assigns expert personnel in domestic government agencies such as the Department of Agriculture to work on individual interventions through the Civilian Response Corps (Civilian Response Corps n.d.a, n.d.b; U.S. Department of State n.d.a).

WAY FORWARD

There is a growing recognition of the importance of natural resources to the various aspects of post-conflict peacebuilding, including security, basic services, economy and livelihoods, and governance and political processes. The United States, Japan, and other donors increasingly recognize the role of natural resources, as has the UN Secretary-General (UNSG 2009, 2010), World Bank (2011), the United Nations Environment Programme (UNEP 2009), and the United Nations (UN 2011). Indeed in the past few years, the question has turned from *whether* natural resources are important to post-conflict peacebuilding to *how* best to manage natural resources for peacebuilding.

This guide offers some lessons on post-conflict peacebuilding and natural resource management that speak to security and development professionals crafting strategies for peacebuilding, as well as natural resource professionals developing and implementing NRM

projects in post-conflict situations. The guide also suggests strategies for how projects in post-conflict situations can address some of the common challenges shared by development projects around the world.

A first step in integrating natural resources into post-conflict peacebuilding is to understand that NRM is relevant, and often critical, to peacebuilding. Natural resources are important inputs—and constraints—on a range of peacebuilding activities, such as reintegrating excombatants, providing basic services, redeveloping transportation infrastructure, and rebuilding governance. As a practical matter, this means that it is essential to collect information related to natural resources and to use that information both when developing the broader post-conflict peacebuilding strategy and when designing individual NRM programs or projects.

Some of the most successful NRM experiences in this guide were designed from the outset with peacebuilding

In the past few years, the question has turned from whether natural resources are important to post-conflict peacebuilding to how best to manage natural resources to support peacebuilding.

in mind. Practitioners familiar with conflict dynamics can design and implement conflict-sensitive projects that incorporate peacebuilding priorities. By supporting peacebuilding priorities, natural resource interventions can engage communities, governments, and donors who might not otherwise be interested in natural resource issues.

The final section suggests strategies for how post-conflict interventions can address common challenges of development. It emphasizes touchstones of international development, such as long-term commitments,

coordination, public engagement, monitoring and evaluation, adaptability, and institutional memory. It suggests how these common challenges apply to post-conflict NRM interventions, as well as how NRM experiences may offer strategies for coping with these

more broadly applicable challenges.

To build upon these experiences and lessons, the next step is to mainstream these lessons into the development and implementation of future peacebuilding efforts by USAID, JICA, and their partners. Specific opportunities include building the capacity of staff, updating and developing new guidance, improving procedural mechanisms to help staff keep abreast of new developments in practice, and exchange information.

As President Obama noted, a lasting peace “must encompass economic security and opportunity.” Moreover, as JICA President Ogata observed, development agencies are uniquely positioned to be able to lead the way in supporting the transition to peace. By building on experiences to date, USAID and JICA can more effectively mainstream natural resources into post-conflict peacebuilding, and thereby lay the foundation for a more durable peace.

REFERENCES

NOTE: References denoted by * are chapters in *Harnessing Natural Resources for Peacebuilding: Lessons from U.S. and Japanese Assistance*.

- Agoglia, J., M. Dzedzic, and B. Sotirin, eds. 2010. *Measuring progress in conflict environments (MPICE): A metrics framework*. Washington, D.C.: United States Institute of Peace. www.usip.org/files/resources/MPICE_final_complete%20book%20%282%29.pdf.
- *Brady, C., O. Agoncillo, M. Z. Butardo-Toribio, B. Dolom, and C. V. Olvida. 2011. Improving natural resource governance and building peace and stability in Mindanao, Philippines. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- Bruch, C., D. Jensen, M. Nakayama, and J. Unruh. 2012. *Post-conflict peacebuilding and natural resources: The promise and the peril*. New York: Cambridge University Press.
- *Bruch, C., R. Wolfarth, and V. Michalcik. 2011. Natural resources, post-conflict reconstruction, and regional integration: Lessons from the Marshall Plan and other reconstruction efforts. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- Carius, A., and A. Maas. 2012. Thinking back-end: Improving post-conflict analysis through consulting, adapting to change, and scenario building. In *Assessing and restoring natural resources in post-conflict peacebuilding*, ed. D. Jensen and S. Lonergan. London: Earthscan.
- *Catarius, D. M. Jr., and A. Russell. 2011. Counternarcotics efforts and Afghan poppy farmers: Finding the right approach. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- CARPE (Central African Regional Program for the Environment). 2010a. History. <http://carpe.umd.edu/Plone/how-carpe-works/history-1>.
- . 2010b. Countries. <http://carpe.umd.edu/Plone/where-carpe-works/countries-1>.
- Civic, M. A. 2012. Civil-military coordination and cooperation in peacebuilding and natural resource management: An enabling framework, challenges, and incremental progress. In *Governance, natural resources, and post-conflict peacebuilding*, ed. C. Bruch, C. Muffett, and S. S. Nichols. London: Earthscan.
- Civilian Response Corps. n.d.a. Participating agencies. <http://www.civilianresponsecorps.gov/who/index.htm>.
- . n.d.b. Who we are. <http://www.civilianresponsecorps.gov/who/index.htm>.
- *Dabelko, G. D., and W. Rogers. 2011. Military-to-military cooperation on the environment and natural disasters: Engagement for peacebuilding. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- Davitt, C. 2003. Operating in conflict: Current practices in the development community. Washington, D.C.: U.S. Agency for International Development. http://pdf.usaid.gov/pdf_docs/PNACX191.pdf.
- *Fischer, A., and M. A. Levy. 2011. Designing environmental restoration programs in politically fragile states: Lessons from Haiti. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- Foreignassistance.gov. n.d. Afghanistan: Core budget. <http://foreignassistance.gov/OU.aspx?FY=2012&OUID=166>.
- Global Witness. 2010. *Lessons UNlearned*. London. www.globalwitness.org/sites/default/files/pdfs/lessonsunlearned_online_low.pdf.
- Hammill, A., A. Crawford, R. Craig, R. Malpas, and R. Matthew. 2009. *Conflict-sensitive conservation: Practitioners' manual*. Winnipeg, Canada: IISD. www.iisd.org/pdf/2009/csc_manual.pdf.
- *Ishiwatari, M. 2011. Redevelopment of inland water transport for post-conflict reconstruction in Southern Sudan. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- Islamic Republic of Afghanistan Ministry of Finance. 2011. *1390 National budget statement draft*. www.ilo.org/dyn/travail/docs/552/Islamic%20Republic%20of%20Afghanistan%20-%201390%20National%20Budget%20Statement%20Draft.pdf.
- JBIC (Japan Bank for International Cooperation) Institute. 2003. *Conflict and development: Roles of JBIC—Development assistance strategy for peace building and reconstruction in Sri Lanka*. JBIC Research Paper No. 24. www.jbic.go.jp/ja/investment/research/report/research-paper/pdf/rp24_e.pdf.
- JICA (Japan International Cooperation Agency). 2001. Catalog search. <http://lvzopac.jica.go.jp/external/library?func=function.opacsch.keysch&view=view.login.index&lang=eng>.
- . 2006. *Handbook for transition assistance*. Tokyo. [http://gwwweb.jica.go.jp/km/FSsubjecto501.nsf/VIEWALL/811e24ba027fdb304925714f001c174e/\\$FILE/Handbook_for_Transition_Assistance_3_Mar_06%5B1%5D.pdf](http://gwwweb.jica.go.jp/km/FSsubjecto501.nsf/VIEWALL/811e24ba027fdb304925714f001c174e/$FILE/Handbook_for_Transition_Assistance_3_Mar_06%5B1%5D.pdf).
- . 2009. New JICA. www.jica.go.jp/english/publications/jica_archive/brochures/pdf/newjica2009.pdf.
- . 2010. *2009 Annual evaluation report*. Tokyo. www.jica.go.jp/english/operations/evaluation/reports/2009/index.html.
- . 2011. *Thematic guidelines on peacebuilding*. Tokyo. www.jica.go.jp/english/operations/thematic_issues/peace/pdf/guideline.pdf.
- . n.d. Advisory Committee on Evaluation [sic]. www.jica.go.jp/english/operations/evaluation/advisory/index.html.
- JICA-RI (Japan International Cooperation Agency Research Institute). n.d.a. JICA-RI research areas: Peace and development. <http://jica-ri.jica.go.jp/research/peace-develop/index.html>.
- . n.d.b. JICA-RI research areas: Environment and development / climate change. <http://jica-ri.jica.go.jp/research/environment-develop/index.html>.
- . n.d.c. JICA-RI research areas: Growth and poverty reduction. <http://jica-ri.jica.go.jp/research/growth-poverty/index.html>.
- KPCS (Kimberley Process Certification Scheme). 2002. Kimberley process certification scheme. www.kimberleyprocess.com/home/index_en.html.
- Lund, M. 2010. *Engaging fragile states: An international policy primer—Lessons from recent research and practice*. Washington, D.C.: Woodrow Wilson International Center for Scholars. www.wilsoncenter.org/topics/pubs/Colloquium%20Report-Engaging%20Fragile%20States.pdf.
- Mason, S. J. A., D. A. Sguaitamatti, and P. R. Gröbli. 2012. Stepping stones to peace? Natural resource provisions in peace agreements. In *Governance, natural resources, and post-conflict peacebuilding*, ed. C. Bruch, C. Muffett, and S. S. Nichols. London: Earthscan.
- *Miyazawa, N. 2011. Post-conflict assistance to Timor-Leste for reforestation and community recovery. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- MSI (Management Systems International). 2006. *Monitoring and evaluation in postconflict settings*. Washington, D.C.: U.S. Agency for International Development. http://pdf.usaid.gov/pdf_docs/PNADG193.pdf.

- *Nakayama, M. 2011. Support by Australia, European countries, and Japan to the Interim Mekong Committee during post-conflict periods in Laos and Vietnam. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- Natsios, A. 2010. *The clash of the counter-bureaucracy and development*. Washington, D.C.: Center for Global Development. July 13. www.cgdev.org/content/publications/detail/1424271.
- *Nichols, S. S., and L. Goldman. 2011. U.S. bilateral assistance to Liberia: Forestry as the cornerstone to peacebuilding. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- Obama, B. 2009. Remarks by the President at the acceptance of the Nobel Peace Prize. Oslo, Norway. December 10. www.whitehouse.gov/the-press-office/remarks-president-acceptance-nobel-peace-prize.
- OECD (Organisation for Economic Co-operation and Development). 2010. *Resource flows to fragile and conflict-affected states 2010*. www.oecd.org/document/13/0,3746,en_2649_33693550_45789965_1_1_1_1,00.html.
- OECD-DAC (Organisation for Economic Co-operation and Development- Development Assistance Committee). 2008a. Evaluating conflict prevention and peacebuilding activities. Factsheet. Paris: OECD. www.oecd.org/dataoecd/36/20/39289596.pdf.
- . 2008b. Guidance on evaluating conflict prevention and peacebuilding activities: Working draft for application period. Paris: OECD. www.oecd.org/document/23/0,3746,en_21571361_34047972_35263575_1_1_1_1,00.html.
- Ogata, S. 2010. Between conflict prevention and peace building: Evaluating international responses. Speech delivered at "The 5th Annual Tsai Lecture Symposium on Prevention of and Response to Mass Violence and Genocide," Cambridge, MA, April 23. www.jica.go.jp/english/about/president/speeches/2010/100423.html.
- Rasmussen, T. 2009. Democratic Republic of Timor-Leste: Selected issues. IMF Country Report No. 09/220. Washington, D.C.: International Monetary Fund. www.imf.org/external/pubs/ft/scr/2009/cro9220.pdf.
- Resch, T. 2011. Personal communication with Ilona Coyle. August 30.
- Rustad, S. A., and H. M. Binningsbø. 2010. Rapid recurrence: Natural resources, armed conflict and peace. Working paper. Oslo: Centre for the Study of Civil War.
- Sanio, T., and B. Chapagain. 2012. Forest user groups and peacebuilding in Nepal. In *High-value natural resources and post-conflict peacebuilding*, ed. P. Lujala and S. A. Rustad. London: Earthscan.
- *Sato, M. 2011. Disarmament, demobilization, reintegration, and natural resources in Afghanistan. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- *Satoh, H., T. Suzuki, and N. Miyazawa. 2011. Restoration of agriculture in post-conflict Timor-Leste. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- Serafino, N. 2011. Department of Defense Section 1207 security and stabilization assistance: background and congressional concerns, FY2006-FY2010. RS22871. Washington, D.C.: Congressional Research Service. www.fas.org/sgp/crs/natsec/RS22871.pdf.
- *Shimoyachi-Yuzawa, N. 2011. Linking demining to post-conflict peacebuilding: A case study of Cambodia. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- *Sugiura, M. 2011. Infrastructure and peacebuilding in Sri Lanka: Lessons from Japan's post-conflict support. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- *Suzuki, T., and M. Nakayama. 2011. Post-project evaluation of UNEP-IETC's Iraqi Marshlands Project. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- UN (United Nations). 2011. *Civilian capacity in the aftermath of conflict: Independent report of the Senior Advisory Group*. New York. www.civcapreview.org/LinkClick.aspx?fileticket=K5tZZE9gvzs%3d&tabid=3188&language=en-US.
- UNDESA (United Nations Department of Economic and Social Affairs). 2011. Guidance notes: Developing NSDS in post-conflict countries (draft). Geneva: United Nations.
- UNDG (United Nations Development Group) and World Bank. 2007. Joint guidance note on integrated recovery planning using post conflict needs assessments and transitional results frameworks. Working document for circulation. September. http://pcna.undg.org/index.php?option=com_docman&Itemid=15.
- UNEP (United Nations Environment Programme). 2009. *From conflict to peacebuilding: The role of natural resources and the environment*. Nairobi. http://postconflict.unep.ch/publications/pcdmb_policy_01.pdf.
- UNSG (United Nations Secretary-General). 2009. *Report of the Secretary-General on peacebuilding in the immediate aftermath of conflict*. A/63/881-S/2009/304. June 11. New York: United Nations.
- . 2010. *Report of the Secretary-General on peacebuilding in the immediate aftermath of conflict*. A/64/866-S/2010/386. July 16. New York: United Nations.
- *Unruh, J., and M. Shalaby. 2011. Road infrastructure reconstruction as a peacebuilding priority in Afghanistan: Negative implications for land rights. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- USAID (U.S. Agency for International Development). 2005a. *Conducting a conflict assessment: A framework for strategy and program development*. Washington, D.C. www.usaid.gov/our_work/cross-cutting_programs/conflict/publications/docs/CMM_ConflAssessFrmwrk_May_05.pdf.
- . 2005b. *Forests & conflict: A toolkit for intervention*. Washington, D.C. http://pdf.usaid.gov/pdf_docs/PNADE290.pdf.
- . 2005c. *Land & conflict: A toolkit for intervention*. Washington, D.C. www.usaid.gov/our_work/cross-cutting_programs/conflict/publications/docs/CMM_Land_and_Conflict_Toolkit_April_2005.pdf.
- . 2005d. *Livelihoods & conflict: A toolkit for intervention*. Washington, D.C. www.usaid.gov/our_work/cross-cutting_programs/conflict/publications/docs/CMM_Livelihoods_and_Conflict_Dec_2005.pdf.
- . 2007. *Community-based development in conflict-affected areas: An introductory guide for programming*. Washington, D.C. www.usaid.gov/our_work/cross-cutting_programs/conflict/publications/docs/CMM_CBD_Guide_May_2007.pdf.
- . 2010. CDCS talking points. http://pdf.usaid.gov/pdf_docs/PDACQ502.pdf.
- . 2011. USAID evaluation policy: Evaluation—Learning from experience. January 19. Washington, D.C. www.usaid.gov/evaluation/USAID_Evaluation_Policy.pdf.

- . n.d.a. Development experience clearinghouse. <http://dec.usaid.gov/index.cfm>.
- . n.d.b. U.S. overseas loans and grant—Foreign assistance fast facts: FY2009. <http://gbk.eads.usaidallnet.gov/data/fast-facts.html>.
- U.S. Department of State. 2008. Principles of the interagency conflict assessment framework. Washington, D.C. www.state.gov/documents/organization/161781.pdf.
- U.S. Department of State. n.d.a. Essential task matrix. www.state.gov/documents/organization/161791.pdf.
- . n.d.b. What we do. www.state.gov/s/crs/what/index.htm.
- USIP (U.S. Institute of Peace) and U.S. Army PKSOI (U.S. Army Peacekeeping and Stability Operations Institute). 2009. *Guiding principles for stabilization and reconstruction*. Washington, D.C.: Endowment of the United States Institute of Peace. www.usip.org/publications/guiding-principles-stabilization-and-reconstruction.
- *Wallace, J., and K. Conca. 2011. Peace through sustainable forest management in Asia: The USAID Forest Conflict Initiative. In *Harnessing natural resources for peacebuilding: Lessons from U.S. and Japanese assistance*, ed. C. Bruch, M. Nakayama, and I. Coyle. Washington, D.C.: Environmental Law Institute.
- White House (Office of the Press Secretary). 2007. Overview of provincial reconstruction teams' mission in Iraq: Expanded provincial reconstruction teams speed Iraq's transition to self-reliance. Press release. July 13. America.gov Archive. www.america.gov/st/texttrans-english/2007/July/20070713125440eaifaso.4880182.html#ixzz1ReVskMpu.
- Woocher, L. 2011. Conflict assessment and intelligence analysis: Commonality, convergence, and complementarity. Special Report 275. Washington, D.C.: U.S. Institute of Peace. www.usip.org/files/resources/Conflict_Assessment.pdf.
- World Bank. 2011. *World development report 2011*. Washington, D.C. http://wdr2011.worldbank.org/sites/default/files/pdfs/WDR2011_Full_Text.pdf.

