

6.30 DDR and Natural Resource Management

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6.30 DDR and Natural Resource Management

Summary

The relationship between natural resources and armed conflict is well known and documented, evidenced by numerous examples from all over the world.¹ Natural resources may be implicated all along the peace continuum, from contributing to grievances, to financing armed groups, to supporting livelihoods and recovery through their sound management. Furthermore, the economies of countries suffering from armed conflict are often marked by unsustainable or illicit trade in natural resources, thereby tying conflict areas to the rest of the world through global supply chains. For DDR processes to be effective, practitioners should consider both the risks and opportunities that natural resource management may pose to their efforts.

As part of the war economy, natural resources may be exploited and traded directly by or through local communities under the auspices of armed groups, organized criminal groups or members of the security sector, and eventually be placed on national and international markets through trade with multinational companies. This pattern not only shores up the actors directly implicated in the conflict, but it also undermines the good governance of natural resources needed to support development and sustainable peace. Once conflict is underway, natural resources may be exploited to finance the acquisition of weapons and ammunition and to reinforce the war economy, linking armed groups and even the security sector to international markets and organized criminal groups.

These dynamics are challenging to address through DDR processes, but should be contended with if sustainable peace is to be achieved. When DDR processes promote good governance practices, transparent policies and community engagement around natural resource management, they can simultaneously address conflict drivers and the impacts of armed conflict on the environment and host communities. Issues of land rights, equal access to natural resources for livelihoods, equitable distribution of their benefits, and sociocultural disparities may all underpin the drivers of conflict that motivate individuals and groups to take up arms. It is critical that DDR practitioners take these linkages into account to avoid exacerbating existing grievances or creating new conflicts, and to effectively use natural resource management to contribute to sustainable peace.

This module aims to contribute to DDR processes that are grounded in a clear understanding of how natural resource management can contribute to sustainable peace and reduce the likelihood of a resurgence of conflict. It considers how DDR practitioners can integrate youth, women, persons with disabilities and other key specific needs groups when addressing natural resource management in reintegration. It also includes guidance on relevant issues related to natural resource management, including public health, disaster-risk reduction, resilience and climate change. With enhanced inter-agency cooperation, coordination and dialogue among relevant stakeholders working

in DDR, natural resource management and governance sectors – especially national actors – these linkages can be addressed in a more conscious and deliberate manner for sustainable peace.

Lastly, this module recognizes that the degree to which natural resources are incorporated into DDR processes will vary based on the political economy of a given context, resource availability, partners and capacity. While some contexts may have different agencies or stakeholders with expertise in natural resource management to inform context analyses, assessment processes, and subsequent programme design and implementation, DDR processes may also need to rely primarily on external experts and partners. However, limited natural resource management capacities within a DDR process should not discourage practitioners from capitalizing on the opportunities or guidance available, or from seeking collaboration and possible programme synergies with other partners that can offer natural resource management expertise. For example, in settings where the UN has no mission presence, such capacity and expertise may be found within the UN country team, civil society and/or academia.

1. Module scope and objectives

This module provides DDR practitioners – in mission and non-mission settings – with necessary information on the linkages between natural resource management and integrated DDR processes during the various stages along the peace continuum. The guidance provided highlights the role of natural resources in all phases of the conflict cycle, focusing especially on the linkages with armed groups, the war economy, and the ways that natural resource management can support successful DDR processes. It also emphasizes the ways that natural resource management can support the additional goals of gender-responsive reconciliation, resilience to climate change, and sustainable reintegration through livelihoods and employment creation.

The module highlights the risks and opportunities presented by natural resource management in an effort to improve the overall effectiveness and sustainability of DDR processes. It also seeks to support DDR practitioners in understanding the associated risks that threaten people’s health, livelihoods, security and opportunities to build economic and environmental resilience against future crises.

2. Terms, definitions and abbreviations

Annex A contains a list of abbreviations used in this standard. A complete glossary of all the terms, definitions and abbreviations used in the IDDRS series is given in IDDRS 1.20.

In the IDDRS series, the words ‘shall’, ‘should’, ‘may’, ‘can’ and ‘must’ are used to indicate the intended degree of compliance with the standards laid down. This use is consistent with the language used in the International Organization for Standardization standards and guidelines:

- a. ‘shall’ is used to indicate requirements, methods or specifications that are to be applied in order to conform to the standard;
- b. ‘should’ is used to indicate the preferred requirements, methods or specifications;

- c. 'may' is used to indicate a possible method or course of action;
- d. 'can' is used to indicate a possibility and capability;
- e. 'must' is used to indicate an external constraint or obligation.

Natural resource management refers to activities related to the management of natural capital stocks, (monitoring, control, surveys, administration and actions for facilitating structural adjustments of the sectors concerned) and their exploitation (e.g., abstraction and harvesting).

Natural resources are any natural assets (raw materials) occurring in nature that can be used for economic production or consumption.² These may include, but are not limited to, hard commodities such as minerals, gemstones, petroleum resources, timber or other geological resources. They can also include soft commodities such as agricultural products like cocoa, palm oil, sugar, coffee, wheat and other highly traded global commodities. Natural resources can also include endangered rare species of flora and fauna (including those used in narcotics) and related products traded on global markets.

Sustainable use of natural resources refers to the exploitation or management of natural resources in a way that ensures their long-term availability to support development for future generations.

War economy refers to the economic structure developed to support armed conflict in a given jurisdiction, whether set up by the existing Government or an armed group. The war economy includes legal and illegal exploitation of natural resources with the aim of supporting one or more sides of a conflict.

3. Introduction

When well-managed, natural resources have the potential to support sustainable peace and development, and to address long-standing grievances. However, there is also mounting evidence that in many violent conflicts worldwide a strong link exists between armed conflict and weak governance or mismanagement of natural resources, dynamics which also contribute to violent conflict.³

Over the past 60 years, at least 40 per cent of all intrastate conflicts were linked to natural resources.⁴ Furthermore, conflicts where natural resources are implicated have been shown to be more likely to relapse into violence within five years.⁵ Looking back over the history of UN peacekeeping operations, nearly 20 missions have been deployed to conflicts fuelled or financed by natural resources, yet only a few of these missions have had a direct mandate to tackle natural resource challenges. However, the United Nations recognizes the need to incorporate the environmental and natural resource dimensions of conflict and peacebuilding along the entire peace continuum, as evidenced in the UN Sustainable Development Cooperation Framework, the Humanitarian Response Plan and/or the Integrated Strategic Framework across multiple settings.⁶

Although risks exist, natural resource management also has the potential to enable sustainable peace, including through sustainable development that contributes to job creation, reduced grievances and equitable sharing of benefits from natural resources. Through sound management, individuals and societies can employ natural resources in ways that secure livelihoods, generate tax revenues, stimulate exports and engage

the private sector in employment creation. Furthermore, natural resource management provides both temporary (Track A) and more sustainable (Track B) employment opportunities, as outlined in the United Nations Post Conflict Policy for Employment Creation, Income Generation and Reintegration.

In DDR contexts where strong governance is present, policy processes may specifically target natural resource sectors – including forestry, mining and conservation – to support job creation for long-term sustainable peace. Since natural resources underpin livelihoods for most populations in post-conflict contexts, DDR practitioners should analyse any ways in which special-needs groups – women, youth, persons with disabilities or different vulnerable populations – can safely access and productively use natural resources. Gender issues, in particular, are crucial for sustainability and efficiency in economic recovery when it comes to natural resource management, as gender norms in society can affect the division of labour between men and women and the distribution of capital assets, including land, credit, skills and participation in decision-making, often negatively impacting women. Gender can also impact whether natural resources can be accessed and used safely; for example, the provisioning of essential natural resources for daily subsistence by women and girls, such as gathering firewood or charcoal, often puts them at risk for sexual and gender-based violence.⁷ In other cases, the physical strength needed to work in natural resource management sectors can prohibit women from accessing these kinds of economic opportunities (e.g., certain roles in forestry or mining).

In addition to their economic benefits, natural resources can play an important role in supporting successful social reintegration and reconciliation through community-based approaches to natural resource management, including promoting access to grievance- and dispute-resolution mechanisms. To ensure that growth in natural resource management sectors will contribute positively to peace efforts, DDR practitioners shall undertake all necessary efforts to understand the risks and opportunities and fully analyse and incorporate them into process planning, design and implementation. The linkages between organized criminal groups, armed forces and groups, and illicit trade – including their impact on local community actors – should also be taken into account. These include the potential for poor natural resource management, coupled with weak governance, to lead to further grievances and recruitment. Since natural resource management takes place at the local, regional and national levels, there are multiple opportunities to work cooperatively with relevant stakeholders during DDR processes.

4. Guiding principles

IDDRS 2.10 on The UN Approach to DDR sets out the main principles that guide all aspects of DDR processes. This section outlines how these principles apply to the linkages between DDR and natural resource management.

4.1 People centred

Natural resources can be used to support or to undermine development and sustainable peace. Ultimately, natural resources are part of the naturally protected rights of

the citizens of any sovereign nation, and DDR practitioners must seek to protect and respect these rights in accordance with relevant international and national laws and policies (including customary law). In particular, DDR practitioners shall seek advice from human rights officers, experts on rule of law and experts on natural resource management, especially if the land and other rights of indigenous or otherwise marginalized communities are potentially affected.

4.2 Gender responsive and inclusive

Equitable participation and access to natural resource–related opportunities and benefits shall be ensured for women, men, girls and boys, regardless of their ethnicity, sexual orientation and other intersecting factors. For DDR practitioners, a special emphasis should be placed on helping to secure tenure and access to land and other resources within existing or proposed frameworks for women and girls, since this is shown to be key to their successful reintegration, as well as on providing both male and female DDR participants and beneficiaries with equitable access to economic reintegration opportunities in natural resource management sectors.⁸ As part of DDR assessments, a specific gender analysis – carried out in consultation with female and male participants and community members in their preferred language – should be undertaken to map the gender-specific roles and responsibilities in natural resource management and gender division of labour as well as associated risks and protection concerns. Based on the analysis, DDR practitioners shall promote the equal participation and decision-making opportunities of female and male participants and beneficiaries in natural resource management.

4.3 Conflict sensitive

As outlined in IDDRS 2.10, ‘do no harm’ is a standard principle against which all DDR programmes, DDR-related tools and reintegration support shall be evaluated at all times. In the case of natural resources, DDR practitioners shall ensure that they are not implementing or encouraging practices that will threaten the long-term sustainability of natural resources and the livelihoods that depend on them. Further, they should ensure that they will not contribute to potential environment-related health problems for affected populations; this is particularly important when considering water resources, land allocation and increase in demand for natural resources by development programmes or aid groups (such as increased demand for charcoal, timber, etc., without proper management measures in place).⁹

Finally, DDR practitioners should approach natural resource issues with sensitivity to ensure that interventions do not exacerbate conflict or grievances around natural resources or other existing community tensions (such as those based on ethnic, religious, racial or other dimensions), do not contribute to any environmental damage, and are equipped to deal with potential tensions related to natural resource management. In particular, sectors targeted by reintegration programmes should be carefully analysed to ensure that interventions will not cause further grievances or aggravate existing tensions between communities; this may include encouraging the establishment of grievance- and dispute-resolution mechanisms.

4.4 Context specific

DDR processes shall be context specific to reflect both the nature of the conflict and the role of natural resources in the conflict, taking into account the national, regional and global implications of any activities. The specific role of natural resources should be considered in each context by DDR practitioners, including where natural resources are part of underlying grievances, or where they are being exploited directly by armed forces, armed groups or organized criminal groups – or by local communities under the auspices of these actors – to control territories or finance the purchase of weapons and ammunition.

DDR practitioners should also consult any civil society organizations, academic institutions and other experts that may be available at the local level to inform interventions. Local experts may be included in assessments of all types of local institutions, armed groups, organized criminal groups, and political activities, as well as in the development and implementation of DDR processes.

Where possible and appropriate, DDR processes should seek to adopt livelihoods strategies and employment-generation opportunities that respect human rights and the rights of indigenous peoples and local communities; promote sound natural resource management, participatory decision-making and conflict sensitivity; and do not exploit natural resources at unsustainable rates. DDR practitioners should focus on promoting sustainable livelihoods and consider incorporating environmental feasibility studies for any projects based on natural resource exploitation. They should also ensure that post-project impact monitoring and evaluation include the environment, natural resources and ecosystem services, especially where the latter relates to disaster-risk reduction and resilience in the face of climate change.

4.5 Flexible, accountable and transparent

DDR processes are undertaken in the context of national and local frameworks that must comply with relevant rights and obligations under international law (see IDDRS 2.11 on The Legal Framework for UN DDR). Whether in a conflict setting or not, the State and any regional law enforcement authorities have the responsibility to implement any criminal justice measures related to the illegal exploitation and/or trafficking of natural resources, including instances of scorched-earth policies or other violations of humanitarian or human rights law. DDR practitioners shall also take into account any international or regional sanctions regimes in place against the export of natural resources. When the State itself is directly involved in these activities, DDR practitioners must be aware and factor this risk into interventions.

4.6 Nationally and locally owned

Every context is unique when it comes to natural resource management, depending on the characteristics of local ecosystems and existing sociocultural relationships to land and other natural resources. The strength of local and national governance can also impact how natural resources may be treated by DDR processes. Specifically, a weak State can invite illicit exploitation and trafficking of natural resources in ways that may fuel or exacerbate armed conflict. DDR practitioners should ensure that they thoroughly

understand these dynamics through assessments and risk management efforts when designing interventions.

For DDR processes, local communities and national institutions – including relevant line ministries – are sources of critical knowledge and information. For this reason, DDR processes shall explicitly incorporate national and local civil society organizations, academic institutions, and private-sector and other stakeholders into intervention planning and implementation where appropriate. Since international mandates and resources for DDR processes are limited, DDR practitioners shall seek to build local capacities around natural resource management whenever possible and shall establish relevant local partnerships to ensure coordination and technical capacities are available for the implementation of any interventions incorporating natural resource management.

In some cases, natural resource management can be used as a platform for reconciliation and trust building between communities and even regional actors. DDR practitioners should seek to identify these opportunities where they exist and integrate them into interventions.

4.7 Regionally supported

In cases where natural resources are exploited and trafficked to finance the activities of armed forces and groups or organized criminal groups active in conflict settings, regional dynamics may be at play. Private-sector and government actors from neighbouring States may be implicated in the trade of natural resources, and DDR practitioners should engage these stakeholders as much as possible to control for these risks and to identify opportunities to create a regional environment conducive to sustainable peace.

4.8 Integrated

DDR processes will be more successful when considerations related to natural resource management are integrated from the earliest assessment phase through all stages of strategy development, planning and implementation. Expertise within the UN system and interagency partners should inform the interventions of DDR processes, in tandem with local and national expertise and knowledge.

5. Natural resources in conflict settings

In contexts with poor governance, weak diversification and poor sectoral linkages, natural resources may be exploited to sustain the political and military agendas of armed forces and/or other groups.¹⁰ This dynamic contributes to a broader war economy that may incentivize unsustainable exploitation, resource grabs and human rights abuses that may be related, although not exclusively, to the environment and natural resources.¹¹ When captured by armed forces and groups or organized criminal groups, high-value commodity sectors with significant global demand - such as minerals, oil and gas, timber and other agricultural commodities - represent a serious threat to peace, security and development.¹² These commodities may include charcoal, timber, ivory, gems and minerals, as well as agricultural commodities like cocoa and palm oil. This

trade links conflict actors to the global economy and ultimately to the end consumer of the good or service, thereby implicating a multitude of stakeholders, from the local private sector to regional and global multinational enterprises and their investors.¹³

The exploitation of natural resources and associated environmental stresses, such as the contamination of soil, air or water during extraction processes, can impact all phases of the conflict cycle, from contributing to the outbreak and perpetuation of violence to undermining prospects for peace. In addition, the environment itself may be damaged through scorched-earth tactics in order to harm specific groups of people or to render land and areas unusable by opposing groups. In extreme cases, land can also be damaged when communities are significantly displaced, and populations may be forced to degrade the natural resource base to survive. This environmental damage, coupled with the collapse of institutions and governance practices, can threaten people's health and livelihoods and undermine security. It may also undermine a country's capacity to achieve the 2030 Agenda for Sustainable Development, and exacerbate vulnerabilities to climate change and natural disasters.

Identifying the role of natural resources in armed conflict is a necessary starting point for effectively addressing the factors that may have caused or sustained conflict, could trigger a relapse into violence, or may impede the process of consolidating sustainable peace. Analyses and assessments on environmental and natural resource issues can help DDR practitioners to identify the ways in which natural resources are intentionally and/or inadvertently utilized, exploited, depleted and destroyed as part of conflict. While the UN has increasingly adopted guidance on integrating natural resource considerations into its peacebuilding assessments and interventions, in practice, natural resources are still too often considered 'too hard to fix' and viewed as an issue to be addressed at a later stage in the recovery or peacebuilding process. However, these perspectives fail to take into account the broad and changing nature of threats to national and international security, as well as opportunities for natural resource management to contribute to sustainable peace.

Integrating natural resource management issues into peacebuilding – and DDR in particular – should be seen as a security imperative, given the strong linkages between natural resources and conflict. Deferred action or uninformed choices made early on often establish unsustainable trajectories of recovery that can undermine long-term peace and stability. At the same time, natural resource management offers important opportunities for sustainable livelihoods recovery, employment creation and reconciliation.

The following sections provide a frame of reference to support the improved consideration of natural resources in DDR processes. To apply this frame, DDR practitioners should seek appropriate expertise and work across various national and international agencies to gather the information related to natural resources needed to inform interventions.

The relationship between natural resources, the environment and conflict is multidimensional and complex, but three principal pathways can be drawn. These pathways are described in more detail in the following sections.

5.1 Contributing to the causes of conflict

Natural resources underpin livelihoods and the sociocultural rights of peoples in many parts of the world. When access to these resources is disrupted – especially where long-standing historic grievances (real or perceived) over access to land and resources are present – natural resources may be more easily exploited to encourage recruitment by armed groups. This relationship can be complex, but there is evidence in the historical record of how access to land or other natural resources can motivate parties to a conflict. Grievances related to land (communal or individually owned) and access to resources can be deeply embedded in the historical narrative of peoples and hugely motivating for individuals and groups to participate in violent conflict. These dynamics are critical for DDR practitioners to understand and to factor into planning.

Natural resources can also contribute to the causes of conflict where their governance and management have privileged certain social or ethnic groups over others. Marginalized groups, excluded from access to natural resources and related benefits, may be more inclined to participate in the illicit or informal economy where armed conflict is present, thereby potentially engaging in livelihoods sectors less protected by labour regulations.¹⁴ They may also be more likely to participate in the activities of organized criminal groups involved in the exploitation of natural resources. These dynamics can further undermine the ability of the Government to provide benefits (i.e., education, health care and development) and resources to communities due to a loss of tax revenue from formal economic sectors, and can create the right conditions for illicit trade in weapons, ammunition and other illicit goods. This combination of factors can increase the likelihood that additional resentments will build and fuel recruitment into armed forces and groups.

Finally, in some cases, scorched earth tactics may be used to gain control of a particular territory, resulting in significant displacement of populations and permanent damage to the environment. To secure a strategic advantage, demoralize local populations or subdue resistance, leaders and members of armed forces and groups may pollute water wells, burn crops, cut down forests, poison soils and kill domestic animals. In some cases, entire ecosystems have been deliberately targeted to achieve political and military goals. These tactics can result in grievances that ultimately undermine DDR processes and sustainable peace, and limit the positive role that natural resource management can play in sustaining peace.

5.2 Financing and sustaining conflict

Once armed conflict is under way, natural resources are often targeted by armed forces and groups, as well as organized criminal groups, to trade for revenues or weapons and ammunition. These resources may be used to finance the activities of armed forces and groups, including their ability to compensate recruits, purchase weapons and ammunition, acquire materials necessary for transportation or control of strategic territories, and even expand territorial control. The exploitation of natural resources in conflict contexts is also closely linked to corruption and weak governance, where Government, organized criminal groups, the private sector, and armed forces and groups become interdependent through the licit or illicit revenue and trade flows that natural resources provide. In this way, armed groups and organized criminal groups can even capture the role of Government and integrate themselves into political processes by

leveraging their influence over trade and access to markets and associated revenues (see IDDRS 6.40 on DDR and Organized Crime).

In addition to capturing the market for natural resources, the financing of weapons and ammunition may permit armed forces and groups to coerce or force communities to abandon their lands and territories, depriving them of livelihoods resources such as livestock or crops. Hostile takeovers of land can also target valuable natural resources for the purpose of taxing their local trade routes or gaining access to markets and/or licit or illicit commodity flows associated with those resources.¹⁵ This is especially true in contexts of weak governance.

Conflict contexts with weak governance are ripe for the proliferation of organized criminal groups and capture of revenues from the exploitation and trade of natural resources. However, this is only possible where there are market actors willing to purchase these resources and to engage in trade with armed forces and groups. This relationship may be further complicated on the ground by the various actors involved in markets and trade, which could include government authorities in customs and border protection, shell companies created to distort the paper trail around this trade and subvert efforts at traceability by markets further downstream (i.e., closer to the end consumer), or direct involvement of Governments surrounding the country experiencing violent conflict to facilitate this trade. In these cases, the private sector at the local and national levels, as well as buyers in international markets, may be implicated, whether the resources are legally or illegally traded. The relationship between the private sector and armed forces and groups in conflict is complex and can involve trade, arms and financial flows that may or may not be addressed by sanctions regimes, national and international regulations, or other measures.

Tracing conflict resources in global supply chains is inherently difficult; these materials may be one of hundreds that are part of a product purchased by an end user and may be traded through dozens of markets and jurisdictions before they end up in a manufacturing process, allowing multiple opportunities for the laundering of resources through fake certificates in the chain of custody.¹⁶ Consumer goods companies find the traceability of materials to a point of origin challenging in the best of circumstances; the complexities of a war economy and outbreak of violent conflict make this even more complicated. However, technologies developed in recent years – including chemical markers, radio-frequency identification tags and QR codes – are growing more and more reliable, and the manufacturers, brands and retailers who sell products that contain conflict resources are increasingly subject to legal regimes that address these issues, depending on where they are domiciled.¹⁷ Worldwide, legal regimes that address conflict resources in global supply chains are still nascent, but awareness of these issues is growing in consumer markets, and technological solutions to traceability and company due diligence challenges are rapidly emerging.¹⁸

Many groups are working to track the trade in conflict resources, and DDR practitioners can collaborate with them to ensure they are able to identify critical changes and shifts in the activities, tactics and potential resource flows of armed forces and groups. DDR practitioners should seek out these resources and engage these stakeholders to support assessments and the design and implementation of DDR processes whenever appropriate and possible.

5.3 Contributing to reconciliation and sustaining peace

Governance institutions and state authorities, including those critical to accountability and transparency, may have been eroded by conflict or weak to start with. When tensions flare and lead to armed conflict, rule of law breaks down and the resulting institutional vacuum can lead to a culture of impunity and corruption. This collapse of governance structures contributes directly to widespread institutional failures in all sectors, allowing opportunistic individuals, organized criminal groups, armed groups and/or private entities to establish uncontrolled systems of resource exploitation.¹⁹ At the same time, public finances are often diverted for military purposes, resulting in the decay of, or lack of investment in, water, waste management and energy services, with corresponding health and environmental contamination risks.

During a DDR process, the success and the long-term sustainability of natural resource-based interventions will largely depend on whether there is a good, functioning governance structure at the local, subregional, national or regional level. The effective and inclusive governance of natural resources and the environment should be viewed as an investment in conflict prevention within peacebuilding and development processes. Where past activities violate national laws, it is up to the State to exercise its jurisdiction, but egregious crimes constituting gross violations of human rights, as often seen with scorched earth tactics, oblige DDR processes to exclude any individuals associated with these events from participating (see IDDRS 2.11 on The Legal Framework for UN DDR). However, there may be other jurisdictions where multinational private entities can be targeted and pressured or prosecuted to cut their ties with armed forces and organized criminal groups in conflict areas. Sanctions set by the UN Security Council may also be brought to bear where they cover natural resources that are trafficked or traded by private-sector entities and armed forces and groups.

DDR practitioners will not be able to influence, control or focus upon all aspects of natural resource governance. However, through careful attention to risk factors in the planning, design and implementation of natural resource-based activities, DDR processes can play a multifaceted and pivotal role in paving the way for good natural resource governance that supports sustainable peace and development. Moreover, DDR practitioners can ensure that access to grievance- and non-violent dispute-resolution mechanisms are available for participants, beneficiaries and others implicated in the DDR process, to mitigate the risks that natural resources pose for conflict relapse.

Furthermore, environmental issues and protection of natural resources can serve as effective platforms or catalysts for enhancing dialogue, building confidence, exploiting shared interests, and broadening cooperation and reconciliation between ex-combatants and their communities, between communities, between communities and the State, and between States.²⁰ People and cultures are closely tied to the environment in which they live and to the natural resources upon which they depend. In addition to their economic benefits, natural resources and ecosystem services can support successful social reintegration and reconciliation. In this sense, the management of natural resources can be a tool for engaging community members to work together, to revive and strengthen traditional natural resource management techniques that may have been lost during the conflict, and to encourage cooperation towards a shared goal, between and among communities and between communities and the State.

In settings where natural resources have played a significant role in the conflict, DDR practitioners should explore opportunities for addressing underlying grievanc-



es by promoting equitable and fair access to natural resources, including for women, youth and participants with disabilities. Access to natural resources, especially land, often carries significant importance for ex-combatants during reintegration, particularly for female ex-combatants and women associated with armed forces and groups. Whether the communities are their places of origin or are new to them, ensuring that they have access to land will be important in establishing their social status and ensuring that they have access to basic resources for livelihoods. In rural areas, it is essential that DDR practitioners recognize the connection between land and social identity, especially for young men, who often have few alternatives for establishing their place in society, and for women, who are often responsible for food security and extremely vulnerable to exclusion from or lack of access to land.

To support social reintegration and reconciliation, as well as to enhance peacebuilding, DDR practitioners should seek to support reintegration activities that empower communities affected by natural resource issues, applying community-based natural resource management (CBNRM) approaches where applicable and promoting inclusive approaches to natural resource management. Ensuring that specific needs groups such as women and youth receive equitable access to and opportunities in natural resource sectors is especially important, as they are essential to ensuring that peacebuilding interventions are sustainable in the long term.

6. DDR and natural resources: planning considerations

At the outset, there are several key risk factors to consider when looking to leverage natural resources to support DDR processes. Depending on where DDR practitioners are working along the peace continuum, the following are three key areas where risks and opportunities should be considered:

- **Supporting economic recovery:** When natural resources are properly governed and carefully managed, ‘high-value’ resources (such as hydrocarbons, minerals, metals, stones and export timber) can form an important basis for employment creation and budget revenue for development. With close attention to whether a robust framework is in place with respect to land rights, and subsurface natural resource rights as a pre-cursor, engagement with private-sector entities can help to facilitate these types of opportunities, whether for high-value natural resources or agricultural commodities with significant market value such as coffee, cocoa, grains and other soft commodities. The risk, however, is that the pressure to kick-start development and earn foreign exchange can lead to rapid, uncontrolled exploitation of such resources at suboptimal prices, without due attention to land and subsurface resource rights, environmental sustainability, employment creation and the equitable distribution of revenues. When the benefits are not shared, or when exploitation results in environmental degradation, the potential for conflict to resume is high.
- **Developing sustainable livelihoods for peace:** Sustainable peace fundamentally hinges on the development of sustainable livelihoods, the provision of basic services, and the recovery and sound management (including equitable distribution of related benefits) of the natural resource base. Environmental damage caused by conflicts, coping strategies and chronic environmental problems (in-

cluding climate change impacts) that undermine livelihoods must therefore be addressed from the outset. Minimizing vulnerability to natural hazards and climate change through the management of key natural resources and the introduction of appropriate technologies may also be addressed. Women and children are often disproportionately affected by environmental contamination economically and socially, as well as in terms of their health and well-being. DDR practitioners should therefore seek to address the specific needs of women and children in relation to their dependence on natural resources and risks involved. Careful coordination and attention to issues of land access, tenure and the availability of agricultural inputs and access to financing are critical elements for ensuring success and sustainability. Women, especially those who are unmarried, who are not closely associated with a male relative, or who face stigma or discrimination due to other circumstances (sexual violence survivors, single mothers, etc.) are often disadvantaged in their access to capital assets, as women's ownership rights are frequently based on de facto agreements among male community members and traditional gender roles may prevent women and girls from accessing education and capacity-building.

- **Contributing to dialogue, reconciliation and confidence building:** Natural resources can be a neutral entry point or a catalyst for enhancing dialogue, building confidence, exploring shared interests and broadening cooperation between divided communities as well as within and between States. Such actions should aim to use an inclusive approach that seeks to consider and respond to the needs of the entire population, especially women and youth. Bringing communities together to discuss and resolve common challenges and concerns, such as access to water points and grazing lands, can be a powerful peacebuilding tool and can help to mitigate the risk of further conflict between groups competing for natural resources.

6.1 Assessments and design

During the pre-planning and preparatory assistance phase, DDR practitioners should clarify the role natural resources may have played in contributing to the causes of conflict, if any, and determine whether DDR is an appropriate response or whether other types of interventions could be employed. In line with IDDRS 3.11 on Integrated Assessments, DDR practitioners should factor the linkage between natural resources and armed forces and groups, as well as organized criminal groups, into baseline assessments, programme design and exit strategies. This includes identifying the key natural resources involved, in addition to key individuals, armed forces and groups, any known organized criminal groups and/or Governments who may have used (or continue to use) these particular resources to finance or sustain conflict or undermine peace. The analysis should also consider gender, disability and other intersectional considerations by examining the sex- and age-disaggregated impacts of natural resource conflicts or grievances on female ex-combatants and women associated with armed forces and groups.

The assessments should seek to achieve two main objectives and will form the basis for risk management. First, they should determine the role that natural resources have played in contributing to the outbreak of conflict (i.e., through grievances or

other factors), how they have been used to finance conflict, and how natural resources that are essential for livelihoods may have been degraded or damaged due to the conflict or become a security factor (i.e. for women and girls, but also boys and men) at a community level. Second, they should seek to anticipate any potential conflicts or relapses into conflict that could occur as a result of unresolved or newly aggravated grievances, competition or disputes over natural resources, continued war economy dynamics, and the risk of former combatants joining ranks with criminal networks to continue exploiting natural resources. Such assessments require working closely with national actors through coordinated interagency processes. Once these elements have been identified, and the potential consequences of such analysis are fully understood, DDR practitioners can seek to explicitly address them.

Where appropriate, DDR practitioners should ensure that assessment activities include input from technical experts on land and natural resources. These technical experts should also display expertise in recognizing the social, psychological and economic livelihoods issues connected to natural resources to be able to properly inform programme design. The participation of local civil society organizations and groups with knowledge on natural resources will also aid in the formation of a holistic perspective during the assessment phase. In addition, special attention should be given to gathering relevant information on issues of access to land (both individually owned and communal), water and other natural resources, especially for women and youth.

Land governance and tenure issues – including around subsurface resource rights – are likely to crop up in almost every context where DDR processes are implemented. DDR practitioners should identify existing efforts and potential partners working on issues of land governance and tenure and use this as a starting point for assessments to identify the risk and opportunities associated with related natural resources. Land governance will underpin all other natural resource sectors and should be a key element of any assessment carried out when planning DDR. While DDR processes cannot directly overcome challenges related to land governance, DDR practitioners should be aware of the risk and opportunities that current land governance issues present and do their best to mitigate these through planning and implementation.

6.1.1 Natural resources and conflict linkages

To determine if natural resources have played (or continue to play) a critical role in armed conflict, assessments should seek to understand the key actors in the conflict and their linkages to natural resources (see Table 1). Assessments should also identify:

- Key financial and strategic benefits and drawbacks of the identified resources on all warring parties and civilian populations affected by the conflict.
- The nature and extent of grievances over the identified natural resources (real and perceived), if any.
- The location of implicated resources and overlap with territories under the control of armed forces and groups.
- The role of sanctions in deterring illegal exploitation of natural resources.
- The extent and type of resource depletion and environmental damage caused by mismanagement of natural resources during the conflict.
- Displacement of local populations and their potential loss of access to natural resources.

- Cross-border activities involving natural resources.
- Linkages to organized criminal groups (see IDDRS 6.40 on DDR and Organized Crime).
- Linkages to armed groups designated as terrorist organizations (see IDDRS 6.50 on DDR and Armed Groups Designated as Terrorist Organizations).
- The various actors in the conflict and their relationship with natural resources.

TABLE 1. LINKAGES OF KEY ACTORS TO NATURAL RESOURCES DURING ARMED CONFLICT

| KEY ACTOR MAPPING | NATURAL RESOURCE LINKAGES |
|--|---|
| Government and national armed forces | <ul style="list-style-type: none"> ■ Direct selling of land, timber, endangered species or mineral resources via criminal networks or directly to private entities. ■ Corruption within state institutions and possible grievances over the distribution of natural resource benefits. |
| Armed forces and groups | <ul style="list-style-type: none"> ■ Use of natural resources to finance conflict activities and weapons and ammunition acquisition (often controlled by high-level leaders) and for grievances and recruitment. ■ Use of scorched-earth tactics or other direct damage to the environment, possibly leading to the displacement and disenfranchisement of vulnerable populations from their livelihoods. |
| Private sector (national and multinational enterprises) and organized criminal groups | <ul style="list-style-type: none"> ■ May be involved in purchasing or extorting natural resources from armed forces and groups or from organized criminal groups; can act as middlemen to facilitate the fuelling of conflict by natural resources exploitation. ■ May be involved in obtaining questionable concessions for natural resource exploitation during conflict or taking advantage of weak governance to access natural resources for trade. |
| Conflict-affected civilian populations and groups (including civil society organizations) | <ul style="list-style-type: none"> ■ Access to valuable resources for livelihoods may be restricted by armed forces and groups. ■ May participate willingly or be forced to participate in the extraction of natural resources. ■ May participate willingly or be forced into illicit trade networks. ■ May be forced to pay informal taxes to armed forces and groups for producing or trading natural resources. |
| Initiatives focused on structuring and improving transparency in natural resource supply chains | <ul style="list-style-type: none"> ■ May involve public- or private-sector organizations in implementing efforts to trace and document ethical practices in natural resource supply chains, improving transparency and restricting the risk of capture by armed forces and groups. ■ May facilitate or improve communications and data flows on key risk areas for natural resources and conflict, allowing DDR processes to target key locations and supply chains. ■ May support formalization of natural resource sectors and improve related employment options for reintegration. |



The abovementioned assessments can be completed through desk reviews (i.e., using reports from the national Government, UN agencies, nongovernmental organizations [NGOs], local civil society groups and media) as well as field assessments. An assessment mission can also help to collect the necessary background information for analysis. Assessment methodology shall be developed in consultation with gender experts, and assessment teams shall include gender expertise. The role of natural resources in the political and security sectors affecting the planning of DDR processes should be duly considered. Where appropriate, conflict and security analysis should factor in considerations related to natural resources (see Box 1). In post-conflict contexts, assessments of the linkages between natural resources and armed conflict should complement a post-conflict needs assessment that identifies the main social and physical needs of conflict-affected populations. For further information, see IDDRS 3.11 on Integrated Assessments.

BOX 1. CONFLICT AND SECURITY ANALYSIS FOR NATURAL RESOURCES AND CONFLICT: SAMPLE QUESTIONS

- Is scarcity of natural resources or unequal distribution of related benefits an issue? How are different social groups able to access natural resources differently?
- What is the role of land tenure and land governance in contributing to conflict – and potentially to conflict relapse – during DDR efforts?
- What are the roles, priorities and grievances of women and men of different ages in regard to management of natural resources?
- What are the protection concerns related to natural resources and conflict, and which groups are most at risk (men, women, children, minority groups, youth, elders, etc.)?
- Did grievances over natural resources originally lead individuals to join – or to be recruited into – armed forces or groups? What about the grievances of persons associated with armed forces or groups, in particular women and youth? If a peace agreement or ceasefire has been signed, were these grievances addressed when the conflict ended or in the peace agreement?
- Is the political position of one or more of the parties to the conflict related to access to natural resources or to the benefits derived from them?
- Has access to natural resources supported the chain of command in armed forces or groups? How has natural resource control allowed for political or social gain over communities and the State? Does holding or controlling access to natural resources correlate to political and social power? If so, how?
- Who are the main local and global actors (including the private sector and organized crime) involved in the conflict and what is their relationship to natural resources?
- Have armed forces and groups cohered or splintered? How are they supporting themselves? Do natural resources factor in and what markets are they accessing to achieve this?
- How have natural resources been leveraged to control the civilian population?
- Has the conflict stopped or seriously impeded economic activities in natural resource sectors, including agricultural production, forestry, fisheries or extractive industries? Are there issues with parallel taxation, smuggling or militarization of supply chains? What populations have been most affected by this?
- Has the conflict involved land-grabbing or other appropriation of land and natural resources? Have groups with specific needs, including women, youth and persons with disabilities, been disproportionately affected?

- How has the degradation or exploitation of natural resources during conflict socially impacted affected populations?
- Have conflict activities led to the degradation of key natural resources, for example, through deforestation, pollution or erosion of topsoil, contamination or depletion of water sources, destruction of sanitation facilities and infrastructure, or interruption of energy supplies?
- Are risks of climate change or natural disasters exacerbated by the ways that natural resources are being used before, during or after the conflict? Are there opportunities to address these risks through DDR processes?
- Are there foreseeable, specific effects (i.e., risks and opportunities) of natural resource management on female ex-combatants and women formerly associated with armed forces and groups? And for youth?

The results of these assessments and the natural resource sectors targeted should indicate which planning and implementation partners will be required. A diverse range of partners should be sought, including those from local civil society as well as those working in and with the private sector. When planning and implementation partners have been identified, DDR practitioners should ensure that there are dedicated resources for a knowledge management focal point to track natural resource management, gender and other cross-cutting themes.

Many DDR processes already use natural resource management in community violence reduction (CVR) or reintegration efforts. Without recognizing the potential risks and adopting adequate safeguards, DDR processes could have negative impacts on natural resources. See section 6.3 for information on how to recognize and mitigate these risks.

6.1.2 Employment and livelihood opportunities

DDR practitioners planning the implementation of employment and livelihoods programmes – for example, as part of a CVR or DDR programme – should also seek to gather information on the risks and opportunities associated with natural resources. For example, questions concerning natural resources should be integrated into the profiling questionnaires administered during the demobilization component of a DDR programme (see Box 2). These questionnaires seek to identify the specific needs and ambitions of ex-combatants and persons formerly associated with armed forces and groups (for further information on profiling, see section 6.3 in IDDRS 4.20 on Demobilization). Questions related to natural resources should also be included in assessments conducted for the purpose of designing reintegration programmes. For sample questions, see Table 2, and, for further information on reintegration assessments, see section 7 in IDDRS 4.30 on Reintegration. Many of these sample questions may also be relevant for the design of CVR programmes (see IDDRS 2.30 on Community Violence Reduction).

At a minimum, assessments focused on natural resources and employment and livelihood opportunities should encompass the demand for natural resources and any derived products in local, regional, national and international markets. They should also examine existing and planned private-sector activity in natural resource sectors. Assessments should also consider whether any areas environmentally degraded or damaged as a result of the conflict can be rehabilitated and strengthened through

quick-impact projects (see section 7.2.1). DDR practitioners should seek to incorporate information gathered in Strategic Environmental Assessments and Environmental and Social Impact Assessments where appropriate and possible, to avoid unnecessary duplication of efforts. The data collected can also be used to identify potential reconciliation and conflict resolution activities around natural resources. These activities may, for example, be included in the design of reintegration programmes.

BOX 2. SAMPLE QUESTIONS FOR THE PROFILING OF MALE AND FEMALE MEMBERS OF ARMED FORCES AND GROUPS

- Were the motivations for joining the armed forces or groups linked to natural resources?
- What are the potential areas of return and likely livelihoods options within the natural resource sector?
- What is the seasonality of these occupations and related migration patterns?
- Are there communal natural resources in question in the area of return? Will DDR participants have access to these?
- Where are natural resources used and/or exploited by members of armed forces and groups (to identify potential hot spots)?
- Is it possible for members of armed forces and groups to employ their job/vocational skills in natural resource management?
- What economic activities were undertaken prior to joining or while with armed forces and groups in different natural resource sectors?
- Is there interest in undertaking economic activities in natural resource sectors?

TABLE 2. SAMPLE ELEMENTS TO INCLUDE IN REINTEGRATION ASSESSMENTS

| | |
|---|--|
| Identification and assessment of (potential) areas of return or resettlement | <ul style="list-style-type: none"> ■ Key natural resource/ecological risks and opportunities ■ Potential for conflicts over access to and tenure over land and natural resources ■ Access by women to land and other assets for reintegration ■ Protection concerns for women, men, youth/boys and girls related to natural resources ■ Natural resource management needs to ensure sustainability of their use and contribution to overall resilience ■ Ongoing or planned operations by private entities around extractive natural resources that represent potential employment opportunities |
| Community perception surveys | <ul style="list-style-type: none"> ■ Community perceptions of the role of members of armed forces and groups in scarcity or degradation of natural resources ■ Community access to natural resources and identification of potential conflict areas ■ Community perceptions of employment opportunities in various natural resource sectors ■ Gendered division of labour and the priorities and grievances of female and male community members regarding the use of natural resources |

| | |
|---|---|
| Economic opportunity mapping | <ul style="list-style-type: none"> ■ Potential natural resource sectors for the creation of employment opportunities and identification of groups working to formalize or improve transparency in these sectors ■ Potential natural resource value chains that can create employment and lead to economic reintegration ■ Existing efforts at transparent management of extractive natural resources, including certified supply chains ■ Identified roles for women and youth who are at risk of recruitment in natural resource sectors |
| Services mapping and institutional capacity assessment | <ul style="list-style-type: none"> ■ Overall natural resource management capacities and vulnerabilities within potential implementing partners, including the public sector, NGOs and civil society ■ Expertise in key natural resource sectors in national and international organizations |

6.2 Specific-needs groups and cross-cutting issues

To appropriately address the needs of all DDR participants and beneficiaries, a thorough analysis of groups with specific needs in natural resource management should be carried out as part of general DDR assessments. These considerations should then be mainstreamed throughout design and implementation. Specific-needs groups often include women and girls, youth, persons with disabilities and chronic illnesses, and indigenous and tribal peoples and local communities, but other vulnerabilities might also exist in different DDR contexts. Annex B presents a non-exhaustive list of questions that can be incorporated into DDR assessments pertaining to specific-needs groups and natural resource management.

6.2.1 Youth

Many conflict-affected countries have substantial numbers of youth – individuals between 15 and 24 years of age – relative to the rest of the population. Natural resources can offer specific opportunities for this group. For example, when following a value chain approach (see section 7.3.1) with agricultural products, non-timber forest products or fisheries, DDR practitioners should seek to identify processing stages that can be completed by youth with little work experience or skills. Habitat and ecosystem services restoration can also offer opportunities for young people. Youth can also be targeted as leaders through training-of-trainers programmes to further disseminate best practices and skills for improving the use of natural resources. When embarking on youth-focused DDR processes, efforts should be made to engage both male and female youth. While male youth are often the more visible group in conflict-affected countries, there are proven peace dividends in providing support to female youth. For additional guidance, see IDDRS 5.30 on Youth and DDR.

6.2.2 Women and girls

Women and girls often directly manage communal natural resources for their livelihoods and provide for the food security of their families (e.g., through the direct cultivation of land and the collection of water, fodder, herbs, firewood, etc.). However, they often lack tenure or official rights to the natural resources they rely on, or may have

access to communal resources that are not recognized (or upheld if they are recognized) in local or national laws. DDR practitioners should pay special attention to ensuring that women are able to access natural resources, especially in situations where this access is restricted due to lack of support from a male relative. In rural areas, this is especially crucial for access to land, which can provide the basis for women's livelihoods and often determines their ability to access credit and take out loans. For example, where DDR processes link to land titling, they should encourage shared titling between male and female heads of households. In addition, DDR practitioners should ensure that employment opportunities and necessary skills training are available for girls and women in natural resource sectors, including non-traditional women's jobs. Moreover, DDR practitioners should ensure that women are part of any decision-making processes related to natural resources and that their voices are heard in planning, programmatic decisions and prioritization of policy.

In cases where accessing natural resources for livelihoods has put women and girls at higher risk of sexual and gender-based violence, special care must be taken to establish safe and secure access to these resources, or a safe and secure alternative. Awareness and training of security forces may be appropriate for this, as well as negotiated safe spaces for women and girls to use to cultivate or gather natural resources that they rely on. DDR practitioners should ensure that these considerations are included in DDR assessments so that the safety and security risks to women and girls from accessing natural resources are minimized during the DDR process and beyond. For more guidance, see IDDRS 5.10 on Women, Gender and DDR.

6.2.3 Persons with disabilities

Many DDR participants and beneficiaries will have experienced the onset of one or more physical, sensory, cognitive or psychosocial disabilities during conflict. DDR practitioners should ensure that in all contexts, including those in which natural resources are present, disability-inclusive DDR is integrated into the overall DDR process and is not pursued in a segregated, siloed fashion. Persons with disabilities have many different needs and face different barriers to participation in DDR and in activities involving the natural resources sector. DDR practitioners should identify these barriers and the possibilities for dismantling them when conducting assessments. DDR practitioners should seek expert advice from, and engage in discussions with, organizations of persons with disabilities, relevant NGOs and government line ministries working to promote the rights of persons with disabilities, as outlined in the United Nations Convention on the Rights of Persons with Disabilities (2006) and Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993).

6.2.4 Health considerations

Natural resource management can have profound implications for public health. For example, the use of firewood and charcoal for cooking can lead to significant respiratory problems and is a major health concern in many countries, particularly for women and children. Improved access to energy resources can help to mitigate this (see section 7.3.4). Other key health concerns include waste and water management, both natural resource management issues that can be addressed through CVR and reintegration programmes. DDR practitioners should include these considerations in assessments and seek to improve health conditions through natural resource management wher-

ever possible. Other areas where health is implicated are related to the deforestation and degradation of land. Pushing the forest frontier can lead to increased exposure of local populations to wildlife that may transmit disease, even leading to the outbreak of pandemics. DDR practitioners should identify areas that have experienced high rates of deforestation and target them for reforestation and other ecosystem rehabilitation activities wherever possible, according to the results of assessments and risk considerations. For further guidance, see IDDRS 5.70 on Health and DDR.

6.2.5 Indigenous and tribal peoples and local communities

Indigenous and tribal peoples and local communities around the world have close traditional and cultural ties to land and other aspects of natural resources. They often have customary forms of managing natural resources that support overall goals of conservation and preservation of natural resources – including for food, medicines and cultural purposes – as a form of management. In many contexts, the rights of indigenous peoples to their land are undermined or under-recognized (or not recognized at all) in national legislation, leading to allocation of these lands through concessions or other acts to private companies or groups seeking to exploit them for commercial production of agricultural or forest commodities. The right to free, prior and informed consent may often be undermined or ignored. DDR practitioners should identify where indigenous peoples and local communities have claim to lands that are otherwise subjected to overlapping claims by private or state entities seeking to exploit these lands and, once identified, seek to support these groups with access to local civil society and other legal aid groups that can help them to advocate for their lands and resources. DDR practitioners can also ensure that representatives of indigenous groups and local communities are included in natural resource management decision-making at local, national and regional levels.

6.3 Risk management and implementation

Following the abovementioned assessments, DDR practitioners shall develop an inclusive and gender-responsive risk management approach to implementation. Table 4 includes a comprehensive set of risk factors related to natural resources to assist DDR practitioners when navigating and mitigating risks.

In some cases, there may be systems in place to mitigate against the risk of the exploitation of natural resources by armed forces and groups as well as organized criminal groups. These measures are often implemented by the UN (e.g., sanctions) but will implicate other actors as well, especially when the natural resources in question are traded in global markets and end up in products placed in consumer markets with protections in place against trade in conflict resources. DDR practitioners shall avoid being seen as supporting individuals or armed forces and groups that are targeted by sanctions or other regimes and work closely with national and international authorities.

TABLE 3. RISKS FROM NATURAL RESOURCES FOR THE FINANCING OF ARMED FORCES AND GROUPS

| NATURAL RESOURCE INTERVENTION | RISK TO DDR PROCESSES |
|--|--|
| Sanctions on one or more natural resources. | Sanction busters may continue to trade weapons and ammunition for natural resources with armed groups. |
| Mandated monitoring and enforcement of trade in natural resources by national security forces and peacekeepers. | Poor monitoring and enforcement can lead to continued risk of violence for surrounding communities, including forced labour or security threats for those who rely on access to natural resources for their livelihoods (e.g., women and girls collecting firewood or fetching water). |
| Certification of Origin for trade in natural resources (i.e., Kimberly Process for diamonds, certification of artisanal and small-scale mining operations, or government participation in EITI). | Continuation of the war economy and a potential higher risk of relapse into conflict. |

Depending on the context, different types of natural resources will be risk factors for DDR practitioners. In almost all cases, land will be a risk factor that can drive grievances, while also being essential to kick-starting rural economies and for the agricultural sector. Other natural resources, including agricultural commodities (‘soft commodities’) or extractive resources (‘hard commodities’), will come into play depending on the context. Once identified through assessments, DDR practitioners should further analyse the nature of the risk based on the natural resource sectors present in the particular context, as well as the opportunities to create employment through the sector. For each of the sectors identified in Table 4, DDR practitioners should note the particular risk and seek expertise to implement mitigating factors.

TABLE 4. NATURAL RESOURCE MANAGEMENT, RISK AND MITIGATING FACTORS

| SECTOR | RISK | MITIGATING FACTORS |
|--------------------|---|--|
| Agriculture | <ul style="list-style-type: none"> ■ Ecologically inappropriate seeds or livestock used for agriculture programmes ■ Lack of extension services, inputs and credits/insurance ■ Lack of access to storage and markets ■ Unclear tenure over communal grazing lands and water points ■ Potential for large-scale agriculture production without clear labour rights and workers' safety in place ■ Lack of traceability systems to ensure legally and ethically produced/extracted resources ■ Lack of access by women, youth and other specific-needs groups ■ Reduced agricultural productivity due to climate-related stressors | <ul style="list-style-type: none"> ■ Define clear access points for livestock ■ Coordinate with extension services to guarantee access to appropriate inputs ■ Review all species used by a local biologist/ ecologist and work with the Ministry of Agriculture or other appropriate entities, including through economic diversification ■ Link with microfinance initiatives and focus on restoring markets through infrastructure projects, including those for improving water access and storage facilities ■ Link with social partners and supply chain experts to develop opportunities to improve transparency and protect workers' rights in supply chains ■ Engage with private-sector entities sourcing from the area to leverage their influence towards employment creation opportunities, including through agro-processing ■ If appropriate, support the participation and/or establishment of agricultural cooperatives for women, youth and other specific-needs groups ■ Link to climate adaptation plans |
| Fisheries | <ul style="list-style-type: none"> ■ Over-exploitation of fisheries stocks ■ Competition over access between communities and groups ■ Lack of access for women and other specific-needs groups ■ Lack of access to capital to improve the processing and storage of the catch ■ Alteration of migration patterns of fish stock away from coastal areas due to rising ocean temperatures and over-fishing (or lack of fisheries management) | <ul style="list-style-type: none"> ■ Establishment of clear fishing zones and rights ■ Support for the establishment or revitalization of organizational system to track and manage catch quantities ■ If appropriate, support the establishment of cooperatives for fishermen and for women working in the processing and transformation of the catch ■ Support the revitalization of markets for selling |



| SECTOR | RISK | MITIGATING FACTORS |
|-----------------|--|--|
| Forestry | <ul style="list-style-type: none"> ■ Illegal exploitation and sale by armed groups or criminal organizations ■ Over-harvesting and unsustainable exploitation, without clear labour rights and workers' safety measures in place ■ Conflicts over land tenure and rights to forest areas (including among and/or between indigenous and tribal peoples) ■ Lack of access to forests for essential materials (e.g., water, fuel wood and medicinal plants) ■ Lack of traceability systems to ensure legally and ethically produced/extracted resources | <ul style="list-style-type: none"> ■ Work with the Ministry of Forestry or other appropriate authorities and entities to link with any established community forest management committees, or with representatives of local communities and indigenous groups where forest management committees are not established ■ Determine potential conflicts over forest resources during profiling ■ Determine essential needs in terms of forest resources ■ Support forest patrols/rangers to discourage illegal logging, e.g., through training and adequate equipment ■ Work with local authorities to determine needs and access rights for women, indigenous peoples and other specific-needs groups |
| Mining | <ul style="list-style-type: none"> ■ Occupation and control by armed groups or criminal organizations ■ Extortion and forced labour of local populations ■ Involvement of private-sector entities supporting illicit trade ■ Lack of access to legal markets ■ Lack of regulatory mechanisms to guarantee efficient functioning of points of sale ■ Lack of traceability systems to ensure legally and ethically produced/extracted resources | <ul style="list-style-type: none"> ■ Request for protection of mining areas by peacekeeping troops or local security sector where possible and appropriate ■ Collaboration with human rights units in Government and peacekeeping missions where possible to track and document any human rights abuses occurring in mines ■ Work with existing efforts to support the establishment of legal, transparent points of sale around mines and improved traceability of supply chains |

7. DDR programmes and natural resources

To incorporate natural resources into the design and implementation of DDR programmes, DDR practitioners should ensure that technical capacities on natural resource issues exist in support of DDR, within DDR teams or national DDR structures (i.e., national government and military structures where appropriate), and/or are made available through partnerships with relevant institutions or partners, including representatives of indigenous peoples and local communities, or other civil society groups

with relevant expertise. This may be done through the secondment of experts, providing training on natural resources, and consulting local partners and civil society groups with relevant expertise.

During the programme development phase, risks and opportunities identified as part of the assessment and risk management process should be factored into the overall strategy for the programme. This can be accomplished by working closely with government institutions and relevant line ministries responsible for agriculture, land distribution, forestry, fisheries, minerals and water, as well as civil society, relevant NGOs, and the local and international private sector, where appropriate. DDR practitioners should ensure that all major risks for health, livelihoods and infrastructure, as well as disaster-related vulnerabilities of local communities, are identified and addressed in programme design and implementation, including for specific-needs groups. This is especially important for extractive industries such as mining, as well as forestry²¹ and agriculture, where government contracts and concessions that are being negotiated will impact local areas and communities, or where the extraction or production of the resources can result in pollution or contamination of basic life resources such as soils, air and water. Private-sector entities are increasingly pressured to conform to due diligence and transparency standards that seek to uphold human rights, labour rights and sustainable development principles, and DDR practitioners can leverage these expectations to increase their cooperation. Local traditional knowledge about natural resource management should also be sought and built into the DDR programme as much as possible.

7.1 Disarmament

Where the exploitation of natural resources is an entrenched part of the war economy and linked to the activities of armed forces and groups, as well as organized criminal groups, natural resources can be leveraged as a means of gaining control over certain territories and accessing weapons and ammunition. The main concern of DDR practitioners will be to support efforts to break the linkages between the flows of natural resources used to finance the acquisition of weapons and ammunition, including by working with actors involved in the implementation and monitoring of sanctions, including the UN Group of Experts, and contributing to strengthening the capacity of the security sector to reduce illicit weapons and ammunition flows. This can be difficult in contexts where members of armed groups and communities are unwilling to disarm because of concerns for their security. In such cases, transitional weapons and ammunition management (WAM) approaches may be needed (see section 8.2).

To ensure that security objectives are achieved, DDR practitioners should examine the role of natural resources in the acquisition of weapons and ammunition and how weapons and ammunition are instrumental in exerting control over natural resources and access to the revenues from their trade. DDR practitioners should collaborate with relevant interagency stakeholders to ensure that natural resources are no longer used to finance the acquisition of weapons and ammunition for armed groups undergoing disarmament and demobilization or by individual combatants being disarmed and demobilized. When planning the destruction of weapons and ammunition, DDR practitioners should consider the environmental impact of the planned destruction. For further guidance on disarmament, see IDDRS 4.10 on Disarmament.

BOX 3. DISARMAMENT: KEY QUESTIONS

- How are weapons and ammunition being acquired? Are natural resources being exploited to finance their acquisition?
- What steps can be taken to prevent the trade and trafficking of natural resources by armed forces and groups and/or organized criminal groups?
- In conflict settings, what steps can be taken to disrupt the flow of trafficked weapons to reduce the capacity of individuals and groups to engage in armed conflict and save lives?
- How can DDR programmes highlight the constructive roles of women who may have engaged in the illicit trafficking of weapons and/or conflict? What precautions can be taken to avoid reinforcing or creating gender-based inequalities?
- How can DDR programmes address the presence of children associated with armed forces and groups who may have been used in the exploitation of natural resources?
- To what extent would the removal of weapons jeopardize security and economic opportunities for male and female ex-combatants and communities, including land tenure and access to critical livelihoods resources?
- When disarmament is currently impossible, can DDR-related tools, such as transitional WAM, be implemented? Can alternative stages (demobilization and reintegration) be offered prior to disarmament to gain trust and contribute to the relinquishment of weapons?
- Does the proposed disarmament operation have sufficient resources to safely store weapons and ammunition and prevent diversion to armed groups engaged in criminal activities?
- Is there evidence of armed forces engaging in criminal activities related to natural resources, including illicit trafficking of natural resources, related crimes against humanity, war crimes and serious human rights violations, and what are the risks of incorporating weapons and ammunition collected during disarmament into national stockpiles?

7.2 Demobilization

Demobilization includes a reinsertion phase in which transitional assistance is offered to DDR programme participants for a period of up to one year, prior to reintegration support (see IDDRS 4.20 on Demobilization). Transitional assistance may be offered in a number of ways, including in-kind support, cash-based transfers, public works programmes and other income-generating activities. In contexts where there has been degradation of natural resources that are important for livelihoods or destruction of key water, sanitation and energy infrastructure, DDR programme participants can be employed in labour-intensive, quick-impact infrastructure or rehabilitation projects during the demobilization phase. When targeting natural resource management sectors, these projects can contribute to restoration and rehabilitation of environmental damages, increased protection of critical ecosystems, improved management of critical natural resources, and reduced vulnerability to natural disasters. Concerted efforts should be made to include women, youth, and elderly and disabled persons in planning and implementation of reinsertion activities.

7.2.1 Quick-impact projects in natural resource management

During reinsertion, DDR participants and beneficiaries can work on labour-intensive but unskilled activities that help to build their capacity and contribute to natural resource management. Examples of specific activities are included in Box 4.

BOX 4. SAMPLE QUICK-IMPACT PROJECTS

Soil conservation and stabilization

- Construction of soil conservation structures, including terracing or planting of soil stabilizing vegetation
- Stabilization of riverbanks and other natural flood control structures through increased vegetation

Restoration of degraded or deforested lands

- Reforestation or afforestation of degraded sites, where determined to be ecologically appropriate, ideally with native species
- Establishment of renewable wood lots for firewood and charcoal
- Restoration of riverine vegetation

Reparation of critical public infrastructure for sanitation, water and transportation

- Desilting of irrigation canals and construction of rainwater catchments or earth dams
- Reparation of roads, drainage canals, groundwater wells, irrigation canals and sanitation infrastructure
- Development of systems for municipal sanitation, including recycling and creation of designated areas for waste

These types of activities are especially important in rural areas where many people depend on agriculture for their livelihoods. In urban areas, priority should be given to sanitation and access to water and health-related activities that will ensure that high-density areas are safe to live in. Activities designed to restore specific ecosystem functions, such as the restoration of mangroves to protect coastal communities from hurricanes or typhoons, or the stabilization of hillsides and mountains from heavy rains through reforestation or afforestation, can also improve the resilience of local communities to the increased frequency of natural disasters that accompany climate change. These efforts can be integrated into broader climate security efforts as well, through interagency coordination.

DDR practitioners should prioritize investment in infrastructure projects that strengthen environmental resilience against future crises like climate change and natural disasters. The objective of addressing natural resources during the reinsertion phase of a DDR programme is to strengthen environmental resilience and lay the groundwork for sound, sustainable management of natural resources. Where possible, reinsertion activities should be linked to longer-term reintegration support (see Table 5).

7.2.2 Demining agricultural areas

Landmines and explosive remnants of war take a heavy toll on people's livelihoods, countries' economic and social development, and peacebuilding efforts. Restoring agricultural lands to a productive state is paramount for supporting livelihoods and improving food security, two of the most important concerns in any conflict-affected

setting. Demining fields and potential areas for livestock and agriculture will therefore provide an essential step to restoring safety and access to agricultural lands and shoring up the confidence of local populations in the peace process. To ensure that agricultural land is returned to safety and productivity as quickly as possible, where applicable, DDR programmes should seek specific demining expertise. Male and female DDR programme participants and beneficiaries may be trained in demining during the reinsertion phase of a DDR programme and be supported to continue this work over the longer-term reintegration phase.

7.2.3 Disposal and management of waste from conflict

Conflicts often result in a large amount of waste and debris from the destruction of infrastructure, buildings and other resources. Short-term public works programmes can be used to clean up this debris and to provide income for community members and former members of armed forces and groups. Participants can also be engaged in the training, employment and planning aspects of waste and debris management. Attention should be paid to health and safety regulations in such activities, since hazardous materials can be located within building materials and other debris. Expertise on safe disposal options should be sought. Barriers to the participation of specific-needs groups should be identified and addressed.

BOX 5. DEMOBILIZATION: KEY QUESTIONS

- What is the risk (if any) that reinsertion assistance will equip former members of armed forces and groups with skills that can be used to further exploit natural resources or engage in criminal activities?
- If skills training and catch-up education are provided as part of short-term reinsertion assistance, do they adequately initiate former members of armed forces and groups into the realities of the lawful economic and social environment, including as it pertains to natural resources?
- What safeguards can be put in place to prevent former members of armed forces and groups from continuing to engage in any illicit or licit exploitation, control over and/or trade in natural resources linked to the conflict?
- What does demobilization offer that membership in armed forces and groups that are controlling or exploiting natural resources does not? Conversely, what does such membership in armed forces and groups offer that demobilization does not? What are the (perceived) benefits of continued engagement in illicit activities?
- How does demobilization address the specific needs of certain groups, such as women and children, who may have been recruited and used and/or been victims of armed forces and groups involved in natural resource exploitation, control or trafficking in conflict?

TABLE 5. LINKING NATURAL RESOURCE MANAGEMENT ACTIVITIES FROM DEMOBILIZATION THROUGH TO REINTEGRATION AND SUSTAINABLE PEACE

| DEMOBILIZATION ACTIVITY | REINTEGRATION LINKS | BENEFITS FOR SUSTAINABLE PEACE |
|--|---|--|
| <p>Rehabilitation and construction of roads (and demining of transportation routes) and rehabilitation and construction of irrigation infrastructure and storage and processing facilities.</p> | <p>Supports development of employment opportunities in the agricultural sector and access to markets, information, goods and services; improves efficiency of water usage for improved agricultural livelihoods and supports food security and poverty reduction initiatives.</p> | <p>Improved accessibility and mobility facilitate social dialogue and negotiation. Demining protects wildlife and saves lives. Improved food security and reduced poverty may reduce pressure on wildlife and surrounding protected areas, if relevant.</p> |
| <p>Rehabilitation of ecosystems (forests, watersheds, riverbanks, mangroves, etc.).</p> | <p>Tree farms and wood lots can be established to generate income for fuel wood and construction materials; improved mangroves can support healthy fisheries and maintain biodiversity.</p> | <p>Improved stability for riverbanks reduces soil erosion and sedimentation of the river (i.e., clearer, cleaner water); more productive ecosystem services.</p> |
| <p>Rehabilitation and improvement of sanitation infrastructure (waste removal, improved water sources, drainage, water treatment).</p> | <p>Provides opportunities for waste-based and recyclable products for use and sale and waste pickers' cooperatives organization; supports improved health conditions and small enterprises reliant on water resources.</p> | <p>Reduces uncontrolled release of biological and other wastes into the environment and water sources; builds up capacity for solid waste management and social and solidarity economy organizations' development; improves public health; frees time of women and girls, typically responsible for household water resources, for other activities.</p> |
| <p>Rehabilitation and establishment of energy services, including renewable energy and household energy.</p> | <p>Allows for additional enterprises and services, including social and educational facilities; possibility of employing appropriate technologies encourages local means of production and maintenance.</p> | <p>Reduces pressure on biomass for fuel (wood, charcoal, fodder, etc.) and on forest resources to meet basic fuel needs; allows for establishment of health and education centres for youth and other at-risk groups; reduces health and security risks related to the collection of traditional energy sources, such as charcoal.</p> |



| DEMOBILIZATION ACTIVITY | REINTEGRATION LINKS | BENEFITS FOR SUSTAINABLE PEACE |
|--|---|--|
| Rehabilitation and construction of agricultural extension services and centres. | Supports revitalization and improvement for agricultural sector, as well as educational facilities, trade centres and food storage and distribution centres. | Improves agricultural productivity, income-generating opportunities in agriculture, economic diversification and food security; reduces poverty; helps government services to reach rural areas. |
| (Re-)establishment of authority and rehabilitation of protected areas. | Along with security sector reform, allows for employment opportunities for ex-combatants as protected area staff and park rangers; could create future opportunities for eco-tourism. | Facilitates the creation and management of protected areas for conservation of critical habitats and wildlife; improves security within parks. |

7.3 Reintegration

The guidance in this section is intended to complement IDDRS 2.40 on Reintegration as Part of Sustaining Peace and IDDRS 4.30 on Reintegration.

DDR practitioners should seek to design reintegration activities that involve natural resources and support long-term sustainable livelihoods interventions. In conflict contexts, natural resource management is typically already a part of existing livelihoods and employment opportunities, in both formal and informal sectors. By carefully assessing and factoring natural resource management considerations – including foreseen impacts and potential threats from climate change – into reintegration efforts, DDR practitioners can help improve sustainability and resilience in these key livelihoods sectors. Together with national stakeholders and interagency coordination, promoting sound natural resource management may also create pathways to support key natural resource sectors to transition from the war economy and align with national development priorities.

Engaging the private sector in the reintegration phase of a DDR programme is also an opportunity to formalize natural resource sectors. This is especially important for sectors that have been part of the root causes of conflict, continue to be exploited to finance conflict, or in which ex-combatants may already be engaged in informal employment or other income-generating activities. Changing these sectors helps to move the entire context from conflict towards sustainable peace. This is especially true in countries with significant potential for development of key natural resource sectors, whether in extractives or others. For example, individuals may join armed groups to access employment opportunities in the mining sector, but experience has shown that they prefer to work in mines regulated in the formal economy if they have the option. Support for the formalization of natural resource sectors may help reduce recruitment as well as create formal employment opportunities that will provide tax revenues for the State and be subject to national laws, including labour regulations.

DDR practitioners must also consider both national and international private-sector actors as key contributors to economic revitalization. While it can be difficult to get accurate information on the activities of private companies and their agreements with Governments before, during and after conflict, DDR programmes offer an opportunity to engage with the private sector to enhance existing employment opportunities and to encourage their support for sustainable peace. DDR practitioners should determine the impacts and dependencies of the private sector on natural resources as part of their assessments and actively engage with local and international private companies to explore opportunities to generate employment and support community development through collaborations. This can help to identify existing and upcoming private-sector companies that could be engaged to supply training and employment to DDR programme participants and beneficiaries.

In natural resource sectors, private companies can also provide much-needed expertise and support for infrastructure development. While this should be encouraged, DDR practitioners must also be aware that national policies and enforcement capacities also need to be in place for this to contribute to sustainable peace. For example, in countries where the Government is granting concessions to private entities for the exploitation of extractive or agricultural resources, sufficient due diligence requirements for transparency must be in place. These can include the ability for local communities to monitor company activities and the existence and enforcement of accompanying processes such as free, prior and informed consent and other principles of international norms included in the UN Guiding Principles on Business and Human Rights.

Formalizing sectors that contribute to global supply chains, including minerals, timber or other high-demand agricultural commodities requires understanding the existing supply chain. This could mean working with existing actors and efforts contributing to improved transparency, traceability and engagement of emerging technologies and systems to support this. For instance, due diligence efforts in mineral supply chains are increasingly being digitized, thereby reducing the risk of fraud present with paper-based systems. In addition, electronic systems enable clearer tracing to downstream companies implicated in mineral supply chains that are also subject to regulations governing their risk of exposure to conflict in their supply chains. DDR practitioners should engage with these efforts to identify ways to target and improve employment opportunities for those participating in reintegration programmes, as well as to contribute to the overall stabilization of these sectors and their role in sustainable peace.

7.3.1 Value chain approaches and community-based natural resource management

Value chains are defined as the full range of interrelated productive activities performed by organizations in different geographical locations to produce a good or service from conception to complete production and delivery to the final consumer. A value chain encompasses more than the production process; it also includes the raw materials, networks, flow of information and incentives between people involved at various stages. It is important to note that value chains may involve several products, including waste and by-products.

Each step in a value chain process allows for employment and income-generating opportunities. Value chain approaches are especially useful for natural resource management sectors such as forestry, non-timber forest products (seeds, bark, resins,

fruits, medicinal plants, etc.), fisheries, agriculture, mining, energy, water management and waste management. A value chain approach can strengthen the market opportunities available to support reintegration efforts, including improving clean technology to support production methods, accessing new and growing markets, and scaling employment and income-generation activities that are based on natural resources. DDR practitioners may use value chain approaches to enhance reintegration opportunities and to link opportunities across sectors.²²

Engaging in natural resource sectors can be extremely contentious in conflict settings. To reduce any grievances or existing tensions over shared resources, DDR practitioners should undertake careful assessments and community consultations before including beneficiaries in economic reintegration opportunities in natural resource sectors. As described in the UN Employment Policy, community participation in these issues can help mitigate potential causes of conflict, including access to water, land or other natural resources. Capacity-building within the Government will also need to take place to ensure fair and equitable benefit sharing during local economic recovery.

Reintegration programmes can benefit from engagement with private-sector entities to identify value chain development opportunities; these can be at the local level or for placement on international markets. If the activities undertaken during reintegration are to continue successfully beyond the end of reintegration efforts, communities and local authorities need to be placed at the centre of decision-making around the use of natural resources and how those sectors will be developed. It is therefore essential that reintegration programmes based on natural resources be conducted with input from communities and local civil society as well as the Government. Moving a step further, community-based natural resource management (CBNRM) approaches, which seek to increase related economic opportunities and support local ownership over natural resource management decisions, including by having women and youth representatives on CBNRM committees or village development committees, provide communities with strong incentives to sustainably manage natural resources themselves. Through an inclusive approach to CBNRM, DDR practitioners may ensure that communities have the technical support they need to manage natural resources to support their economic activities and build social cohesion.

BOX 6. CONSIDERATIONS TO IMPROVE RECONCILIATION AND DIALOGUE THROUGH CBNRM

CBNRM can contribute to social cohesion, dialogue and reconciliation, and can be considered as an explicit outcome of the reintegration programme, where relevant. To achieve this, DDR practitioners should analyse the following opportunities during the design phase:

- Identification of shared natural resources, such as communal lands, water resources, or forests during the assessment phase, including analysis of which groups may be seen as the legitimate authorities and decision-makers over a particular resource.
- Establishment of decision-making bodies to manage communal natural resources through participatory and inclusive processes, with the inclusion of women, youth, and marginalized groups. Special attention paid to the safety of women and girls when accessing these resources.
- Outreach to indigenous peoples and local communities, or other groups with local knowledge of natural resource management to inform the design of any interventions and integration of these groups for technical assistance or overall support to reintegration efforts.
- Identification at the outset of the DDR programme and during the assessment and analysis phases of locations or potential hotspots where natural resources may create tensions between groups, as well as opportunities for environmental cooperation and joint planning to complement and reinforce reconciliation and peacebuilding efforts.
- Incorporation of dialogue and confidence-building between DDR participants and communities as an integral part of environmental projects during reintegration.
- Building of reintegration options on existing community-based systems and traditions of natural resource management as potential sources for post-conflict peacebuilding, while working to ensure that they are broadly inclusive of specific-needs groups, including women, youth and persons with disabilities.

Due to their different roles and gendered divisions of labour, female and male community members may have different natural resource-related knowledge, skills and needs that should be considered when planning and implementing CBNRM activities. Education and access to information are essential components of community empowerment and CBNRM programmes. This means that DDR practitioners should work to ensure that communities and specific-needs groups are fully informed of the risks and opportunities related to the natural resources and environment in the areas where they live. Providing communities with the tools and resources to manage natural resources can empower them to take ownership and to seek further engagement and accountability from the Government and private sector regarding natural resource management and governance.

7.3.2 Reintegration support and land rights

In both rural and urban contexts, property rights, land tenure and access to land may underpin grievances and lead to further disputes or conflicts that undermine reintegration and sustainable peace. Land issues can be particularly complicated in countries where land governance frameworks and accompanying laws are not fully in place, where tenure systems do not exist or are contested, and where there are not due processes to resolve conflicts over land rights. In many cases, the State may claim rights to land that communities claim historical rights to and grant these lands to companies

as concessions for extractive resources or to develop agricultural resources for trade in domestic and international markets.

In these cases, DDR practitioners should carefully analyse the existing state of land tenure and related grievances to understand how they relate to the conflict context and may contribute to or undermine sustainable peace. Interagency cooperation and collaboration with national authorities will be essential, especially close collaboration with civil society and representatives of local communities. Where possible, addressing land-related grievances should be a priority for DDR practitioners, with support from experts and other agencies with mandates and resources to undertake the necessary efforts to improve the land tenure system of a particular context.

DDR practitioners shall follow international guidelines for land tenure in the assessment, design and implementation phases of reintegration programmes. Since land tenure issues are a long-term development challenge, it is essential that DDR practitioners work with other specialized agencies to address this and ensure that land tenure reform efforts continue after the reintegration programme ends.

TABLE 6. LAND RIGHTS ISSUES AND REINTEGRATION MEASURES

| Issues | Measures |
|--|--|
| <ul style="list-style-type: none"> ■ Violent conflict over land tenure issues is common and has deep historic roots in many cultures. ■ Access to land can be part of the grievances behind conflict; members of armed forces and groups may have taken part in land grabbing or displacement during conflict, leading to heightened sensitivities. ■ Determining existing land rights might be complicated in contexts where pluralistic legal systems co-exist. ■ Lack of access to land and land disputes can be key constraints to reintegration, especially in areas where dependency on agricultural livelihoods is high. ■ Certain groups, such as women and youth, are often systematically excluded from land rights and tenure. | <ul style="list-style-type: none"> ■ Identify existing grievances over land and consult with the appropriate authority. ■ Document access to land in profiling. ■ Link with appropriate support programmes for women who lack access to land. ■ Cooperate with relevant organizations working on land tenure reform to provide a platform for dialogue between groups and support community-based reintegration. ■ Promote land distribution efforts as part of sustainable peace to allow women and youth to access land with national stakeholders. ■ Promote good land/soil management practices, which can increase land productivity and improve livelihoods. |

7.3.3 Reintegration support and agriculture and fisheries

In many conflict contexts, agriculture and fisheries are mainstays of economic activities and subsistence livelihoods. However, the resources needed for these activities, including access to land, livestock and grazing areas, and boats can be compromised or destroyed by conflict. Seasonal patterns associated with agriculture and fisheries activities are to be accounted for when providing reintegration support, especially when aiming to promote income-generation activities. DDR practitioners should analyse the agricultural sector to understand which crops are most important for livelihoods and

work with experts to determine how reintegration efforts can support the revitalization of the sector after conflict, including consideration of seasonality of agricultural activities and any associated migration patterns, as well as changing climate and rainfall patterns that are likely to affect agriculture. As described at the beginning of this section, a value chain and CBNRM approach to these sectors can help to maximize the opportunities and success of reintegration efforts by supporting improved production and processing of a particular agricultural commodity or fisheries product. DDR practitioners should seek experts from national institutions, local communities and inter-agency partners to bring to bear as much technical expertise and as many resources as possible, including perspectives on which crop species and methods may yield the greatest impact in terms of resilience, sustainability and climate change adaptation.

Improving resilience in the agricultural sector should be a high priority for DDR practitioners, with considerations for shifting rainfall patterns and the need for responsive mitigation factors related to climate change prioritized. Access to water, technology to manage crop seasons and improved varieties that are drought tolerant are some of the factors that DDR practitioners can take into consideration. DDR practitioners should consult experts for technical recommendations to improve the resilience of reintegration programmes in the agriculture sector, both in terms of ecological and technological improvements, as well as links and connections to markets and supply chains to improve prospects for long-term economic recovery.

TABLE 7. AGRICULTURAL AND FISHERIES ISSUES AND REINTEGRATION MEASURES

| Issues | Measures |
|---|---|
| <ul style="list-style-type: none">■ Agriculture is a commonly chosen reintegration option in DDR processes, especially in rural areas with a mostly agrarian economy.■ Challenges to agricultural livelihoods in peacebuilding settings relate to ensuring food security and moving from subsistence to more productive and diversified farming, eventually linking to the development of value chains and local processing that can increase incomes.■ Access to water and agricultural inputs may be limited, thereby reducing crop yields.■ Access to storage facilities and markets (with safe and reliable transportation infrastructure) may be lacking.■ Access to dispute resolution mechanisms can be limited or exclude certain groups, such as women.■ Land mines may restrict access to arable land.■ In conflict settings, agricultural land is often used for illicit drug cultivation.■ Climate change–related droughts and changes in rain patterns can spoil crops. | <ul style="list-style-type: none">■ Increase access to extension services, while ensuring extension services have sufficient capacity and outreach and taking climate change impacts into account, which can increase yields and incomes for farmers.■ Provide access to communication and market information to support planning and selection of crops.■ Develop value chains through local and improved processing, packaging, international or national certification, sales, logistics and marketing, which can increase incomes.■ Engage women and youth in value chain development through skills development and access to other capital assets, which can provide opportunities to vulnerable groups.■ Raise awareness and provide viable alternatives to illicit drug cultivation, which should be done in accordance with locally determined rural development plans.■ Consult with agricultural experts to support the adoption of best practices for particular geographic zones and conditions (e.g., type of soil, rainfall, temperature, seasonal patterns/alternative sources of income, market potential).■ Establish joint interventions with Government and other UN agencies (e.g., through trainings), which can increase engagement and interaction between communities and DDR beneficiaries, while also supporting practices that result in higher yields and sustainability of livelihoods through soil conservation and erosion control. |

FISHERIES

Issues

- Overfishing or lack of fisheries management can deplete the stock to the point where many livelihoods can be lost.
- Conflicts may arise between communities over access to fisheries resources.
- Sustainable development of aquaculture resources can lead to mangrove deforestation and heightened risk for natural disasters.
- Improper management of aquaculture can lead to pollution and contamination of land and water resources.
- Rising ocean temperatures can alter migration routes of fish stock and reduce the productivity of fisheries.

Measures

- Promote well-managed fisheries that include cooperatives and co-management schemes to engage multiple communities.
- Develop value chains to add value to catch before going to market to support livelihoods development, especially for women and youth.
- Restore mangroves to improve spawning grounds for fisheries and improve industry.
- Promote sustainable aquaculture, which provides livelihoods opportunities, including for specific needs groups.

7.3.4 Reintegration support and forestry

Forestry as an economic sector can employ a substantial number of people but requires sound management to be sustainable. Forest lands are also often the traditional territories of indigenous peoples, and their rights to those lands may be undermined during the conflict or by hostile takeovers as part of the granting of concessions to logging companies. DDR practitioners should be careful to analyse the full range of claims and rights to forest lands and promote sustainable forest management as part of reintegration efforts, including promoting the human rights of forest-dwelling peoples. Opportunities to work collaboratively with the private sector for job creation must be accompanied by commitments to promote human rights, including land rights, as part of any reintegration effort in the forestry sector. National actors should be supported to build capacity for sustainable forest management and safe and decent working conditions as part of these efforts. Interagency collaborators can also support capacity-building and technical training.

TABLE 8. FORESTRY ISSUES AND REINTEGRATION MEASURES

| Issues | Measures |
|---|---|
| <ul style="list-style-type: none">■ Forest products are an immediate sector for export and therefore can easily be exploited, whether for commercial timber, charcoal or non-timber forest products, to finance armed forces and groups.■ Forests are at risk of overharvesting and degradation due to market pressures (for brick making, charcoal, or shelter reconstruction), which can undermine sustainable livelihoods and forest management and reinforce climate change.■ Conflicts can arise if forest concessions are granted without consulting local users and if their exploitation undermines livelihoods or violates local customs and sacred cultural sites.■ Over-exploitation of forest resources can result in loss of biodiversity and wildlife resources and increase vulnerability to natural disasters (e.g., landslides and floods after significant rain events). | <ul style="list-style-type: none">■ Make use of the multiple resources that forests provide, from subsistence to commercial timber and nontimber products.■ Explore opportunities entailed in ecotourism and reforestation activities, such as woodlots and plantations.■ Develop agroforestry systems to support and complement agriculture.■ Use forestry to support community ownership, management and maintenance of the local natural resource base.■ Work with government stakeholders and line ministries to develop zoning and forest management plans, which create opportunities for diversification of forest-related livelihood opportunities, while preventing deforestation. |

7.3.5 Reintegration support and energy

The energy sector varies in each context, but where natural resource management and reintegration is concerned, DDR practitioners should carefully analyse critical energy resources for livelihoods and households. In many contexts, the unsustainable use of small trees for charcoal production can lead to reduced soil stability and heightened vulnerability to climate change impacts. For women and girls, the distance required to travel to gather wood for charcoal can also pose security risks, especially for sexual and gender-based violence. Alternatives that may be promoted by DDR practitioners include the development of community-managed woodlots specifically for charcoal production that are sustainably managed and located in secure areas. These efforts also help to improve resilience by increasing supply for local energy needs as well as creating a sustainable source of livelihoods.

In areas where other opportunities for energy production exist, such as micro-hydro or solar infrastructure, DDR practitioners should engage technical experts to identify opportunities and to determine what kinds of interventions may be feasible and recommended as part of reintegration efforts. Collaboration with national authorities and interagency stakeholders is also recommended for these efforts.

TABLE 9. ENERGY ISSUES AND REINTEGRATION MEASURES

| Issues | Measures |
|---|--|
| <ul style="list-style-type: none"> ■ The charcoal trade can damage critical ecosystems like mangroves, especially where they are the only wood resources available. ■ Women and girls are exposed to security risks when they have to go far from home to access energy resources. ■ Reliance on biomass (e.g., wood and dung) is the leading cause of indoor air pollution, resulting in significant health risks. ■ Potential for grievances or attacks on liquid natural gas or oil infrastructure facilities are more likely if wealth sharing and distribution of benefits are not handled adequately. | <ul style="list-style-type: none"> ■ Avoid support for the charcoal trade where the only wood resources are critical ecosystems. ■ Create woodlots and tree plantations to supply local household fuel to support the safety of women and girls, as well as provide income-generating opportunities. ■ Introduce micro-hydro or solar technologies as appropriate and available, depending on the context. ■ Substitute propane or other cooking fuels for charcoal, which can create new business opportunities for bakeries and restaurants. |

7.3.6 Reintegration support and extractives

The extractive sector, which can include hydrocarbons as well as minerals, gems and precious metals, is often implicated in conflicts. The lootable nature of some of these resources, as well as the fact that they are in high demand and are highly valuable in international markets, makes them critical sources of potential financing for armed forces and groups, as well as organized criminal groups. Alternatively, these sectors have significant potential to contribute to livelihoods, employment and development if well managed. DDR practitioners shall include these sectors in their analysis and identify opportunities and potential partnerships to contribute to their formalization and management as part of reintegration efforts.

Critical sources of information include entities working on improved transparency and traceability in these supply chains (including certification systems) who can provide DDR practitioners with important information on operations that may be good candidates for reintegration opportunities in the mining and extractives sector. Likewise, DDR practitioners can provide these entities with information on risks related to armed forces and groups, creating a flow of information to ensure that efforts to improve conflict-free operations and employment opportunities in the mining and extractives sector are well coordinated.

Other critical actors to consider include male and female members of organized criminal groups who may already be involved in the extraction and trade of these resources. Where organized criminal groups, armed forces and groups, or even national security sector actors are implicated in the extraction and trade of these resources, DDR practitioners must ensure that they do not perpetuate this illicit capture of the extractive sector. Close collaboration with national and international stakeholders to help improve governance and enforcement of regulations in these sectors overall may be necessary before reintegration programmes can begin. DDR practitioners should look to engage with entities contributing to improving the transparency of these supply chains and to formalizing and strengthening employment opportunities.



Once these sectors and actors have been identified, national actors and other technical expertise via interagency partnerships can be called upon by DDR practitioners to help support employment creation and formalization of the identified sectors. There are significant civil society resources at the international, regional and national levels that may be brought to bear here as well. In addition, DDR practitioners should seek to establish clear collaborations with private-sector entities engaged in these sectors in order to promote their adherence to national laws and international norms for the extractive sector, including around land rights, labour rights and human rights, including the free, prior and informed consent of any potentially affected communities. This might include efforts to register the miners, traders and other actors along the supply chain and to encourage purchasing from mines that are certified or that have due diligence traceability measures in place.

Finally, DDR practitioners should identify any potential environmental harms that may have resulted or could result from interventions in these sectors. Where environmental harms already exist, DDR practitioners may design reintegration programmes to mitigate and repair these damages. Where development of the extractives sector could potentially contribute to future harms, DDR practitioners shall identify the appropriate mitigating measures necessary to protect both the health and labour rights of workers, as well as any potential environmental harms.

TABLE 10. MINING ISSUES AND REINTEGRATION MEASURES

| Issues | Measures |
|---|--|
| <ul style="list-style-type: none"> ■ Direct impacts from mining can pose risks to livelihoods, including land degradation, freshwater depletion, soil contamination and hazardous waste contamination. ■ Social risks related to mining include population growth in mining areas, increased levels of violence against women, and high levels of HIV/AIDS, as well as problems regarding land tenure and management for miners and communities living around mines. ■ Most jobs in industrial mining are highly skilled, limiting the potential of the industry for reintegration opportunities. ■ Service economies around mining sites create job opportunities, but also have the potential to pose labour exploitation risks. ■ Lack of transparency in granting mine concessions may cause resentment and conflict between the community and the mining company involved or between the community and Government. ■ Lack of regulation for artisanal miners may result in labour exploitation, use of child labour, contamination of environment and related occupational and health risks. ■ Potential capture of mines and profits by former members of armed groups can reignite hostilities. | <ul style="list-style-type: none"> ■ Promote mining as a source of employment for local communities and ex-combatants, as appropriate. ■ Support the creation of job and business opportunities (especially for women) in infrastructure and services development in communities surrounding the mines. ■ Employ DDR processes to support mining trading centres to allow market access and information to artisanal miners, as well as support efforts to formalize artisanal mining sites. ■ Work with government counterparts and local authorities to develop labour protection measures and regulations and require due diligence, transparency and accountability by companies in mineral supply chains to help consolidate sound natural resource governance and ensure greater protection for DDR participants and local people engaged in the mining sector. ■ Establishing transparent concession processes and equitable distribution of economic benefits can improve relations between communities and Government. |

7.3.7 Reintegration support and water management

Water management is a critical sector for livelihoods, as both households and the agricultural sector rely on water. It is also a potentially critical issue of grievance, depending on the conflict context. In areas where water resources have been a cause of conflict, DDR practitioners should include a full analysis of the various perspectives of those who claim any grievance over the water resource and seek opportunities to use water management as a means to promote social cohesion. Community-based approaches to water management can be employed to ensure that decision-making authority is distributed among key affected parties, with special attention to the inclusion of specific-needs groups and vulnerable populations who need access to water for safe consumption and their livelihoods.

Water resource management can also be a powerful tool to promote cross-border, inter-regional or local cooperation. In areas where water resources cross political boundaries, this may necessitate transboundary agreements. In more local areas with-



in political boundaries, water resource management can be addressed through locally devised options. Special attention shall be paid to any risk of contamination or diversion of water resources by upstream interventions as part of or outside of DDR programmes; to ensure this, DDR practitioners should consult technical experts to complete full analyses of the risks to any important water resource and integrate local and national actors and other interagency experts into the design of reintegration efforts as necessary. Attention should also be paid to allocation of water resources at the local level, including ensuring that access is equitable and that there are proper systems in place to ensure water quality and quantity. In addition, the current and likely future effects of climate change on water resources – underground as well as surface level and contributing rainfall patterns – should be considered when determining any interventions that may affect future water access and availability.

TABLE 11. WATER MANAGEMENT ISSUES AND REINTEGRATION MEASURES

| Issues | Measures |
|--|---|
| <ul style="list-style-type: none"> ■ Access to safe water in sufficient quantities is a potential source of conflict where multiple users claim access or rights and are unwilling to compromise. ■ Access to safe water is one of the most pressing needs in conflict settings. ■ Poor water management can increase risk of disease in urban or camp settings with high population density. ■ Women and girls are exposed to security risks when they have to go far from home to fetch water. | <ul style="list-style-type: none"> ■ Intervene in water management and governance to improve access, which is a basic human right; improvement in water quality can improve overall health. ■ Construct, rehabilitate and maintain water catchment systems, which are inexpensive, easy to implement and support agriculture (and can be addressed through employment-generation and capacity-building schemes). ■ Plan and ensure safe access to water resources for women and girls based on inventory of their needs and preferred means of access. ■ With partners, provide educational resources on safe use of water and sanitation measures to reduce the risk of related diseases. ■ Good water management and governance provide potential for cooperation and social cohesion between different water user groups. |

7.3.8 Reintegration support and waste management

Waste management can be a productive sector that contributes to economic reintegration and also needs to be considered for potential risks that could contaminate other natural resources. Any opportunities to improve sanitation and upcycle water materials can be integrated into reintegration efforts; DDR practitioners should engage technical experts to support analysis for this sector to mitigate any potential risks and create employment opportunities where possible.

TABLE 12. WASTE MANAGEMENT ISSUES AND REINTEGRATION MEASURES

| Issues | Measures |
|---|---|
| <ul style="list-style-type: none">■ Inappropriate waste disposal and/or recycling can threaten the health of workers and communities and contaminate soil and water resources.■ Climate change–related drought can reduce the availability of water resources. | <ul style="list-style-type: none">■ Integrate awareness raising and environmental education into reintegration activities.■ Establish local recycling facilities, which can create opportunities to develop small businesses.■ Sufficiently regulate waste disposal, which can be a source of employment.■ Employ water preservation and catchment systems to increase water capture if water resources become scarce due to climate change. |

BOX 7. REINTEGRATION: KEY QUESTIONS

- Has data been collected and analysed on natural resource management, including formal and informal, licit and illicit activities, through relevant assessments, to inform reintegration options?
- What opportunities exist for reintegration activities in natural resource management to address the root causes and grievances that led to conflict?
- Have the risks and opportunities associated with natural resource management as relevant to armed forces and groups or organized criminal groups been analysed (through conflict analysis) when determining effective approaches to reintegration that will avoid the risk of future conflict?
- Have the cultural and social dimensions of natural resources in livelihoods and employment, including the gender dimensions of resource access and use, been addressed?
- Have all relevant actors in the Government, civil society, NGOs, international organizations, and local and international private-sector entities been engaged and consulted?
- Have a selection of environmental and natural resource indicators to monitor DDR and any potential destabilizing trends been included?
- Have the impact of government proposals and concession negotiations for extractive industries and any risks for security and durable peace been analysed and considered?

8. DDR-related tools and natural resource management

When the preconditions are not present to support a DDR programme, a number of DDR-related tools may be used in contexts where natural resources are present. Alternatively, DDR-related tools may also be used before, during and after DDR programmes as complementary measures (see IDDRS 2.10 on The UN Approach to DDR).

8.1 DDR support to mediation

The parameters for DDR programmes are often set during peace negotiations, and DDR practitioners should seek to advise mediators on what type of DDR provisions are realistic and implementable (see IDDRS 2.20 on The Politics of DDR). Benefit sharing, whether of minerals, land, timber or water resources, can be a make-or-break aspect of peace negotiations. Thus, in conflicts where armed forces and groups use natural resources as a means of financing conflict or where they act as an underlying grievance for recruitment, DDR practitioners should advise mediators that, where possible, natural resources (or a future commitment to address natural resources) should also be included in peace agreements.

Addressing these grievances directly in mediation processes is extremely difficult, so it is vital that sound and viable strategies for subsequent peacebuilding processes that seek to prevent the re-emergence of armed conflict related to natural resources are prioritized. It is important to carefully analyse how the conflict ended, to note if it was a military victory, a peace settlement, or otherwise, as this will have implications for how natural resources (especially land) might be distributed after the conflict ends. It is important to ensure that women's voices are also included, as they will be essential to the implementation of any peace agreement and especially to the success of DDR at the community level. Research shows that women consistently prioritize natural resources as part of peace agreements, and therefore their input should specifically be sought on this issue.²³

8.2 Transitional weapons and ammunition management

Transitional weapons and ammunition management is a series of interim arms control measures. When implemented as part of a DDR process, transitional WAM is primarily aimed at reducing the capacity of individuals and armed groups to engage in armed violence and conflict. Transitional WAM also aims to reduce accidents and save lives by addressing the immediate risks related to the possession of weapons, ammunition and explosives. As outlined in section 5.2, natural resources may be exploited to finance the acquisition of weapons and ammunition. These weapons and ammunition may then be used by armed forces and groups to control territory. If members of armed forces and groups refuse to disarm, for reasons of insecurity, or because they wish to maintain territorial control, DDR practitioners may, in some instances, consider supporting transitional WAM measures focused on safe and secure storage and recordkeeping. For further information, see IDDRS 4.11 on Transitional Weapons and Ammunition Management.

8.3 Community violence reduction

Community violence reduction programmes have many different uses, including the prevention of recruitment. When natural resources are managed in a way that creates employment opportunities and supports development, they can help prevent or discourage the recruitment of individuals into armed forces and groups. Community-based initiatives and short-term employment opportunities that support good natural resource management, such as in infrastructure, disaster-risk reduction, rehabilitation of water resources, restoration of degraded ecosystems and others can provide needed livelihoods resources and discourage participation in other illicit activities or armed groups.

In addition, CVR programmes can be used as stop-gap reinsertion assistance when the reintegration phase of a DDR programme is delayed. The projects implemented as part of a CVR programme are determined by local priorities and can include, but are not limited to, agriculture, labour-intensive short-term employment, and infrastructure improvement. As CVR and reintegration support may sometimes be designed as one programme, particularly in non-mission settings, DDR practitioners should be aware that the guidance on reinsertion and reintegration in this module also applies to CVR. For further information on CVR, see IDDRS 2.30 on Community Violence Reduction.

8.4 Transitional security arrangements

Many comprehensive peace agreements include provisions for transitional security arrangements (see IDDRS 2.20 on The Politics of DDR). Depending on the context, these arrangements may include the deployment of national or community police, or the creation of joint units, patrols or operations involving the various parties to a conflict. Joint efforts can help to increase scrutiny of the illicit trade in natural resources. However, these efforts may be compromised in areas where organized criminal groups are present or where natural resources are being exploited by armed forces or groups. In this type of context, DDR practitioners may be better off working with mediators and other actors to help increase provisions for natural resources in peace agreements or ceasefires (see section 8.1 and IDDRS 6.40 on DDR and Organized Crime). Where transitional security arrangements exist, education and training for security units on how to secure natural resources will ensure greater transparency and oversight, which can reduce opportunities for misappropriation.

9. Reintegration support and natural resource management

Reintegration support may be provided at all stages of conflict, even if there is no formal DDR programme or peace agreement (see IDDRS 2.40 on Reintegration as Part of Sustaining Peace and IDDRS 4.30 on Reintegration). The guidance provided in section 7.3 of this module, on reintegration as part of a DDR programme, also applies to reintegration efforts outside of DDR programmes. In contexts of ongoing armed conflict, reintegration support can focus on resilience and improving opportunities in natural resource management sectors, picking up on many of the CBNRM approaches discussed in previous sections. In particular, engagement with other efforts to improve the transparency in targeted natural resource supply chains is extremely important, as

this can be a source of sustainable employment opportunities and can reduce the risk that key sectors are recaptured by armed forces and groups. Undertaking these efforts together with other measures to help the recovery of conflict-affected communities can also create opportunities for social reconciliation and cohesion.

10. DDR, SSR and natural resource management

Armed forces and groups often fuel their activities by assuming control over resource-rich territory. When States lose sovereign control over these resources, DDR and SSR processes are impeded. For example, resource revenues can prove relatively more attractive than the benefits offered through DDR and, as a result, individuals and groups may opt not to participate. Similarly, armed groups that are required by peace agreements to integrate into the national army and redeploy to a different geographical area may refuse to do so if it means losing control over resource-rich territory. Where members of the security sector have been controlling natural resource extraction and/or trade areas or networks, this dynamic is likely to continue until the sector becomes formalized and there are appropriate systems of accountability in place to prevent illegal exploitation or trafficking of resources.

Peace agreements that do not effectively address the role of natural resources risk leaving warring parties with the economic means to resume fighting as soon as they decide that peace no longer suits them. In contexts where natural resources fuel conflict, integrated DDR and SSR processes should be planned with this in mind. Where appropriate, DDR practitioners should advise mediation teams on the impact of militarized resource exploitation on DDR and SSR and recommend that provisions regarding the governance of natural resources are included in the peace agreement (if one exists). Care must also be taken not to further militarize natural resource extraction areas. The implementation of DDR in this context can be supported by SSR programmes that address the governance of natural resources. Among other elements, these programmes may focus on ensuring the transparent and accountable allocation of natural resource concessions and transparent management of the revenues derived from their exploitation. This will involve supporting assessments of what natural resources the country has and their best possible usage; assisting in the creation of laws and regulations that require transparency and accountability; and building institutional capacity to manage natural resources wisely and enforce the law effectively. For more information on the relationship between DDR and SSR, see IDDRS 6.10 on DDR and Security Sector Reform.

Annex A: Abbreviations

| | |
|--------------|---|
| CBNRM | community-based natural resource management |
| CVR | community violence reduction |
| EITI | Extractive Industries Transparency Initiative |
| NGO | nongovernmental organization |
| SSR | security sector reform |
| WAM | weapons and ammunition management |

Annex B: Sample questions for specific-needs analysis of natural resources in DDR

Sample questions for conflict and security analysis:

- Who in the communities/society/Government/armed groups benefits from the natural resources that were implicated in the conflict? How do men, women, boys, girls and people with disabilities benefit specifically?
- Who has access to and control over natural resources? What is the role of armed groups in this?
- What trends and changes in natural resources are being affected by climate change, and how is access and control over natural resources impacted by climate change?
- Who has access to and control over land, water and non-extractive resources disaggregated by sex, age, ethnicity and/or religion? What is the role of armed groups in this?
- What are the implications for those who do not carry arms (e.g., security and access to control over resources)?
- Who are the most vulnerable people in regard to depletion of natural resources or contamination?
- Who are vulnerable people in terms of safety and security by virtue of the dynamics related to natural resources and what are the specific vulnerabilities of men, women and minorities?
- Which groups face constraints in their access to and ownership of capital assets?

Sample questions for disarmament operations and transitional weapons and ammunition management:

- Who within the armed groups or in the communities carry arms? Do they use these to control natural resources or specific territories?
- What are the implications of disarmament and stockpile management sites for local communities' livelihoods and access to natural resources? Are the implications different for women and men?
- What are the reasons for male and female members of armed groups to hold arms and ammunition (e.g., lack of alternative livelihoods, lootability of natural resources, status)?
- What are the reasons for male and female community members to possess arms and ammunition (e.g., access to natural resources, protection, status)?

Sample questions for demobilization (including reinsertion):

- How do cantonments or other demobilization sites affect local communities' access to natural resources?
- How are women and men affected differently?
- What are the infrastructure needs of local communities?
- What are the differences between women's and men's priorities?
- To act in a manner inclusive of all relevant stakeholders, whose voices should be heard in the process of planning and implementing reinsertion activities with local communities?
- What are the traditional roles of women and men in labour market participation? What are the differences between age groups?
- Do women or men have cultural roles that affect their participation (e.g., childcare roles, cultural beliefs, time poverty)?
- What skills and abilities are required in participants of the planned reinsertion activities?
- Are there groups that require special support to be able to participate in reinsertion activities?

Sample questions for reintegration and community violence reduction programmes:

- What are the gender roles of women and men of different age groups in the community?
- What decisions do men and women make in the family and community?
- Who within the household carries out which tasks (e.g., subsistence/breadwinning, decision-making over income spending, childcare, household chores)?
- What are the incentives of economic opportunities for different family members, and who receives them?
- Which expenditures are men and women responsible for?
- How rigid is the gendered division of labour?
- What are the daily and seasonal variations in women's and men's labour supply?
- Who has access to and control over enabling assets for productive resources (e.g., land, finances, credit)?
- Who has access to and control over human capital resources (e.g., education, knowledge, time, mobility)?
- What are the implications for those with limited access or control? For those who risk their safety and security to access natural resources?
- How do constraints under which men and women of different age groups operate differ?
- Who are the especially vulnerable groups in terms of access to natural resources (e.g., women without male relatives, internally displaced people, female-headed households, youth, persons with disabilities)?
- What are the support needs of these groups (e.g., legal aid, awareness raising against stigmatization, protection)? How can barriers to the full participation of these groups be mitigated?

Annex C: Relevant frameworks and standards for natural resources in conflict settings

Second report on protection of the environment in relation to armed conflicts of 2019 (A/CN.4/728) by Special Rapporteur Marja Lehto

The report considers certain questions about the protection of the environment in non-international armed conflicts, with a focus on how the international rules and practices concerning natural resources may enhance the protection of the environment during and after such conflicts. It should be underlined that the two issues considered – illegal exploitation of natural resources and unintended environmental effects of human displacement – are not exclusive to non-international armed conflicts. Nor do they provide a basis for a comprehensive consideration of environmental issues relating to non-international conflicts. At the same time, they are representative of problems that have been prevalent in current non-international armed conflicts and have caused severe stress to the environment.

The Sustaining Peace Approach and twin resolutions on the review of the UN Peacebuilding Architecture of 2018 (GA resolution 70/262 and SC resolution 2282 (2016))

The concept of ‘sustaining peace’ has emerged as a new and comprehensive approach to preventing the outbreak, continuation and recurrence of conflict. It marks a clear break from the past where efforts to build peace were perceived to be mainly restricted to post-conflict contexts. The concept, framed by the twin sustaining peace resolutions and the UN Secretary-General’s report on peacebuilding and sustaining peace, recognizes that a comprehensive approach is required across the peace continuum, from conflict prevention, through peacemaking, peacekeeping and longer-term development. It therefore necessitates an integrated and coherent approach among relevant political, security and developmental actors, within and outside of the United Nations system.

Secretary-General’s Action for Peacekeeping initiative and Declaration of Shared Commitments (2018)

Through his Action for Peacekeeping initiative, the Secretary-General called on Member States, the Security Council, host countries, troop- and police-contributing countries, regional partners and financial contributors to renew their collective engagement with UN peacekeeping and mutually commit to reach for excellence. The Declaration commitments focus on a set of key priorities that build on both new commitments and existing workstreams. Implementation goals are centred on eight priority commitment areas:

- Politics;
- Women, peace and security;
- Protection;
- Safety and security;
- Performance and accountability;
- Peacebuilding and sustaining peace;
- Partnerships; and
- Conduct of peacekeepers and peacekeeping operations.

2030 Agenda for Sustainable Development and the Sustainable Development Goals

The Sustainable Development Goals include elements that pertain to DDR, gender and natural resources. A comprehensive approach to achieving them requires humanitarian and development practitioners, including those working in DDR processes, to take into account each of these goals when planning and designing interventions.

Report of the Secretary-General on women's participation in peacebuilding (A/65/354-S/2010/466)

The report calls on all peacebuilding actors to “ensure gender-responsive economic recovery” through “the promotion of women as ‘front-line’ service-delivery agents”, including in the areas of “agricultural extension and natural resource management”.

Report of the Secretary-General on disarmament, demobilization and reintegration (A/65/741)

The 2011 report of the Secretary-General on DDR identifies trafficking in natural resources as a “key regional issue affecting the reintegration of ex-combatants” and specifically refers to natural resource management as an emerging issue that can contribute to the sustainability of reintegration programmes if properly addressed.

General Assembly resolution on observance of environmental norms in the drafting and implementation of agreements on disarmament and arms control (A/RES/65/53)

This resolution underlines “the importance of the observance of environmental norms in the preparation and implementation of disarmament and arms limitation agreements” and reaffirms that the international community should contribute to ensuring compliance with relevant environmental norms in negotiating treaties and agreements on disarmament and arms limitation. It further calls on “all States to adopt unilateral, bilateral, regional and multilateral measures so as to contribute to ensuring the application of scientific and technological progress within the framework of international security, disarmament and other related spheres, without detriment to the environment or to its effective contribution to attaining sustainable development”.

Report of the Secretary-General on peacebuilding in the immediate aftermath of conflict (A/64/866-S/2010/386)

In this report, the Secretary-General notes that “greater efforts will be needed to deliver a more effective United Nations response” in the area of natural resources, and he calls on “Member States and the United Nations system to make questions of natural resource allocation, ownership and access an integral part of peacebuilding strategies”.

United Nations Policy for Post-Conflict Employment Creation, Income Generation and Reintegration (2009)

The policy notes the importance of addressing “root causes of conflict such as inequitable access to land and natural resources” through the use of “fiscal and redistributive incentives to minimize social tensions” during the reintegration process. It further suggests:

- Diversifying away from natural resource exports by expanding labour-intensive exports and tourism;

- Implementing cash-for-work projects in relevant agricultural and natural resource sectors in rural areas;
- Engaging traditional authorities in dispute resolution, particularly with regard to access to property and other natural resources (such as forestry, fishing and grazing land); and
- Implementing labour-intensive infrastructure programmes to promote sustainable agriculture, including restoration of the natural resource base, while simultaneously emphasizing social acceptance and community participation.

International Labour Organization Indigenous and Tribal Peoples Convention, 1989 (No. 169)

Convention No. 169 offers a unique framework for the protection of the rights of indigenous peoples as an integral aspect of inclusive and sustainable development. As the only international treaty on the subject, it contains specific provisions promoting the improvement of the standards of living of indigenous peoples from an inclusive perspective, and includes their participation from the initial stages in the planning of public policies that affect them, including labour policies. The policy stipulates that the rights of ownership and possession over the lands they traditionally occupy shall be recognized.

International Labour Organization Recommendation on Employment and Decent Work for Peace and Resilience, 2017 (No. 205)

This policy builds on the International Labour Organization’s Employment Transition from War to Peace Recommendation, 1944 (No. 71), and features an expanded scope including internal conflicts and disasters. It broadens and updates the guidance on employment and several other elements of the Decent Work Agenda, taking into account the current global context and the complex and evolving nature of contemporary crises as well as the experience gained by the International Labour Organization and the international community in crisis response over the last decades. It also focuses on recovery and reconstruction in post-conflict and disaster situations, as well as addressing root causes of fragility and taking preventive measures for building resilience.

Security Council resolution 1509 (2003) on Liberia (S/RES/1509); resolution 1565 (2004) on the Democratic Republic of the Congo (S/RES/1565); and resolution 1856 (2008) on the Democratic Republic of the Congo (S/RES/1856)

These resolutions share an emphasis on the link between armed conflict and the illicit exploitation and trade of natural resources, categorically condemning the illegal exploitation of these resources and other sources of wealth:

- In resolution 1509, the UN Peacekeeping Mission in Liberia was called upon to assist the transitional Government in restoring the proper administration of natural resources.
- Resolution 1565 urges “all States, especially those in the region including the Democratic Republic of the Congo itself, to take appropriate steps in order to end these illegal activities, including, if necessary, through judicial means ... and exhorts the international financial institutions to assist the Government of National Unity and Transition in establishing efficient and transparent control of the exploitation of natural resources”.

- Resolution 1856 recognized the link between the illegal exploitation of natural resources, the illicit trade in such resources and the proliferation and trafficking of arms as one of the major factors fuelling and exacerbating conflicts in the Great Lakes region of Africa, and in particular in the Democratic Republic of the Congo". It directed that the UN Peacekeeping Mission work in close cooperation with the Government in order to, among other things, execute the "disarmament, demobilization, monitoring of resources of foreign and Congolese armed groups", and, more specifically, "use its monitoring and inspection capacities to curtail the provision of support to illegal armed groups derived from illicit trade in natural resources".

Secretary-General's progress report on the prevention of armed conflict (A/60/891)

The Secretary-General's progress report notes, "The most effective way to prevent crisis is to reduce the impact of risk factors. ... These include, for instance, international efforts to regulate trade in resources that fuel conflict, such as diamonds ... efforts to combat narcotics cultivation, trafficking and addiction ... and steps to reduce environmental degradation, with its associated economic and political fallout. Many of these endeavours include international regulatory frameworks and the building of national capacities". In addition, he emphasizes more specifically that "environmental degradation has the potential to destabilize already conflict-prone regions, especially when compounded by inequitable access or politicization of access to scarce resources", and urges "Member States to renew their efforts to agree on ways that allow all of us to live sustainably within the planet's means". He encourages, among other things, implementing programmes that "can also have a positive impact locally by promoting dialogue around shared resources and enabling opposing groups to focus on common problems."

United Nations Development Group – Executive Committee on Humanitarian Affairs Guidance Note on Natural Resource Management in Transition Settings (January 2013)

This note provides guidance on policy anchors for natural resource management in transition settings, key guiding questions for extractive industries, renewable resources and land to help understand their existing and potential contribution to conflict and peacebuilding and describes entry points where these issues should be considered within existing UN processes and tools. It includes annexes that highlight tools, resources and sources of best practice and other guidance for addressing natural resource management challenges in transition settings.

Examples of relevant certification schemes, standards, guidelines and principles

Extractive Industries Transparency Initiative (EITI)

The EITI is a coalition of Governments, companies, civil society groups, investors and international organizations that has developed an international standard for transparent reporting on revenues from natural resources. With the EITI, companies publish what they pay and Governments publish what they receive so as to encourage transparency and accountability on both sides. The process is overseen by a multi-stakeholder group of Governments, civil society organizations and companies that provides a forum for dialogue and a platform for broader reforms along the natural resources value chain.

Food and Agriculture Organization of the United Nations Voluntary Guidelines on Tenure

The purpose of these guidelines is to serve as a reference and provide guidance to improve the governance of tenure of land, fisheries and forests with the overarching goal of achieving food security for all. The guidelines focus on the linkages between tenure of land, fisheries and forests and poverty eradication, food security and sustainable livelihoods, with an emphasis on vulnerable and marginalized people. They mention specific actions that can be taken to improve tenure for land, fisheries and forests, especially for women, children, youth and indigenous peoples, as well as for the resolution of disputes, conflicts over tenure, and cooperation on transboundary matters.

Pinheiro Principles on Housing and Property Restitution for Refugees and Displaced Persons

These principles were endorsed by the United Nations Sub-Commission on the Promotion and Protection of Human Rights on 11 August 2005 and are firmly established on the basis of international humanitarian and human rights law. They provide restitution practitioners, States and UN agencies with specific policy guidance relating to the legal, policy, procedural, institutional and technical implementation mechanisms for housing and property restitution following conflicts, disasters or complex emergencies. While the principles are focused on housing, land and property rights, they also apply to commercial properties, including agricultural and pastoral land. They advocate for the inclusion of housing, land and property rights issues as part of comprehensive peace agreements as well as part of humanitarian appeals and budgets.

Natural Resource Charter

The charter is a set of principles for Governments and societies on how to best harness the opportunities created by extractive resources for development. It outlines tools and policy options designed to avoid the mismanagement of diminishing natural riches and ensure their ongoing benefits. The charter is organized around 12 core precepts offering guidance on key decisions Governments face, beginning with whether to extract resources and ending with how generated revenue can produce maximum good for citizens. It is not a recipe or blueprint for the policies and institutions countries must build, but rather a set of principles to guide decision-making processes. First launched in 2010 at the annual meetings of the International Monetary Fund and the World Bank, the charter was written by an independent group of practitioners and academics under the governance of an oversight board composed of distinguished international figures with first-hand experience of the challenges faced by resource-rich countries.

OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas

This guidance provides detailed recommendations to help companies respect human rights and avoid contributing to conflict through their mineral purchasing decisions and practices. It is for use by any company potentially sourcing minerals or metals from conflict-affected and high-risk areas. The guidance is global in scope and applies to all mineral supply chains.

Section 1502 of the Dodd-Frank Act

The ‘conflict minerals’ provision – commonly known as Section 1502 of the Dodd-Frank Act – requires U.S. publicly listed companies to check whether their supply chains for tin, tungsten, tantalum and gold might originate in Congo or its neighbours, take steps

to address any risks they find, and report on their efforts every year to the U.S. Securities and Exchange Commission). Companies are not encouraged to stop sourcing from this region but are required to show they are working with the appropriate care – or “due diligence” – to make sure they are not funding armed groups or human rights abuses.

Kimberley Process

The Kimberley Process Certification Scheme imposes extensive requirements on its members to enable them to certify shipments of rough diamonds as ‘conflict-free’ and prevent conflict diamonds from entering the legitimate trade. Under the terms of the Kimberley Process, participating States must meet ‘minimum requirements’ and must put in place national legislation and institutions; adopt export, import and internal controls; and commit to transparency and the exchange of statistical data. Participants can only legally trade with other participants who have also met the minimum requirements of the scheme, and international shipments of rough diamonds must be accompanied by a Kimberley Process certificate guaranteeing that they are conflict free.

UN Guiding Principles on Business and Human Rights

This is a set of guidelines for States and companies to prevent, address and remedy human rights abuses committed in business operations. The principles are organized under three main tenets: protect, respect and remedy. Companies worldwide are expected to comply with these norms, which underpin existing movements to create due diligence legislation for company supply chain operations.

Land Governance Assessment Framework

Development practitioners of all persuasions recognize that a well-functioning land sector can boost a country’s economic growth, foster social development, shield the rights of vulnerable groups, and help with environmental protection. The World Bank’s Land Governance Assessment Framework is a diagnostic instrument to assess the state of land governance at the national or subnational level. Local experts rate the quality of a country’s land governance along a comprehensive set of dimensions. These ratings and an accompanying report serve as the basis for policy dialogue at the national or subnational level.

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- 13 Yon H. Kim and Gerald F. Davis, “80% of companies don’t know if their products contain conflict minerals”, *Harvard Business Review*, 4 January 2017.
- 14 International Labour Organization, “Informal economy: a hazardous activity”. Available at https://www.ilo.org/safework/areasofwork/hazardous-work/WCMS_110305/lang-en/index.htm (accessed on 2 January 2021).
- 15 Daniëlla Dam-de Jong, “Between paradox and panacea: legalizing exploitation of natural resources by armed groups in the fight against conflict resources”, *Armed Groups and International Law*, 18 June 2019.
- 16 Kim and Davis, “80% of companies don’t know if their products contain conflict minerals”.
- 17 The EU Conflict Minerals Act came into force on 1 January 2021, prohibiting the importation of key minerals known to be associated with conflicts worldwide and obliging companies wishing to place their products on the EU market to conduct due diligence in their supply chains to demonstrate that they are free from conflict minerals.
- 18 See the Dodd-Frank Act and OECD due diligence guidelines.

- 19 Horatiu A. Rus, "Corruption, conflict and the management of natural resources", *Economics of Governance*, vol. 15 (2014).
- 20 Blake D. Ratner et al., "Resource conflict, collective action and resilience: an analytical framework", *International Journal of the Commons*, vol. 7, No. 1 (2013).
- 21 Timber harvesting can be extremely destructive when it involves clear-cutting. Unless a forestry management plan is established and implemented to preserve biodiversity and other values of the forest, timber is not considered a renewable resource.
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