Executive Summary

Greening the Blue Helmets

Environment, Natural Resources and UN Peacekeeping Operations

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Over the past 60 years, United Nations peacekeeping has evolved into one of the main tools used by the international community to manage complex crises that pose a threat to international peace and security. A modern peacekeeping operation consists of military, police and civilian personnel, who work to deliver security, political and early peacebuilding support.

Beyond simply monitoring ceasefires, today's multi-dimensional peacekeeping operations are called upon to facilitate national dialogue and reconciliation, protect civilians, assist in the disarmament, demobilization and reintegration of combatants, support the organization of elections, protect and promote human rights and assist in restoring the rule of law.

In addition, based on experience and lessons learned over the past decades, it has become clear that peacekeeping operations can no longer separate questions of peace and security from the way natural resources and the environment are managed in a post-conflict country. Maintaining security, restoring the economy and providing basic services is often impossible without addressing questions of resource ownership, access, control and management. In general there are four main ways that peacekeeping operations affect and are affected by natural resources and environmental conditions.

First, the sheer size of peacekeeping operations – 121,591 personnel in December 2011 – and their supporting infrastructure places considerable demands on the local environment. In fact, a 2008 inventory calculated that peacekeeping operations alone contribute to over half of the UN system’s total climate footprint. Recognizing the significance of these demands and with the aim to avoid and minimize environmental impacts of peacekeeping missions, the UN Department of Peacekeeping Operations (DPKO) and the Department of Field Support (DFS) adopted for the first time an Environmental Policy for UN Field Missions in June 2009, which was supported by the United Nations Environment Programme (UNEP). While this policy has already provided a solid foundation for the implementation of environmental practices across peacekeeping missions, there are still many opportunities, identified within this report for the improvement of overall environmental performance. These environmental improvements can, in some cases, lead to more self-sufficiency of bases, and thus better security, as well as lower operational costs over the life of a mission.

Second, not only do peacekeeping operations have the largest environmental footprint in the UN organization, but natural resources are often involved in achieving key peace and security objectives. These include employment of former combatants, support for the recovery of livelihoods, generation of taxes and government revenues and reconciliation between divided groups.

Peacekeepers in the Democratic Republic of the Congo patrol the road between Sake and Masisi, in the mineral rich areas of North Kivu.
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Third, peacekeeping operations in some countries are affected by difficult political and social challenges regarding the basic governance of natural resources and the environment: who owns them, who benefits from their revenue, who controls and enjoys access to them and for what purpose. Decisions over concession contracts and revenue sharing from the exploitation of high-value resources, such as diamonds, gold, oil and timber, can be some of the most contentious and destabilizing decisions taken by a post-conflict government. The transparency and timing of these decisions, together with the way the public is involved in making them, are key factors that need to be well understood by peacekeeping operations.

Finally, in a number of countries affected by conflict, peacekeeping missions are also confronted with illegal and predatory natural resource exploitation that has contributed to the loss of sovereign control over the resources, undermined social and economic development, enabled crippling levels of corruption and helped sustain armed violence. In many cases natural resources that have come under the control of armed groups during conflict remain ‘militarised’ after the fighting stops. This presents opportunities to ‘spoilers’, those who perceive that their agenda is best served by renewed conflict rather than peace. In such situations, peacekeeping operations have been mandated by the Security Council to undertake a range of activities in support of the national government – including restoring the administration of natural resources with State authority, reasserting control over extraction sites, securing related infrastructure and monitoring the export and trade of sanctioned commodities.

Aims, objectives and target audience:

This report is divided into two main parts:

- Part 1 reviews the environmental management of peacekeeping operations and showcases good practices, technologies and behaviours that have already been adopted. It identifies the economic, social and environmental benefits associated with the use of resource-efficient technologies and identifies the main capacity and resource constraints towards more systematic adoption. This analysis has been conducted to inform and catalyse the further implementation of the DPKO/DFS Environmental Policy for UN field missions.

- Part 2 examines the role that peacekeeping operations have played in stabilizing countries where violent conflicts have been financed by natural resources – including diamonds, gold, oil and timber – or driven by grievances over their ownership, access and control. It also evaluates how peacekeeping operations have provided support to UN Expert Panels that have investigated and monitored violations of commodity sanctions that have been used by the UN Security Council to restrict financing to individuals or groups that profit from the exploitation and trade of natural resources. The ways that peacekeeping missions can capitalize on the peacebuilding potential of natural resources through employment and livelihoods, economic recovery, confidence building and reconciliation are also considered. This analysis has been conducted to inform the scope of future peacekeeping mandates together with the development of new peacekeeping policies and practices addressing natural resource governance in post-conflict countries.

This report has been developed by UNEP in consultation with a number of international experts and non-governmental organizations. In the process of conducting the analyses extensive consultations were conducted with DPKO and DFS at the both the field and headquarter levels. The report is a component of ongoing technical collaboration between UNEP, DPKO and DFS, to increase the consideration given to natural resources and the environment in UN peacekeeping efforts. It has been developed in the context of UNEP’s mandate to “keep under review the world environmental situation in order to ensure that emerging environmental problems of wide international significance receive appropriate and adequate consideration by governments.”

This report also responds to the recent report of the UN Secretary-General on peacebuilding in the immediate aftermath of conflict wherein Member States and the UN system were encouraged to make questions of natural resource allocation, ownership and access an integral part of peacebuilding strategies. It furthermore supports the implementation of Security Council Resolution
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1625, in particular, the Council’s “determination to take action against illegal exploitation and trafficking of natural resources and high-value commodities in areas where it contributes to the outbreak, escalation or continuation of armed conflict.”

This report has been open to peer review by all of the current UN peacekeeping missions as well as to a selected number of international experts, academics and non-governmental organizations. The development process for this report has also been supported by UNEP’s Expert Group on Conflict and Peacebuilding. This work has been financed by the Government of Finland as a component of UNEP’s Environmental Cooperation for Peacebuilding programme.

Part 1 Findings: The environmental management and impact of peacekeeping missions

Considering their significant contribution to the overall environmental footprint of the UN system, peacekeeping operations should consider measures to minimize their environmental impact together with efforts to improve operational performance and effective implementation of peacekeeping mandates. This objective has been recognized by the internal DFS and DPKO Environmental Policy approved in 2009 as well as by the General Assembly in 2011. The policy provides peacekeeping missions with guidelines on environmental matters in field missions, and requires each mission to establish its own environmental policy, objectives and control measures for each phase of the mission.

While the policy is still in the early stages of implementation, this report seeks to identify and showcase practices, technologies and behaviours that have already been adopted by peacekeeping missions. The examples identified could form the basis for further modification or adoption by other peacekeeping missions as well as UN agencies.

Following consultations with 10 peacekeeping missions and three site visits in the field, a total of 12 examples of good practices are showcased in Part 1 of this report and summarized below. The four main findings of this analysis are as follows:

- **Resource-efficient practices, technologies and behaviours offer multiple benefits to peacekeeping missions**: Proven and cost-effective practices, technologies and behaviours can reduce energy and water use as well as waste production, thereby generating significant financial savings, while at the same time reducing the environmental impacts of UN peacekeeping missions. Improved health, safety and security of local communities and personnel, self-sufficiency of camps and reduced potential for disputes with local communities are further benefits.

- **Examples of good practice have emerged across all of the main sectors of the peacekeeping infrastructure**: A number of current peacekeeping missions have independently adopted environmental policies and undertaken impressive and far-reaching measures to introduce resource-efficient technologies and minimize the environmental impacts of their operations. Significant testing and field application has been conducted in the domains of water, waste, energy, transport and building materials. While adoption in the field has been limited and ad hoc to date, the 2009 Environmental Policy provides an excellent foundation for progress. Recent challenges in addressing the management of wastewater in some missions, including Haiti and the DRC, further highlight the need for system-wide implementation of the policy.

- **An adequate universal system for compliance monitoring of the Environmental Policy is not yet in place**: Despite the progress that has been made in implementing the Environmental Policy, the tools in place are insufficient for monitoring compliance or sharing lessons on environmentally sound practices and on the use of resource-efficient technologies and behaviours in a peacekeeping context. Less than half of the peacekeeping missions have a dedicated environmental officer, despite the policy requirement. There is a lack of awareness of the types of resource-efficient technology that are already available through standard UN procurement channels, as well as a lack of environmental training available for mission staff. Accelerating the implementation of the policy will depend on the adoption of a full-fledged compliance monitoring system combined with staff incentives and training.

- **Uncertainty in the duration of the mission is one of the main barriers to adopting more resource-efficient technologies**: While the average actual length of a UN peacekeeping mission is seven years, cost-benefit calculations for resource-efficient technologies are often based on the duration of the original mission mandate, typically six to 12 months. Few resource-efficient technologies will pay back over this short period and more realistic planning assumptions should be adopted. Technologies such as solar panels, central chillers or energy-efficient generators offer excellent life-cycle value and return on initial capital investment within only two to three years. Consideration of the advantages offered by such infrastructure could be incorporated within the modularization effort being undertaken by DFS. The ability to hand over selected infrastructure to local communities at mission’s end is an additional benefit that should be considered.
Part 1: Summary of case studies of good practice

1) Environmental baseline studies: The UN Support Office for the African Union’s peacekeeping mission in Somalia (UNSOA) conducted two studies in the selection of its new logistics base in Mombasa, Kenya and its HQ in Mogadishu, Somalia. A total of 49 field samples were analysed for heavy metals, volatile organic compounds (VOCs), cyanide and other potentially harmful contaminants. Both sites were found to be located near groundwater aquifers requiring operational safeguards to protect environmental quality and the health of local communities.

2) Alternative construction materials to reduce deforestation pressure: To reduce deforestation pressure and water consumption, UN Mission in Darfur (UNAMID) replaced traditional building bricks with compressed soil blocks. This led to a 30 percent reduction in water use and 100 percent reduction in fuelwood consumption. The bricks were subsequently adopted by the United Nations Mission in South Sudan (UNMISS) as well as other humanitarian actors working in the region.

3) Environment and natural resources policy and training programmes: Given the linkages between natural resources and conflict in the DRC, the UN peacekeeping mission in the DRC (MONUSCO) has not only adopted an environmental policy but also organized and conducted a series of training events on environmental and natural resource management across all mission components during 2009-2011. Detailed training is planned for 2012, together with further implementation of the policy.

4) Water infrastructure and analysis capacity: The UN peacekeeping mission in Liberia (UNMIL) has supported local jobs and capacity building through the rehabilitation and ongoing maintenance of the host country’s water infrastructure. UNMIL also runs a fully operational water quality testing laboratory to allow for monitoring of the physical, chemical and bacteriological quality of water supplied to troops. Twenty-one parameters are currently tested. Discussions will be held to potentially transfer some of this analysis equipment to local authorities when the mission closes.
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5) Water efficiency and supply: Due to water scarcity in the country of operation, the UN peacekeeping mission in South Sudan (UNMISS) has undertaken a series of measures to increase water use efficiency and reduce overall consumption and impact. Measures include token-operated showers with low-flow showerheads that can reduce the consumption of water by 50 percent, waterless urinals that can save up to 170,000 litres of water per unit, the installation of 39 water treatment units that can supply 78,000 litres of non-potable water per day and the use of 10,000 litre rainwater collection tanks. Non-potable water is used for fire-fighting, dust control, soil compaction, concrete, flush toilets, vehicle washing and gardening.

6) Energy efficiency and renewable energy: Systematic awareness-raising and the introduction of CarLog systems in vehicles and their monitoring have led to a 22 percent drop in vehicle idling times and a 15 percent drop in fuel consumption over 12 months for the UN peacekeeping mission in Timor-Leste (UNMIT). This has resulted in a monthly reduction in diesel fuel usage of 50,000 litres, equating to annual savings of USD 360,000. UNMIT also powers remote VHF repeaters with solar panels. Furthermore, a study of the UNMIT base by Swedish Defence Research Agency has found that the use of renewable energy and efficiency measures could reduce consumption from 13,300 MWh to 7,200 MWh. The additional up-front cost of USD 11 million was modelled as being offset in two to three years by annual savings of USD 4.2 million in comparison to the original energy baseline of 100 percent diesel.

7) Waste management: The UN peacekeeping mission in South Sudan (UNMISS) has made a number of major waste management investments to mitigate a lack of local-level capacity and infrastructure. A solid waste characterization study found daily solid waste generation to be 22,000 kilograms or 1.5 kilograms per person. To manage this waste in an environmentally sound way, UNMISS engineers designed a fenced waste disposal site with an incinerator for solid waste, a hazardous storage unit and a separate landfill for ash. The waste disposal system has been expanded to 19 other sites, with improvements such as rainwater run-off management and containment barriers to prevent leachate. A biogas feasibility study also found that an anaerobic digestion system could power cooking facilities for 1,500 staff in Juba.

8) Waste recycling: The UN Stabilization Mission in Haiti (MINUSTAH) has supported the development of a number of innovative projects to recycle mission waste into new products or sources of revenue. Recycling of shredded paper and cardboard boxes are used to make charcoal briquettes for cooking. Used vehicle tires are being recycled into sandals and materials to control soil erosion. Used lead acid batteries, metal and electronic equipment are systematically collected for reuse, recycling and/or safe disposal.
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9) Wastewater treatment and reuse: High temperatures in Darfur ensure a significant demand for potable water, yet supply is scarce due to inadequate groundwater recharge, low annual rainfall and competing needs from local communities. As a result, the UN Mission in Darfur (UNAMID) operates 106 wastewater treatment units to reduce its demand for external water resources. The installation of wastewater treatment plants has allowed for the recycling of some 85,000 litres a day, with the overall target of reducing annual freshwater use by up to 40 percent. UNAMID will have 156 units operating by the end of 2011 and is modifying 200 toilet and washing units to use treated water.

11) Preventing environmental crime: The Special Representative of the Secretary-General for the UN peacekeeping mission in the DRC (MONUSCO) has instructed all mission locations to avoid the use of firewood for cooking in order to prevent illegal deforestation. MONUSCO also cooperates with the Environmental Crime Programme at INTERPOL to tackle gorilla smuggling in the greater Congo basin. On an exceptional basis, the peacekeeping mission also carried out a series of emergency airlifts for eastern lowland baby gorillas that had been rescued from poachers. The gorillas, one of the most endangered species in the world, were flown to a sanctuary centre established by the Diane Fossey Gorilla Fund International in Kasaghu.

10) Supporting local conservation efforts: The UN peacekeeping mission in Liberia (UNMIL) provided logistical support for Conservation International’s Rapid Biological Assessment in northeast Liberia, one of the world’s biodiversity hotspots. As UNMIL had a clear mandate to assist in restoring the administration of natural resources, it provided essential logistical support to conduct aerial surveys of inaccessible forests areas. UNMIL also conducted extensive efforts to prevent illegal activities and settlements in Sapo National Park.

12) Comprehensive environmental management improvements in UNIFIL: The UN peacekeeping mission in Lebanon (UNIFIL) has made extensive progress in the implementation of the 2009 Environmental Policy. At the centre of this success is the establishment and implementation of an Environmental Management System (EMS). The EMS is implemented through an integrated network comprising an environmental committee, environmental management unit, environmental officers and focal points. With this robust framework in place, UNIFIL has been able to implement a wide range of initiatives in the areas of energy efficiency, renewable energy, waste management, water treatment and protection of local heritage. Examples include solar-powered electric vehicles for use within the mission’s headquarters; an Information and Communication Technology Service building that meets 70 percent of its energy needs from solar panels and has saved USD 6,301 and 4,806 kg of CO2 in the first three months of operation; a new state-of-the-art technical landfill site serving both the local community and the mission; and fuel-efficient generators with engines that are equipped with Hydraulically Activated Electronically Controlled Unit Injector (HEUI) Systems, resulting in up to 20 percent cuts of smoke emissions and fuel consumption.
Part 2 Findings: Addressing natural resource risks and opportunities in peacekeeping missions

In addition to the impact that peacekeeping missions have on the environment, addressing conflicts partially financed by natural resources, or linked to grievances surrounding ownership, access or control has been one of the difficult challenges faced by peacekeeping operations.

The Security Council has mandated peacekeeping missions to help national authorities conduct a range of activities in support of natural resource management, including restoring the administration of natural resources, reasserting control over extraction sites, securing related infrastructure and monitoring the export and trade of sanctioned commodities. In this regard, this report reviews lessons learned from the four countries where such mandates have been given: Cambodia, Sierra Leone, Liberia and the Democratic Republic of the Congo (DRC).

The case of Abyei, where the new peacekeeping mission has been mandated to help police security oil infrastructure is also introduced, but lessons cannot yet be identified as field operations are in the process of being conducted.

In addition to the activities conducted by peacekeeping operations within countries, commodity sanctions have also been used by the Security Council to restrict imports and trade of specific natural resources in order to stem the flow of conflict financing in five cases. These have included sanctions on logs in Cambodia, petroleum and diamonds in Angola, diamonds in Sierra Leone, timber and diamonds in Liberia, and diamonds in Côte d’Ivoire. A sixth case from the DRC also seeks to prevent armed groups from gaining access to resource revenues by the adoption of due diligence guidelines. UN Expert Panels have been established in Angola, Sierra Leone, Liberia, the DRC and Côte d’Ivoire to monitor the implementation of sanctions, including those relating to natural resources, and identify individuals, companies and countries involved in sanctions violations. Peacekeeping missions have been explicitly mandated to support the work of Expert Panels in Liberia, Côte d’Ivoire and the DRC involving natural resource dimensions.
Apart from the risks that the illegal exploitation and poor governance of natural resources pose to security, they also support the achievement of early peacebuilding outcomes delivered by the civilian, police and military components of peacekeeping operations. These include how natural resources can either support or undermine the effectiveness of Disarmament, Demobilization and Reintegration (DDR) programmes as well as how the Civil Affairs sections of peacekeeping missions can use natural resources in their work at the local level to strengthen conditions and structures conducive to sustainable peace, reconciliation and conflict prevention. Opportunities range from delivering quick impact projects that rely on natural resources, to using natural resources as platforms for dialogue and confidence building, to addressing the ways that natural resource ownership, control and access can contribute to the resolution of conflict.

This report identifies a number of good practices by peacekeeping operations that have emerged in terms of addressing the risks and opportunities presented by natural resources. Some of these cases have been identified based on UNEP’s own field operations in Liberia, the DRC, Sudan (including Darfur), South Sudan, Afghanistan, Iraq, Haiti, Sierra Leone and Lebanon. Other cases were identified by organizations such as Global Witness and the International Institute for Sustainable Development (IISD) based on their own field experience. In total, 13 examples of emerging good practice – including only partial successes, as well as those with unintended negative consequences – were identified. In reviewing lessons from these multiple experiences, the following eight conclusions can be drawn:

- **Peacekeeping operations in situations where natural resources have financed or fuelled conflict represent 50 percent of the UN total peacekeeping budget to date:** Since 1948, 17 UN peacekeeping missions with a combined budget of USD 42 billion have addressed conflicts that were at least partially sustained by revenues from natural resources or by grievances over their ownership, access and control. This represents half of the total peacekeeping budget to date, yet only 25 percent of the total number of operations in the same period. These figures highlight the significant costs associated with failed resource governance, and indicate the need for greater preventive action and more focus on resource governance as part of State building and preventing conflict relapse.

- **There is an increasing trend towards including natural resource provisions in peace agreements:** All major peace agreements signed between 2005 and 2011 have included detailed provisions on natural resources, as compared with only 50 percent of the agreements concluded between 1989 and 2004. Land is by far the most commonly addressed resource, although extractive resources (oil, gas and minerals) and renewable resources (water, fisheries, forests and wildlife) are also included. This trend demonstrates the need for the international community – and peacekeeping operations in particular – to build new capacities, partnerships and flexible financing arrangements to support, where requested, the implementation of these provisions.

- **There has been little progress in systematically considering and documenting how natural resources can support, advance or undermine the aims of a peacekeeping mission:** DPKO and DFS do not have systems in place to evaluate and document how natural resources and environmental conditions have impacted the implementation of a specific mission’s mandate. These linkages have not received sufficient attention due in large part to the many priorities mandated by the UN Security Council to a peacekeeping mission, as well as the overriding focus on mission security and operational effectiveness. However, there are good reasons to increase this capacity as missions may be impacted by these risks on a more frequent basis. In particular, as the global population continues to rise and the demand for resources continues to grow, there is significant potential for increased competition and conflict over the world’s limited supply of natural resources. Fragile States, including post-conflict countries, could face a significant resource scramble in the coming decades. The predicted consequences of climate change for water availability, food security, disease prevalence, sea level rise and population distribution could also compound existing vulnerabilities and insecurity, thereby increasing the risk of conflict onset. Some of these risks were recognized by the Security Council in its recent debate and presidential statement on 20 July 2011. UN peacekeeping operations must have the capacity to work with host governments, development partners, companies and environmental organizations to competently address environmental and natural resource issues that have a clear connection to peace and security when requested to do so.

- **While the Security Council has incrementally improved the scope and specificity of the mandates given to peacekeeping missions in addressing natural resources, successful implementation continues to be hampered by a combination of factors:** The human and financial resources made available to the peacekeeping missions by Member States; the political will of the host country to tackle illegal exploitation and transparency challenges; and the cooperation of regional and global trading partners to comply with sanctions or ensure that companies meet due diligence standards where applicable. In some cases, non-elected transitional administrations or power-sharing authorities together with private sector actors have undermined peacekeeping efforts to restore authority in order to continue profiting from resource revenues.

- **The UN Security Council has given uneven guidance on the appropriate level of cooperation between peacekeeping missions and Expert Panels mandated to monitor sanctions:** Not all UN peacekeeping operations have specific mandates to work with Expert Panels, nor do all Expert
UNAMID Civil Affairs and the National Forestry Corporation and the Agricultural Research Centre plant trees surrounding the mission in El Fasher to restore degraded areas.
Panels have mandates to work with peacekeeping missions. Furthermore, peacekeeping operations can only consider and implement Expert Panel recommendations when they are accepted by the Security Council and formally mandated to do so. Yet, given the mutually supporting and compatible interests of each entity, closer cooperation between Expert Panels and peacekeeping operations, drawing on the comparative advantages of each, could benefit the work of both. The UN needs to better understand the potential for improved collaboration, as well as the normative, political and operational challenges of encouraging such joint support. Clear criteria are needed which clarify when and how mutual support should be authorised.

- A number of tools have emerged to help safeguard natural resources and restore good governance in post-conflict countries: Peacekeeping missions are increasingly confronted with situations in which host-governments are unable to manage high-value natural resources in a transparent manner, which would prevent conflicts and enable both sustainable and equitable economic growth. Post-conflict governments that face widespread, illegal and predatory natural resource exploitation challenges have requested assistance from the UN Security Council and other international partners to safeguard their natural resources, restore good governance and negotiate concessions that preclude corruption, build public confidence and ensure the best deal for their citizens in the long-term. A number of tools have emerged to contribute to these goals. These include temporary co-management mechanisms (the Governance and Economic Management Assistance Programme in Liberia), independent monitoring of resource management reforms (the Expert Panel in Liberia), due diligence requirements on sourcing minerals from conflict zones (the DRC) and principles such as the Natural Resources Charter Initiative or the UN Guiding Principles on Business and Human Rights. These tools may set important precedents that require further study and documentation by DPKO and the UN Security Council in order to consider their applicability to other post-conflict situations. Host countries have also requested that peacekeeping missions help them join or comply with certification schemes or voluntary partnerships such as the Kimberley Process, the Forest Law Enforcement, Governance and Trade (FLEGT) scheme, and the Extractive Industries Transparency Initiative (EITI). It is essential that peacekeeping missions, development partners and environmental organizations agree on a joint strategy and approach in each country towards providing coordinated support to these initiatives. Greater consultation and collaboration with private sector actors and extractive industries will also be required. In this regard, implementation of the recommendations on the need to establish dedicated international support capacity on natural resource management, outlined in the independent review, Civilian Capacity in the Aftermath of Conflict, is critical.

- Successful reintegration of former combatants often depends on natural resources: Poorly governed natural resources in a post-conflict setting can be a major impediment to DDR efforts as illicit exploitation can offer financial benefits that vastly outstrip those offered by formal DDR programmes, with harmful environmental consequences that may jeopardize sustainable recovery and community livelihoods. On the other hand, natural resources can provide opportunities for emergency employment and the establishment of sustainable livelihoods for former combatants. Access to land may be a key determining factor affecting the successful reintegration of a former combatant into a community.

- Natural resources can support various aspects of peacebuilding and offer a unique platform and entry point for the Civil Affairs section of a peacekeeping mission to engage local communities: Access to land, fresh water, fisheries and forests can be pillars of recovery and a basis for employment, economic growth and sustainable livelihoods. Quick impact projects aiming to demonstrate the visible dividends of peace often directly or indirectly rely on natural resources, while restoring sustainable livelihoods at the community level and overcoming divisions through reconciliation processes often involves questions of natural resource ownership, access and control. As such, natural resources can provide an arena for dialogue and confidence building between divided communities, as well as a platform for cooperation between communities and emerging levels of local and national government. However, if decisions around natural resource allocation, ownership and access are not well managed, they also create new sources of tension and conflict. Civil Affairs sections of peacekeeping operations do not yet take a strategic and integrated approach to addressing natural resource risks and opportunities. Ultimately, the way that peacekeeping operations handle risks and opportunities from natural resources can have an important impact on the overall effectiveness of the mission and influence the trajectory of longer term stability, development and sustainable resource use. It is therefore critical that where natural resources have been a factor in the conflict, where they have a major role in the national economy or where they support the majority of rural livelihoods, a key focus of peacebuilding and post-conflict reconstruction should be on strengthening natural resource governance. This should involve strategic assessments of the country’s resource base; the development of a legal framework guaranteeing the transparent, equitable and sustainable management of natural resources; and institutional capacity building to enforce this framework effectively.
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Part 2: Summary of case studies of good practice

13) Monitoring and inspecting extraction sites, supply lines and borders for sanctioned natural resources: Aspects of monitoring and inspection – including investigations, border controls and policing support – date back to the UN’s first major multidimensional peacekeeping operation in Cambodia in 1993 (UNTAC). UNTAC was mandated to take appropriate measures to secure the implementation of a moratorium on the export of logs. This included checking the source of natural resource materials and patrolling supply routes. However, while these operations may have reduced the export of sanctioned logs, the peacekeeping mission was unable to prevent the Khmer Rouge from continuing to profit from cut timber, rubies and sapphire mines as the mandate did not cover these specific natural resources. This outcome demonstrates the importance of addressing natural resource governance in a comprehensive and timely manner from the outset of a peacekeeping mission, while ensuring sufficient coverage of all natural resources financing conflict.

14) Conducting joint planning, operations and patrols with police to monitor illegal natural resource extraction: The UN peacekeeping mission in Sierra Leone (UNAMSIL) delivered support and training to the Sierra Leone police on a number of topics, including illegal diamond mining. With the support of UNAMSIL, the police force in Sierra Leone established a diamonds crime intelligence and investigation unit, and initiated the recruitment of a UN civilian police diamond adviser. The newly trained police personnel were deployed to the provinces, focusing on areas vacated by UNAMSIL and the sensitive diamond-mining and border areas in the east of the country. UNAMSIL also provided advice to police in such key specialized areas as cross-border policing, airport security, criminal intelligence, policy and planning for diamond-related crimes. UNAMSIL also conducted joint patrols with the Sierra Leone police (Operation Blue Vigilance) to reassert its control over diamond mining.

15) Restoring the administration of natural resources and transparency of associated revenue management: The UN peacekeeping mission in Liberia (UNMIL) was given a broad mandate to help the transitional government restore the administration of natural resources. This mandate was partially implemented at a number of priority sites over the duration of the mission. For example, ex-combatants and rebels had occupied a number of major rubber plantations as well as Sapo National Park which they were exploiting illegally. The Sapo Working Group was established to evacuate and resettle the illegal miners, poachers, squatters and the traditional inhabitants and re-establish State control of the park. Similarly, the Liberian Rubber Plantation Task Force (RPTF) chaired by the Liberian President and the UNMIL Special Representative of the Secretary-General, convinced most ex-combatants to leave the plantations by renegotiating the takeover of the areas and providing alternative livelihood assistance. UNMIL also conducted enforcement operations against illegal logging through a system of checkpoints. In terms of diamonds, UNMIL trained, equipped and deployed 65 mineral inspectors and 46 mining agents to institute Kimberley Process Certification Scheme procedures and build regional diamond offices using quick impact project funds to address key gaps in diamond management infrastructure. UNMIL was also involved in laying the foundation for the eventual adoption of the Governance and Economic Management Assistance Programme (GEMAP) by the National Transitional Government of Liberia in September 2005. The GEMAP was a program of wide scope that targeted revenue collection, expenditure controls and government procurement and concession practices.
16) Reasserting government control over mining sites and improving oversight of trading centres for natural resources: In 2009, the peacekeeping mission in the DRC began assisting the Congolese army in a series of military operations which aimed to dislodge armed rebel groups from a number of mining sites and diminish their resource base. The operations, known as Umoja Wetu (2009), Kimia II (2009) and Armani Leo (2010), succeeded in establishing control of the mining sites by the national army (FARDC) and securing mineral resources, but at significant cost. Not only did the operation lead to human rights abuses and displacement, but one of the major unintended consequences of restoring control to the national army was that specific army units began militarizing the mining zones in order to begin directly profiting from mining revenues in defiance of national law. As an alternative strategy, the peacekeeping missions focused on improving the traceability of mineral products and supporting “centres de négoce” - the government trading centres for the Ministry of Mines throughout North and South Kivu. The centres are the first point of sale for minerals from mines that were not controlled by armed groups and which meet minimum labour and human rights standards. The centres also serve as commercial and taxation points for any minerals sold to trading houses for export. The certification process for ‘clean’ mining sites is the responsibility of the Ministry of Mines with assistance from the UN and international partners. The centres are staffed by the DRC Mine Administration, mine police, civil servants and the State service charged with regulating informal mining activities.

17) Using an Expert Panel to assess natural resource and conflict linkages and advise the Security Council on the scope of sanctions and the mandate for peacekeeping operations: In 2000, a Security Council Presidential Statement mandated an Expert Panel “to follow up on reports and collect information on all activities of illegal exploitation of natural resources and other forms of wealth in the DRC, including violation of the sovereignty of that country.” Over the next year, the Expert Panel monitored the trafficking of diamonds, timber and of other valuable resources (such as coltan), and their trade for weapons. In 2001, the Panel published two reports which extensively documented how both government and private actors pillaged the DRC’s resources to fund war. Based on its recommendations, the Council imposed an arms embargo and other sanctions to stop the exploitation and the financing of rebel activity. The findings of the Group of Experts for the DRC and that of the subsequent Panel of Experts also influenced future mandates given by the UN Security Council to the peacekeeping mission. In particular, the mission was eventually mandated to use its monitoring and inspection capacities to curtail the provision of support to illegal armed groups derived from illicit trade in natural resources.
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19) Using an Expert Panel to monitor natural resource governance reforms both during and after commodity sanctions in cooperation with the peacekeeping mission: Over a five year period, the Expert Panel in Liberia monitored the embargoes on weapons, diamonds and timber. In close technical collaboration with the UN peacekeeping mission, it eventually recommended when the sanctions should be lifted and how to improve governance in those sectors. When the timber and diamonds sanctions against Liberia were lifted by the Security Council, the Expert Panel’s mandate was extended to monitor progress towards effective resource management. In 2007, the Expert Panel reported on the implementation progress in the Governance and Economic Management Assistance Program, including on natural resource concessions, revenues and associated institutional capacities. From 2007 to 2011, the Expert Panel reported on implementation progress regarding the Kimberley Process Certification Scheme and the National Forestry Reform Law. In 2010, the Panel also reported on the contribution of forestry and other natural resources to peace, security and development within the context of the country’s evolving legal framework.

20) Establishing due diligence requirements for companies on sourcing minerals from conflict zones: Taking up a suggestion of the UN Group of Experts on the DRC, the UN Security Council encouraged Member States to take measures to ensure that ‘importers, processing industries and consumers of Congolese mineral products under their jurisdiction exercise due diligence on their suppliers and on the origin of the minerals they purchase’. In other words, States should make sure that companies based in their jurisdictions are not violating the sanctions through their transactions or business relationships. It also recommended that importers and processing industries adopt policies and practices, as well as codes of conduct, to prevent indirect support to armed groups in the DRC through the exploitation and trafficking of natural resources’. The Security Council’s linking of sanctions implementation and ‘due diligence’ by international companies recognises that private sector operators are one of the principal entry points for conflict resources to the global economy.

18) Conducting field investigations on the violation of commodity sanctions in collaboration with Expert Panel: While the UN peacekeeping mission in Côte d’Ivoire (UNOCI) was not given an explicit mandate from the UN Security Council to address natural resource governance, it was mandated to support the UN Group of Experts. In this regard, UNOCI conducted an assessment of diamond mining in Côte d’Ivoire to supply important field information to the UN Group of Experts. During that investigation, UNOCI police and military observers helped the UN Group of Experts first to identify the most important diamond dealers in Séguéla, and then uncover how the diamonds embargo was being violated. The Group of Experts worked closely with the Civil Affairs, police and military branches of UNOCI, and travelled widely across Côte d’Ivoire. This case demonstrates the important support that UN peacekeeping forces can give to UN Groups of Experts to support the monitoring of sanctions violations.

19) Expanding, monitoring and lifting natural resource sanctions: The Security Council responded to the role of the illegal diamond trade in financing the Revolutionary United Front (RUF) and Charles Taylor by imposing sanctions on diamond imports from Liberia in Resolution 1343. The sanctions prompted Taylor to switch to Liberian timber as a funding source. Although it took nearly two years, the commodity embargo was eventually extended to include round logs and timber in order to curtail major sources of financing from natural resources. A specific goal before lifting of the sanctions on diamond exports was that Liberia must join the Kimberley Process Certification Scheme. Similarly, the timber sanctions would only be lifted once major reforms were conducted in the timber sector. These conditions were used as incentives for conducting major natural resource governance reforms supported by the peacekeeping mission.
**Executive Summary**

22) Using natural resources to provide emergency employment and livelihoods for former combatants: The UN Assistance Mission in Afghanistan (UNAMA) helped establish the Afghan Conservation Corps (ACC) in collaboration with USAID, UNOPS and the Afghan government. Through the ACC, ex-combatants and vulnerable populations were hired to conduct reforestation activities in the pistachio woodlands and the eastern conifer forests amongst other projects. From 2003-2009, the ACC implemented 350 projects in 23 provinces, and generated about 400,000 labour days. The ACC has rehabilitated 108 nurseries, restored 32 public parks, planted pistachio seeds on 3,200 hectares of former woodland in seven provinces and planted an average of 150,000 conifer and 350,000 fruit trees each year.

23) Preventing sexual violence against women through firewood patrols, fuel efficient stoves and water infrastructure: In Darfur, as women and girls were regularly attacked when venturing out of camps to collect firewood, the hybrid AU-UN mission in Darfur (UNAMID) began to provide patrols and armed escorts. These “firewood patrols” soon became a regular feature of the mission’s protection tasks. For example, UN police cars and UNAMID Armored Personnel Carriers escorted women from Darfur’s Kalma camp twice per week into the surrounding hills and waited while groups of women chopped branches and raked grass for animal fodder. In 2011, UNAMID police reported more than 26,000 patrols conducted within IDP camps and with groups of mainly women and children leaving villages and camps to collect firewood, grass and water. Regular UNAMID patrols combined with the provision of escorts have assisted in limiting the prevalence of sexual violence cases, particularly during the farming and cultivation season.

24) Addressing natural resource grievances within conflict resolution and reconciliation activities: Two years of prolonged conflict between the Enyele and Munzaya communities in Equator province of the DRC centred around access to natural resources and fishing rights. The conflict resulted in over 100 deaths, displaced over 160,000 people and led to the destruction of hundreds of houses, shops and personal belongings. In response to this local level conflict, the Civil Affairs section of the peacekeeping mission undertook a series of dialogue and conflict resolution activities in collaboration with the international NGO, Search for Common Ground (SFCG) and UN partners. Over the course of a year, Civil Affairs organized five capacity building workshops coupled with intercommunity cultural and sport activities throughout the area affected by the conflict. A Common Action Plan (CAP), providing a road map for further activities to support peace consolidation was developed, following a series of conflict mediation workshops. The local peace building process supported by Civil Affairs, the provincial government and SFCG, resulted in the renewal of a pact of non-aggression between the two communities and a large festival of reconciliation.

25) Confidence building through community reforestation efforts: In Lebanon, the Civil Affairs section of the peacekeeping mission helped support a quick impact reforestation project that aims to plant over 10,000 trees, including walnut, olive, carob, berry, laurel, pine and acacia, to increase fruit production and aid the local beekeeping industry as an early confidence building measure. Other benefits included creating shared green space for recreational benefits in the communities, increasing biodiversity of nearby farmland and fostering economic development in the region by increasing its attractiveness to tourists. The projects were also carried out under the leadership and ownership of the government to increase cooperation with local structures. The project has been received positively with great support from the community and the people directly involved.
Overall recommendations

With a view to supporting UN peacekeeping missions to effectively address risks and opportunities from the environment and natural resources, this report offers the following eight recommendations:

1. **Effective implementation of DPKO/DFS Environmental Policy should be ensured**

   Compliance with the 2009 Environmental Policy is mandatory for all personnel working in UN peacekeeping operations. To date, however, the policy has not led to sufficient concrete change on the ground. The development of training and infrastructure modules within the Global Field Support Strategy that incorporate resource-efficient designs and technologies is one important effort under way to support implementation. Further application of the policy should take into account the size and geographic location of the camp, local climatic and disaster risks, security conditions, anticipated energy, water and waste demands and the capacities of respective mission personnel throughout all stages of the mission’s life-cycle. As part of the full roll-out process, it will be necessary to establish compliance monitoring mechanisms in order to track improvements in environmental performance, determine total cost implications and promote accountability. It should be ensured that Environmental Baseline Studies and Environmental Impact Assessments are conducted for each mission as a standard due diligence procedure. These initial surveys will facilitate preparation of an Environmental Action Plan as well as an Emergency Preparedness Plan, which are both vital components of an Environmental Management System (EMS). Appropriate staffing and environmental training resources are paramount, both in missions and at headquarters. DFS/DPKO and UNEP should build on their existing collaboration to intensify the implementation of the 2009 Environmental Policy starting with undertaking Environmental Baseline Studies for all current missions and identifying immediate opportunities for improving environmental performance.

2. **The Security Council should be systematically informed of the linkages between natural resources and conflict in countries where it is considering authorizing a peacekeeping mission**

   The linkages among natural resources and conflict are complex and often misunderstood or neglected by the international community. When the Security Council is considering the deployment of a new mission, it should be briefed on how natural resources have contributed to, financed or sustained specific conflicts and insecurity in the given country and region. Resource-related conflict drivers should be duly reflected in mandates as deemed appropriate by the Security Council and as requested by host nations. Where sanctions regimes are in place or being considered, briefings may also include ways for the peacekeeping mission to support or cooperate with Expert Panels, as well as ways to help build the capacity of national authorities to monitor and enforce sanctions. In countries where natural resources have financed or fuelled conflict, the Special Representative of the Secretary-General (SRSG) may need to appoint a special advisor on natural resources to help the peacekeeping mission coordinate efforts with the UN country team, donors, other national stakeholders and regional actors as well as to assist in progress reporting to the Security Council.

3. **DPKO and DFS, together with UN Country Team partners, should incorporate the environment and natural resource dimensions of conflict and peacebuilding into the Integrated Mission Planning Process and the Integrated Strategic Framework**

   The Integrated Mission Planning Process, which was designed to align the capacities of the UN system under a single strategic vision for peacekeeping and peacebuilding, provides little guidance on addressing natural resources. As the UN system moves forward in implementing and refining the process, it should explicitly consider how the risks and opportunities from natural resources and the environment can be addressed in a strategic and coherent way by the combined efforts of the peacekeeping operation, the existing UN country team and non-resident agencies. The resulting Integrated Strategic Framework should clearly articulate a division of responsibility and coordination framework for addressing the political, security and economic dimensions of natural resources, including linkages to DDR programmes. It is also essential for any peacekeeping mission to ensure a smooth handover of information on interlinked natural resource, conflict and peacebuilding dynamics to any subsequent peacebuilding mission led by the Department of Political Affairs and supported by the Peacebuilding Support Office and UN Peacebuilding Commission. Given that poor governance of natural resources can contribute to instability and conflict relapse at any point of the peacebuilding process, strengthening national capacity for transparent, equitable and sustainable management should be a key component of State building.

4. **Where natural resources fuelled or financed conflict, peacekeeping missions should be given a more systematic mandate to support national authorities in restoring the administration of natural resources, enforcing national laws, monitoring sanctions and prosecuting violations**

   Post-conflict governments often lack the capacity to reassess control over natural resources once trade has become militarized and used to finance arms, armed groups and other illicit activities. Under these conditions,
peacekeeping operations can play an essential role in helping national authorities restore or extend sovereign control over resource extraction sites, rebuild capacity for resource governance and enforce both national laws and commodity sanctions. When post-conflict governments face the difficult process of allocating and overseeing natural resource concession agreements, peacekeeping missions can help by providing advice on best practice. In the delivery of these activities, peacekeeping staff will require additional training to monitor laws and sanctions, assist national authorities in the negotiation of concession contracts and in the transparent management of revenues, conduct joint patrols and systematically recognize, record and share information with police and customs officials on illicit products. They should also be prepared to record and hand over any information that may be useful in the event that specific conflict actors are indicted by the International Criminal Court for violations of the Rome Statute, including acts of pillage of natural resources that contribute to war crimes, crimes against humanity and genocide.

5. The Civil Affairs components of peacekeeping operations should understand and capitalize on the peacebuilding potential of natural resources and the environment

Civil Affairs sections at peacekeeping missions should more systematically consider how natural resources can be used as a means to deliver on wider conflict prevention and peacebuilding goals as part of their community engagement strategy. This should include: monitoring rising tensions over natural resources and addressing protection needs for vulnerable people; addressing natural resource grievances as part of conflict analysis, mitigation, resolution and reconciliation processes; using natural resources as a basis for confidence building between divided groups and for establishing relationships between levels of government; restoring or extending State and local authority over natural resources as mandated by the Security Council or as a component of good governance; and ensuring coordination across the mission and UN country team for natural resource management interventions. In this regard, implementation of the recommendations contained in the independent review on Civilian Capacity in the Aftermath of Conflict on the need to establish dedicated international support and coordination capacity on natural resource management is critically needed.

6. Demobilization, disarmament and reintegration programmes delivered by peacekeeping missions and development partners should systematically consider emergency employment and sustainable livelihoods based on natural resources and the environment

Peacekeeping missions involved in DDR programmes should work in partnership with PBSO, UNDP, UNEP, ILO, FAO, HABITAT, UNIDO and other agencies to create emergency employment and sustainable livelihoods from natural resources, while also considering issues of land and natural resource access, ownership, control and sustainable use. In general, there are four main sectors where both the reinsertion and reintegration phases of DDR can directly or indirectly involve natural resources: repair of infrastructure (energy, water and waste), environmental rehabilitation, agriculture and bio trade and the management of protected areas. DDR programmes will need to determine how informal activities involving natural resources can be transformed into formal ones, as well as how a gender-sensitive approach can be adopted. In parallel with these efforts, natural resource sectors where armed groups were involved or continue to exploit illegally may require targeted security interventions by peacekeeping forces combined with strong oversight and management reform.

7. Training on environment and natural resource management in a post-conflict context should be made a standard component of pre-deployment and in-mission orientation

Environment and natural resource management issues with direct links to conflict and peacebuilding must be better understood and acted upon by a broad range of personnel – not only those with responsibility for environmental issues. The UN should ensure that both pre-deployment and in-mission training is made available to all military, police and civilian personnel and that in-depth training is provided to staff with specific responsibilities related to environmental issues or in areas that could impact the governance or use of natural resources. Training programmes should target a minimum of five categories of personnel: (i) leadership, senior political advisors and integrated mission planners on the broad linkages among natural resources, conflict and peace combined with intervention strategies; (ii) environmental and natural resource officers on improving environmental performance and linking natural resource management to the effective implementation of a peacekeeping mandate; (iii) Civil Affairs staff involved in conflict resolution, confidence building and reconciliation activities or quick impact projects with a clear natural resource or environmental dimension; (iv) civilian, police and military staff involved in the design and implementation of DDR programmes or provision of support to UN Expert Panels; and (v) other personnel (troops, civilians, police forces) requiring a broad understanding of the linkages among natural resources, conflict and peace as well as awareness on basic environmental practices and norms (e.g. engineers). This training should build on existing guidance materials and training modules developed by the UN-EU Partnership on Natural Resources and Conflict Prevention, as well as specific training on natural resources and peacekeeping developed by UNEP, IISD and UNITAR.
8. **An Expert Panel on natural resources and fragile States should be established by the appropriate UN mechanism with a mandate to review and document good practice in various aspects of natural resource management**

Fragile States, including post-conflict countries, represent specific governance challenges for natural resources which require policies and safeguards that are distinct from other developing countries. These countries often contain major reserves of high-value natural resources and biodiversity which are subject to a lack of transparent management and concentrated control together with illegal and unsustainable exploitation. In this regard, an Expert Panel should be established by the appropriate UN mechanism with a mandate to review and document good practice and lessons learned in restoring resource governance, issuing concessions, establishing appropriate safeguards to prevent abuse and plunder and holding parties accountable for illegal resource exploitation or the violation of sanctions. It should also explicitly consider how peacekeeping missions can work more effectively to restore the administration of natural resources in post-conflict countries, as well as increase collaboration with Expert Panels and the relevant extractive industries in the monitoring and enforcement of sanctions. The Expert Panel should also consider the merits of establishing a standard definition of the term “conflict resources” with corresponding actions, responses and instruments to restrict their trade. The Expert Panel should also review how financial tools that were designed to address conflict prevention and early peacebuilding needs, such as the UN Peacebuilding Fund and the EU Instrument for Stability, could provide more rapid and flexible financing to programmes that address the illegal exploitation of natural resources in post-conflict countries and fragile States.
Further information

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