OECD

ISSUES BRIEF

Development Assistance Committee (DAC)
Mainstreaming Conflict Prevention

OVERVIEW OF THE LINKS BETWEEN THE ENVIRONMENT, CONFLICT AND PEACE[1]

The way that we access and use natural resources can cause, trigger or drive violent conflict within states and across sub-regions. But the natural environment can also provide a constructive avenue for conflict prevention and peace-building.

Underlined words are hyperlinks to other topics available at www.oecd.org/dac/conflict/issuesbriefs.

KEY MESSAGES:

■ Tensions over non-extractive natural resources (e.g. the use and availability of water and land) can drive conflict, usually on a local level. This may spill over into wider conflict, particularly where grievances are manipulated for political ends at the macro level.

■ The desire to control the exploitation of high-value "extractive" natural resources can drive violence and instability. Particular risks are the presence of "spoilers", who benefit from economic activities that feed into and flow out of conflict, and situations in which a community's reliance on natural resources (land, forests etc.) for its livelihood is incompatible with commercial exploitation.

■ Wealth derived from natural resources may be used to finance patronage networks, militias or arms purchases. This must be tackled by promoting transparency and accountability in the private and public sectors, such as through the Extractive Industries Transparency Initiative.

■ Environmental damage and degradation (caused, for example, by extraction activities) often threatens livelihoods and can cause or aggravate tensions. They also increase the risk of disasters – in turn generating or furthering vulnerability to conflict.

■ Environment-related programmes can have multiple direct and indirect benefits for development. Opening up possibilities for dialogue and co-operation, they can be put in place at any point in the conflict cycle. Such programmes must be adapted to the context.

■ Conservation and sustainable-management activities to tackle environmental degradation can risk driving conflict. Stakeholder dialogue and mediation is vital from the outset.

■ A regional approach to environmental issues is often essential, as such issues are not limited by national borders.

---

[1] This issues brief draws on research conducted by the International Institute for Sustainable Development for the CPDC and on discussions at a CPDC workshop hosted by the Swedish International Development Agency in February 2005. The drafting was then led by the CPDC Secretariat.

INTRODUCTION

Natural resources are vital to livelihoods, exports and growth, but they can also drive or exacerbate tensions both among groups and communities and/or between states. It is estimated that 17 violent conflicts between 1990 and 2002 centred on the exploitation of natural resources, and that nine of these were in Africa.[2]

In many conflict contexts, violence and instability is fuelled and prolonged by politico-economic interest in generating wealth out of natural resources.[3] In such a "war economy", the line between legal and illegal activities may be unclear, and the degree to which governing elites, external companies and others are acting with integrity difficult to ascertain. In addition, many lower-intensity conflicts that arise from competition for resources (e.g. land or water in Sudan) have the potential to spill over into wider violence and instability, particularly where they are manipulated for political reasons. Severe environmental damage (such as deforestation or soil or water pollution), inflicted before or during conflict can fuel tensions as well as impede the implementation and sustainability of reconstruction efforts. Environmental damage can also significantly increase vulnerability to natural disasters, with the potential to have a further negative impact on stability.

Demographic pressure, resource depletion or degradation, and inequitable access to (and shortage of) land are likely to worsen in the coming decades, with profound effects on stability[4] (see Emerging Issues below). Many of the regions facing significant problems of ecosystem degradation are among those facing the greatest challenges in achieving the Millennium Development Goals.

More positively, programmes relating to the environment can have constructive peace-building impacts at relatively low cost, opening up possibilities for dialogue around shared resources and helping forge ties between opposing groups. Also, environmental initiatives are often one of the only areas of cooperation open to development agencies in situations of weak, repressive or divisive governance.

War economies as well as local-level conflicts can be closely connected to issues relating to natural resources

...but the environment also offers avenues for very positive peace-building impacts.

KEY ISSUES

Tensions can arise or worsen over the lack of availability of or access to natural resources.

Closely linked to poverty and involuntary migration, the availability of resources can also have profound effects on societal (and often, regional) stability. Availability can be determined by (i) physical presence or absence of a natural resource that may directly or indirectly place considerable stress on the social fabric, or (ii) insecure or inequitable rights to control or access resources to the benefit or prejudice of certain individuals and groups. Control or access rights may be insecure or inequitable even where the resource is not scarce per se (as with land in Liberia).[5] They may, for example, result from the actual or perceived declining availability of resources that are non-renewable (such as diamonds and other minerals). The politicisation of natural-resource issues is a key factor

---

[2] Quoted in the Human Development Report 2005 http://hdr.undp.org/reports/global/2005/

[3] Conflicts are an unavoidable part of processes of social change in all societies. This issues brief deals with violent conflict, but from here on uses "conflict" as shorthand for it.

[4] See for example Ross, M. (2004), "What Do We Know About Natural Resources and Civil War?", *Journal of Peace Research* 4, pp 337-356; Homer-Dixon, T. F. (1999), *Environment, Scarcity and Violence*, Princeton University Press, p 177; Dalbelko, G., S. Lonergan and R. Matthew (1999), *State of the Art Review on Environment, Security and Development Cooperation,* IUCN/OECD DAC.

[5] As regards water, it is important to differentiate between countries experiencing physical water-scarcity (e.g. North Africa and Middle East) and those affected by economic water-scarcity (e.g. Sub-Sahara Africa). The first group does not have enough primary available water to produce enough food themselves. The second group has enough naturally available water, but lacks the infrastructure and institutions to make use of it.

that can cause, trigger or fuel conflict (e.g. Côte d'Ivoire).

High-value "extractive" commodities

Competition for control of high-value "extractive" resources can cause, trigger and, most often, drive conflict

In weak governance zones[6], instead of fuelling development, the presence of valuable "conflict" commodities – e.g. oil, diamonds, coltan (columbite-tantalite), timber, illicit drugs – can prompt competition between groups for access or control. This can cause, trigger or, more often, drive and prolong conflict. At stake are the potentially huge rewards that can be derived from controlling such resources. For example, in Liberia, Charles Taylor is estimated to have made more than $400 million per year between 1992 and 1996 from diamond wealth, helping to fuel war.[7] As in the Mano River and Great Lakes regions, instability can spread across borders when governments or groups in neighbouring countries become involved.

...although it is how these resources are governed that shapes the dynamics of conflict and peace.

The presence of high-value natural resources, however, does not lead inexorably to conflict. It is the process of controlling access to that wealth and managing and distributing the resulting revenues that shapes, either positively or negatively, the dynamics of conflict and peace. The potential for conflict is particularly high where the livelihood needs of communities (related to land, water and forests) compete with the desires of local or international companies, operating with or without state concessions, who may take measures to use the same land for commercial extraction purposes. (See also the issues briefs on valuable minerals, and forests.)

Non-extractive resources

As regards non-extractive resources (such as land and water), tensions can result from a sense of grievance over a limited or declining supply (relative to demand), and/or from inequitable distribution within a given context. In analysing resource distribution, it is important to differentiate between countries experiencing physical scarcity (e.g. water in North Africa and the Middle East) and countries affected more by major institutional and infrastructure deficiencies in making use of available resources (e.g. water in much of sub-Saharan Africa), most of whom face severe financial and development capacity problems.

Inter-acting with socio-economic, political and ecological factors, low or declining resource availability can have major impacts on stability

Shaped and compounded by its interaction with socio-economic, political and ecological factors, low or declining resource availability can have a profound impact on livelihoods and societal relations. In the case of Darfur, for example, among the underlying causes of violent conflict is increasing competition between herders and farmers over land and water. This is compounded by real and/or perceived historical ethnic divisions, rivalries between pro- and anti-government groups, and the breakdown of state capacity.

...often compounded by environmental damage or degradation.

Destabilising impacts can be caused or compounded by environmental damage or degradation – as well as by conservation and sustainable management activities that may inadvertently cause or exacerbate instability. The interaction of factors is also critically linked with social inequalities, governance failures, a rapid rise in economically marginalised people, and the involuntary need of those marginalised to utilise the resource unsustainably.[8]

---

[6] See the OECD Investment Committee's *Guidelines for Multinational Enterprises,* at http://www.oecd.org/daf/investment/guidelines
[7] See USAID (2004), "Conducting a Conflict Assessment: A Framework for Analysis and Program Development", p 8.
[8] *Livelihood Conflicts: Linking Poverty and Environment as Causes of Conflict*, Swedish International Development Agency (Sida), Department for Natural Resources and the Environment, December 2000, p 5.

In poor communities, the population's dependence on land and water for survival and livelihoods (e.g. forests, land, water and fisheries) makes them particularly affected by their ability to access and use vital resources. Moreover, the vulnerable are often the least able to adapt to a rapid decline in the availability of these resources (as a result of political, social or ecological factors).

In the absence of mechanism and measures to mitigate tensions, local level violence can arise…which risks spilling over into wider-scale conflict.

Competition over control of, use of, and access to non-extractive resources (e.g. common land or water) is most likely to generate violence at the local level. This can escalate into wider conflict in the absence of mechanisms and measures to manage and mitigate the tensions, and where there is widespread availability of small arms. The risk is particularly high where a perceived grievance (as regards exclusion or entitlement) and/or rapid and dramatic processes of change (e.g. large-scale population movements in a humanitarian crisis) overlap with the politicisation of a sense of "identity" (see land and water issues briefs).

Further instability can be driven by the impacts of large movements of displaced people.

In its turn, violent conflict can exacerbate scarcity when fighting decimates forests and agricultural land, and poisons water sources. The impact that large movements of people have on resource access and use and/or degradation (particularly in terms of unplanned pressures in "host" areas, fuelling further local conflicts, e.g. in Sudan) needs to be mitigated and managed so that it does not fuel the recurrence of violence.[9] It is worth noting that mass population displacement resulting from conflict may in some cases allow environmental regeneration, as with the reversal of deforestation in the cross-border zone between Sierra Leone and Guinea (see the Forests issues brief). The critical issue in each case is how to adapt programmes to their context.

Factors exacerbating the impact of natural disasters (such as environmental degradation) must also be mitigated, as their impact on resource availability can generate and/or exacerbate vulnerability to future conflict (e.g. droughts in Sudan).

IMPLICATIONS FOR PROGRAMMING

The challenges at the nexus of environment, conflict and peace exist on multiple levels.

While it is imperative to take a holistic and coherent approach, the challenges at the nexus of environment, conflict and peace exist on multiple levels and concern distinct but overlapping constituencies (e.g. governance, rural livelihoods, private-sector development, gender equality[10]). The implications (and opportunities) for development agencies and, more widely, across governments and the international community differ depending on the type of challenge to be addressed.

Where to engage…

In addition to the points made in the section below, it is important to emphasise the following at the outset: (1) Programmes should address the lack of representation and protection for the most vulnerable communities, such as traditional resource users who rely directly on ecosystems for their livelihoods. The institutionalisation of mechanisms for information exchange, dialogue and participatory decision-making can help overcome inequitable discrepancies in the

---

[9] UNHCR, Refugees and the Environment: Caring for the Future, Geneva: 1999; and Benfield Hazard Research Centre: Rapid Environmental Assessment of Humanitarian Operations www.benfieldhrc.org/SiteRoot/disaster_studies/rea/rea_index.htm
[10] See tipsheets on land, agriculture and the environment, on participation and on enterprise development produced by the DAC Network on Gender Equality (www.oecd.org/dac/gender).

Concerns need to be mainstreamed across different focus areas, including development effectiveness

exercise of power; (2) Programmes should facilitate the inclusion of women and men as interlocutors and address the needs of women and men in relation to the management of and access to natural resources;[11] (3) A regional approach to issues of natural resources and conflict is essential; and (4) All efforts must take into account the impacts of the HIV/AIDS pandemic on local tensions, livelihood productivity and resource degradation.

In terms of conflict dynamics and both "extractive" and "non-extractive" resources, agencies need to mainstream concerns across their different programmes or focus areas (whether development effectiveness, donor harmonisation, governance, livelihoods, growth and investment, humanitarian assistance, etc). A loose initial grouping of possible responses may be:

...and in programming areas such as governance and participation

a) *Governance and participation*: Addressing grievance requires political structures that engage different groups (including women, youth, indigenous communities and other vulnerable groups), allowing them to voice their concerns while also meeting their needs.[12] It also requires a focus on access to justice and the rule of law. Important areas include:

   o Helping establish and strengthen state and non-state systems (institutions and mechanisms) to:

      ▪ regulate and administer natural resources (focussing on transparency and accountability);

      ▪ arbitrate related disputes and ensure compliance; and

      ▪ guide (international and local) business activity, ensuring integrity.

   o Improving participation in decision making by all sectors of society.

   o Instituting broad-based dialogue processes.

...and improving the security and sustainability of livelihoods.

b) *Livelihoods*: Assistance to protect and improve livelihoods is an essential part of development practice in conflict-prone and conflict-affected contexts and of efforts to "transform war economies"[13]. Key objectives include helping to:

   o Provide the poor with security of land tenure and incentives to invest. This requires addressing issues of the extent, duration, clarity and enforceability of rights. It also requires the development of a context-appropriate, effective and accountable land administration system.

   Tenure issues are particularly acute as regards women. Often, women do not have the right to own or inherit property. This is a major obstacle to their involvement in political and productive economic processes.

---

[11] See the UNIFEM Portal on Women, War and Peace; El-Bushra, J., A. El-Karib, and A. Hadjipateras (2002), Gender Sensitive Programme Design and Planning in Conflict Affected Situations, ACORD; and Pearl, R. (2003) "*Common Ground, Women's Access to Natural Resources and the United Nations Millennium Development Goals*" WEDO.
[12] The Millennium Project's *Investing in Development – A Practical Plan*, chapter 12, p 189.
[13] See the report of the Swisspeace-DEZA conference "Transforming War Economies" held in Berne in October 2004. See also Collier, P. et al (2003), *Breaking the Conflict Trap: Civil War and Development Policy*, Washington DC: World Bank/Oxford University Press.
[14] The Commission for Africa (chapter 7, on growth and poverty reduction) articulated the need to encourage greater and more resilient small and medium-sized business activity by facilitating market linkages (e.g infrastructure and access to financial and non-financial services), better use of diaspora know-how and remittances, and fostering a more attractive investment context.
[15] The DAC Network on Governance is working with other OECD directorates to assist with anti-corruption efforts. www.oecd.org/dac/governance.
[16] International Alert is one among a number of NGOs working on business integrity and how to promote a peace-building role for companies

o   Prevent and repair environmental degradation (such as deforestation and the deterioration of the quality of land, water and fisheries), which can increase the sustainability of efforts and reduce the volatility of livelihoods. Given the risk that these activities might themselves drive conflict, it is essential to involve stakeholders in appropriate dialogue and mediation procedures from the outset.

Private sector development will be a critical factor for successful economic diversification.

o   Foster economic diversification to spur improved livelihoods and job opportunities.[14] A key priority here is to tackle corruption so as to facilitate private-sector development and promote foreign investments and economic growth (see below).[15] The proactive contribution of businesses to peace-building (by engaging in innovative social investment, stakeholder consultation, policy dialogue, advocacy and civic institution building, etc) will be a critical factor in sustaining societal stability and economic growth over the long term.[16]

Developing methodologies

The design and implementation of programmes can benefit from the systematic integration of environment-related sources of conflict into conflict (and "drivers of change") analysis[17] methodologies, early warning systems, and needs assessments.[18] These will help to better inform country and regional strategies and ensure contextual awareness and appropriate responses. Co-operation among external actors and the integration of aid-effectiveness principles that are agreed on internationally can be strengthened by seeking to apply the Principles for Good International Engagement in Fragile States that are being developed through the DAC (see www.oecd.org/dac/fragilestates).

The use of methodologies for analysis, early warning and needs assessment will help better inform country and regional strategies.

Combined with a strong emphasis on transparency, the development of Cost-Benefit Analysis tools can help in arbitrating disputes over resource use, and could inform multi-stakeholder participatory planning exercises. Promising approaches also include environment and security assessments (e.g. the ENVSEC launched by OSCE, UNEP and UNDP) and the inclusion of environment-related indicators in early warning systems (e.g. Swisspeace FAST system).

More specific programming options

High-value "extractive" resources:

The number-one priority here is stronger and better governance of natural resources. This sector is highly susceptible to corruption, which distorts the allocation of public and private resources – making public administrations unreliable and destroying investor confidence.

In addition to institution and legislation-strengthening measures (outlined above), support for the design and implementation of anti-corruption strategies is particularly important. They require whole-of-government commitment, international co-operation and strong engagement with the private sector.

---

[17] Examples of guidance on conflict analysis is provided on the DAC CPDC webpage at http://www.oecd.org/dac/conflict/analysis. The DAC Network on Governance is looking at political economy analysis to identify good practices in using the different approaches, such as drivers of change analysis (go to http://www.oecd.org/dac/governance). See also www.conflictsensitivity.org.
[18]   See publications available through the Conflict Prevention and Post-Conflict Reconstruction (CPR) Peacebuilding Network website, http://cpr.web.cern.ch/cpr/compendium/

The OECD – Guiding good business practice

The OECD has nine instruments, notably the OECD Guidelines for Multinational Enterprises (MNEs), that contribute to the fight against corruption and the promotion of public-sector integrity. These instruments include the Convention of Combating Bribery of Foreign Public Officials in International Business Transactions, aimed at stopping the flow of bribes to public officials in host countries for the purpose of obtaining or retaining international business. In May 2005, 36 countries were party to the Convention.

Work in the OECD Investment Committee on the implementation of the MNE Guidelines has recently focussed on conducting business with integrity in weak governance zones. This follows up on issues raised by the UN Expert Panel Report on the illegal exploitation of natural resources in the Democratic Republic of Congo (for information on web-based consultations and the April 2005 conference with African stakeholders in Ethiopia, see http://www.oecd.org/daf/investment/guidelines). Using existing OECD guidance, a risk-analysis tool is currently being developed for companies.

Strategies should aim to:

- increase transparency in the flow of public funds;

- improve accountability for how governments and international commercial and investment companies spend or distribute revenues (see below);[19] and

- tackle off-budget resource-backed loans to governments, along with money-laundering, off-shore accounts of public officials, and the involvement of security services in the exploitation of natural resources.[20]

The EITI is a government-led partnership to help improve transparency and accountability in payments and revenues.

For example, the Extractive Industries Transparency Initiative (EITI) is a government-led initiative with wide international support that seeks to improve governance and the accountability of extractive industries. To implement the EITI, countries must publish a report that details all payments made to government bodies by companies in the extractive sector, and audited government receipts. The initiative covers all international, local, and state-owned companies working in a country. The process by which these reports are produced is monitored by local civil society groups. Broad local leadership and participation are essential, and active public engagement from a range of stakeholders is a key pillar for progress towards greater fiscal transparency and accountability.

Anti-corruption strategies must encompass prevention, detection and enforcement priorities, and thus involve:

Anti-corruption strategies must encompass prevention, detection and enforcement priorities.

- Setting anti-corruption and integrity standards: Offences need to be defined, and effective and dissuasive sanctions imposed for any breaches. Civil and administrative provisions should be implemented to complement penal ones and codes of conduct must be made available and adequately communicated to all public officials.

---

[19] See, for example, the Extractive Industries Transparency Initiative, and the Publish What You Pay NGO coalition.
[20] Thomson, J. and R. Kanaan (2003), *Conflict Timber: Dimensions of the Problem in Asia and Africa*, Synthesis Report, May 2003, Associates in Rural Development/USAID.

- Implementing these standards: Specialised institutions (such as central agencies, parliamentary committees or specially created bodies) and mechanisms need to be developed and/or strengthened to ensure effective and consistent implementation in all parts of government. Measures might include:

  o Training in ethics awareness to help develop the skills required to meet expected standards.

  o Transparent and predictable procedures within the administration (e.g. setting standards for time frames and indicating reasons for decisions).

  o Human resource management policies (e.g. promotion on merit), to provide incentives for ethical behaviour.

- Ensuring compliance in daily behaviour through monitoring and control mechanisms, e.g. by creating and/or strengthening:

  o Internal controls to detect irregularities and systemic failures.

  o Reviews of public service activities by parliamentary bodies.

  o Scrutiny by the independent offices of an Ombudsman or Inspector General, or specific judicial or ethics review boards.

  o Organisational rules to facilitate complaints procedures and to protect "whistle-blowers".

- Strengthening international and regional co-operation to support national efforts. Encompassing preventive and repressive measures, these can serve to level the playing field and exert peer pressure on both demand- and supply-side actors. Examples of existing initiatives include the EITI, the Southern African Community Protocol on Corruption (2001) and the African Union Convention on Preventing and Combating Corruption and Related Offences (2002).

On the "supply side", destabilising business practices need to be tackled

On the supply side, globalised business practices need to be addressed, as they can be highly detrimental to governance standards and stability.[21] Insufficient business integrity serves to implicate OECD member states and other countries and their companies in the instability and violence endured by the poor. For example, the ability of "spoilers" to translate their ill-gotten assets into wealth, power and fighting capacity critically depends on their access to global financial, commodity, and arms markets.[22] (Significant research has been conducted by the International Peace Academy and by FAFO AIS on international legal instruments that are available to tackle businesses that have been involved in human rights violations.) National laws, particularly those relating to financial crimes, can also drive and enforce better business conduct.

...using international and national law

Other useful avenues to control and improve business behaviour include:

... by tracking commodity flows,

- Tracking commodity flows (such as valuable minerals) through commodity certification, customs inspections and enforcement (see, for example, the Kimberly Process on diamonds, and efforts underway in the EU in respect of timber).

---

[21] The OECD Fragile States Group is currently initiating a workstream on policy coherence.
[22] Ballentine and Nitzschke (2004), "Business in Armed Conflict: An Assessment of Issues and Options", *Die Friedens-Warte* 79.

...and by promoting ethical investment and conflict-sensitive business practices.

- Promoting ethical investment, financial and business practices internationally so that domestic and international businesses do not actively or inadvertently drive conflict, but rather serve as forces for peace and stability. This objective featured as an important part of the Commission for Africa and the 2005 G8 recommendations on peace and stability. A number of organisations and initiatives address the issues, including the OECD's Investment Committee, the UN Global Compact, the Voluntary Principles on Security and Human Rights and International Alert's work on conflict-sensitive business practice (see also the Valuable Minerals issues brief).

Effective engagement in this area will also require concerted engagement with local businesses, consulting and working with them to strengthen peace constituencies and tackle the structural and proximate causes of conflict.[23]

Non-extractive resources

Avenues also exist for reducing tensions over non-extractive resources

Despite the myriad of acute challenges and risks associated with these resources, it should be noted that, in comparison to extracted resources (which often cannot be renewed in the short or medium term), there is greater potential to help ensure that non-extracted resources are available to, and benefit, the poor. More effective and accountable governance and more sustainable exploitation techniques can have profound and lasting peace-building and poverty reduction impacts.

...particularly by strengthening dialogue and mechanisms for the peaceful arbitration and resolution of claims and disputes.

The main focus here is to strengthen dialogue and traditional and formal dispute-resolution mechanisms and to enhance livelihoods, productivity and diversity (see above).

Tensions can be reduced by:

- Demarcating and titling customary common property (dwellings, crops and grazing), taking into account tensions between formal and informal systems.
- Alleviating inequities in land holdings and opening up new opportunities to the landless by state divestiture of public-held land.

The Support Program for the Pastoral Herding Sector in Niger ("PASEL" in French)

This Swiss Development Cooperation (SDC) programme aims to reduce the incidence and intensity of conflicts between pastoralists and agriculturalists around interlinked networks of migratory corridors and pasture areas spanning hundreds of kilometres from Niger into Nigeria. It has been effective in reducing violence by: (i) integrating all relevant levels of government and traditional authorities within a hierarchy of progressively more-senior dispute resolution processes; (ii) demonstrating win-win benefits for both bordering communities and pastoral users in the preservation of the transhumant corridors; (iii) clearly marking the resulting borders; and (iv) working with community leaders and administrative authorities to ensure that when disputes emerge they are resolved transparently and equitably.

Swiss Agency for Development Cooperation – Niger

---

[23] See, for example, research being led by International Alert www.international-alert.org

- Protecting or enhancing the sustainability of the physical and/or biological environment or remedying existing environmental damage, including:

    o For poor smallholders in rural areas; support for the provision of soil nutrients, better plant varieties, improved water management and training in modern and environmentally sustainable farming practices, along with access to transport, water, sanitation and modern energy services.

    o Resolving conflict over natural resources in a watershed context, by offering payments to land users as compensation (for providing environmental services such as clean water through specific land-use practices): those who provide environmental services (land users) should be compensated for doing so by those who receive the services (water consumers).

    o For the large and growing number of urban poor; assistance for core infrastructure services such as energy, transport, pollution control and waste disposal, and assistance to improve security of tenure and community-led efforts to build decent housing and support urban planning. To this end, local authorities need to be strengthened and to work closely with organizations of the urban poor.[24]

Due to events such as humanitarian crises, natural-resource issues may become acute.

For areas affected by humanitarian crises, a strategic view of natural resources issues is imperative. Steps at a local level, such as participatory mapping exercises between camps and nearby village residents, can help reveal and address common concerns over water availability, livestock grazing, and pasture and woodland degradation.

Using the environment to build peace

Building trust and co-operation

A mutual interest in the environment can be an important initial building block for building trust and co-operation

Mutual need and interest to use, share or protect natural resources can be harnessed as a means to build trust and co-operation between groups and between states (e.g. common property resources such as fisheries or forests; trans-boundary protected areas; shared river basins). Such "environmental peacemaking"[25], as it is termed in academic literature, brings parties together for dialogue, technical co-operation (such as data-sharing) or the co-management of individual resources or natural spaces

Programmes can be put in place at any point in the conflict cycle (described as such because the dynamic evolution and interaction of a myriad of factors means that phases of conflict rarely follow a sequential pattern). They can proceed between governments, communities or civil society actors. Facilitated by third parties, sustained "environmental peace-making" can help build durable long-term institutions and mechanisms to help prevent violent conflict.[26]

Conflict-sensitising protected areas

Where a confidence-building and/or conservation project involves the creation of a protected area (PA) or "peace-park", this process must

---

[24] UN Secretary General's report *In Larger Freedom*, March 2005, chapter II, paragraphs 41–43.
[25] Conca, K., A. Carius and G. Dabelko (2005), "Building Peace Through Environmental Cooperation", Chapter 8 in *State of the World: Redefining Global Security*, Worldwatch Institute.
[26] Carius, A. (2004), "Environment, Conflict, and Cooperation: Research and Policy Challenges", in Adelphi Research (Berlin) *Wilton Park: Environment, Development and Sustainable Peace Finding Paths to Environmental Peacemaking.*

integrate conflict-sensitivity.[27] Protected areas can both suffer from the consequences of conflict and be a source of tensions in their own right. Often, they are developed where surrounding communities are dependent for their survival and livelihoods on local natural resources. Park policies can restrict community access to livelihood resources, block migratory routes or force people off their traditional lands, thus becoming a rallying point for insurgents. The potential for negative effects increases where a park has been negotiated between political leaders without dialogue to obtain the support of local communities whose livelihoods the park will disrupt. More positively, where political borders are in dispute, instituting joint management of a bio-diversity conservation activity over the disputed area may help to reduce tensions. "Win-win" solutions between PAs and local communities can be found where local needs are not accounted for.

Empowering Citizens

Fostering citizens' concern for the environment, combined with providing fuller access to environment-related information and policymaking processes and greater environmental awareness in the media can make an important contribution to the emergence of civil society. Moreover, giving attention to the environment has helped to catalyze peaceful democratization movements, as has been seen across the former Soviet Union, for example. In Kenya, the Green Belt movement created by Nobel Peace prize winner Wangaari Maathai has grown to include over 3000 women. It incorporates projects to preserve biodiversity, to educate people about their environment and to promote the rights of women and girls.

The Post-conflict space

Although environmental degradation before and during conflict creates obstacles to reviving and propelling a post-war economy, particular opportunities also exist in the post-conflict space to strengthen environmental management and harness its positive effects on peace-building and development objectives. In these contexts, donor assistance can have an enhanced impact in alleviating sources of tensions that pre-date or result from violence (e.g. through reconciliation processes).

Democratisation through Information Access: UNDP/OSCE Aarhus Centres in Central Asia

Since 2002, the Organization for Security and Co-operation in Europe Economic and Environmental Activities Office and OSCE field offices have supported the development of Aarhus Centres in the Caucasus and Central Asia. The centres provide a meeting place and a link between government and civil society. They aim to reduce the likelihood of environment-related conflict by (i) informing people about the state of their local environment, preventing the build-up of misplaced grievances over who is polluting what and why; (ii) providing a venue where community concerns can be discussed and communicated to decision-makers to allow local people to express frustrations and a possibility for them to have an effect on their situation; and (iii) advising people on how to protect and improve their environment.

Organization for Security and Co-operation in Europe www.osce.org

---

[27] See, for example, www.conflictsensitivity.org

Every effort should be made to integrate an awareness of the links between environmental factors and conflict into post-conflict needs assessments, transitional planning, and demobilization and reintegration activities. The adaptation of strategic environmental assessment tools for the specific challenges of fragile post-conflict settings (particularly where population displacement has put substantial pressure on natural resources) can assist in this process, and in restoring (with conflict sensitivity) environmental management institutions.[28] The DAC Network on the Environment and Development Co-operation is working on strategic environment assessments in post-conflict settings, which are being conducted by the Commission for Environmental Impact Assessment in the Netherlands.

These arise in a context where population displacement and reconstruction needs are putting substantial pressure on natural resources.

Awareness of environmental issues and related risks to peace-building objectives is also particularly important in post-war reconstruction contexts, including in efforts to reintegrate ex-combatants and displaced people. The pressure to kick-start development and earn foreign exchange can lead to the rapid uncontrolled exploitation of natural resources at suboptimal prices, without due attention to sustainability imperatives. Efforts to generate recovery must be accompanied by more robust preparation for the future.[29]

Emerging Issues

The following issues may have profound future impacts on societal stability:

In a wide range of contexts, societal stability can be profoundly affected by climate change

Climate change: Observed recent changes in climate, especially warmer air and sea temperatures and altered rainfall patterns, may have serious consequences on land use and productivity and, therefore, on agricultural opportunities and fisheries. This is likely to have significant negative impacts on many resource-poor countries and societies, often with rising populations, that are prone to or affected by conflict (e.g. the Sahel or the Caucasus). While renewable energy resources must be explored and exploited, the number of projects under the Clean Development Mechanism is likely to increase rapidly in the future and their potential impact on stability should be carefully assessed. Ways to mitigate the consequences of the world's future without fossil fuels must also be considered, along with measures to take to adapt to this impending and inescapable change in its energy sources.

...pressures in urban centres

Access to environmental services in urban centres in the developing world will become particularly important as cities swell in the coming decades. In Africa, the annual urban growth rate is close to 5 per cent. Nearly 40 per cent – around 300 million people – now live in cities, up from 30 per cent in 1980, and a level of 50 per cent is expected in the next 25 years. The accessibility of critical environmental services (such as water) to urban citizens will be a key determinant of the state's ability to maintain stability.

...and even by steps taken in pursuit of the MDGs.

Finally, without sustainable development measures, *steps taken in pursuit of MDGs* have the potential to exacerbate environmental

---

[28] UNEP Post-Conflict Assessment Unit, http://postconflict.unep.ch/index.htm, and "Strategic Environmental Assessment in Post-Conflict Settings", Commission for EIA in the Netherlands, 2005. www.eia.nl.
[29] Halle M., R. Matthew, and J. Switzer (2002), *Conserving the Peace: Resources, Livelihoods and. Security*, Winnipeg, International Institute for Sustainable Development, pp 400–401.

degradation. The economic growth being targeted could accelerate resource use, pollution and urbanization. Increased pressures on resources may drive instability unless proactive measures are taken.

WORKING TOGETHER

Accessing knowledge and experience

Institutional mechanisms are being developed by donor agencies and organisations to improve inter-agency and intra-agency collaboration. These include:

- Helpdesks to provide academic advisory support to policy and country officers (e.g. Sweden's SIDA).

- Interdepartmental working groups (e.g. Germany's GTZ) to integrate the expertise of conflict prevention, peace-building and environmental practitioners.

- Initiatives to combine the knowledge and influence of different organisations. An example is the Environment and Security (ENVSEC) initiative in Central Asia, SE Europe and the Southern Caucasus, a partnership activity of the UNEP, UNDP and OSCE – with NATO as an associate.

- Efforts to promote inter-agency and intra-agency collaboration between different country offices in neighbouring countries. For example, the United Nations Office for West Africa (UNOWA) is integrating security and environment issues, working with and providing support to cross-border actors to address internal and cross-border population movements in the region.

FURTHER INFORMATION

Websites and reference documents can be found through www.oecd.org/dac/conflict/themes.

Links

- Adelphi Research (Germany)
- African Centre for Technology Studies (Kenya)
- Center for Unconventional Security Affairs (USA)
- Clearing house on environment, conflict and cooperation:
- Conflict Prevention and Post-Conflict Reconstruction (CPR) Peacebuilding Network, Compendium of Operational Frameworks for Peacebuilding and Donor Coordination http://cpr.web.cern.ch/cpr/compendium/
- Fundación Futuro Latinoamericano (Ecuador)
- New Security Programme at Fafo Institute (Norway)
- Foundation for Environmental Security and Sustainability (US)
- Global Witness (UK)
- Green Cross International (Switzerland)
- Institute for Environmental Security (Netherlands)
- International Institute for Sustainable Development (Canada)
- OECD Sahel and West Africa Club is working on land issues in the context of agricultural transformation and conflict in Sierra Leone, Liberia and Cote d'Ivoire.

- OECD Development Centre produced the Working Paper Land, Violent Conflict and Development (No. 233) in 2004, in cooperation with the DAC.
- OSCE Envsec Initiative – An Environment Agenda for Security and Cooperation in South Eastern Europe and Central Asia
- Partnership for African Environmental Sustainability (Uganda)
- UNEP Post Conflict Assessment Unit
- University for Peace (Costa Rica)
- Women's Environment and Development Organization
- The World Bank's Natural Resources and Violent Conflict (2003), looks at the impacts of resource dependence on economic performance, governance, secessionism, and rebel financing.
- World Conservation Union

Internet-based Information Platforms:

- Woodrow Wilson Centre (USA) Environmental Change and Security Project.
- Environment & Development Challenges (Sweden)
- Zivile Krisenprävention – Umwelt und Ressourcen (Germany)

REFERENCES

OECD (2001), The DAC Guidelines: *Helping Prevent Violent Conflict*

High value extractive resources

- USAID (2005), Toolkits on Minerals and Conflict, Office for Conflict Management and Mitigation,.
- Collier, P. and I. Bannon (eds.) (2003), *Natural Resources and Violent Conflict: Options and Actions*, World Bank.
- Conflict-Sensitive Business Practice: Guidance for Extractive Industries. International Alert, March 2005.
- Gossen, R. (2002), *Business Guide to Conflict Impact Assessment and Risk Management*, and Ballentine, K and V. Haufler (2005), *Enabling Economies of Peace: Public Policy for Conflict-Sensitive Business*, UN Global Compact.

Non-extractive resources:

- USAID (2005), Land and Conflict *Toolkit*. Office for Conflict Management and Mitigation.
- Homer-Dixon, T. F. (1999) *Environment, Scarcity and Violence*. Princeton University.
- Baechler, G. (1998), "Why Environmental Transformation Causes Violence: A Synthesis", in *Environmental Change and Security Project Report*, Issue 4, Spring 1998: 24–44.
- Baechler, G., and K. R. Spillman (2002), *Transformation of Resource Conflicts: Approach and Instruments*, Peter Lang.
- Hagmann T. (2005), "Confronting the Concept of Environmentally Induced Conflict", in *Peace, Conflict and Development*, Issue 6.