Discussion Paper on Economic and Environmental Confidence- and Peace-building Measures and the Role of the OSCE

Ronald A. Kingham
Director, Institute for Environmental Security

For the OSCE Chairmanship Workshop on Economic and Environmental Activities as Confidence Building Measures, Vienna, 30 May 2011

I. Introduction

The UNEP publication *From Conflict to Peacebuilding: The Role of Natural Resources and the Environment* ¹ reminds us that "Since the end of the Cold War, two fundamental changes have shaped the way the international community understands peace and security. First, the range of potential actors of conflict has expanded significantly to include a number of non-state entities. Indeed, security is no longer narrowly conceived in terms of military threats from aggressor nations. In today's world, state failure and civil war in developing countries represent some of the greatest risks to global peace. War-torn countries have become havens and recruiting grounds for international terrorist networks, organized crime, and drug traffickers, and tens of millions of refugees have spilled across borders, creating new tensions in host communities. Instability has also rippled outward as a consequence of cross-border incursions by rebel groups, causing disruptions in trade, tourism and international investment.

"Second, the potential causes of insecurity have also increased and diversified considerably. While political and military issues remain critical, conceptions of conflict and security have broadened: economic and social threats including poverty, infectious diseases and environmental degradation are now also seen as significant contributing factors. This new understanding of the contemporary challenges to peace is now being reflected in high-level policy debates and statements.

"The 2004 report of the UN Secretary-General's High-Level Panel on Threats, Challenges and Change highlighted the fundamental relationship between the environment, security, and social and economic development in the pursuit of global peace in the 21st century, while a historic debate at the UN Security Council in June 2007 concluded that poor management of "high-value" resources constituted a threat to peace. More recently, UN Secretary-General Ban Ki-moon confirmed that "the basic building blocks of peace and security for all peoples are economic and social security, anchored in sustainable development, [because they] allow us to address all the great issues – poverty, climate, environment and political stability – as parts of a whole."

In Europe the impacts of environmental degradation (and of climate change in particular) have also been increasingly highlighted in the context of international security. The OSCE Madrid Declaration on Environment and Security (2007) included the point that "Environmental degradation, including both natural and man-made disasters, and their possible impact on migratory pressures, could be a potential additional contributor to conflict. Climate change may magnify these environmental challenges." ⁵

And in 2008 a high-level brief by the European Union said that "Climate Change is a threat multiplier which exacerbates existing trends, tensions and instability in developing countries." These tensions include conflict over resources such as land, water, food and energy. The expected increase in the frequency and severity of natural disasters plus the slow-onset of environmental degradation threaten the human security of local populations.

The above mentioned UNEP report refers to several uses of the term "security". "State or national security" refers to the requirement to maintain the survival of the nation-state through the use of economic, military and political power and the exercise of diplomacy.

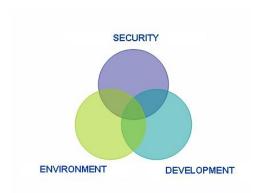
"Human security" is a paradigm for understanding global vulnerabilities, which argues that the proper referent for security should be the individual rather than the state. Human security holds that a people-centred view of security is necessary for national, regional and global stability. "Environmental security" refers to the area of research and practice that addresses the linkages among the environment, natural resources, conflict and peacebuilding.⁷

With this background in mind (and extensively citing many who far more expert than me) this paper has three aims:

- a) To provide an overview of the interrelationship between environmental, economic / development and security issues;
- b) To provide an introduction on and practical examples of the use of especially environmental cooperation for peacebuilding and peacemaking; and
- c) To help set up the discussion on new / improved environmental activities related to confidence building measures in the OSCE region.

II. Overview of the Interrelationship between Environment, Development and Security

Any discussion on the value of economic and environmental confidence / peace building measures is based on the assumption that economic / development, environment and peace / security problems are interdependent and that therefore the solutions to them are also interlinked.



While not excluding economic confidence building measures, the focus of this paper is primarily on the environment and security nexus.

Twenty years ago Lothar Brock of the Peace Research Institute in Frankfurt noted that "The environment has now become firmly established as an item on the agenda of peace research. However, perceptions of the interrelationship between peace and environmental issues differ widely." In his systematic analysis of this interrelationship he identified four linkages: causal, instrumental, definitional and normative.

Brock wrote that "Since environmental issues are not only to be treated as non-military threats to the security of societies, but can also work to promote cooperation and peace-building, the causal, instrumental and definitional linkages are sub-categorized as having positive and negative aspects."

"Environmental security is identified as a normative linkage designed to cope with the negative aspects of the other linkages. Whether this will lead to a militarization of environmental politics, or rather help to demilitarize security thinking remains an open question. The answer will depend very much on the positive aspects of the causal and instrumental linkages. Up to now, ecological cooperation has to be seen as a dependent variable reflecting the state of overall international relations. However, there are some indications that environmental cooperation may develop an Eigendynamik of its own and become an independent variable with influence of its own on world politics."

More recently Ken Conca wrote in the landmark book *Environmental Peacemaking* that "Most scholars remain sceptical of the idea that environmental change has been, or is soon to be, an important cause of war between nations. But several have argued that there is a dangerous and growing connection between environmental change and violent outcomes on a local or regional scale; these outcomes include episodes that can spill across borders. Environmental problems are most combustible when they exacerbate existing social tensions

based on class, religion, or ethnicity. When such tensions are triggered in the absence or weakness of social institutions that otherwise could mediate disputes or in the context of 'failing' states, it is said, violent conflict may be triggered or worsened." ⁹

Noting that "controversies continue to surround claims about environmentally induced conflict" Conca adds that "Our interest in environmental peacemaking goes far beyond simply forestalling environmentally induced conflict, to ask whether environmental cooperation can be an effective general catalyst for reducing tensions, broadening cooperation, fostering demilitarization, and promoting peace." 10

While recognising the qualifications regarding the significance of environmental change as a cause of (violent) conflict it is never-the-less useful to restate some of the commonly noted linkages between environment, development and security (and in particular the negative linkages) as a basis for discussion on confidence building measures. This can be best done by organising the overview according to the following topics:



Environment and Development

- The impact of environmental change / degradation on development
- The impact of economic factors (poverty, underdevelopment) on the environment Development and Security
 - The impact of economic (development) factors on security
 - The impact of (violent) conflict on development

Environment and Security

- The impact of environmental change / degradation on security
- The impact of (violent) conflict on the environment

To which we should also add the following more specific issue:

The relationship between climate change and international security

Environment and Development

At least since the late 1980s and early 1990s the relationship between environment and development has been enshrined in governmental domestic and foreign policies and international relations. Following the appearance of the Brundtland Report in 1987 and the convening of the Earth Summit in 1992, it would be hard to find a government or international / intergovernmental organisation that does not recognise that environmental protection and sustainable human development go hand and hand and which does not incorporate the linkages between these two objectives at least to some degree in its legislation, initiatives, programmes and projects.

There can be little disagreement among scholars or policy makers in developed and developing countries that the degradation of the environment and life supporting eco-systems can have a negative impact on development and the prospects for poverty alleviation. Similarly, it is well accepted that poverty, underdevelopment and unequal access to land, water, energy, etc. can increase the stresses on the environment sometimes leading to severe overuse and degradation.

Development and Security

The relationship between development and security is not always as obvious but there is increasing concern that under-development can contribute to insecurity. For example, "while the causes of conflict in Darfur are many and complex, UNEP's environment and conflict analysis found that regional climate variability, water scarcity and the steady loss of fertile land are important underlying factors. ¹¹ [P]overty, marginalization and migration ... create the conditions that make violence an attractive option for disempowered young men. Marginalized pastoralist groups, for example, have been recruited as militias to fight proxy wars where they were able to raid cattle. Nomads, whose camel-herding livelihoods have

been hard-hit by drought and desertification, have also been easy prey for armed groups in the region." $^{\rm 12}$

Economists, political scientists and politicians are seeking to better understand roots of insecurity in underdevelopment as well as the positive reinforcing relationship between security and development leading development agencies to promote conflict sensitive development cooperation policies and practices.

Recent headlines like "Spike in global food prices contributes to Tunisian violence" ¹³ or "Rising Food Prices Can Topple Governments, Too" ¹⁴ reinforce the widely held view that "high food prices are historically a major driver of political unrest" and "Economists at the University of Adelaide ... recently examined the impact that food prices have on civil conflict in 120 countries in the past 40 years. 'Our main finding is that in low-income countries increases in the international food prices lead to a significant deterioration of democratic institutions and a significant increase in the incidence of anti-government demonstrations, riots, and civil conflict," the researchers note. The same finding does not hold true in high-income countries, where citizens can better afford food'."

The impact of development problems on security is not limited to domestic unrest. Jonathan Goodhand, points out that "Broadly, it is argued that uneven development processes lead to inequality, exclusion and poverty. This contributes to growing grievances particularly when poverty coincides with ethnic, religious, language or regional boundaries." He adds that, "These underlying grievances may explode into open conflict when triggered by external shocks (such as a sudden change in terms of trade) or mobilised by conflict entrepreneurs. Although few argue that poverty per se, causes conflict, research points to the importance of extreme horizontal inequalities, as a source of grievance which is used by leaders to mobilise followers and to legitimate violent actions." ¹⁶

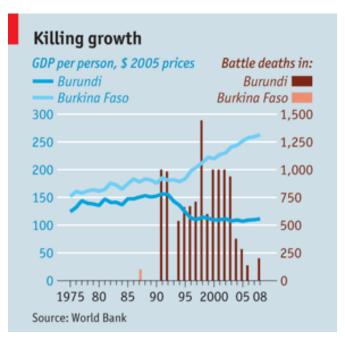
Goodhand also deals with the issue of resource wealth (rather than poverty) causing conflict noting that "Recent research by Paul Collier of the World Bank questions the view that conflicts are driven by grievance. He argues that popular perceptions are shaped by the discourse which conflicts themselves generate. Social scientists however, should be distrustful of the loud public discourse on conflict and question the language of protest often used by the conflicting parties themselves. War 'cannot be fought just on hopes and hatreds'.¹⁷ According to Collier, civil wars occur when rebel organisations are financially viable. Therefore it is the feasiblity of predation which determines the risk of conflict. '..rebellion is motivated by greed, so that it occurs when rebels can do well out of war'." ¹⁸

Still referring to Collier, Goodhand adds that "A comparative analysis of risk factors is used to demonstrate the connection between 'greed' and conflict. The most powerful risk factor is that countries which have a 27 substantial share of their income (GDP) coming from the export of primary commodities are radically more at risk of conflict. According to Collier, a country with more than 25% dependence on primary commodity exports is more than 5 times more likely to engage in conflict. Therefore the curse of resource wealth rather than poverty induced grievance is more likely to cause violent conflict." ¹⁹

Let us also look at the opposite relationship, namely the impact of (violent) conflict on development.

Reporting on the 2011 World Development Report, "Conflict, Security, and Development" a recent article in The Economist pointed out that "Many think that development is mainly hampered by what is known as a "poverty trap". Farmers do not buy fertiliser even though they know it will produce a better harvest. If there is no road, they reason, their bumper crop will just rot in the field. The way out of such a trap is to build a road. And if poor countries cannot build it themselves, rich donors should step in.

"Yet the World Development Report suggests that the main constraint on development these days may not be a poverty trap but a violence trap. Peaceful countries are managing to escape poverty—which is becoming concentrated in countries riven by civil war, ethnic conflict and organised crime. Violence and bad government prevent them from escaping the trap.



"To see the impact, compare two small African states. Until 1990 Burundi and Burkina Faso had similar rates of growth and levels of income (see chart). But in late 1993 civil war erupted in Burundi after the assassination of the president; 300,000 people died in the next dozen years, most of them civilians. Placid Burkina Faso is now two-and-a-half times richer.

"That may sound like a special case. Civil wars are obviously damaging, and not many countries suffer them. True, but a lot of others are trapped in persistent, pervasive lawlessness. The report reckons that 1.5 billion people live in countries affected by political violence, organised crime, exceptionally high murder rates or low-intensity conflicts. All this falls short of civil war, but the effects can be as bad." 20

Environment and Security

Finally, we can turn our attention to the impact of environmental change / degradation on security and the impact of (violent) conflict on the environment.

In the Worldwatch Institute's *State of the World 2005: Redefining Global Security* the chapter on "Building Peace Through Environmental Cooperation" the authors report that "Over the past 15 years, many scholars have considered whether environmental problems cause or exacerbate violent conflict. Although scarce nonrenewable resources such as oil have long been viewed as a potential source of conflict, this new research shifted the focus to renewable resources such as forests, fisheries, fresh water, and arable land. Most of this work, including projects by Canadian and Swiss researchers in the mid-1990s, found little evidence that environmental degradation contributed significantly to war between countries. Yet the studies found some evidence that environmental problems can trigger or exacerbate local conflicts that emerge from existing social cleavages such as ethnicity, class, or religion." ²¹

This view is reinforced by the earlier mentioned 2009 UNEP report which states that "Environmental factors are rarely, if ever, the sole cause of violent conflict. However, the exploitation of natural resources and related environmental stresses can be implicated in all phases of the conflict cycle, from contributing to the outbreak and perpetuation of violence to undermining prospects for peace." ²² The authors add that, "Since 1990 at least eighteen violent conflicts have been fuelled by the exploitation of natural resources. In fact, recent research suggests that over the last sixty years at least forty per cent of all intrastate conflicts have a link to natural resources. Civil wars such as those in Liberia, Angola and the Democratic Republic of Congo have centred on "high-value" resources like timber, diamonds, gold, minerals and oil. Other conflicts, including those in Darfur and the Middle East, have involved control of scarce resources such as fertile land and water." ²³

United Nations Secretary-General Ban Ki-moon summed it up when he stressed that, "when resources are scarce - whether energy, water or arable land - our fragile ecosystems become strained, as do the coping mechanisms of groups and individuals. This can lead to a breakdown of established codes of conduct, and even outright conflict."²⁴

Regarding the opposite relationship, "the environment can itself fall victim to conflict, as direct and indirect environmental damage, coupled with the collapse of institutions, can lead to environmental risks that threaten people's health, livelihoods and security." ²⁵

Matthew, Brown and Jensen wrote that "The environment has always been a silent casualty of conflict. To secure a strategic advantage, demoralize local populations or subdue resistance,

water wells have been polluted, crops torched, forests cut down, soils poisoned, and animals killed. ... Recent examples of intentional environmental damage include the 1991 Gulf War, during which Kuwait's oil wells were set on fire and millions of tonnes of crude oil were discharged into waterways. In this instance, the environment itself was used as a weapon of mass destruction.

"While numerous other examples of natural resources being used as a weapon of war exist, the majority of the environmental damage that occurs in times of conflict is collateral, or related to the preparation and execution phases of wars and to the coping strategies of local populations. In this regard, impacts of conflict on the environment can be divided into three main pathways:

- a) Direct impacts: are caused by the physical destruction of ecosystems and wildlife or the release of polluting and hazardous substances into the natural environment during conflict.
- b) Indirect impacts: result from the coping strategies used by local and displaced populations to survive the socio-economic disruption and loss of basic services caused by conflict. This often entails the liquidation of natural assets for immediate survival income, or the overuse of marginal areas, which can lead to long-term environmental damage.
- c) Institutional impacts: Conflict causes a disruption of state institutions, initiatives, and mechanisms of policy coordination, which in turn creates space for poor management, lack of investment, illegality, and the collapse of positive environmental practices. At the same time, financial resources are diverted away from investments in public infrastructure and essential services towards military objectives." ²⁶

Climate Change and International Security

The increasing number and intensity of climate related natural disasters such as draughts, floods, and storms not only cause widespread destruction and tax the capacities of especially vulnerable countries with fragile public response mechanisms, they also make already existing human security problems worse.

Long existing economic (development) and environmental problems such as those related to access to - and sustainable use of - land, water, food, and energy are problems being exasperated by climate change. As these problems become worse they weaken the prospects for poverty alleviation and for the achievement of the MDGs.

In short, climate related and other environmental threats (man made disasters, unsustainable exploitation of natural resources, etc.) can undermine security.

Some would argue that today climate change is the single greatest threat to human security. Certainly for some countries there is no question that this is true. Liotta and Shearer (2005), point out that "If the temperatures were to rise, by some estimates, as high as 3.8° Celsius over the course of twenty-first century, there could be a concomitant rise in sea levels of ninety seven centimeters. Such a rise in sea level, although not of immediate concern to most nations, would be the single greatest national security issue for a nation such as the Maldives; in essence, such a sea level rise would mean the end of the Maldives (because the entire landmass would be under water)." Liotta and Shearer also say that "In Asia, mass migration leads to internal pressures and to skirmishes along the borders of Bangladesh, India, and China." ²⁷

The IPCC (2001) has pointed to a direct causal connection between climate change and an increase in number and intensity of hydro-meteorological hazards (storms, floods, and drought) and disasters. Climate change may increase the probability and intensity of extreme weather events and thus increase internal displacements, transboundary, and even intercontinental migration.

Again both factors (hazards, migration) interact and may contribute, trigger or cause domestic crises that may escalate to different forms of low-level violence.

The nature- and human induced factors of Global Environmental Change (GEC) may contribute, trigger or intensify ethnic, religious or political conflicts and may lead to violence or raise the need for peacemaking. Four different socio-economic scenarios of the complex interplay of the above structural causes have occurred:

- Domestic societal conflicts;
- Resource and border conflicts;
- Regional violence with implications for different security perceptions in the South and of the North; and
- Militarisation of non-military causes of conflicts.

In many developing countries, internal displacement has often been a first step towards transboundary migration, e.g. from Bangladesh to India or from Sahel countries to countries in North or West Africa, and in a few cases also overseas to Europe and North America.

The rural poor of the developing world are the people most vulnerable to climate change not least because their "economy" is dependent on the natural environment for food, fuel, fresh water, building material and traditional medicine.

According to the Stern Review, the impacts of climate change are not evenly distributed; the poorest countries and people will suffer earliest and most. "First, developing regions are at a geographic disadvantage since they are already warmer and already suffer high rainfall variability. Second, developing countries especially the poorest are heavily dependent on agriculture, the most climate sensitive sector of all economic sectors and they suffer from inadequate health and low quality public services.

Third, their low natural resource dependent incomes and vulnerabilities make adaptation to climate change particularly difficult. Climatic shocks cause setbacks to economic and social development in developing countries today even with temperature increases of less than 1 degree C. The impacts of unabated climate change, i.e. increases of 3 to 4 degrees C and upwards will increase the risks and costs of these events substantially." 28

The ability of the poor to adapt to climate change is inextricably linked to the level of environmental degradation that they cause out of necessity as they have no other way to earn a living. Unless their natural environment is stabilized and their livelihoods made sustainable, they will inevitably first exhaust the land and then become environmental migrants putting further stress on urban areas and presenting increasingly difficult security problems for neighbouring countries and countries of destination. ²⁹

The 2007 OSCE Madrid Declaration acknowledges that the "United Nations climate process is the appropriate forum for negotiating future global action on climate change" but also that "the OSCE, as a regional security organization under Chapter VIII of the UN Charter, has a complementary role to play within its mandate in addressing this challenge in its specific region." The Declaration concluded that: "Environmental degradation, including both natural and man-made disasters, and their possible impact on migratory pressures, could be a potential additional contributor to conflict. Climate change may magnify these environmental challenges." ³⁰

In 2010 the Office of the OSCE Co-ordinator of Economic and Environmental Activities (OCEEA) - in the context of a project focused on the security implications of climate change – commissioned a scoping study on potential implications of climate change. The report "Shifting Bases, Shifting Perils", had four main aims:

- Reviewing the state of the debate in current research on climate change and security. In addition, assessing the role of scenarios in policy planning and identifying the characteristics of scenarios related to climate change and security.
- Identifying potential security implications of climate change in several regions within or

adjacent to the OSCE – in particular the Arctic, the Southern Mediterranean, South East and Eastern Europe, the South Caucasus and Central Asia.

- Assessing the activities conducted by countries and international organisations particularly the UN and OSCE member states with regard to climate change and security.
- Outlining initial recommendations to the OSCE on addressing the potential security implications of climate change.

The report concluded that "Identifying early signs is vital for timely action. With conflict prevention and stability as core functions of the OSCE, it will be a key task for the organisation to identify the challenges of climate change and prevent them from turning into security risks. If managed adequately, climate change may serve as a catalyst for cooperation among countries. With its comprehensive approach to security, including the Maastricht Strategy as well as the Madrid Declaration, the ground has been laid to address the security implications of climate change within the OSCE." ³¹

III. The Potential of Environmental Co-operation Efforts

If environmental (climate) change and environmental degradation can be key elements in undermining peace and security, then it follows that there is role to be played by environmental confidence- and peace-building measures.

In their 2002 book, *Environmental Peacemaking*, Conca and Dabelko stated that "Environmental cooperation opens several effective channels for peacemaking: enhancing trust, establishing habits of cooperation, encouraging longer-term thinking by decisionmakers, forging cooperative linkages across societies, and creating shared norms and identifies throughout regions. Nonetheless, environmental cooperation has gone almost unexplored as a means of peacemaking, even though environmental degradation is widely recognized as a catalyst for violent conflict." ³²

A few years later Conca, Carius and Dabelko noted that there is a growing array of initiatives – "including peace parks, shared river basin management plans, regional seas agreements, and joint environmental monitoring programs— that seek to promote environmental peacemaking. This involves using cooperative efforts to manage environmental resources as a way to transform insecurities and create more peaceful relations between parties in dispute. As such initiatives become more frequent and gain momentum, they may provide a way to transform both how people approach conflict and how they view the environment." ³³

Never-the-less, the authors maintained that "Surprisingly... relatively little is known about the best designs for these initiatives or the conditions under which they are likely to succeed. While a large body of research examines the contribution of environmental degradation to violent conflict, little in the way of systematic scholarship evaluates an equally important possibility: that environmental cooperation may bring peace." ³⁴ They added that "If properly designed, environmental initiatives can also reduce tensions and the likelihood of violent conflict between countries and communities. Environmental peacemaking strategies offer the chance to craft a positive, practical policy framework for cooperation that can engage a broad community of stakeholders by combining environment, development, and peace related concerns." ³⁵

Adapting a categorisation of environmental peacemaking by Conca, Carius and Dabelko ³⁶ one can examine such efforts with respect to the following stages of the conflict cycle:

- Conflict Prediction (early warning)
- Conflict Prevention
- Conflict Management
- Post Conflict Recovery and Transition

Another specific area of work relates to the impact of manmade and natural hazards and disasters on environment, development and peace. Confidence building measures can be taken for example to reduce the possibility of manmade hazards (e.g. pollution, weapons waste, etc.) contributing to tensions between communities or the possibilities for natural disasters to exacerbate a (potential) conflict situation.

Conflict prediction (early warning) can be distinguished from the broader term of conflict prevention in the sense that the former involves using indicators of economic and environmental stress and identifying signs of potential tension and conflict at the earliest possible stages where the later implies some form of intervention such as confidence building measures.

Given the broad spectrum of new threats and challenges, especially as they relate to environmental conflict, it is clear that an important role of the OSCE is to identify, analyse and take coordinated action in response to the evolving threat scenarios.

The OSCE's core business is conflict prevention and that is specifically why OSCE field presences have been established in conflict-prone areas. In fact, the 2005 Panel of Eminent Persons recommended that the OSCE consider developing a new type of thematic mission that could examine a specific issue in one country. In this regard, independent environmental expert missions could be deployed to assist the Secretariat in exercising its early warning functions and conflict prevention activities.

In September 2006, the UN tasked the OSCE to assess the short-term and long-term impact of the fires on the environment of the territories situated close to the line of contact in and around the Nagorno-Karabakh region. In record time, the OSCE and UNEP put together an expert mission with representatives from the Council of Europe, the Council of the European Union and the European Commission, among others.

Regarding **conflict prevention**, Conca, Carius, and Dabelko state that: "If the minimum requirement for peace is the absence of violent conflict, then environmental cooperation may have a role to play in forestalling the sort of violence that can be triggered by resource overexploitation, ecosystem degradation, or the destruction of people's resource-based livelihoods. Not surprisingly, most of the scholarship linking environmental degradation with violent outcomes has pointed to the need to relieve pressures on people's livelihood resources and to enhance the ability of institutions to respond to environmental challenges. In other words, the most direct form of environmental peacemaking may be action to forestall environmentally induced conflict". ³⁷

An example of environmental peacebuilding **during conflict** is in the case of Afghanistan as the following information from UNEP reports:

"UNEP's 2003 post-conflict environmental assessment found that after two decades of war, Afghanistan's natural resource base had largely been destroyed. The degradation of the natural resources upon which some 80 percent of Afghans depended for their livelihoods was a critical problem across the country. ³⁸ Together with high population growth rates, poverty was deepening and rural livelihoods were becoming increasingly vulnerable. The report contended that as part of the peacebuilding process, the creation of employment and the injection of cash were essential to support the recovery of the local economy and re-establish livelihoods.

"With funding from the United States Agency for International Development, the Afghanistan Conservation Corps (ACC) was founded to generate long-term improvements in the livelihoods of the Afghan people by providing labour-intensive work opportunities that could meet the income generation needs of the poorest, while at the same time renewing and conserving the country's natural resource base.

"Since the beginning of the programme, the ACC has implemented over 300 projects with local communities in 22 provinces. More than five million trees have been planted and over 700,000 labour days generated (100,000 for women). When implementing its activities, the ACC works through local community development councils and traditional leaders, using a

participatory approach to identify potential problems and opportunities to facilitate the projects' long-term sustainability. ³⁹ In addition, as a complement to these efforts, UNEP has been working hand in hand with the Afghan National Environmental Protection Agency to establish and implement policies and laws for the recovery and sustainable management of natural resources, with a focus on sustainable livelihoods." ⁴⁰

Environmental confidence building measures can be particularly important in cases of **post conflict recovery and transition.** Matthew, Brown and Jensen reported that "Preliminary findings from a retrospective analysis of intrastate conflicts over the past sixty years indicate that conflicts associated with natural resources are twice as likely to relapse into conflict in the first five years. Nevertheless, fewer than a quarter of peace negotiations aiming to resolve conflicts linked to natural resources have addressed resource management mechanisms." ⁴¹

In her paper on "Harnessing the Environment in Post-Conflict Peace Building" Erika Weinthal wrote that "The environmental peacemaking literature, to date, has largely focused on the ways in which the environment can help mitigate hostilities among states and bring about peace at the interstate level. Yet, this literature's emphasis on the conflict resolution phase has overlooked what happens after states have embarked upon a peace process and/or are engaged in implementing a negotiated peace agreement. While the conventional post-conflict peace building literature has focused on the role of peacekeepers, economic development, and institution building in the post-conflict resolution phase, it has overlooked the role of the environment in maintaining the peace even where the environment is explicitly part of a negotiated peace agreement. ... [In] only a few cases (e.g., the Israel-Jordan Peace Treaty) is the environment a core component of a peace agreement. Rather, in a larger number of cases (e.g., internal wars such as in Rwanda), the environment has not only contributed to fueling the conflict, but also might abet implementation of a negotiated peace agreement."

Pekka Haavisto, then with the UNEP Post-Conflict Assessment Unit, wrote in 2005 that "a key lesson is the need to minimize the risks for human health and environment during conflict through preparedness and civil protection. And as soon as the conflict is over, proper assessment and cleanup should take place. Support and capacity building of the existing or newly established environmental administration is crucial for long-term sustainability. When considering how to revive the environment after the guns fall silent, a region's entire environmental history must be addressed.

"In addition, after conflict ends efforts must be made to reengage the country in regional and international environmental cooperation - especially when dealing with shared resources like water. In spring 2004, for the first time in 29 years Iraqi and Iranian water and environmental authorities together discussed the issue of the shared Mesopotamian Marshes. Old enemies are once again negotiating on environmental matters. Along with improving the state of these resources, the management of shared resources can serve as an important way to build confidence between formerly hostile countries."

Other Forms of Environmental Peacemaking

Conca, Carius and Debelko make a strong case for environmental peacemaking even when the environment is not specifically a component in different stages of conflict saying that this broader approach seeks "to build peace through cooperative responses to shared environmental challenges. Initiatives that target shared environmental problems may be used to establish a direct line of dialogue when other attempts at diplomacy have failed. In many instances, governments locked into relationships marked by suspicion and hostility — if not outright violence — have found environmental issues to be one of the few topics around which ongoing dialogue can be maintained." ⁴⁴

Examples of such uses of environmental peacemaking might include cases involving **manmade hazards** (e.g. pollution) or other transboundary environmental issues (e.g. river basin management).

Regarding **natural disasters** a 2007 report *Beyond Disasters: Creating Opportunities for Peace* from the Worldwatch Institute stated that "When disasters occur in conflict zones, the devastation is compounded. If aid is not distributed fairly among disaster and conflict survivors, new rifts can emerge. Relief groups must be prepared to tread a fine line as they work alongside armed militaries and rebel factions. But there can be an unexpected silver lining: although disasters harm people and communities in conflict areeas, the cooperation and goodwill following these events may jolt the political landscape, bringing renewed opportunities for peace. Relief and reconstruction efforts can build trust among combatants, ultimately even bringing conflicts to an end." The 2007 report examines three unique situations in conflict-affected areas following disasters, focusing on Indonesia's Aceh province and Sri Lanka, both affected by the 2004 tsunami, and on the long-contested region of Kashmir, devastated by the 2005 earthquake. The experiences of these regions yield important lessons that clarify the connections between disasters, conflict, development, and peacemaking. ⁴⁵

IV. The Role of Regional and International Organisations

The important role that regional and international organisations play in environmental peacemaking cannot be understated. This section highlights a few key examples.

UN Peacebuilding Commission 46

The UN Peacebuilding Commission brings together all relevant actors to marshal resources and to advise on proposed integrated strategies for <u>post conflict</u> peacebuilding and recovery; helps ensure predictable financing for early recovery activities and sustained financial investment over the medium to long-term; and develops best practices on issues in collaboration with political, security, humanitarian and development actors.

The resolutions mandating the Commission also identify the need for the Commission to extend the period of international attention on post-conflict countries and where necessary, highlight any gaps which threaten to undermine peacebuilding. For example attention is paid to helping to prevent natural resources and environmental stress from undermining the peacebuilding process, while at the same time serving as a platform for dialogue, cooperation and confidence-building.

With a view to offering independent expertise and advice to the Commission and the wider peacebuilding community, the United Nations Environment Programme (UNEP) established an **Expert Advisory Group on Environment, Conflict and Peacebuilding** in February 2008. Consisting of leading academics, think tanks and non-governmental organizations with combined experience from over 30 conflict-affected countries, the Group provides policy inputs, develops tools, and identifies best practice in using natural resources and the environment in ways that contribute to peacebuilding and prevent relapse into conflict. ⁴⁷

World Bank - on Conflict, Security, and Development

Following the World Development Report 2010: Development and Climate Change the Bank's 2011 report is devoted to Conflict, Security, and Development. It examines the changing nature of violence in the 21st century, and underlines the negative impact of repeated cycles of violence on a country or region's development prospects. Preventing violence and building peaceful states that respond to the aspirations of their citizens requires strong leadership and concerted national and international efforts.

The report begins with a reference to the situation in the Middle East and North Africa, saying that we are now seeing again that "violence in the 21st century differs from 20th-century patterns of interstate conflict and methods of addressing them. Stove-piped government agencies have been ill-suited to cope, even when national interests or values prompt political leaders to act. Low incomes, poverty, unemployment, income shocks such as those sparked by volatility in food prices, rapid urbanization, and inequality between groups all increase the

risks of violence. External stresses, such as trafficking and illicit financial flows, can add to these risks." 48

This year's report looks across disciplines and experiences drawn from around the world to offer some ideas and practical recommendations on how to move beyond conflict and fragility and secure development. The key messages are important for all countries—low, middle, and high income—as well as for regional and global institutions.

UN-EU Partnership on Natural Resources, Conflict and Peacebuilding 49

UN-EU Partnership project on Natural Resources, Conflict and Peacebuilding and the **United Nations Interagency Framework Team for Preventive Action** aim to strengthen the ability of national stakeholders and their UN and other international counterparts to analyse, prevent and resolve disputes over land and water, and to minimise tensions over natural resources.

Together with the European Union and five other UN partners – UNDP, DPA, UNEP, PBSO, HABITAT and DESA – UNEP is working to support countries improve natural resource management for conflict prevention and peacebuilding. Through a joint programme coordinated by the UN Framework Team for Preventive Action and financed by the EU's Instrument for Stability, technical assistance will be provided to help national stakeholders, as well as UN and EU staff in conflict-affected countries, to better understand and prevent tensions over environmental issues and the management of natural resources. The partnership is also designed to enhance policy development and programme coordination between key actors at the field level.

Phase I: Guidance and training material

This project aims to equip national stakeholders, UN Country Teams and EU Delegations with the skills and tools needed to understand, anticipate, prevent, and mitigate potential conflicts over natural resources. As such, the first outcome of the project is a series of Guidance Notes, training manuals, and an online self-paced learning tool covering the following themes:

- Land and conflict,
- Extractive industries and conflict,
- Environmental scarcity and conflict, and
- Capacity development for managing land and natural resources.

The four Guidance Notes are working documents that will be validated during the second phase of the project and updated accordingly. UNEP has invited stakeholders and practitioners to review and comment on these documents, from October 2010 to June 2011.

Phase II: Pilot-testing and field training

The second outcome of the project will be to deliver a series of training modules for UN and EU field staff, as well as local partners, in four pilot countries: Timor Leste, Liberia, Peru and Guinea-Conakry. Participants will acquire the skills to formulate and operationalize preventive measures in relation to natural resource management and conflict. In countries where specific natural resource management and conflict challenges are identified, the project will aim to provide focused technical assistance in the development of conflict prevention strategies. This could include the deployment of staff and other experts to assist the UN Country Team, including the Resident Coordinator or Peace and Development Advisor, in analysing options and designing programmes. Where needed, dedicated follow-up measures will also be undertaken on an inter-agency basis, in partnership with the EU.

The Environment and Security (ENVSEC) Initiative 50

ENVSEC works to assess and address environmental problems, which threaten or are perceived to threaten security, societal stability and peace, human health and/or sustainable

livelihoods, within and across national borders in conflict prone regions. The Initiative collaborates closely with governments, particularly foreign, defense and environment ministries, national experts and NGOs. Together with the stakeholders ENVSEC has carried out assessments and published reports illustrated by maps, for understanding the linkages between environment and security in the political and socio-economic reality of South Eastern Europe, the Southern Caucasus and Central Asia. Based on the assessments, the Initiative develops and implements work programmes aimed at reducing tensions and solving the problems identified. Key partners in ENVSEC include UNDP, UNEP, OSCE, NATO, UNECE and REC.

Under OSCE's Chairmanship, the ENVSEC Initiative is currently working to strengthen the security component of its work in order to expand its capacity to better respond to emerging environmental challenges to security within the pan-European region for the next decade. A technical study will be commissioned to that effect and results will be presented at the 7th Environment for Europe Ministerial Conference in Astana in September, as well as to the OSCE Implementation Meeting for the second dimension in Vienna in the fall. It is expected that through a redefined security focus of the work programme and more articulated environment and security interventions, not only the effectiveness, but also the impact of the Initiative as a confidence building tool will be increased.

Organization for Security and Co-operation in Europe (OSCE) 51

The Organization for Security and Co-operation in Europe (OSCE) is the world's largest regional security organisation, fostering comprehensive and co-operative security among 56 States from Vancouver to Vladivostok.

As part of its comprehensive approach to security, the OSCE is concerned with economic and environmental matters, recognizing that co-operation in these areas can contribute to peace, prosperity and stability.

The OSCE promotes a continuous dialogue through regular meetings of its permanent bodies in Vienna such as the Permanent Council, the Economic and Environmental SubCommittee. Economic and Environmental Officers operate on the ground in the OSCE Field Presences in South-Eastern Europe, Eastern Europe, the South Caucasus and Central Asia.

Through its work, OSCE offers a forum for political negotiations and decision-making in the fields of early warning, conflict prevention, crisis management and post-conflict rehabilitation.

Africa-EU Strategic Partnership 52

The Africa-EU Strategic Partnership enshrined into the 2007 Joint Africa-EU Strategy (JAES) defines the long-term policy orientations between the two continents, based on a shared vision and common principles. The 2nd Action Plan 2011-2012 ⁵³ adopted in November 2010 sets out the following as areas for strategic partnership:

- Peace and security
- Democratic governance and human rights
- Trade, regional integration and infrastructure
- Millennium Development Goals
- Energy
- Climate change
- Migration, mobility and employment
- Science, information society and space
- Financing the Africa-EU Partnership

The **Partnership on Peace and Security** ⁵⁴ aims at building the African Peace and Security Architecture (APSA) and agenda and at strengthening the dialogue between the EU and the AU on peace and security issues, such as counter-terrorism disarmament, post conflict reconstruction and weapons of mass destruction. The partnership also addresses the financing of African-led Peace Support Operations and aims at improving the coherence and capacity of peace and security efforts of the African Union and sub-regional organizations.

Actors involved in this partnership include the African Union Commission, the Regional Economic Communities and Mechanisms, African experts in different areas, such as disarmament, counter-terrorism, border controls specialists, mediation experts and actors, military and police experts of the regional stand-by forces, experts of early warning systems and information analysis, and Troop Contributing Countries (TCCs).

The **Partnership on Climate Change** ⁵⁵ aims at reducing the impact of climate change on African populations and on their environment. In particular, enhanced sustainable land management should help to increase economic growth and improve livelihoods of African rural populations. Farmers and the most vulnerable populations, with limited access to water and victims of food price volatility, will especially benefit from the partnership work.

Actors involved in this partnership include the African Union and European Union Member States, the African Union Commission and the European Commission, the African Development Bank, the United Nations Economic Commission for Africa, the African Regional Economic Communities that are responsible for climate and environment management issues and non-state actors in both continents.

Africa, Climate Change, Environment and Security (ACCES) Dialogue Process 56

The ACCES Dialogue Process was launched at the first "Dialogue Forum on Climate Change and Security in Africa" ⁵⁷ on 11 October 2010 in Addis Ababa, Ethiopia as a pre-event to the 7th African Development Forum, arranged by the UN Economic Commission for Africa, the African Union Commission and the African Development Bank.

When the necessary resources are mobilised to finance the ACCES 2011-2014 Programme the mulit-stakeholder process will work to address the security threats related to climate change initially in five African states / eco-regions in five different regions of the continent. In each case the research and dialogue process will be led by Working Groups dealing with water security, food security, energy security, energy security, migration, natural hazards and peace & security.

The ultimate goal of the Dialogue Process is to build up local resilience capacities and establish collaborative platforms for African and international partners to jointly address the security risks of climate change in Africa from a development and human security perspective. The main purpose of the ACCES initiative is to design, jointly with regional and local communities, security sensitive climate change adaptation options, programmes and fundable project concepts which include elements of early warning, response measures, and on-going research, cooperation and dialogue.

Key partners in ACCES already include the African Union Commission, the European External Action Service (EEAS) / EU Mission to the AU, United Nations Environment Programme (UNEP), United National Food and Agriculture Organisation (FAO), United Nations Industrial Development Organization (UNIDO), International Organization for Migration (IOM), Global Water Institute (GWI), Institute for Environmental Security (IES), the University for Peace Africa Programme and a number of other African, European and international organisations, research organisations and NGOs.

Greater Mekong Subregion (GMS)

Natural resources and the environment can contribute to peacebuilding through economic development and the generation of employment, while cooperation over the management of shared natural resources provides new opportunities for peacebuilding.⁵⁸

A key example in Asia is the Greater Mekong Subregion (GMS) where the countries (Cambodia, China, Lao People's Democratic Republic, Myanmar, Thailand, and Vietnam) have implemented a wide-ranging series of regional projects covering transport, power, telecommunications, environmental management, human resource development, tourism, trade, private sector investment, and agriculture. The GMS is recognized as having enhanced

cross-border trade while reducing poverty levels and creating shared interests in economic stability and peace. ⁵⁹

The South Asia Network for Security and Climate Change (SANSaC) 60

SANSaC was established by International Alert to promote peacebuilding in climate-affected contexts in the South Asia region, following a consultation on climate change and regional security in March 2010 in Dhaka. The Dhaka Roundtable identified the following major regional conflict issues: water access, river management, large scale movements of climate refugees, including cross border migration, loss of livelihood and food security, growing urban slums, and increased urban-rural tensions over resource utilisation.

Since its inception, SANSaC has been working to explore the complexities of responding to climate change through in-depth local research in target countries, regional analysis of transboundary issues and cross-border sharing of knowledge through regional dialogues. Through research, dialogue and training, network partners aim to build up the resilience of institutions, civil society and affected communities to climate change and insecurity by (i) facilitating stronger regional and national understanding of the social, political and economic impacts of climate change; and (ii) promoting regional cooperation.

The initiative involves experts from International Alert, India's The Energy Resources Institute (TERI), Bangladesh Institute of Peace and Security Studies (BIPSS), Regional Centre for Strategic Studies (RCSS), Pakistan's Institute of Environmental Studies, University of Karachi, International Peace Research Institute, Oslo (PRIO), the Peacebuilding and Development Institute in Sri Lanka, Maldives' Envoy for Science & Technology, Sri Lanka's Department of Zoology, University of Colombo, Nepal's National Centre of Competence in Research (NCCR), North-South China Dialogue and the International Centre for Integrated Mountain Development (ICIMOD).

V. Examples of Effective Environmental Confidence- and Peace-Building in the OSCE Region

In the workshop for which this background document has been prepared, the following three highly relevant OSCE experiences in economic and environmental confidence building will be discussed.

Regional Capacity Building for Fire Management in the South Caucasus

The project aims at reducing wildfire risks in the South Caucasus through improving capacity of fire management agencies of Armenia, Azerbaijan and Georgia, enabling them to respond effectively to wildfires and formulate national forest fire management policies and implementation strategies.

Building peace and confidence through co-operation on water in Central Asia

Scarcity of water resources has been increasingly coupled with international security and stability. But rather than water scarcity itself, it is the uneven distribution of water resources and the way these resources are governed which have repeatedly caused tensions. The presentation will review the approach the Organization has been taking on water issues in recent years, highlight achievements and identify areas with a need for stronger consolidation. This should lead towards a revised strategy focusing on the added value of the OSCE as a non-technical and non-donor organization, thereby strengthening the role of the Organization in promoting transboundary water management in Central Asia and beyond.

Economic and Environmental Confidence-building in Moldova

Representatives from the Moldovan Expert Working Group on Ecology, on the one hand, and the Transdniestrian Expert Working Group on Ecology, on the other hand, will share their experiences.

VI. Recommendations for new / improved environmental activities related to CBM in the OSCE region

In session 3 of the workshop discussion will focus on recommendations for OSCE Action in the future. Three main topics are on the agenda:

- Lessons from the experience of the OSCE Conflict Prevention Centre in conflict prevention and confidence-building
- Options for Economic and Environmental Early Warning in the OSCE
- A Role for the Second Dimension in Confidence-building and Early Warning

Some specific questions we may want to ask include:

In what specific areas has the OSCE made the most significant contribution and how can the results be consolidated and applied in other cases?

What difficulties were encountered and how were they overcome?

How can the OSCE and the participating States enhance the work of the organisation in this field?

The role of the OSCE in its approach to environmental security was examined in depth in the background paper prepared by my colleague and me for the OSCE Workshop "Towards an OSCE Environmental Security Strategy (ESS)" held in March 2007. ⁶¹ A large number of specific options and recommendations were mentioned, several of which were included in the Spanish Chairmanship's proposal for an action plan on the threats and opportunities in the area of environmental and security, which was noted in the Madrid Declaration of November 2007.

In the lead up to the May 2011 workshop – and in follow-up to it – it will be useful to review the key suggestions which emerged from the work four years ago to ascertain the progress made to date in many areas (such as environmental / climate change, energy security, water security, migration, transport, environment and health, social dimensions, conflict prevention, confidence building, environmental governance, etc.) and focus new attention on challenges and opportunities which remain to be addressed effectively.

REFERENCES

¹ Matthew, R., Brown, O. and Jensen, D. *From Conflict to Peacebuilding: The Role of Natural Resources and the Environment*, UNEP, 2009, p. 6 http://www.ijsd.org/publications/pub.aspx?pno=1062

http://www.chronicpoverty.org/publications/details/violent-conflict-poverty-and-chronic-poverty/ss

² UN Secretary-General's High-Level Panel on Threats, Challenges and Change. (2004). *A more secure world: our shared responsibility: Report of the Secretary-General's High-Level Panel on Threats, Challenges and Change*. United Nations General Assembly. New York as quoted in Matthew, et al.

³ UN Security Council. (2007, 25 June). *Statement 2007/22 by the President of the Security Council*. United Nations Security Council. New York, as quoted in Matthew, et al.

⁴ Ban, K. (2008, 16 April). "A green future - The right war." *Time*, as quoted in Matthew, et al.

⁵ OSCE, "Madrid Declaration on Environment and Security" MC.DOC/4/07, 30 November 2007

⁶ "Climate Change and International Security: Paper from the High Representative and the European Commission to the European Council", S113/08, Brussels, 14 March 2008, p2

⁷ Matthew, et al.

⁸ Brock, L., *Journal of Peace Research,* Peace Research Institute, Frankfurt, November 1991, vol. 28 no. 4, pp. 407-423

⁹ Conca, K. & Dabelko, G. (Eds.) (2002). *Environmental Peacemaking*. Woodrow Wilson Center Press & John Hopkins University Press. Washington, D.C., p. 1

¹⁰ <u>Ibid.</u> p. 9

¹¹ UN Environment Programme. (2007). *Sudan post-conflict environmental assessment*. UNEP. Geneva as quoted in Matthew, et. al., p.9

¹² Ibid.

¹³ Cha, Ariana Eunjung, "Spike in global food prices contributes to Tunisian violence", Washington Post, 14 Jan 2011: http://voices.washingtonpost.com/political-economy/2011/01/spike in global food prices tr.html

¹⁴ Geewax, Marilyn, "Rising Food Prices Can Topple Governments, Too" NPR website, 30 Jan 2011: http://www.npr.org/2011/01/30/133331809/rising-food-prices-can-topple-governments-too

¹⁵ Arezki, R. and Brückner, M., "Food Prices, Conflict, and Democratic Change", The University of Adelaide School of Economics, Research Paper No. 2011-04, January 2011 as quoted in "High food prices are contributing to MidEast unrest: And, yes, extreme weather and high oil prices are major contributors to those price hikes", Climate Progress, 1 Feb 2011 http://climateprogress.org/2011/02/01/high-food-prices-are-contributing-to-mideast-unrest/

¹⁶ Stewart, F and Fitzgerald, V (2000) 'War and Underdevelopment. Volume 1. The Economic and Social Consequences of Conflict' as reference in Goodhand, Jonathan "Violent Conflict, Poverty and Chronic Poverty", CPRC Working Paper 6, Chronic Poverty Research Centre, Manchester, May 2001, p. 24

¹⁷ Collier, P (2000) 'Doing well out of war. An economic perspective' in Berdal, M and Malone, D (2000) 'Greed and Grievance. Economic Agendas in Civil Wars' and Collier, P (2000) 'Economic causes of civil conflict and their implications for policy' World Bank, June, 15, 2000 as referenced in Jonathan Goodhand, J., <u>Ibid.</u>, pp. 26-27

¹⁸ Ibid.

¹⁹ Ibid.

 $^{^{20}}$ "The economics of violence: Are countries poor because they are violent or violent because they are poor", The Economist, Apr 14th 2011, http://www.economist.com/node/18558041?story id=18558041

- ²² Matthew, et al., p. 5
- ²³ Ibid.
- ²⁴ UN Security Council, 5663rd Meeting; 17 April 2007; first-ever debate on the impact of climate change on security
- ²⁵ Matthew, et al., p. 5
- ²⁶ Matthew, et al., p. 15
- ²⁷ P.H. Liotta, P.H. and Shearer, A.W. "The Use of Scenarios in Assessing Climate Change, Human Security, and Potential Outcomes" Paper for the International Workshop: Human Security and Climate Change, GECHS, Asker, 21-23 June 2005 http://www.gechs.org/downloads/holmen/Liotta Shearer.pdf
- ²⁸ Stern, N. *Stern Review on the Economics of Climate Change*, HM Treasury, London, 2006 http://www.hm-treasury.gov.uk/independent reviews/stern review economics climate change/sternreview index.cfm
- ²⁹ Bernstein, J. and Kingham, R. "Background Paper for the Experts' Workshop: Towards an OSCE Environmental Security Strategy (ESS), OSCE, Vienna, 16 March 2007, p. 36.
- ³⁰ Madrid Declaration on Environment and Security, OSCE, Ministerial Council, MC.DOC/4/07, Madrid, 30 November 2007
- ³¹ Maas, A., Briggs, C., Cheterian, V, Fritzsche, K., Lee, B., Paskal, C., Tänzler, D. and Carius, A. "Shifting Bases, Shifting Perils", Adelphi Research, Berlin, 2010, p. 4.
- 32 Conca and Dabelko
- ³³ Conca, Carius, and Dabelko, p. 146
- 34 Ibid.
- ³⁵ <u>Ibid.</u> p. 154
- ³⁶ Conca, Carius, and Dabelko, op.cit., p. 150, said that "Most environmental peacemaking initiatives fall into one of three partially overlapping categories: efforts to prevent conflicts related directly to the environment, attempts to initiate and maintain dialogue between parties in conflict, and initiatives to create a sustainable basis for peace."
- ³⁷ Conca, Carius, and Dabelko, p.150
- ³⁸ UN Environment Programme. (2003). Afghanistan post-conflict environmental assessment. UNEP. Geneva as referenced in Matthew, et al., p. 23
- ³⁹ Afghanistan Conservation Corps. (2007). *Strengthening local governance.* Government of Afghanistan. Kabul, as referenced in Matthew, et al., p. 23
- ⁴⁰ Matthew, et al., p. 23, for more information see: http://postconflict.unep.ch/index.php?prog=afghanistan
- ⁴¹ Matthew et al., p. 5
- ⁴² Weinthal, Erika "Harnessing the Environment in Post-Conflict Peace Building" Paper presented at the annual meeting of the International Studies Association, Town & Country Resort and Convention Center, San Diego, California, USA, 22 Mar 2006

See: http://www.allacademic.com/meta/p_mla_apa_research_citation/0/9/9/6/2/p99624_index.html

²¹ Ken Conca, Alexander Carius, and Geoffrey D. Dabelko, "Building Peace Through Environmental Cooperation"; in Michael R, French, H. and Assadourian, E., Eds. <u>State of the World 2005: Redefining Global Security</u>, W.W. Norton & Company / Worldwatch Institute, Washington, D.C., 2005, p.146 http://ecc.adelphi.de//PDF/SOW%2005%20chap8.pdf

- 47 For more information on the Expert Advisory Group on Conflict and Peacebuilding and its members see:
- $\frac{http://www.unep.org/conflicts and disasters/Introduction/Environmental Cooperation for Peace building/Expert Advisory Group on Conflict Peace building/tabid/53977/Default.aspx$
- ⁴⁸ See: http://publications.worldbank.org/index.php?main_page=product_info&cPath=0&products_id=23888
- ⁴⁹ For more information see: UN-EU Partnership on Natural Resources, Conflict and Peacebuilding: http://www.envirosecurity.org/actionguide/view.php?r=124&m=initiatives or go directly to the related UNEP page at:

http://www.unep.org/conflictsanddisasters/Policy/EnvironmentalCooperationforPeacebuilding/UNEUPartnership/tabid/29405/Default.aspx

- ⁵¹ See especially the Secretariat Office of the Co-ordinator of OSCE Economic and Environmental Activities at: http://www.osce.org/eea/
- ⁵² For more information about the Africa-EU Strategic Partnership see: http://www.africa-eu-partnership.org/partnerships/africa-eu-strategic-partnership
- ⁵³ Joint Africa EU Strategy: Action Plan 2011-2013 http://www.africa-eu-partnership.org/sites/default/files/doc_jaes_action_plan_2011_13_en.pdf#page=2
- ⁵⁴ See African-EU Partnership on Peace and Security at: http://www.africa-eu-partnership.org/sites/default/files/5-dev africa peace and security fs a4 screen.pdf
- ⁵⁵ See African-EU Partnership on Climate Change at: http://www.africa-eu-partnership.org/sites/default/files/7-dev africa climate change fs a4 screen.pdf
- ⁵⁶ For more information about ACCES and its 2011-2014 programme see: http://www.envirosecurity.org/acces/events/briefing080411.php
- ⁵⁷ See "Dialogue Forum on Climate Change and Security in Africa" at: http://www.madariaga.org/events-2010/355-dialogue-forum-on-climate-change-and-security-in-africa

⁴³ Haavisto, Pekka "Environmental Impacts of War" in Michael R, French, H. and Assadourian, E., Eds. State of the World 2005: Redefining Global Security, W.W. Norton & Company / Worldwatch Institute, Washington, D.C., 2005, pp.158-159. http://ecc.adelphi.de//PDF/SOW%2005%20chap8.pdf

⁴⁴ Conca, Carius, and Dabelko, p.151

⁴⁵ Renner, M. and Chafe, Z,; Mastny, L., editor, *Beyond Disasters: Creating Opportunities for Peace*, Washington, D.C.: Worldwatch Institute, 2007.

⁴⁶ For more information on the UN Peacebuilding Commission see: http://www.un.org/peace/peacebuilding/

⁵⁰ See: http://www.envsec.org/about.php

⁵⁸ Matthew, et al., p. 5

⁵⁹ The International Bank for Reconstruction and Development / The World Bank, *World Development Report 2011: Conflict, Security, and Development*, Washington DC, 2011, p. 43, note 98.

⁶⁰ For more information about SANSaC see: http://sansac.org/

⁶¹ Bernstein and Kingham