The rough guide to climate change and conflict

A CAFOD briefing

Increased global attention is being paid to the links between climate change and violent conflict. The notion that the environmental impact of human-induced climate change is in danger of undermining even the limited progress made so far towards achieving the Millennium Development Goals (MDGs) is a difficult reality to face. With immediate action by individuals and governments, however, we do stand a chance of avoiding such a scenario and perhaps even build a future in which people work together to face common challenges, making violent conflict a thing of the past.

The consensus on climate change

There is now widespread scientific consensus that climate change is happening and that the warming of the earth's atmosphere is mainly attributable to human activity. According to the highly influential Stern Review on climate change, published in 2006, “an overwhelming body of scientific evidence now clearly indicates that climate change is a serious and urgent issue. The Earth's climate is rapidly changing, mainly as a result of increases in greenhouse gases (GHGs) caused by human activities.” Establishing this consensus was a critically important step, but now what is needed is coordinated global approach to halting and reversing the effects of climate change and a consensus on the principle that the polluter pays.

According to the Stern Review, global levels of GHGs (a combination of gases including carbon dioxide, methane and nitrous oxide, among others) are now higher than they have been in the past 650,000 years. Average global temperatures have been rising by 0.2°C every ten years, for the last 30 years, and are projected to continue rising.

Current international policy centres largely around the 1992 United Nations Framework Convention on Climate Change (UNFCCC), agreed at the Rio de Janeiro Earth Summit in 1992. The UNFCCC and its subsequent protocols aim to establish binding commitments on developed country governments to reduce GHG emissions. In 1997 the Kyoto Protocol established 2008-2012 as the first period for binding commitments to reduce GHG emissions from developed countries. A strong international framework needs to be in place by 2009 to ensure there is no gap between the first and the second commitment period.

Climate change and CAFOD

The impact of climate change will be felt first and worst by those living in vulnerable situations in the South. In September 2008, Douglas Alexander, secretary of state for international development told the Guardian that it is “the poorest people of the world who are the least responsible for climate change” and called on the world to rise to the challenge and ensure that we support them.

CAFOD believes that developed countries must not only reduce their emissions by at least 80 per cent to 2050 (using 1990 global emissions levels as a baseline) to avoid dangerous and irreversible climate change, but must also provide substantial additional finance to support adaptation and sustainable development in developing countries. In keeping with our commitment to work for global justice, CAFOD is an active member of the CIDSE-Cantans Internationalis Poverty and Climate Justice campaign, which is aimed at catalysing global action to reverse climate change. We see climate change as not only an environmental concern, but also as an issue of justice and equity.

What does CAFOD mean by conflict?

CAFOD defines conflict as something that “occurs when two or more parties pursue mutually incompatible goals, which can lead to a struggle to claim status, power and resources.”

Conflict itself is an inherent feature in all societies and can sometimes be a healthy way of mediating between different interests. When individuals, groups or governments, however, resort to violence with the aim of resolving conflict, it becomes unacceptable and damages the people and societies involved.

“A conflict where repeated and systemic violence causes widespread destruction, displacement and/or loss of life is considered a severe crisis or war.” CAFOD is concerned with all levels of violent conflict from the individual to the international and works with its partners to reduce violence and build strong communities with the tools to resolve their differences peacefully.

Ending violent conflict means incorporating justice into the fabric of societies where individuals or groups have historically been marginalised or excluded from full participation and/or access to resources. Injustice takes many different forms, such as income inequality, limited livelihood opportunities, poor governance and corruption, and is a key driver of conflict within societies and between states. If injustice coincides with dominance of one group over others, this can further heighten the risk of conflict.

If individuals or groups in positions of power gain more from conflict than they do from peace, and if there is no effective deterrent for violent behaviour, conflict becomes even more difficult to contain or resolve. Easy access to small arms and light weapons and abundant but unregulated wealth in natural resources can aggravate and fuel all of these conditions.

The impact of climate change

According to the Stern Review, “Climate change will affect the basic elements of life for people around the world – access to water, food production, health, and the environment.”

Environmental impact as a result of climate change includes drought, changing rain patterns, desertification, deforestation, loss of arable land, flooding, melting glaciers, sea level rises and altering coastlines.

The most recent report of the Intergovernmental Panel on Climate Change (IPCC) published in 2007 mapped out projected climate change impacts to illustrate the predicted effects of global climate change on the world's population.
Northern regions are among the most adversely affected, while at the same time having comparatively fewer resources for adaptation. For example, during the 1990s, according to the World Bank, about 200 million people per year experienced the impact of climate-related environmental disasters in developing countries compared to one million people in rich countries. According to the United Nations Development Programme (UNDP), from 2000 to 2004 one in 19 people average per year in the developing world was affected by a climate disaster, compared to one in 1,500 people in OECD countries, as illustrated in the IPCC box below.

The table below outlines the projected impacts of climate change, broken down by region to enable us to see how climate change will impact on specific population groups. Areas where CAFOD works extensively with partners – Africa, Asia and Latin America – are expected to be particularly adversely affected.

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<th>Region</th>
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<tr>
<td>Africa</td>
<td>By 2020, in some countries, yields from rain-fed agriculture could be reduced by up to 50 per cent; agricultural production is likely to be severely reduced and access to food much harder for many people.</td>
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<tr>
<td>Asia</td>
<td>Coastal areas, especially heavily populated megadelta regions in south, east and south-east Asia will be at greatest risk due to increased flooding from the sea and, in some megadeltas, flooding from the rivers.</td>
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<tr>
<td>Latin America</td>
<td>By mid-century, increases in temperature and associated decreases in groundwater are projected to lead to gradual replacement of tropical forest by savanna in eastern Amazonia.</td>
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How climate change is linked to conflict

Climate change will affect our environment, and the resulting stresses will in turn have specific social, economic and political consequences. First, much of the progress made so far towards achieving the MDGs is likely to go into reverse. Secondly, several of these social, economic and political effects, if unaddressed, are likely to increase the risk of violent conflict. Of course events like drought and floods are nothing new; humans have always had to adapt to variable climatic and environmental patterns. Climate change will however, unless mitigated, increase the frequency and severity of these events, stretching people’s capacity to adapt to its limit.

Below are a few of the main social, economic and political effects of climate change and the ways in which they may lead to more acute and prolonged human conflict. Our examples illustrate both positive and negative outcomes.

1. **Direct competition over scarce resources, especially food and water.**

Drought, flooding and desertification as a result of climate change are likely to lead to reduced crop yields and increasingly scarce food and water resources. According to Chair of Global Systems at the Centre for International Governance Innovation, Balsilie School of International Affairs in Waterloo, Canada, Thomas F. Homer-Dixon, environmental scarcity could theoretically produce five types of violent conflict:

1. disputes arising directly from local environmental degradation caused, for instance, by factory emissions, logging, or dam construction
2. ethnic clashes arising from population migration and deepened social cleavages due to environmental scarcity
3. civil strife (including insurgency, banditry, and coups d’état) caused by environmental scarcity that affects economic productivity and, in turn, people’s livelihoods, the behaviour of elite groups, and the ability of states to meet these changing demands
4. war between states caused by scarcities, such as water
5. North-South conflicts (conflicts between the developed and developing worlds) over mitigation of, adaptation to, and compensation for global environmental problems such as global warming, ozone depletion, threats to biodiversity, and decreases in fish stocks

History provides examples of where resources, having become scarcer and therefore much more valuable, have been expropriated by elite groups through the changing of land rights or physical distribution systems, at the expense of weaker, more marginalised populations. Unequal access to life-sustaining resources is both unjust and destabilising. A recent report by Saferworld and the Center for Conflict Resolution (CECORE) on water provision in Uganda argues that, “The way in which water resources, including national funding and actual infrastructure, are distributed across the country can therefore really impact on people’s perceptions about whether they are being neglected or receiving their fair share of national resources.” The UN’s Peacebuilding Support Office has also noted that, “If access to the direct use of scarce land, forest, water or wildlife resources leads to marginalization or exclusion of certain groups, they become easy targets for political manipulation.”

On an international level, increasing scarcity of resources could lead countries to compete with one another, or to ‘scramble’ for rapidly disappearing resources, undermining any cooperation they might undertake to work towards global energy and environmental sustainability. In at least some of these cases, competition between states may result in the use of violence by stronger states against weaker ones to secure strategic resources or economic rights.

The Nile Basin

The Nile Basin area covers ten African countries that are home to over 300 million people. Problems of increasing drought and reduced rainfall in Africa exacerbated by climate change are expected to coincide with the continent’s growing demand for food, power and irrigation. The combination of increasing demand for scarce water resources with the impact of climate change is likely to result in intense competition over access to the Nile River Basin, potentially unravelling the fragile international agreements that have governed Nile water usage since colonial times.

East African countries are increasingly questioning the relevance, legality and fairness of the existing treaty regime, which is seen as favouring Egypt and Sudan and which has led to hostile diplomatic exchanges over regional water issues in the past.

In 1999 the ten Nile Basin countries signed the Nile Basin Initiative (NBI), aimed at ensuring that water resources are used sustainably without fuelling regional conflict. Although the NBI, which is supported by a number of international donors, has perhaps not made progress at the rate many in the region would like, it has served as an important forum for airing grievances before tensions descend into violence. Continued preference for diplomatic solutions over the use of force will be the key to ensuring that the Nile River’s water does not become a cause of future conflict, aggravated by climate change.
2. Loss of livelihoods and income

The loss of arable land and deforestation, coupled with population growth and spreading urbanisation, can destroy livelihoods. According to the UN, by 2050 the population of the 50 poorest countries is expected to double. According to the 2007/2008 UN Human Development Report, the effects of climate change can “wipe out crops, reduce opportunities for employment, push up food prices and destroy property, confronting people with stark choices.”xxvi When this happens, poor people generally have fewer options for developing alternative livelihoods than people who live in wealthier countries.

Environmental degradation often leads to mass population displacements. The Stern Review highlighted the fact that 250 million Chinese (23 per cent of the population) are currently dependent on glacier meltwater for their water resources, however some assessments suggest that 64 per cent of these glaciers will be completely gone by 2050.xxv This is very likely to result in mass migration of the affected population to other areas.

Throughout history, people have migrated as a result of their changing environment. But today, national borders are fixed, making migration difficult and fraught with social and political risk for many climate-affected people, especially those in small countries. International Alert – an independent peacebuilding organisation – estimates that high levels of climate change-induced migration will increase urbanisation rates, which, if not managed properly, risks increasing poverty, conflict and criminality.xxvii To the extent that migrants move to new places that are themselves under significant environmental stress, the likelihood of a hostile reception by the host population increases even further. Environmental migrants therefore face physical protection risks in addition to inadvertently playing a role in heightening violent conflict. According to International Alert, “large-scale migration carries high risk of conflict because of the fearful reactions it often receives and the inflammatory politics that often greet it.”xxviii It is important to note that migration does not necessarily lead to hostility and violence. But when it is poorly managed and/or manipulated for political ends, it represents a potential risk.

Bangladeshxxix

Bangladesh has long been plagued by volatile weather and frequent flooding, with a third of its territory often submerged during the rainy season. As climate change in Asia is generally predicted to lead to increased flooding of coastal areas and saltwater contamination of freshwater sources, Bangladesh’s environmental troubles are expected to get much worse.

In the past when people’s livelihoods have been destroyed in parts of Bangladesh, they have been forced to migrate elsewhere and have sometimes been seen as threats by receiving communities, that are themselves often struggling to survive. The violent conflict that took place in the Chittagong Hills over two decades was in part driven by migration of people from other parts of the country whose arrival was seen as undermining the rights and identity of the indigenous hill tribes. In 1997 a peace accord was signed between the Government of Bangladesh and representatives of the Chittagong Hill indigenous people, aimed at resolving issues of land ownership, formally recognising the identity of the tribes and increasing the access of indigenous groups to political decision-making through the establishment of a regional council. The peace agreement set up a land commission but a lack of political will has frustrated its work and therefore critical land issues remain unresolved.xxix Finding a peaceful means of resolving land disputes will be a crucial part of ensuring that further climate-driven migration does not reignite violent conflict.

What makes a country/region particularly vulnerable?

Assessing the links between climate change and conflict involves looking at the interplay between the risk of a certain country or region experiencing disruptive effects of climate change, and people’s vulnerability. Vulnerability is determined by the existing political, cultural, social or economic conditions in the country/region; they determine its ability to adapt to the disruptive environmental changes or whether it is likely to degenerate into violence. The United Nations peacebuilding agency has observed that “Although environmental factors are rarely, if ever, the sole cause of conflict – ideology, ethnicity, and economic factors are all connected to violent conflict – research shows that environmental stress and the exploitation of natural resources can increase the severity and duration of conflict, and complicate its resolution.”xxx While climate change can fuel conflict, the IPCC recognised that conflict is one of the factors that can weaken a society’s ability to adapt to the impact of climate change and exacerbates its vulnerabilities.xxx Therefore adaptation must take place long before there is an imminent risk of conflict.

In 2007 International Alert identified 46 countries where local economic, social and political conditions combined with the impacts of climate change yielded a high risk of violent conflict. These countries are affected by some combination of violent...
conflict, poverty, inequality and bad governance. Almost half the world's population lives in these 46 countries.

A number of features characterise the vulnerability of a country/region; they include:

1. high rate of population growth compared to land
2. marginalised areas with weak governing structures
3. patterns of ethnic division or ethnic dominance
4. history of violent conflict
5. weak legal/judicial structures for peacefully addressing grievances
6. weak law and order capabilities of the state
7. high levels of inequality
8. high incidence of contested land ownership
9. high economic dependence on climate-sensitive sectors, such as rain-fed agriculture

Policies that can help

Of course, competition for resources is nothing new but the predicted speed at which environmental devastation will occur as a result of climate change is much greater than anything people have had to adapt to in the past. Climate change will not automatically lead to violent conflict; environmental stresses interact with other factors to make societies vulnerable and precipitate conflict. Governments, people and policies can make a difference.

Homer-Dixon argues that, “climate change will help produce the kind of military challenges that are difficult for today’s conventional forces to handle: insurgencies, genocide, guerilla attacks, gang warfare and global terrorism”. The implication of this is that preventive policies need to be put in place today to avoid having to face these challenges in the first place. While lessons can be learned from different countries’ experiences with environmental devastation, policies need to be context-specific and conflict-sensitive, right down to the community level.

Below are some general recommendations that can be adapted to the contexts of specific community, country or regional initiatives:

- **Behavioural modification** Both individuals and governments must act to change the systems and behaviour that are causing greenhouse gas emissions leading to climate change.

- **Address issues of unequal resource distribution between different communities or groups** Develop fair and transparent systems for allocation and distribution of scarce resources within society. Ensure allocation is not based along ethnic, socio-economic or geographical lines.

- **Resolve disputes over land ownership** Set up ways of resolving these peacefully. Ensure property rights are legally guaranteed, in a fair and transparent manner.

- **Encourage economic diversification** away from crops or livelihoods that are particularly vulnerable to negative impacts of climate change.

- **Strengthen the rule of law** Donors and governments should increase funding and political support for development programmes which promote the rule of law, encouraging civil society to monitor and implement them.

- **Strengthen regional political bodies**, especially those that are based around geographical features, such as rivers, deltas, arable farming regions, and so on. Good relations between neighbouring countries will be critical to ensuring resource disputes are resolved diplomatically instead of through force.

**Conclusion**

National and international cooperation around climate change seems daunting. The scope of the problems seems immense, the solutions difficult and the political obstacles insurmountable. However, environmental challenges have also historically been important catalysts to building more peaceful, equitable and collaborative relations between different countries and communities around the world. The 1987 Montreal Protocol, which phased out substances known to deplete the ozone layer, was described by former UN Secretary-General Kofi Annan in 2003 as “perhaps the single most successful international environmental agreement to date”. The Protocol enjoys nearly universal membership and, critically, was the first international treaty to include a funding mechanism to support developing countries to meet their treaty obligations.

Now, more than 20 years after the Montreal Protocol was signed, the international community has even better tools, knowledge and experience to work together to solve the challenge of climate change before violent conflicts erupt and spread. We just need to demonstrate the political will to apply what we have learned.

ii Source: Alexander, Douglas “We all must support the poorest people” The Guardian, 10 September 2008

iii Using 1990 global emissions levels as a baseline


viii Ibid


xix From interviews gathered by CAFOD communications officer Bridget Burrows on a visit to northern Kenya

xx Collier Paul, The bottom billion: Why the poorest countries are failing and what can be done about it (Oxford University Press, Oxford, 2007)


xxii Smith, Dan and Janani Vivekananda, A climate of conflict: The links between climate change, peace and war, (International Alert, London, November 2007) p. 15

xxiii Smith, Dan and Janani Vivekananda, A climate of conflict: The links between climate change, peace and war, (International Alert, London, November 2007) p. 3

xxiv Case study based partly on information in Smith, Dan and Janani Vivekananda, A climate of conflict: The links between climate change, peace and war, (International Alert, London, November 2007) p. 16


xxviii Smith, Dan and Janani Vivekananda, A climate of conflict: The links between climate change, peace and war, (International Alert, London, November 2007) p. 17

