The ultimate transboundary problem

The challenge of climate change has brought a new urgency to transboundary conservation

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Linked: Africa's last glaciers in the Rwenzori Mountains National Park, straddling the border between Uganda and the Democratic Republic of the Congo. *Photo: K. Adcock*

My central message is about the interconnectedness of the world, which explains the inclusion of a glacier photo with this article. The glacier shown in the photo is on the border between Uganda and the Democratic Republic of the Congo in Central Africa. It is in the fabled mountains of the moon and is one of the sources of the Nile. If there were no glaciers there would be no tropical forests, and vice versa. This interconnectedness is the reason that transboundary conservation is essential for the future health of the planet.

Transboundary approaches are growing

The number of transboundary conservation complexes is growing in every part of the world and notably in the tropics. Globally, the number of transboundary conservation areas increased from 59 in 1988, to 136 in 1997, to 227 (incorporating 3043 sites and covering an area of 460 million hectares) in 2007. Many organizations have also been working over the years to provide guidance on how to do transboundary conservation better. The Convention on Biological Diversity has a programme of work on protected areas that includes transboundary conservation targets and goals. But we have always faced the same central questions: do the costs of implementing transboundary cooperation justify the returns? Should we be doing it at all?

Transboundary conservation and climate change

The issue of climate change has brought clarity to these questions. It is an issue that eclipses all others; it is the single most transboundary thing that we, the global community, have ever experienced and it requires a profoundly transboundary response. It makes transboundary conservation imperative.

Addressing climate change is difficult because, at almost every step, it is about the sovereignty of nations. It requires new approaches to the ways in which nations cooperate and are accountable together. Apart from multilateral policy negotiations, can transboundary conservation help with this?

In negotiations on global responses to climate change, the principle aims are to address the causes of increased greenhouse gas concentrations in the atmosphere and to deal with the inevitable climate-associated impacts that human communities everywhere are facing, such as extreme weather events and rising sea levels. Ecosystems are not the focus of attention. But natural ecosystems provide some essential services to society. First, carbon is captured and stored in natural ecosystems, particularly tropical forests and, second, natural ecosystems that are affected by climate change are the sources of water, food and fibre on which most economies depend. Protected-area systems have a special role to play as the core of large-scale conservation efforts to reduce greenhouse gas emissions and increase carbon capture and storage, and also to maintain essential services upon which people depend for their security and livelihoods. These ecosystem-based approaches to climate change are important for increasing both ecosystem resilience and, importantly, societal resilience, particularly if vulnerable people are closely involved in these efforts.

So where does transboundary conservation come in? Well, international boundaries often use natural features for demarcation. Therefore, many of the world's most important ecosystems straddle the borders between adjacent states, whether in shared watersheds, river basins, oceans or large blocks of tropical or temperate forests. What happens on one side of the border affects the other and determines the outcome for both countries. Impacts on water supplies affect

countries and communities downstream, and sea-level rises cause people to move in search of safer places to live and new sources of food. These border areas are often the location of large protected areas; a transboundary conservation approach offers the opportunity for adjacent countries to cooperate in the planning and management of the areas for their mutual benefit. Importantly, such cooperation may also be the means whereby resource conflicts and climate-refugee situations can be resolved.

In encouraging transboundary approaches we need to solve some tricky issues, such as the need for financial mechanisms that enable effective action on the ground, as well as institutional responsibilities and accountability. It isn't easy, but it is important.

Transboundary REDD

There is increasing interest in ecosystem-based approaches to climate-change mitigation. Recently, plenty of attention has been paid to reducing emissions from deforestation and forest degradation (REDD) as well as REDD-plus—which takes into account the conservation of forests, the sustainable management of forests and the enhancement of carbon stocks. But there is still plenty of ground to cover: we could be 5–15 years away from an international agreement on REDD. In the meantime, the need to conserve large tracts of tropical forests that span international boundaries remains imperative, and transboundary conservation programmes offer opportunities to achieve this.

The United Nations Environment Programme–World Conservation Monitoring Centre has recently produced a carbon atlas showing the location of the most important carbon stocks. We can now ask: where is the carbon, and where does it coincide with important areas for biodiversity conservation? Maybe this is a way of prioritizing where we act on REDD. Currently, government-designated protected areas covering just over 11% of the earth's land surface and store more than 15% of global carbon stocks. Although this suggests that 85% of global carbon stocks are still unprotected, this is not the end of the story, as many forms of protected areas, including indigenous peoples' territories and community-conserved areas, also contribute enormously to maintaining carbon-rich ecosystems.

The figure shows deforestation in Rondônia in the Brazilian Amazon. Almost all the deforestation in the period 1997–2000 took place outside protected areas and indigenous peoples' territories and other communal lands. So the importance of such areas in the conservation of carbon should not be underestimated. Linkages across boundaries in the management of those areas will become increasingly important. This is particularly true as the agents of deforestation will exploit differences in regulatory and management regimes in adjacent territories unless countries cooperate to address the problem. Otherwise, solving the problem in one country may simply increase pressure for exploitation in the adjacent country. Countries will need to cooperate, therefore, to prevent international leakage.

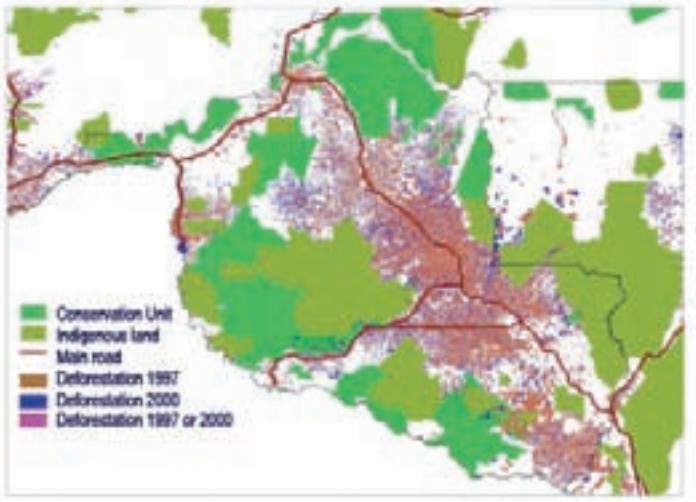
Many questions

There are many other questions. How do we mobilize all stakeholders—Indigenous peoples and local communities, and the private and public sectors? Can we foster synergistic responses? Is transboundary conservation cost-effective? Is it politically and practically feasible to get the main environmental conventions to develop joint work programs? Can we develop rules for climate-change financing, such as the use of market mechanisms for REDD, that will address social and environmental safeguards? What about the rights and involvement of Indigenous peoples and local communities, especially those whose territories straddle international boundaries? Although we do not yet have all of the answers to these questions, there are many pilot projects and demonstrations being conducted to better understand how and when to apply these approaches.

Can we make transboundary conservation work to address some of these very difficult challenges? Increasingly we are showing that we can.

Expanding

Deforestation in Rondônia, 1997–2000



Source: Brazilian National Institute for Space Research

Is the concept of sovereignty changing?

Comment from the floor: The concept of sovereignty is evolving internationally. Twenty years ago, nothing trumped sovereignty, but now transnational institutions—such as the International Criminal Court—are starting to transcend it. This is not yet the case for environmental issues, but gradually I see this occurring. We will see it when environmental issues become linked more strongly to human rights.