GUEST EDITORIAL

FAILURES IN TROPICAL FOREST AND CONSERVATION POLICY: WHAT IS THE SOLUTION?

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INTRODUCTION

We are convinced that forest and conservation policy is now at another crossroads. Despite decades of efforts, the challenges ahead remain formidable indeed, sometimes overwhelming. These challenges include continued deforestation and degradation of forest, limited recognition of forests in climate change policy, increased impacts from a demand for bioenergy and biofuels, tenure and access conflicts, and continued loss of forest biodiversity. Overlaying these challenges are broader societal challenges of human population growth, poverty, changing patterns of consumption and the perceived need to continually grow economies. Addressing these challenges requires both new ways to connect multiple spatial scales of forest and wild land planning and innovative tools for transparency, participation and accountability.

A recent UNEP (2012) report, expressing the view of a wide range of experts, stated that the top challenge for the 21st century is aligning governance to the challenges of global sustainability.

"*The current system of international environmental governance, with its maze of interlocking multilateral agreements, evolved during the 20th century, and is believed by many to be unsuitable for the 21st century. Some commentators believe that this system lacks the necessary representativeness, accountability and effectiveness for the transition to sustainability, and that a much higher level of participation and transparency is needed.*" UNEP (2012)

To address all of the challenges, innovative tools continue to be developed in the information, communication and technology (ICT) industry. For example, Hansen et al. (2013) just published a new global analysis of forest change between 2000 and 2012; in this analysis we can say that the spatial scales from local to national to regional to global could be evaluated. Although there is naturally some controversy over the methodology (Kurz 2013), the study did, for example, indicate a significant decline in deforestation in Brazil but an increase in deforestation in Indonesia and many other countries. The analysis by Hansen et al. (2013) challenges some of the earlier work by government ministries and the FAO Forest Resource Assessment (FAO 2010). The ICT tool application in this case focuses on biophysical assessment and developing a complementary set of social assessment tools, via social media, to assess forest use impacts. This suite of tools will be very helpful in forest and conservation policy evaluation and, we hope, it will start us on a path towards more policy successes. Following is a review of recent failures and successes we offer as evidence to strengthen our argument.

FAILURES

An example of the failure of a top-down global approach is the effort to use the Stern Report on Climate Change (2006) to change the policy debate. In the forest discussion it noted that:

"*Curbing deforestation is a highly cost-effective way of reducing greenhouse gas emissions… . Policy to reduce emissions should be based on three essential elements: carbon pricing, technology policy, and removal of barriers to behavioral change…*"

Admittedly the report did refer to both national governments and local communities, but the perspective was essentially top-down.

The idea was to implement a globally-designed solution for climate change without sufficient local involvement or feedback loops for adaptive management.

Another example of failure so far is REDD+ (Reducing Emission from Deforestation and Forest Degradation in Developing Countries) developed under the auspices of the UN Framework Convention on Climate Change (UNFCCC). Although REDD+ has progressed faster in negotiations than many other issues, implementation on the ground has been slow, leading some to now ask "Is REDD+ dead?" While some of the original proponents of REDD+ were from tropical countries, a lot of the impetus was from developed countries seeking a cost-effective mitigation option. Thus, in 2007 the Norwegian Prime Minister Jens Stoltenberg said, "*Through effective measures against deforestation, we can achieve large cuts in greenhouse gas emissions quickly and at low cost. The technology is well known and has been available for years. Everybody knows how not to cut down a tree.*" Unfortunately as we know from the last 20 years of forest policy research 'not cutting down a tree' looks a bit different to an impoverished villager in Indonesia than to a Norwegian politician.

While we are critical of efforts to impose top-down environmental governance solutions, we are not suggesting that a bottom-up approach to environmental governance is the solution on its own. Sayer et al (2013) has clearly indicated that there are serious challenges at the local level (what he refers to as the landscape level) in governance. He concludes that in both the theory and practice of landscape-level approaches for agriculture, conservation and other competing landuses there are:

"*Numerous system influences and feedbacks affect management outcomes, but these impacts unfold under the influence of a diverse range of external influences and constraints…*"

The observations of Sayer et al. (2013) are consistent with numerous studies (Wells et al. 1999, McShane & Wells 2004) over the last three decades of the limited impacts of local conservation and development projects because they failed to integrate the key larger-scale social and economic drivers. Gockel and Gray (2009) noted:

"*A primary criticism has been that projects have failed to achieve either [a social or economic] goal. There has been little evidence that improving the economic well-being of people around protected areas will translate into conservation. Projects tended to give local inhabitants little actual access to, or control over, natural resources.*"

SUCCESSES

So, where are these indicators of successes, where policy makers have made efforts to use a multi-scale approach to deal with environmental governance problems? According to Hansen et al. (2013) Brazil is the one major tropical country where deforestation has declined in the last decade by over 70%. What can we learn from this? While Brazil is certainly engaged in the UNFCCC negotiations on REDD+, the country had already reduced deforestation significantly by 2010 from a high in 2004. Brazil did not wait for international consensus or for international funding. A study by Assunção et al. (2012) suggests that approximately half of the deforestation reduction can be attributed to policy initiatives by the Brazilian government and half to declining commodity prices. The key related policy initiatives in Brazil in the last decade have been the establishment of protected areas, indigenous territories and community forests. Collectively the policies cover over 40% of the Amazon. The 'Action Plan for the Prevention and Control of Deforestation in the Legal Amazon' was launched in 2004 and it set in motion integrated actions by federal ministries and state governments to establish the means to monitor deforestation, establish protected areas, crack down on illegal activities and provide incentives for improved management. Then starting in 2008, municipalities with high deforestation rates were provided with increased monitoring tools, legal enforcement mechanisms and rural credit access, all with the idea of working with local farmers. So, for example, in response to this initiative, Para state created a 'green municipalities' programme to provide technical support and incentives for reduced deforestation. Although there is some leakage of deforestation into neighbouring Amazonian countries and to the Cerrado forests, commodity price have increased for local farmers. These programmes have been funded mostly by Brazil itself and benefit from strong support in public opinion. The private sector, particularly in the

beef supply chain, which is a major driver of deforestation, has played a key role. It can be seen from the above that a multifaceted approach was taken involving international commitments and national, state and municipal actions.

Another success story in multi-scale approaches (and innovation) has been the California Governor's Climate and Forest Task Force to address climate change challenges and support forest conservation and management in Mexico and Brazil. It is an example of innovation led by state governments, again without waiting for international agreements or national legislation. California has instituted a state-level cap-and-trade system to reduce its greenhouse gas emissions. This includes provision for forest carbon offsets both from within California and from collaborating jurisdictions in the tropics. So far California has worked most closely with Acre in Brazil and Chiapas in Mexico. The approach taken has been innovative. California negotiated a set of principles and requirements for forest carbon offsets it will purchase but did not specify details about how the system will be implemented, leaving local participants to sort this out. In short, we have a global problem, climate change, being addressed by sub-national governments working with local participants. The multiple-scales are connected.

CONCLUSIONS

We believe that success in conserving and managing forests depends upon effective governance mechanisms that are transparent, participatory and accountable. It also requires tools to allow different policy actors to evaluate effectiveness at multiple scales: local, regional, national and international. Actions at one scale alone, whether global or local, is insufficient.

Faced with the urgency of combatting deforestation and forest degradation there is a temptation to revert to simplistic approaches and immediate solutions such as logging bans, timber boycotts and protected areas that exclude local communities. In an earlier paper we have argued against top-down 'grand design' solutions and instead proposed that forest problems require 'muddling through' (Sayer et al. 2008). The problem is that these grand design solutions do not work. We must not lose sight of the urgency of the conservation and management issues and public engagement is vital, but we also need the humility to recognise that we do not have all the solutions in hand.

What can work, as we can see from the example of Brazil and California, is agreement on principles at higher geographic scales and learning and adaptive management on the ground, with feedback loops connecting the two. Progress will still be vulnerable to increases in commodity prices and political changes (both of which have occurred in Brazil) but as long as national and international public opinion is supportive and civil society and the private sector are engaged we are confident that progress will be made. When it is made, it can be surprisingly fast. If you had asked any of us in 2004 whether Brazil could reduce deforestation in the Amazon by 70% we would have said it was impossible. Yet it has happened and this gives us optimism for the future.

Most current forest policy efforts do not have a connection between international, national, regional and local scales. This frequently leads to poorly designed solutions at any scale. We are not suggesting that policy solutions are only required at local level. Isolated local projects are frequently influenced by broader economic and political realities. Surely, for the sake of the forests and its people, we have to find the energy and will to address the key forest problems we face in the 21st century with a new approach to policy and a new suite of tools to measure our progress.

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