SIANI
Swedish International Agricultural Network Initiative

Towards sustainability in frontier landscapes: propositions for the way ahead

What are frontier landscapes and why are they important?

Frontier landscapes present some of the greatest challenges to sustainable development, but also great opportunities. These are geographically remote, scarcely populated areas that are being transformed rapidly by agricultural expansion and associated socio-economic changes. The population is usually a mix of established communities and recent arrivals, from very diverse backgrounds: from large-scale agri-business and mining operations geared to international commodities markets, to subsistence farmers.

As starkly different groups of people and interests come together in frontier landscapes, they often fundamentally change the landscapes' makeup and development trajectory. The rates of natural vegetation loss, land use change and social and economic fluidity are typically high. Governance is often weak, and as different actor groups compete over land and other natural resources, the rapid pace of change may lead to crucial decisions being made early on that have long-lasting ramifications.

Frontier landscapes bring into sharp focus many of the most pressing sustainability challenges faced by rural areas around the world: from slowing and preventing deforestation, to ensuring that development benefits more vulnerable communities, rather than weakens them. But how can such challenges be addressed, and how might policy goals and outcomes in a frontier landscape need to be different from those in regions that no longer have such high levels of natural capital, or socio-economic fluidity?

Devising specific governance strategies that effectively address the complexity of social and environmental change in frontier landscapes is no easy task. This policy brief, based on a multi-stakeholder forum at the Global Landscapes Forum in Lima, Peru, last December, starts from the recognition that there is no "silver bullet". In fact, there are very few successful precedents that can serve as a blueprint. Yet there is a growing knowledge base, building from both practical experience and academic research. Here we distil key insights into six propositions, aiming

Tackling difficult questions at the 2014 Global Landscapes Forum

The session "Moving targets: Challenges and opportunities for sustainability in 'frontier' landscapes"[1] was co-sponsored by SIANI, the Swedish International Agricultural Network Initiative, and EcoAdapt, an action-research project in three Latin American landscapes working to influence water management processes that contribute to local development and reduce climate change vulnerability.

We invited a wide range of policy-makers, practitioners and researchers to serve both as panellists and as respondents focusing on three key questions:

What best examples can be given of the conditions that foster both sustainable development and durable collaborations among a diverse group of actors in dynamic frontier landscapes?

How context-dependent are such success stories that we can identify, and what would help promote learning and positive outcomes in other landscapes elsewhere?

What mechanisms (e.g. institutions, incentives, safeguards, science-society interactions) are the most effective in connecting tailored, bottom-up solutions to sustainability problems with top down policies in a way that can reconcile conflicting needs and interests of diverse local actors?

The discussion brought together a wide range of perspectives and experiences from frontier landscapes across Latin America. We spoke about relative success stories, where changes in political representation, dialogue spaces, technology, information and

learning have facilitated positive social and environmental outcomes despite evident challenges. We also heard from mid- and high-level decision makers to assess how policy processes account for, and are informed by, the diversity of local interests and capacities. The results contributed to the Outcome Statement of the GLF.[2] We also disseminated a summary, in English and in Spanish, to invite follow-up discussion and reflection.[3]

Panelist Ronnie de Camino Velozo, Deputy Director General at CATIE participating at the "Moving targets: Challenges and opportunities for sustainability in frontier landscapes" session in the GLF 2014, Lima, Peru.
Photo: Javier Godar, SEI

1   For a detailed description and panellist list, see http://www.landscapes.org/glf-2014/agenda-item/day-2-dec-7/six-parallel-multi-stakeholder-discussion-forums-debates/10237-2/.
2   See: http://www.landscapes.org/wp-content/uploads/2014/12/2014-GLF-Outcome-Statement_web.pdf.
3   To download the summaries and learn more, see: http://www.sei-international.org/news-and-media/2988.

to contribute to the adoption of a more comprehensive and holistic approach to fostering sustainability in frontier landscapes across the developing world.

Fostering sustainability in frontier regions: 6 propositions
1. Opportunities for positive change are short-lived.
The rapid pace of change that characterizes so many frontier landscapes means that the window of opportunity to influence decisions is generally very narrow. It is crucial to act early to ensure more sustainable and equitable land tenure and access to natural resources. Waiting too long can mean that short-lived opportunities are not made the most of, which in turn may further exacerbate the imbalance of power and capacity among different actors, as land use and tenure systems rapidly consolidate.

The nature of this challenge was aptly captured by Tasso Azevedo, former lead climate negotiator for Brazil and leading entrepreneur for civil society action around sustainability. He emphasized the need to build social capital – the network of cooperative interactions between individuals and groups that can help deliver collective benefits – faster than the rate at which natural capital (including provisioning services to support agriculture) is eroded.

In the Zapoco watershed, in Bolivia's Municipality of Concepción, different groups of actors share concerns about access to clean and sufficient water. With support from EcoAdapt, they have formed a committee to explore new approaches to watershed management. Photo: Nelson Pacheco, EcoAdapt

2. To build a basis for collective action, establish common ground.
Rapid changes in the social make-up of frontier landscapes means that very different actors can become neighbours, often with very different world views, cultural backgrounds and levels of wealth, power and access to technology and information. In such situations, a vital first step for bringing people together is to focus on shared benefits or concerns, such as water resources, credit access, security issues or education. This can help establish the common ground necessary to later enable cooperation on more challenging and potentially divisive issues, such as how to tackle environmental degradation.

Starting by finding common ground is a well-established approach to conflict transformation, yet its importance comes into particular prominence in frontier landscapes where formal governance structures are often absent or weak. Here there is an especially urgent need to create and nurture spaces for constructive dialogue among groups of people who may be naturally wary of one another.

The EcoAdapt project offers a practical example. Gregoire Leclerc, one of the convenors of the GLF discussion forum and coordinator of the project, highlighted that water (and perceived issues around water security) can be a powerful "mobilizing resource", connecting both people and landscapes. It has provided the basis for multi-stakeholder engagement in frontier regions in Chile, Argentina and Bolivia. While identifying common ground among diverse actors is a basis for engagement, further collaboration can only be fostered through the development of institutions that can build and consolidate trust across the diverse communities that often inhabit frontier regions.

3. Institutional capacity is a prerequisite for incentive measures to succeed.
Incentives to change land use and access to natural resources need to be supported by strong and legitimate institutions, or else they are unlikely to deliver benefits in the long term. They may even lead to increased inequality and exacerbate the vulnerability of subsistence farmers and low-income landholders. This is a consequence of the sharply different capacity of actors to access such incentives, which may depend on capitalization levels, access to markets, level of education, and social capital more generally.

One way to build institutional capacity is to build new or strengthen existing spaces for dialogue , where diverse actors can come together to exchange knowledge, build trust and shared understanding, and be empowered to become part of a collective force to influence and make decisions. Such spaces can take many forms. Often they can be built within existing institutions, such as local farmers' groups, resource management associations, school governing bodies, and credit, church and sports groups.

Yet external actors are often needed to initiate and catalyse this process, noted Yolanda Ramírez, director of research and development at AIDER, a leading Peruvian NGO focused on sustainable development and conservation.[4] However, an important point raised in the Lima discussion was that many institutions working on sustainability are not perceived to have the necessary legitimacy among local actors to perform this vital role.

Experience from the work by the EcoAdapt project on developing multi-actor platforms in Chile, shared by panellist Washington Alvarado, indicates how challenging the task of developing institutional legitimacy can be. One way to overcome this is to work with "boundary actors", often drawn from civil society, who have legitimacy and credibility in the regions where they work, and can help external actors gain the trust of local people. Effective boundary actors are perceived by local actors as playing a proactive and continuous leadership role; are adaptive to changing local conditions, and have the ability to combine different views and types of knowledge into an integrated vision of development in the region. Boundary actors were also highlighted as playing an

A cattle farmer in the Santarém region of the Brazilian Amazon explaining the adoption of experimental management techniques to increase productivity while also reducing environmental impacts
Photo: Karoline Gonçalves

important role in translating and communicating information so that it is accessible, transparent and useful for decision-making.

4. Political support and a clear regulatory framework facilitate inclusive development.

It is difficult to foster a strong commitment to sustainability among diverse actors in a frontier landscape, while also ensuring a high level of social inclusion and active participation in development planning processes. A key element in making this possible is a strong commitment from government authorities, combined with clear rules of engagement.

However, central to the notion of a frontier region is the fact that formal government structures are often lacking. Land tenure arrangements are often poorly defined, and regulatory agencies may be poorly staffed, with little on-the-ground presence. The difficulties posed by this situation require enhanced political commitment and creativity that can, in turn, provide a reliable legislative underpinning to help guide and reshape the rapid changes that are taking place. The goal should be to create programmes and agencies, or strengthen existing ones, that are tailored to deal with time-critical sustainability problems, and to negotiate across diverse sectors and stakeholder groups.

Involving authorities from the beginning of any multi-stakeholder process, securing their commitment and promoting their leadership role is critical in gaining political buy-in and support for more equitable and inclusive approaches to regional development. Some innovative public sector-led governance arrangements are emerging, and while they all have their limitations, they show promise.

One example is Peru's Ministry of Development and Social Inclusion,[5] established in 2011. The economist Carolina Trivelli, who led the Ministry for most of its first two years, reflected on the work done so far: "Improving poverty indicators and reducing gaps has been an intense process, but more is needed to address the marginalized that are lagging behind, mostly those in rural areas."

Another promising initiative is the Brazilian state of Pará's Green County Programme[6] which was set up to integrate cross-departmental agendas in an effort to reduce deforestation and promote sustainable development in areas of agricultural expansion.

Among the most distinctive and creative approaches are the Mother Earth Law and the Joint Mechanism for Adaptation and Mitigation adopted by Bolivia. Diego Pacheco, Bolivia's lead climate negotiator and a panellist at the Global Landscape Forum, said the goals of the Law are to strengthen local government systems; support participatory planning processes and agreements between different groups of actors; improve collaboration across government departments; and establish adequate information systems to monitor environmental change that also account for local traditional perspectives and qualitative indicators of environmental sustainability that go beyond carbon emissions.

5. Legitimate and sustainable development strategies require valuing actor diversity.

Governing frontier landscapes often comes with major challenges and tensions. There is an obvious need for policies that account for actors' different situations and interdependencies, particularly the vulnerable position of smallholder farmers, who often make up a large share of the population. At the same time, regional and national governments – and the private sector – often have a strong preference for mainstream, simple, uniform and short-term policies and measures.

Meeting farmers in the Model Forest Jujuy, Argentina, to discuss measures that could improve their current irrigation system
Photo: Graciela Giner

The standard approaches, often designed for more homogeneous settings such as agro-industrial regions, may be supported by well-established and widely recognized support systems. They are also easier and cheaper to implement and monitor, given the limited capacity and resources that is characteristic of many frontier regions.

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5   See http://www.midis.gob.pe/files/doc/midis_politicas_desarrollo_en.pdf.
6   See http://municipiosverdes.com.br.

The Model Forest Araucarias del Alto Malleco, Chile, is one of the landscapes where the EcoAdapt partners are working on developing climate change adaptation strategies based on integrated water management
Photo: Washington Alvarado

Yet when applied to disparate sets of actors, they may be socially unjust, inefficient and counter-effective – for example, when the penalties for deforestation are large fines that poor farmers simply cannot pay.

There are at least three potentially complementary ways in which actor diversity can be more effectively taken into account in the design of improved policies for frontier settings:

1. Sustainable development policies can be tailored to the differentiated responsibilities, practices and capabilities of specific actor types.
2. Safeguards and provisions to ensure equity and legitimacy can be included as part of any sustainable development policy or incentive measure targeted at a specific group, to avoid unintended negative impacts on actors who were not being targeted. This can also help avoid exacerbating power asymmetries, and capitalize on cost-sharing opportunities or synergies.
3. Policies can seek, from the outset, to explicitly account for, and make the most of, the interactions and interdependencies that exist among different actors, such as through knowledge-sharing mechanisms to support more locally appropriate and sustainable management of natural resources.

6. Monitoring change for sustainability can be hard, but is vital for achieving success.
In the context of rapid environmental and social change that is so characteristic of frontier landscapes it is critical to develop the capacity and mechanisms to measure and track progress in relation to sustainability, including social, ecological, economic, political and institutional aspects. The purpose is to encourage systematic reflection and adaptive management, instead of imposing prescriptive and linear modes of project delivery that may lead to unsustainable outcomes.

Integrated mechanisms to monitor social and environmental change, including governance, are lacking from most frontier landscapes around the world. This has reinforced and widened the gap between theoretical solutions and on-the-ground realities, often resulting in the overuse of resources, increased power asymmetries, and in potentially misleading narratives.

Building on success: the path ahead
These six propositions are only part of what is needed to foster more sustainable, legitimate and inclusive development in frontier regions. Through this brief we hope to encourage dialogue, not only about challenges, but also about examples where real progress and partial successes have been achieved. Success stories can help motivate new initiatives and build support across groups of otherwise isolated and potentially sceptical actors.

That said, the difficulty always remains in understanding the extent to which any given success story is context-dependent, or how well it can be scaled up or replicated elsewhere. By encouraging a more dynamic process of knowledge exchange among different groups working in frontier regions, researchers and practitioners can do a lot more to support learning about more effective governance approaches.

A major research and policy challenge remains in understanding how we can truly foster systemic, large-scale changes in governance to account for the diverse and fluid makeup of frontier regions. Yet it is in precisely these frontier regions, the social-ecological characteristics of which can change so rapidly, that the time needed for learning and action is in shortest supply.
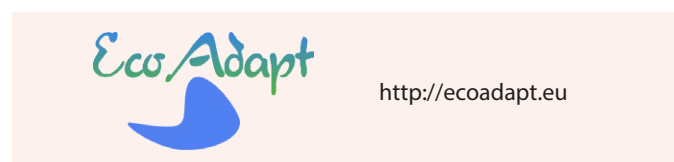
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