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Publisher: Taylor & Francis

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Journal of Sustainable Forestry

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/wjsf20>

Restoring Landscapes—Governing Place: A Learning Approach to Forest Landscape Restoration

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Accepted author version posted online: 27 Jun 2013. Published online: 09 Sep 2013.

To cite this article: Cora van Oosten (2013) Restoring Landscapes—Governing Place: A Learning Approach to Forest Landscape Restoration, *Journal of Sustainable Forestry*, 32:7, 659-676, DOI: [10.1080/10549811.2013.818551](https://doi.org/10.1080/10549811.2013.818551)

To link to this article: <http://dx.doi.org/10.1080/10549811.2013.818551>

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Restoring Landscapes—Governing Place: A Learning Approach to Forest Landscape Restoration

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Forest landscape restoration is gaining ground, not least because of the role of forests in mitigating climate change. At present, pilot projects are initiated to generate “good practice” and “lessons learned” that can be scaled up to higher levels of policy making. However, landscape restoration is not new. People have always been constructing and restoring their landscapes to safeguard their livelihoods. A better understanding of existing local practice will help in identifying and implementing new restoration initiatives, and assure sustainable outcomes. Understanding local restoration practice means: (a) understanding how the biophysical conditions of landscapes are reshaped over time through the collective decisions of a landscape’s inhabitants; and (b) understanding the governance mechanisms underlying these collective decisions. Thinking of governance from a landscape perspective adds a spatial dimension to governance as a means of reconnecting governance to landscape, citizenship to place. This offers the opportunity to cross administrative and political boundaries, allowing for broader groups of actors to engage in spatial decision making. Constructing networks across scales thus becomes an instrument for enhancing learning processes within and between landscapes and a means to scale up good forest

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landscape restoration practice for wider application at a global scale.

KEYWORDS forest, landscape, restoration, governance, practice, institutions, spatial decision making, learning

FOREST LANDSCAPE RESTORATION: GLOBAL DEMANDS VERSUS LOCAL PRACTICE

Forest landscape restoration is of growing importance. Initially driven by the need to rehabilitate watershed areas, control desertification, and rehabilitate degraded productive land, forest landscape restoration has more recently been driven by a desire to restore biodiversity and mitigate climate change. The latter motivating factor is because it is increasingly recognized that the conservation and maintenance of existing forests is not enough and that restoration of the world's lost forests is necessary to mitigate the negative impacts of climate change. Studies show that no less than 2 billion ha worldwide offer opportunities for restoration, representing an area larger than Latin America (Global Partnership on Forest & Landscape Restoration, 2011). Moreover, forest landscape restoration aims to reconcile ecological and economic interests, offering opportunities for both conservation and direct foreign investment in commercial production. At a recent conference of the Global Partnership on Forest and Landscape Restoration in Bonn, a commitment was launched to restore 150 million ha of lost forests and degraded lands worldwide ("The Bonn Challenge," September 2011¹). The 150 million ha restoration target directly relates to existing international commitments, including the Convention on Biological Diversity, which calls for the restoration of 15% of degraded ecosystems by 2020,² and the UN Framework Convention on Climate Change, which calls for countries to not just halt but reverse the loss and degradation of their forests.³ Forest landscape restoration therefore seems to have become fully incorporated in global environmental politics, offering an opportunity to satisfy the global demand for carbon storage with quantifiable results (Global Partnership on Forest & Landscape Restoration, 2011). To this end, the restoration potential of specific countries and landscapes is currently being assessed, and instruments to measure restoration outcomes as well as innovative financial mechanisms to support large-scale restoration projects are being developed (Global Partnership on Forest & Landscape Restoration, 2011). The big questions are where to start pilot project activities, how to build up a coherent body of knowledge, and how to upscale good practices and lessons learned, to be translated into policy guidelines for wider application at the regional or global scale.

How does this global debate on forest landscape restoration relate to local restoration as practiced by landscape inhabitants who, over centuries,

have shaped their lives and livelihoods according to their individual and collective needs? How does it relate to the complex local ingenious systems of extraction, exploitation, and protection that have emerged out of the local ecological, economic, and social conditions of place? How does it respond to a landscape's inhabitants and their identities, as expressed in their collective sense of belonging, as they have been engaged in local decision-making processes concerning the management, conservation, and restoration of the landscapes they consider to be theirs?

Restoring forested landscapes from a local practice perspective means that forests need to be considered as part of the livelihood systems of a landscape's inhabitants, which includes the production of food, the generation of income, and maintenance of a socio-cultural identity. It also means that landscapes need to be considered as part of wider economic and political networks, such as value chains and regional political processes. This implies that landscape decisions are not based on local conditions alone, but also on processes and networks transcending the physical and politico-administrative landscape boundaries, as landscapes are increasingly linked to the wider world of global economic and political trends (Wiersum, 2004; Massey, 2005; Görg, 2007). Such an integrated, multilayered perspective on landscapes opens up opportunities to link global interests to local practice, through the multiple networks and dynamics in which landscapes are usually embedded. Would these networks enable local practice to be scaled up and transformed into policy guidelines to be applied in other contexts? What are the governance mechanisms at the landscape level that allow for global policy agendas to be embedded in local space? How can deep understanding be obtained of located landscape dynamics, and how can these be tallied to global restoration goals? The following sections aim to answer these questions by providing insight into how governance mechanisms operate at the landscape level, and by critically assessing their "scalability" to higher levels of policy making. The ultimate aim is to find a way to bridge the gap between local restoration practice and forest landscape restoration at a global scale.

UNDERSTANDING LANDSCAPES: WHERE LOCAL AND GLOBAL MEET

It is hard to find a single definition of landscapes as the concept of landscape can be approached from different disciplinary viewpoints. Landscape ecologists tend to emphasize the importance of a landscape's ecological "matrix." Instead of focusing on the conservation of single habitats, they rather focus on larger areas, in which a strong ecological structure enhances species' migration and mobility, thus conserving biodiversity at higher spatial levels. Strong ecological matrices can be found in naturally shaped landscapes, but also in mosaic landscapes with high levels

of agro-biodiversity (Fleishman, Ray, Shogren-Gulve, Boggs, & Murphy, 2002; Perfecto, Vandermeer, & Wright, 2009; Hecht, 2011). Based on this insight, many conservation organizations have moved from the conservation of single habitats to the conservation of larger landscapes by strengthening their internal connectivity (Sayer & Boedhihartono, 2009). Geographers and spatial planners do not contest this view, but they add the importance of anthropogenic influence, which increases the complexity of landscapes. Anthropogenic landscapes, they argue, are the result of human influence on natural systems, predominantly shaped by the productive land-use systems developed by a landscape's inhabitants (Wiersum, 2003). Productive land-use systems do not necessarily reduce the biodiversity of natural ecosystems; they can also enhance this by creating new landscape elements that increase the biocultural diversity of landscapes (Wiersum, 2003). This insight has led to an increased appreciation among conservation organizations for multifunctional land-use systems in which both production and biodiversity functions are valued because they offer scope for the ecologically sound and economically productive use of landscapes (van Noordwijk, Tomich, de Foresta, & Michon, 1997; Hobbs & Morton, 1999).

To add to the understanding of multifunctional land-use systems, landscapes can be considered as mosaics of heterogeneous land forms, vegetation types, and land uses "pieced together to form an overall landscape-level patchwork," emphasizing the internal coherence between the various components of a mosaic (Urban, O'Neil, & Shugart, 1987; Gilmour, 2008). Görg (2007) goes one step further by stating that the concept of landscape provides a bridge between the natural-spatial conditions and societal production in a particular place. According to Görg, landscape refers to the "spatial-temporal aspects of the metabolism between nature and society," framing landscape as a realm of human-environment interaction, tagged into place. Social scientists like Taylor (2008) add the strong emotional attachment of inhabitants to their landscape, forming the basis for identity, belonging, and a strong sense of place. In this way, shaping the landscape becomes "making place," building stories and memories, and promoting a sense of local distinctiveness, a process that can be actively strengthened through dialogue, storytelling, naming, mapping, and using landmarks as symbols for regional identity, as shown by Buizer and Turnhout (2011) and van Oosten (2004, 2006, 2010). Place making, they say, can trigger collective concern, and mobilize stakeholders at various levels and scales to collectively shape, sustain, and restore their landscape. In this interpretation, landscapes become intersections of overlapping social networks, where the multiple identities of landscapes can merge. It is this multilayered interaction that is represented by a landscape, meaning that landscapes are not tied to clear geographical boundaries, but are constructed across time and space, through human interaction within a particular spatial setting linked to a wider world (Massey, 2005). Place making is closely related to the issue of ownership;

without having the right to access or resource use, there is neither a sense of responsibility nor place. This is why Diaw (2010) links place making to the concept of *space granting*, referring to the legal and institutional environment which allows people to make place.

Landscapes not only represent harmonious social relations; on the contrary, landscapes often represent contestation and spatial conflict (contested land tenure, competing claims to resources, local versus global production, production versus conservation, etc.). This turns “place making” and spatial decision making into difficult political processes involving the mediation of competing claims and conflicts, and negotiating outcomes that may themselves be contested because of power struggles and information imbalances between actors operating at various scales (Giller et al., 2008). In particular, the issue of restoration may trigger conflicts related to land tenure and resource access. Studies have shown that large-scale investments in reforestation increase the risk of creating new claims on forested landscapes that may potentially overlap with existing claims, thus creating or exacerbating existing conflicts over land-use rights and resource access (Sikor & Lund, 2009; Dressler, McDermott, Smith, & Pulhin, 2012). Restoration therefore has to be implemented with great care, while considering local circumstances; i.e., local livelihood systems, tenure regimes and institutional frameworks specific to the landscape. It requires clarity on rights and responsibilities of different actors involved, as well as a fair justice system which allows for conflict resolution and recourse whenever needed. It also requires strong participation by landscape stakeholders at various levels and scales, which may imply complex decision-making processes involving divergent stakeholder interests, hard negotiation, and potential trade-offs (Sayer et al., 2013).

FOREST LANDSCAPE RESTORATION: FROM MANAGEMENT TO GOVERNANCE

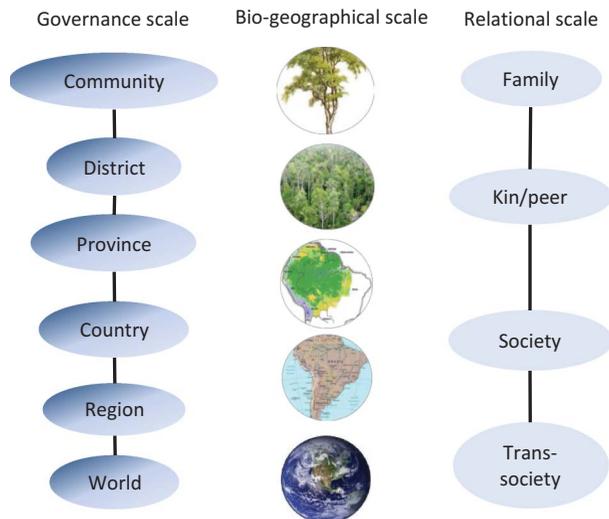
Forest landscape restoration is often approached as a management practice. There are many handbooks and guidelines on *how* to manage and restore degraded landscapes from a biophysical perspective (suitability of soil types and plant species) or an ecological perspective (strengthening the matrix). This has led to a range of restoration programs presented as local initiatives that can be scaled up to higher levels of implementation, once the appropriate management conditions are in place (Sayer, Buck, & Dudley, 2008). This approach fits into the ecological approach of strengthening the physical and ecological dynamics within the matrix, associated with formal ex-ante stakeholder engagement followed by a technically driven planning process, with little attention to issues like the social or economic relevance of species and land or tree ownership (Sayer & Boedhihartono, 2009).

As a reaction to this, a more reflective approach of on-the-ground engagement ('muddling through') has emerged, which is marked by a more reflective and adaptive form of management (Sayer, Bull, & Elliot, 2008). Within such an adaptive management approach, it is generally recognized that natural systems and social systems co-evolve, and their management has to be sensitive and responsive to constantly changing circumstances through intense monitoring and social learning (de Boo & Wiersum, 2002). The planning of management practices is therefore not just a technical management process based on specialist insights but embedded in processes of participatory decision making, taking into account the pluriformity and dynamics of stakeholder interests and power positions. Thus, the adaptive management of landscapes considers forests as parts of larger spatial units, feeding decisions on multifunctional land use at the landscape level that are not only reflecting locally applied management practices but also the changes in resource access, land-use rights, and marketing arrangements (de Boo & Wiersum, 2002). It considers not only the question of *how* to restore, but also *what* and *where* to restore, which once again comes back to the issue of land tenure and the question of who decides.

However, looking at landscapes as complex systems having multiple, conflicting benefits for a variety of societal demands, choices, and trade-offs implies that adaptive and reflective management is not enough. Besides (adaptive) management, governance is also required. Governance, sometimes defined as "whole system management," sets out the institutional framework within which management can thrive (Ros-Tonen et al., 2008). Therefore, a governance framework encompasses not only the management arrangements but also the institutional arrangements such as laws, tenure arrangements, productive agreement, and the norms and principles that guide productive behavior (Ros-Tonen et al., 2008). In the context of forest landscape restoration, the difference between management and governance is that the latter defines not only how, what, and where to restore, but also *for whom* landscapes are being restored. "Good" landscape governance would therefore provide an enabling environment in which forest landscape restoration can thrive. It would provide the institutional space for stakeholders to bargain and negotiate, based on their interests; it would allow for place making and space granting, for landscape actors to make spatial decisions in a democratic and transparent way. But are there appropriate institutions at the landscape level for stakeholder negotiations and decision making? Are there mechanisms for transforming negotiated decisions into rules and regulations regarding the landscape, while being linked to administrative structures and accountability systems already in place? In other words, is there room for governance at the landscape level? And if so, how would such landscape governance work?

Literature on landscape governance is not readily available as most governance literature focuses on formal state structures in which governments,

citizens, civil-society organizations, and private companies use the existing democratic structures of states to govern public space. The United Nations Development Program (UNDP, 2004), for example, explains how governance is usually exercised within the politico-administrative constellation of nation-states, including their political constituencies and administrative units, with human interactions being framed by institutions at all levels of human enterprise (household, municipality, district/province, nation, region, globe). This is based on a general consensus that citizens articulate their interests, exercise their rights and responsibilities, and regulate power amongst those who govern and those who are governed, all framed in processes of political decision making within the boundaries of democratic state structures and public administration (UNDP, 2004). But such boundaries usually do not coincide with the biophysical, ecological, or sociocultural boundaries that define the landscape. This is visualized in Figure 1, which shows the incongruity between scales of governance, biogeographical scales, and relational scales—all of which are essential elements of what is called landscape. So once again, how are decisions regarding the landscape being taken, and what are the existing mechanisms guiding negotiation, decision making, and trade-offs at the landscape level? Is there room for landscape governance moving beyond politico-administrative boundaries, matching the biophysical, ecological, and socio-cultural characteristics of the landscape to the political and administrative structures of states?



Freely adapted from Cash et al, 2006

FIGURE 1 The incongruity between governance, biogeographical, and relational scales (color figure available online).

LANDSCAPE GOVERNANCE: ADDING A SPATIAL DIMENSION TO GOVERNANCE

Based on the previous sections, it can be concluded that politically and administratively defined governance structures rarely coincide with the spatial characteristics and boundaries of landscapes. This is most apparent in “developing countries,”⁴ where political boundaries originated in rivalries between colonial powers, ignoring social, cultural, and environmental notions of place. Present-day processes of state reform, such as the decentralization and devolution of spatial decision making, are equally dominated by politico-administrative hierarchies of scale and do not take into account the spatial dimension of landscape characteristics and regional identities. This phenomenon has disrupted the “natural” connectedness between landscape dynamics and its inhabitants—between people and place.

The lack of such a spatial dimension in the current governance debate is recognized by Görg (2007), who stresses the importance of “restructuring the spatial dimension of politics.” He emphasizes the interconnections between socially constructed spaces and the natural conditions of place. He interprets the term *landscape* as bridging the gap between social and natural sciences, and *landscape governance* as a means of reintroducing the spatial dimension and the relevance of spatial scales. Such a *spatialization* of governance could respond to society’s need for a sense of place, thus confirming that, despite globalization, place does matter. If mosaic landscapes are considered to be spatial reflections of multiple networks cutting across ecological, geographical, and political scales, then landscape governance would logically follow a network approach. According to such an approach, multiple actor networks operate at different political scales, but they all converge in or around the landscape, or the place they consider to be “theirs.” It is the landscape that represents their shared interest; the continuity of their landscape that triggers collective concern and action. Without denying the existence of competing claims and conflicts, the collective space of the landscape provides the institutional space for dialogue in an otherwise conflictive process of negotiation, marked by power imbalances and strife, especially when it comes to issues of land tenure. Landscape governance would therefore not be a linear planning process targeting a single management outcome within a defined geographical area, but a highly volatile and unpredictable process of negotiations and trade-offs with multiple outcomes (Sayer et al., 2008). If landscape actors are entangled in overlapping networks connecting spatial and political levels and scales, then landscape governance represents the multiple-scale interface between the local and the global. It provides the missing link between multilevel politics and the specific natural-spatial conditions of place, and an appropriate realm for governance to be practiced (Görg, 2007).

LANDSCAPE GOVERNANCE: AN EXAMPLE FROM
SOUTHWEST AMAZONIA

An illustration of landscape governance in practice can be found in southwestern Amazon, an approximately 300,000 km² border region which is comprised of the adjacent borderlands of Madre de Dios in Peru, Acre in Brazil, and Pando in Bolivia (MAP) (Figure 2). In the past, this transboundary landscape has been affected by multiple border disputes and conflicts over land and resource rights. Since the turn of the 21st century, the area has been marked by drastic environmental change caused by the construction of the Inter-Oceanic Highway, which is part of a multinational infrastructure development, aimed at connecting Latin America's resource rich areas to the emerging Asian markets. This road construction triggered great concern among local stakeholders, who saw their forested landscape turn into a gross producer of raw natural resources (timber, gas, oil, soybeans, and sugarcane). They not only feared an erosion of their livelihoods based on the extraction of forest products, but also a further deterioration of their cultural identity through immigration and further uptake into the global economy (van Oosten, 2004, 2006). A first meeting of concerned citizens was organized in 1999, convened by the University of Rio Branco (Brazil), bringing together a wide range of stakeholders from Madre de Dios, Acre, and Pando (the MAP region). The outcome of this meeting was the shared vision that, within the context of regional development, the landscape's identity and sustainability could only be safeguarded through collective action. Given the multiple interests of stakeholders, it was decided that the academic world should play a critical role in the development of such a landscape approach, and a multilateral agreement (Declaración de Rio Branco) gave birth to the "MAP initiative," a multistakeholder initiative that aims for the development of a landscape approach geared toward sustainability and human progress. A new geographical map was drawn, a logo was designed, and a trinational monument was erected to symbolize the landscape's shared future; all of which provided a breeding ground for many initiatives to emerge, within one common framework (van Oosten, 2004, 2006, 2010).

In subsequent years, MAP meetings were organized on various landscape-related topics—such as land tenure and land reform, the construction of the Inter-Oceanic Highway and its positive and negative impacts on the landscape, land conversion within the MAP landscape, restoration of the landscape's forest and water resources, new market opportunities for timber and non-timber forest products, climate change, and landscape arrangements in the field of Payment for Environmental Services (PES) and Reduced Emissions from Deforestation and forest Degradation (REDD). Government institutions, NGOs, community organizations, farmers, indigenous peoples, private companies, politicians, and other landscape stakeholders participated

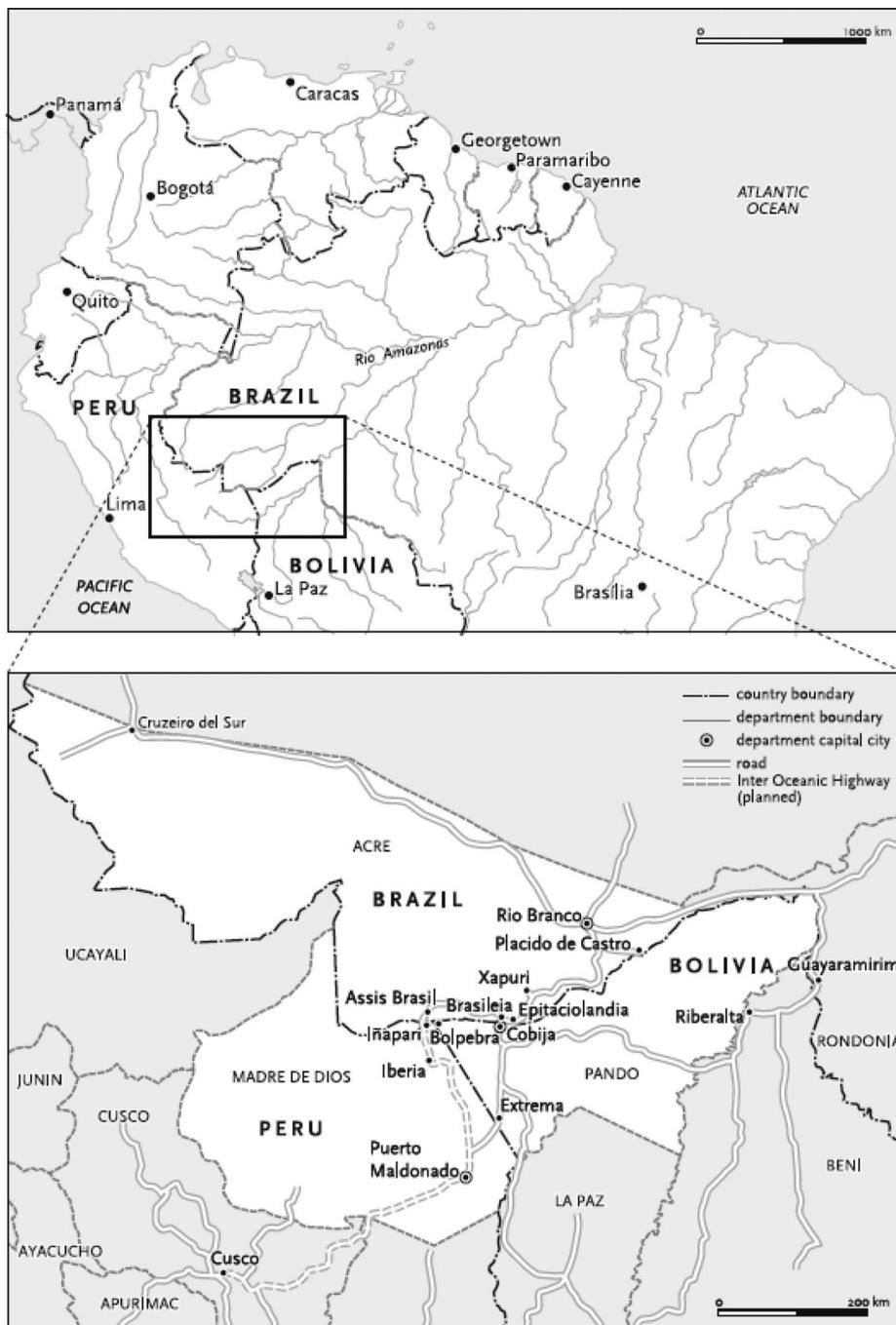


FIGURE 2 Southwestern Amazon, comprised of the adjacent borderlands of Madre de Dios in Peru, Acre in Brazil, and Pando in Bolivia (Source: van Oosten, 2010).

in the meetings. This profusion of encounters resulted in a strong network of stakeholders exchanging experiences and engaging in a polycentric inter-institutional learning process across multiple borders, fostering numerous cooperative agreements. Within this process of crossing multiple borders, the three universities continued operating as network brokers, strengthening the process with data, and assuring a transparent flow of information (Perz et al., 2010; Perz, 2012). In relation to forest landscape restoration several activities were developed: exchange of experience with different land tenure arrangements within the region, recuperation of the degraded transboundary watershed of the transboundary river Acre entailing community action throughout the watershed, harmonization of the legal frameworks for watershed management in the three countries, and the drafting of a transboundary water management plan. Moreover, several actions were taken to revive the rubber production in the region, through transboundary exchange of rubber processing techniques, joint exploration of new markets for sustainably produced rubber, and the construction of a condom factory through public-private investment in Acre. Currently, patches of degraded forests are being restored with small-scale rubber plantations that fit into the landscape's ecology, its production system, and its sociocultural character. Despite historical conflicts and border disputes, the transboundary landscape of MAP developed into a scene for vivid landscape learning, because its inhabitants have taken up the challenge of creating collaborative networks across borders and appealing to the landscape's own identity, while transcending its boundaries to tap into global networks of production and political action (van Oosten, 2006; Brown, Brilhante, Mendoza, & Ribeiro de Oliveira, 2002; Perz et al., 2010; Perz, 2012).

The success of landscape governance in southwestern Amazon within its complex socio-economic and institutional context can be attributed to a number of factors:

1. a rapid uptake of the landscape into the global economy, triggering local concern;
2. stakeholders' ability to overcome diverging interests and learn collectively;
3. active participation of universities, governments, NGOs, and private companies in a network of landscape learning across borders, sectors, and scales;
4. incorporation of the learning process in wider networks of national and international decision making;
5. tangible outcomes, in the form of increased market opportunities and restoration projects which fit into the local context.

The spirit of the MAP initiative is best illustrated by the slogans that have been developed over time, like "*construindo uma historia de cooperação para desenvolvimento da região MAP*" ("constructing a story of collaboration

for the development of the MAP region”) and “*cambios globales, soluciones regionales—sociedades locales diseñando soluciones regionales*” (“global change, regional solutions—local societies designing regional solutions”), which express perfectly the aim of the MAP initiative: landscape inhabitants who, despite global challenges and local change, take the restoration and further development of their landscape into their own hands.

LANDSCAPE GOVERNANCE AS LANDSCAPE LEARNING

The process of collaborative learning embedded in larger economic and political processes found in southwestern Amazon is in line with Görg (2007) and van Paassen, van den Berg, Steingröver, Werkman, and Pedroli (2011), who both claim that landscape governance entails multiple actors engaged in multiple and partly overlapping networks, interacting, exchanging, and collectively learning across levels and scales. Van Oosten, Görg, and van Paassen thus agree that collaborative learning is an indispensable element of landscape governance: collaborative learning based on a shared understanding of natural-social interactions within a landscape, with the potential to help landscape actors to better understand, explain, or predict those processes taking place in, or having an impact on, their landscapes. Such *landscape learning* follows a problem-focused approach in which policy makers and practitioners do not necessarily strive for “win-win” negotiations that tend to privilege compromise over problem solving, but engage in a multistakeholder process of mobilizing knowledge, identifying and sharing good practice, and developing stakeholders’ capacities to operate across levels and scales (International Union of Forest Research Organizations [IUFRO], 2011).

In order to facilitate collaborative learning at the landscape level, it is useful to have a better understanding of how societies learn and how learning is related to the spatial context in which it takes place. Such socio-spatial learning is defined as “a continuous dialogue and deliberation among scientists, planners, managers and resource users to explore problems and their solutions; communication together with experimentation which allows for a constant adaptation to adjust and improve management” (Maarleveld & Dangbégnon, 1999, quoted by de Boo & Wiersum, 2002). Moreover, elements like capacity building, conflict mitigation, definition of rights and responsibilities, stakeholder negotiation, and political decision making have been added as important elements of social learning (Buck, Wollenberg, & Edmunds, 2001), which links social learning to the broader concept of governance.

In an attempt to operationalize social learning, Wenger (2000, 2006) introduces the concept of *communities of practice*. Communities of practice are formed by people “who engage in a process of social learning

in a shared domain of human endeavor; because they share a concern or a passion for something they do and learn how to do it better as they interact regularly” (Wenger, 2006, para. 3). Members are practitioners who develop a shared repertoire of resources (experiences, stories, tools, and ways of addressing problems) and use these to create a shared practice. It is this experience of sharing practice that creates a sense of “belonging,” or group identity, to which members adhere. Social learning systems, be it organizations, societies, or landscapes, thus become constellations of communities of practice, each taking care of a specific aspect of reality, a specific practice. Since most people—inhabitants or citizens—are members of more than one community, they constantly move from one community to another, thus building bridges across communities, stretching their boundaries, reconfiguring relations, and creating networks of practitioners who, despite differences in professional background or specific interests, are all connected through one common background element. It is this common background that forms the basis for social cohesion, generates collective insights, and strengthens the sense of belonging to an organization, a society—or a landscape (Wenger & Snyder, 2000; Wenger, 2006).

The concept of learning communities fits the example of landscape governance in the southwestern Amazon, in which landscape stakeholders took part in a profusion of practical learning activities, linked together in a learning network or community of practice involved in spatial learning. It tallies with Keen’s notion of spatialized social learning, which is defined as “the collective action and reflection that occurs among different individuals and groups as they work to improve the management of their own environmental relations” (Keen, Brown, & Dyball, 2005, p. 4). Such landscape learning requires clarity on the rights and responsibilities of actors involved, allowing actors to overcome their divergent interests and start building metaphorical bridges to construct a common identity for their place. In this way, learning not only happens within communities of actors sharing compatible interests, thus *connecting the likewise* (Castells, 2009; Leeuwis & Aarts, 2010), but also connecting those with conflicting interests, reconfiguring their interdependent relationships, and triggering a common concern (Leeuwis & Aarts, 2010; Wals, van der Hoeven, & Blanken, 2009). It can be effective only if asymmetries of knowledge and power between different stakeholders are taken into account and effectively taken care of; something which requires a well-designed and facilitated process within a conducive learning environment (Giller, 2008).

Following the above, landscape learning can be described as a form of social learning within a specific spatial setting—a landscape. It can be perceived as a fluid process of interacting communities of practice, each having different spatial interests but sharing a common sense of place. Since community members move within and across communities, they learn more about the complexity of their landscape and the challenges of its governance.

Linking these learning processes at multiple scales of spatial decision making helps to increase understanding, interaction, negotiation, and collective action across scales. In other words, it helps *stretching beyond the local fix* (Lange & Büttner, 2010), linking local problems to larger landscape dynamics. New landscape institutions such as multistakeholder and multiscale learning networks, as in the MAP region, are anchored locally in shared identities and common concerns. They form the basis of landscape governance as an instrument for re-establishing the connection between politics and place, between citizens and their environment, and between the local and the global.

CONCLUSION

Forest landscape restoration is playing an increasingly important role in global environmental policies. There is a demand for pilot experiences to be scaled up, and multiplied to give a wider scale of operation. This assumes that restoration is a scalable management practice embedded in spatial planning procedures. However, forest landscape restoration could also be perceived as a governance practice in which landscape actors analyze their options, negotiate their interests, and decide what is to happen in the landscape they consider to be theirs. A complicating factor in this interpretation, however, is that landscapes are usually not represented in formal constellations of governance and their institutional arrangements such as law, regulations, political mandates, and the delegation of power. Nevertheless, landscape governance does exist in practice. Albeit not officially embedded in administrative and political scales, landscape governance is performed through informal institutions built upon landscape-related networks, identities, memories, and shared practices across scales. Embedded in such informal yet functional landscape institutions, forest landscape restoration has the potential to bring together stakeholders who, despite their diversity and heterogeneity, share a common sense of place. A good example of this can be found in the MAP region, where stakeholders of a transboundary landscape found each other in a process of “place making.” Crossing their national and sociocultural boundaries, they constructed a vivid community of practice, which helped to overcome competing interests and nurtured multistakeholder dialogue across levels and scales. Within this community of practice several forest landscape restoration initiatives were developed and successfully implemented.

In the MAP region, it was the informal character of the community of practice that made the restoration initiatives thrive, as knowledge, ideas, and experiments could freely travel across borders and scales. However, at a certain point the initiatives were formalized and linked to larger political networks, to become embedded in formal processes of spatial

planning (transboundary management plans, public-private investments). Institutionalization of landscape governance through formal arrangements may thus help to better structure forest landscape restoration initiatives, and embed these in formal processes of policy making. But this may also weaken restoration initiatives, as formalization may take away the collective learning spirit out of which they were born. Further research is therefore needed to understand how processes of landscape learning are linked to larger policy networks, to what extent these could be formalized, how such more-or-less formalized arrangements would look, and which are the key factors and pre-conditions for their success. Such understanding would be an important step toward restoring and constructing more sustainable and inclusive forested landscapes across the globe.

NOTES

1. "The Bonn Challenge," September 2011, available at (<http://www.ideastransformlandscapes.org>).
2. CBD Strategic Plan Target 15.
3. The REDD+ goal and the Cancun COP 16 decision on reversing forest and carbon loss and enhancing forest carbon stocks.
4. Although the term "developing countries" refers to the old dichotomy between "developed countries" and "developing countries," which no longer exists, the term is being used here to refer to political systems that have been subject to strong exogenous influences, in this case by colonial powers.

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