

Exploring forest landscape governance: practice, institutions, societal learning and the role of education

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Abstract: Forest landscape governance represents an integrated approach that has helped the shift from sector-based and fragmented forest management to a more integrated one, which looks at forests as part of larger spatial units, integrating ecology with economy and socio-cultural identity of place. It differs from decentralised forest governance in the sense that it does not necessarily follow decentralised state administrative structures. Instead, it follows the socio-ecological boundaries of landscapes, as domains for spatial decision-making. It sees forested landscapes as a more appropriate scale for forest governance than decentralised state structures, as they allow land use options to be harmonised, competing claims reconciled and trade-offs negotiated within their spatial setting. The global shift from government-steered to society-steered governance has weakened state control over spatial decision-making, and therefore offers new opportunities for forest landscape governance to emerge. Where forest landscape governance is taking shape, it is characterised by governance arrangements with a strong practical base, built upon multi-stakeholder coalitions and informal in nature. The question is whether or not such informal multi-stakeholder arrangements are able to bridge the gap between decentralised state structures and the nature-human interaction in landscapes as a “system to be governed”. A second question is whether these arrangements comply with juridical frameworks, and principles of participation and accountability. It is society itself that has to learn how best to govern its forested landscapes through multi-stakeholder arrangements across sectors, levels and scales. Universities that are able to engage in such societal learning must redesign their curricula to offer more practically based “knowing-in-action”. This will provide students with the skills needed to actively take part in social experiments, learning networks and communities of practice aimed at shaping forest landscape governance on the ground.

Keywords: forests, landscapes, governance, land use, planning, decentralisation, societal learning, knowing-in-action.

1. Forest landscape governance

In international forums on forests, there is increased recognition of the importance of area-based or landscape approaches. This response acknowledges the complexity of sustainable forest management and the ineffectiveness of many sector-based programmes that ignore the cross-sector linkages between forestry, agriculture, nature conservation and economic development. The concept of forest landscape governance is currently being developed to stimulate such integration. It aims to preserve and restore degraded forests in human landscapes, not with the aim of preserving naturally created wilderness areas reflecting traditional conservation interests, but rather to give more attention to forging sustainable human-nature relationships in areas with degraded forests, emphasizing human interests. Forest landscape governance is regarded as a way of bringing spatial decision-making closer to those directly affected by spatial decisions; it considers landscapes as the ideal space for stakeholders to negotiate options and work on collective decisions about the organization of their space.

A first important driver of forest landscape governance has been the global concern about biodiversity loss and climate change. This debate has stimulated policy makers to restore ecological connectivity by scaling up scattered local conservation initiatives to larger spatial units, strengthening their resilience and increasing carbon stocks. A second driver has been the global agenda on food security, social resilience and sustainable land use. This has highlighted the complexity of forests as elements of anthropogenic landscapes. It has also highlighted the point that productive land-use systems do not necessarily reduce the biodiversity of natural ecosystems, but rather increase the *biocultural* diversity of landscapes – something that is valuable in its own right (Wiersum 2003). Biocultural diversity refers to the complexity of anthropogenic landscapes, ranging from more or less natural to more or less domesticated areas. It

results from the co-evolution of environmental and social systems, and is reflected in multi-functional mosaic landscapes, made up of patches of natural and human-influenced vegetation, and managed through social and institutional practice (Wiersum 2003; van Oosten and Hijweege 2012). Restoration of bioculturally diverse landscapes thus offers scope for both production and biodiversity functions, through more ecologically sound and economically productive land-use patterns (Van Noordwijk *et al.* 1997; Hobbs and Morton 1999). “Good” forest landscape governance hence implies restored connectivity, multi-functionality and biocultural diversity, leading to a stronger resilience of forested landscapes.

But how does forest landscape governance work in practice? How do landscape inhabitants manage to bridge the gap between natural and social conditions of place? And how do they arrive at decisions that are satisfactory to the various landscape actors involved, while in line with the formal planning structures of the state? In the following sections, numerous examples will be looked at. Most of them are from Africa or Asia, where forestry sector reform is ongoing and decentralised institutional frameworks are in the making. This contrasts with Western Europe, where longstanding, formally established forest governance institutions are faced with reduced government spending, privatization and the need for greater public engagement and private support. Both worlds meet in their search for new forest governance arrangements, less dependent on political-administrative state structures and more embedded in landscape-based practice initiated by landscape actors on the ground.

2. Forest landscape governance as local practice

Forest landscape governance is nothing new. Across the globe, people have always been constructing, reconstructing and restoring their landscapes – a normal local practice for safeguarding lives and

livelihoods. Practice as defined by MacIntyre (1984) is “any coherent and complex form of socially established cooperative human activity through which internal goods are realised in the course of trying to achieve those excellence standards which are appropriate to that activity”. Applied to forest landscape governance, this means that forested landscapes’ inhabitants organise their productive lives in a way that satisfies their needs, without destroying the forest resources they depend on. Forest landscape governance practice is thus the “spatial-temporal metabolism between nature and society” (Görg 2007), which is reflected in locally practiced agroforestry systems, land management techniques, soil erosion control and local protection mechanisms such as sacred forests and spiritual shrines. These local practices are typical for bioculturally diverse landscapes with strong values, reflected in systems of practice built upon the synergy between people and place, cultural heritage and natural environment (Cocks and Wiersum 2012).

Although increasingly under pressure, there still are many examples of strong local “value-practice” systems. Good examples lie in the Kaya forests in Kenya’s Coast Province, where biodiversity hot-spots are protected by local rules and regulations restricting exploitation of forest reserves, respecting the spiritual value attached to the Kaya forests (van Oosten 1987; Githitho n/a). Or, on a larger scale, the complex transhumance system of Northern Burkina Faso’s Fulani herdsmen and their annual journey leading their cattle along recognised routes, searching for grasslands, water and salt in the north (Niger and Mali), or moving south to fertilise the croplands of neighbouring farmers, or selling the animals at markets in Central Burkina Faso (van Oosten 1994). Such historically evolved value-practice systems are not exclusive to traditional governance regimes; they also apply to hybrid and modernised governance systems. An example is given by Cocks and Wiersum (2012), who describe local practice in the former Ciskei Homeland in South Africa, where despite rational modernization of land use, inhabitants have maintained their associative cultural landscapes. They managed to combine peri-urban settlements creatively with materially and culturally valuable grazing land and reserved forest areas for maintaining spiritual identity (*ibid.*).

All three African examples are illustrations of value-practice systems as the outcome of co-evolution between nature and society (*ibid.*). They show forest landscapes as open and on-going productions along the nature-culture continuum, governed by locally evolved practice, embedded in local institutions regulating distribution of land and water rights, and spatial decision-making. They are local institutions that add meaning to life, shape beliefs and add value to the landscape, creating a drive for sustainable behaviour, production and control (Woodhill 2008).

3. Institutionalizing forest landscape governance through decentralised forest governance and land use planning

The decade of the 1990s was characterised by a wave of decentralization across the globe. Decentralisation aimed at “bringing the state closer to its people”, as an important step in democratising environmental governance. And indeed, the distribution of state administration and devolution of decision-making power to lower

hierarchies of government certainly contributed to better governance in some countries.

Community forestry, particularly as practiced in Southern countries, has been a direct response to this trend, encouraging local autonomy in natural resource management and governance (Wiersum 1995). Community forestry recognises and values local practice and engages communities as co-managers of forests. This is done by using existing community-based institutions (chiefs, elders and other local leaders) or creating new institutions (committees, user groups, NGO/CBO’s), offering local communities within their territories and local institutional frameworks the chance to act as the primary “change agents” (Ribot 2010; Wiersum 1995). It recognises local institutions as natural bearers of forest landscape governance, as they regulate distribution, management and monitoring of forested landscapes at the local level. But where it fails is the linkage of communities to decentralised local administrative government offices or locally elected governments, which have become the new representatives of government power. Decentralising the administration of complex management plans, issuing licences, permits, and other regulatory instruments to lower levels of government have instead increased central government control and restricted access rights for local forest users (Ribot 2010, Edmunds and Woltenberg 2003). New institutions, crafted along the lines of political-administrative structures, have more than once favoured privileged land use groups and increased the control of natural resources and land by national elites. Moreover, since the political-administrative structures of states often do not tally with the natural boundaries of forested landscapes, the representativeness, legitimacy and accountability lines of decentralised forest governance are open to questions (Diaw 2010). In many cases, decentralised governance structures are simply not appropriate for governing landscapes. Instead, they lead to fragmentation of landscape institutions, dual tenure arrangements and unequal benefit sharing. Moreover, it is increasingly recognised that globalised value chains and production systems create complex challenges at the local level, which cannot be solved by local actors alone. Therefore, local communities alone cannot be held responsible for coping with the rapidly changing contexts and increased complexity of forested landscape dynamics (Budelman and Huijsman 1991; Bäck 1991).

Land use planning offers an opportunity to overcome this problem. The participatory or integrated land use planning stream in particular aims to consolidate local land use systems, recognising local institutions and scaling them up to a wider spatial context, through a nested structure of land use plans. Land use planning gained ground during the 1980s, following the same trend of decentralisation, public participation and recognition of the value of local knowledge. And indeed, more than community forestry, integrated land use planning has emphasised the need to integrate processes, sectors and scales within the setting of the decentralised state (Duchhart *et al.* 1990). Watts and Colfer (2011) therefore regard land use planning as the most appropriate policy domain for forest landscape governance, as it provides an instrument for identifying and reconciling competing values about resources and mitigating trade-offs between conservation and development. Its nested structure allows for national objectives to be scaled down, or local priorities to be scaled up to higher hierarchical levels of spatial decision-making. However, these inter-scale linkages are often problematic, especially where landscapes extend across the boundaries of state political-administrative organisations. It is this lack of compatibility

that has been highlighted as hindering the effectiveness of land use planning. Van den Hoek (1992), studying landscape planning in Indonesia, observes that local planning processes are not sufficiently embedded in institutional frameworks at national levels, while local actors lack the political power to lobby for changes in institutional capacities of the state. Jansens (1990), describing landscape planning in rural Kenya, states that integration of local plans with district and national development policies and plans is difficult, as the explorative and open-ended nature of bottom-up local planning outcomes does not match with top-down state institutions of regulation and control. Duchhart (2007) relates these problems to the fact that colonially designed governance mechanisms do not tally with the ecological and socio-cultural networks characterising landscapes, and she confirms the theory of Kleefmann (1984) on the complexity of socio-physical organisations and the incompatibility of the socio-administrative government structures and the natural-spatial forces of the system to be governed.

4. Institutionalising forest landscape governance: a process of bricolage and societal learning

The previous sections show that institutionalising forest landscape governance through decentralised forest governance and land use planning has been rather disappointing: instead of institutionalising local practice, it resulted in stronger central state control and a decrease of local access to natural resources (Edmunds and Woltenberg 2003). In political terms, this “art of recentralising while decentralising” (Ribot *et al.* 2006) has allowed central governments to exercise more control and derive more revenues from locally extracted resources. Newly crafted administrative institutions often replaced customary institutions at the landscape level. These new institutions do not represent local values in terms of meaning and livelihoods, but they rather represent national values, such as generating national income, accumulating wealth for national elites or newly emerging local elites (Ribot *et al.* 2006; Diaw 2010; German *et al.* 2010).

In spatial terms, it is the disparity between the socio-ecological nature of landscapes and the political-administrative structure of states that causes a disruption between *governance* and *place*. National land use planning systems developed within administrative structures have led to the creation of new administrative institutions, which seem to serve political objectives rather than landscape objectives. The resulting spatial land use zones do not necessarily reflect the biocultural diversity and multi-functionality of local value-practice systems, but reflect larger production and conservation units, based upon mono-functional and rationalised land use. More critical authors even state that these identified land use zones formalised in maps, plans and land registries have generated new systems of restricted land use and enclosures, denying the landscape’s inhabitants access to valuable resources and land (Sato 2000; Sikor *et al.* 2009). MacIntyre recognises this phenomenon, which he considers intrinsic to the way in which institutions behave: “the ideas and creativity of local practice are vulnerable to the acquisitiveness and competitiveness of formal institutions which, although created to sustain the practice, tend to turn into structures of power and status in itself” (MacIntyre 1984). Woodhill also confirms this, saying that institutions can lock societies in a particular frame, develop their own goals of administration and political control, and no lon-

ger sustain the practice of meaning and association that they were originally built upon (Woodhill 2008).

It is this disconnection between institutions and practice – or governance and place – that makes Görg (2007) conclude that governance structures, as they have developed in many countries, are unable to govern space. Instead, he pleads for a return to governance as an expression of place-bound human-natural relationships; a reconnection between governance and the socio-ecological nature of landscapes. He calls this return “spatialisation” of governance, as a means of reconnecting governance to landscapes and reconnecting citizenship to place. While analysing the landscape dynamics in Germany’s Südraum, he concludes that institutionalisation of landscape governance is not done through its uptake into political-administrative structures, but through social networks across politics of scale – social networks that are built upon landscapes’ identities, expressed in the dynamics of production, protection and restoration, reflecting the natural bond between citizens and their place. Being rooted in place is what gives these networks their power or agency, as it appeals to landscapes’ inhabitants’ sense of ownership, and responsibility. Spatial planning should therefore not be ‘just’ a technical instrument mastered by professionals and used by governments to rationally plan their territories, but an expression of place-bound human-nature relationships, appealing to local values, identities and senses of place (Görg 2007; Massey 2005).

Landscapes should not be considered as an additional administrative scale, but seen as sets of (partly) overlapping networks constructed through human interaction over time and space, governed through formal or informal arrangements. These arrangements are constructed by a combination of private and/or public actors who are driven by a common purpose, able to shape commonly agreed rules of the game, and able to generate the necessary resources to make them work (Arnouts *et al.* 2012). They are arrangements that should be regarded as processes or temporal ‘events’, born out of collective agency, built upon a landscape’s identity and a collective sense of place. Arrangements which are not planned or designed, but which are the outcomes of “bricolage” (De Koning and Cleaver 2012, introducing the French word “bricolage” which means “do it yourself” or patchwork), practiced by landscapes’ inhabitants in their creative process of adapting and modifying their historically evolved institutions to respond to the challenges of today. They often have temporal aims and are as flexible and changeable as the forested landscapes themselves. They enable landscape actors to “navigate” through complex processes, and flexibly “muddle through” forested landscapes and their ever-changing dynamics, linking the multiple socially-constructed levels of governance to the actual conditions of place (Watts and Colfer 2011).

An example of bricolage is given by Hennemann (2012), describing the way in which farmers in Indonesia’s Halimun Salak National Park have adapted formal rules restricting farming, and “bricolled” more-or-less informal agreements with park management to sustain their farming practice within the park. Another example is given by Rantala and Lyimo (2011) who describe how rural communities in Tanzania’s East Usambaras have managed to formalise customary management practice on land, forest and tree rights, showing that customary institutions can be embedded into modern day legislation, responding to local villagers and their beliefs, without having to turn back to tradition.

This notion of forest landscape governance coincides with the more critical interpretations of governance, which acknowledge

that governance no longer is a monopoly of states in which citizens are to participate. It rather goes beyond the confines of the state and includes public-private partnerships, corporate social responsibility and policy networks (Arts and de Visseren 2012). Unlike traditional governing mechanisms such as laws, regulations and plans, these 'new' governing mechanisms operate more flexibly across the complex nature of forested landscapes, through multi-actor and multi-sector arrangements, "bricolled" across levels and scales. Examples of such arrangements can be found in multi-stakeholder alliances, public-private partnerships, citizens' initiatives, value chains, and "glocalised" learning networks linking local practice to global policy (*ibid.*).

The current global political climate is one of reduced government spending, deregulation and central state withdrawal from direct involvement in spatial planning. This may offer new space for private sector initiatives and civil action, giving opportunities for new landscape arrangements to emerge. Much can be learned from Africa and Asia, where forest landscape governance is still being practiced through complex arrangements built upon tradition, and further evolved by changing conditions over time and space. Attempts to institutionalise these along the lines of decentralised state structures and land use planning have not been very successful, indeed achieving rather the opposite. Innovative institutional arrangements will have to come from outside the governmental structures, based upon private initiatives within landscapes.

It is however not always clear how such new arrangements emerge, how they comply with juridical frameworks, what is their implementation capacity, and to whom are they held accountable (Arts and Goverde 2006). It is society itself, within its specific spatial context, which has to learn how new forest landscape governance arrangements can evolve. This can be done through a process of societal learning, in which planners, managers, local inhabitants, artists and scientists collectively explore environmental problems and experiment with new institutional arrangements. Such "landscape learning" can be supported by learning networks, deliberately created to connect stakeholders involved in landscape dynamics to share good practices, mobilise knowledge, and contribute to informed policy-making. Such learning communities reflect a "specialisation of societal learning", as they contribute to stronger interaction within and between landscapes, stimulate the formation of alliances, and create those shared identities and concerns which are needed to re-establish the connection between citizens and the landscapes in which they live.

5. Societal learning and the role of education

Societal learning is "data demanding", offering various opportunities for scientists to get involved. They can provide the expert knowledge that is needed to explore landscape dynamics and alternative policy options, develop scenarios, and provide input for negotiation processes and spatial decision-making. This role requires robust knowledge, which is generally developed and taught in universities. Scientists can also act as facilitators of societal learning processes on the ground. This requires more than robust knowledge: it also requires a set of social skills that enable stakeholder interaction, creation of space for deliberation and debate, facilitation of prin-

cipled negotiation, and conflict mediation. These kinds of skills are not generally part of a university's curriculum. Nor does the classroom setting of a university offer opportunities for students to engage in societal learning in practice and discover their role as facilitators of change (Vandenabeele 2009). University teachers are generally not selected for their practical involvement, and participatory and action research is not common practice amongst MSc or PhD students, who are predominantly assessed on their academic output.

Wageningen University and Research in the Netherlands has recognised this gap, and has been experimenting with transdisciplinary research as a way to co-construct knowledge through active engagement with practitioners, policy makers and the general public as 'knowledge-developing actors' on the ground (Buizer *et al.* 2011). It has also experimented with practice-oriented education programmes, which are taught by academics who take part in communities of practice in order to be able to ground their lessons in practice, and develop a pedagogy of "knowing-in-action", motivating their students to become part of the process they study. This type of teaching transcends traditional educational boundaries, and prepares students for participation in shaping forest landscape governance in practice (Hart 2009). It prepares students to become "landscape leaders" in their future role of planners, policy makers or business innovators.

An interesting example of 'knowledge-in-action' is provided by the Wageningen UR Forest and Nature Conservation Policy Science Group (FNP) in collaboration with the Wageningen UR Centre for Development Innovation (CDI). The latter is a more market-oriented part of the university, engaged in consultancy work related to societal learning processes and governance worldwide. Scholars of FNP work closely together with consultants from CDI on the conceptual design of projects and professional training for practitioners. Many of these projects and trainings incorporate students to contribute to their implementation, for them to acquire the skills needed to facilitate processes of landscape governance, river basin management, coastal zone management, water stewardship, landscape leadership, food chain development, market development and the like.

Students are currently deployed in CDI projects and trainings in three modalities: 1) students carry out action research and provide the knowledge needed by stakeholders engaged in complex negotiation processes; 2) students are deployed as interns to carry out specific roles in facilitating multi-stakeholder processes; 3) students are engaged in *Academic Consultancy Training*, where they practice their consultancy skills and learn to identify demands, implement or provide tailor-made advice upon request. All three activities are focused on acquiring skill that are not covered by the formal curriculum, but which are very much needed if they are to become professionals in the field of forest landscape governance.

An example of a joint FNP-CDI project is the online learning community of the Global Partnership on Forest Landscape Restoration, which is a global coalition of partners promoting forest landscape restoration worldwide. The learning community is co-constructed by FNP scholars and students, CDI consultants, and a large group of practitioners in more than 60 countries. The learning community is directly connected to FNP teaching and research, as well as to CDI projects and trainings I.

Conclusion

Forest landscape governance is nothing new: it has always been practiced by forest landscape inhabitants across the globe. Its institutionalisation however has proven to be problematic. Institutionalising forest landscape governance through decentralised forest governance or land use planning has proved not to be very effective, because state political-administrative structures do not tally with the socio-ecological reality of forested landscapes. This leads to institutional frameworks that do not serve the objectives as they have been defined by landscape actors. There is an urgent need to reconnect governance to the specific dynamics of landscapes. Such “spatialisation of governance” can happen through new types of forest landscape governance arrangements, built upon temporal and informal multi-actor networks across levels and scales. These arrangements are “bricoléed” by landscape actors who are able to formulate shared objectives, create rules of the game, and generate resources to perform. The current political climate of state withdrawal from spatial planning offers opportunities for such new arrangements to emerge. How these arrangements emerge and what their impact is on forested landscapes, is however largely unknown. It is society itself that has to learn. Universities have an important role in feeding and facilitating such societal learning processes. Students in particular can become actively engaged and learn the skills required to do so effectively. This requires a new sort of knowing-in-action, a concept that Wageningen University and Research is actively experimenting with. Collaboration between the Wageningen UR Forest and Nature Conservation Policy Group and Wageningen UR Centre for Development Innovation has vivid examples of how students are effectively engaged in shaping forest landscape governance processes on the ground.

Notes

¹ The learning community can be found at: <http://www.ideastransform-landscapes.org/>

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