

Exploring Multi-Level Governance for Low Carbon Climate Resilient Development

Economic globalisation and global environmental change means that diverse systems are increasingly being recognised as interdependent: market chains, government jurisdictions, migratory flows, multilateral infrastructure and trade regimes, and changes in global climate patterns are all increasingly connected. There is therefore an increasing need to understand and address the inter-linkages.

This case study looks at the management of Xingu National Park in the Brazilian Amazon forest, governance reform for Reducing Emissions from Deforestation and Forest Degradation (REDD+), and the application of principles of polycentric governance to the global climate regime to highlight some challenges for planning and implementing low carbon climate resilient development (LCCRD), as well as providing insights into productive ways forward.

Climate planning is more likely to be connected if...

- there are innovative practices at multiple scales and levels (polycentric governance); improved coherence of policies (nested institutions); and multiple actors involved in more deliberative forms of governance (co-management);
- different actors are encouraged to embrace and disseminate emerging knowledge from wherever actions on climate change are taking place (while recognising that cases are context-specific and not simply blueprints for elsewhere), and to highlight opportunities of co-benefits for LCCRD;
- the focus on co-benefits advances the climate regime on a voluntary basis, even in the absence of international coordination and binding legal instruments for mitigation.

Learning lessons for multi-level governance

1 Learn from experiences in other sectors, for example, natural resource management

Non-linear planning is better able to address multiple issues and achieve implementation without over-reliance on authoritarian measures. Achieving this in practice requires an appreciation of methods and approaches that can work with interdependency and complexity.

2 Build governance systems that integrate knowledge from multiple scales and sectors

The example of Xingu National Park in Brazil illustrates the connectivity of social-ecological systems and the limitations for isolated governance. Effective management of such systems requires building forms of governance and *social capital* that are capable of linking vertical levels of authority and overcoming spatial and sectoral barriers at all scales.

3 Recognise the role of good governance in building social capital

Multi-level governance relies on forms of social capital that are capable of reconciling conflicts between individuals and groups in different places. Social capital is difficult to measure, which makes donor intervention in support of it somewhat complicated, yet donor backing for good governance practices and for institutional capacity building is, in effect, an example of support for social capital.

Social capital refers to the rules and norms underlying social behaviour and order and the forms of organisation prevalent in society. It represents the value of social networks in mediating shared interests at the level of the individual, of the community and of society as a whole. It can be enhanced by building trust and reciprocity, leading to bonding within groups and bridging between groups.

Increasing complexity and system connectivity require more sophisticated planning processes

Recognising complexity and interdependency means recognising that social-ecological systems are unlikely to respond well to problem-solving based on an overly-simple analysis that focuses one intervention on one space or level in isolation from other processes.

An approach that examines impacts of interventions at a similar spatial level (horizontally) and on systems that are larger or smaller (vertically) enhances the effectiveness of policy interventions. Institutions that are capable of operating across levels and scales are an important form of social capital that enhance trust and can facilitate individual and group cooperation around shared interests. The Xingu National Park in Brazil illustrates these issues.

For more on planning for low carbon climate resilient development at different scales, see Case Study 01 and Bridging Paper 1.

Building connectivity in Xingu National Park

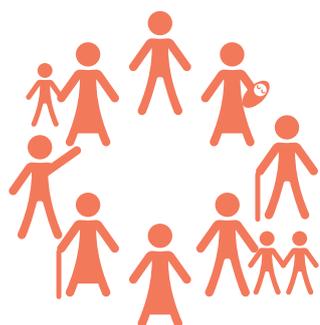
Regulation of the national park is effective at only one level – inside the park boundary. It has been affected and almost overwhelmed by resource use in parts of the larger ecosystem within which it is nested (see Snapshot). International commodity markets (for example, beef, soy, and timber), are important drivers of federal policies which support the expansion of infrastructure and agro-industrial development in the region and contribute to the park becoming a sink and corridor for multiple pollutants. The national park illustrates functional interdependence, where environmental and social processes transcend the boundary of the governance system. Governance must be connected at a much broader scale in order to buffer the park from these impacts.

Tensions reflect divergent perspectives about the use and value of natural resources among different social groups (for example, indigenous groups, immigrant farmers, national policymakers, international consumers). Recognising this, indigenous populations in Xingu National Park are seeking new relationships and building links both horizontally and vertically. This includes reaching out to other populations in the watershed region (horizontal) and working with national NGOs, among others, on national and international campaigns (vertical), thereby enhancing social capital and networks and building their capacity to interact with external but connected systems.

Xingu National Park, Brazil: a snapshot

- 1964 – Xingu National Park (PIX) established in Mato Grosso State
- 2.6 million hectares (equivalent to half the size of the Netherlands)
- 14 ethnic groups occupy the park
- The National Park is in the Xingu watershed, one of the most active agro-pastoral economic regions of Brazil

↑ Local alliances among individuals and organisations have helped to improve park management and cope with growing pressures on the park's borders...



↓ ...but these local alliances have had little impact on the intensity and extent of deforestation around the borders of the park and the Xingu river headwaters.



Understanding social capital in Xingu National Park

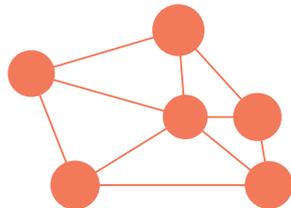
Social capital is most effective when it is organised in complementary forms at multiple levels. When social capital is based on common values held across groups operating at diverse levels, it is a valuable resource for solving multi-level problems; but when these values conflict, there is a barrier to collective improvement. In the case of Xingu National Park, the absence of an

effective governance system has hindered the resolution of conflicting values between social groups. Arrangements that are better linked across levels would be more capable of building the social capital needed to address functional interdependence.

Governance approaches that address functional interdependence

Political governance can take place at global or national levels of authority and at sub-national or district levels; each of which has drawbacks when operating alone. National or global decision-makers frequently display insensitivity to the specificities of local contexts, which can lead to resentment among local stakeholders. This can lead to demands for decentralisation and subsidiarity, moving decision-making authority to people who know about the local system in more detail. The drawback of subsidiarity is that local decision-makers tend to be unable to engage with larger systems that impact on the local level. So **neither scaling governance up nor down is by itself sufficient for dealing with connected systems: more sophisticated methods are needed in order to address functional interdependence.** Emerging approaches to planning such as polycentric governance, nested institutions and co-management attempt to address multi-level challenges.

A **polycentric approach** gives smaller governance units the flexibility and autonomy to experiment and learn. The main advantage is that it encourages innovation at multiple levels and enables a comparative appreciation of the benefits and limitations of different practices that people elsewhere can learn from.



Nested institutions are sometimes visualised as a Russian doll, where sets of rules and measures fit into the rules and objectives set out at larger scales. This has the advantage of improving the coherence of policies adopted at different levels. Although a Russian doll visualisation only indicates vertical integration, nesting can take place horizontally, across sectors or spatial scales. There is a danger that nested institutions could be implemented top-down which could lead to a stifling of the ability of local stakeholders to have a meaningful say in planning processes.



Man with a Xingu face tattoo rowing down the Xingu River in Brazil

Polycentrism and the global response to climate change

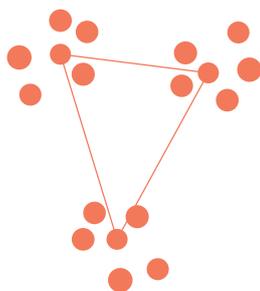
Climate change is frequently viewed as a collective action problem requiring a coordinated global response in order to prevent free-riding. However, policymaking has often stalled within the United Nations Framework Convention on Climate Change (UNFCCC) and a polycentric approach reminds us that important steps *can* be taken at local levels that help inform policy processes – including at global negotiations.

In the absence of effective internationally agreed regulations Elinor Ostrom (2009) argues that undertaking mitigation actions that have broad co-benefits (not just for emissions reduction) at sub-international levels will be important to advancing the climate regime. Encouraging voluntary action at multiple levels and highlighting the advantages of doing so is a way to advance the mitigation agenda even if the international regime appears blocked. Encouraging innovative policies and programmes at regional, national, municipal, local or even individual level can provide learning-by-doing, which can then be picked up on and potentially applied in a tailored fashion by actors elsewhere – including at the level of the UNFCCC, precisely because systems are now so connected.

By striving to achieve mitigation actions that have co-benefits in multiple locations LCCRD approaches highlight the advantages of pursuing low carbon development even on a voluntary basis. Support for innovation, experimentation and learning through pursuit of LCCRD can help make programmes part of a successful polycentric approach that advances the climate regime.

See Brondizio *et al.* (2009).

Co-management encourages cross-sector partnerships that involve multiple actors with different status and power in more deliberative forms of governance. This responds to situations where public officials have the authority to make some decisions but lack the capacity to secure their implementation. Instead, compliance relies on voluntary conformance with rules or norms. Thus, in order to make rules work, close cooperation between actors is crucial.



Each of these approaches offers a way of managing multi-level problems better and can help to enhance the social capital required to deal with connectivity and functional interdependence. The box explores how these approaches can add value for planning for REDD+.

Further reading

Brondizio, E.S.; Ostrom, E. and Young, O.R. (2009) 'Connectivity and the Governance of Multilevel Social-Ecological Systems: The Role of Social Capital', *Annual Review of Environment and Resources* 34: 253–78

Cash, D.W.; Adger, W.; Berkes, F.; Garden, P.; Lebel, L.; Olsson, P.; Pritchard, L. and Young, O. (2006) Scale and Cross-Scale Dynamics: Governance and Information in a Multilevel World, *Ecology and Society* 11.2: 8

Forsyth, T. (2009) 'Multilevel, Multiactor Governance in REDD+: Participation, Integration and Coordination', in Arild Angelsen (ed.) *Realising REDD+: National Strategy and Policy Options*, Bogor Barat, Indonesia: Centre for International Forestry Research

Ostrom, E. (2009) 'A Polycentric Approach for Coping with Climate Change', Background Paper to the 2010 World Development Report, Policy Research Working Paper 5095, Washington, DC: The World Bank

Authorship

This *Case Study* was written by Robbie Watts, a Research Assistant at IDS with support from Andrew Newsham, Research Fellow. It complements the Approaches to Planning for Climate Change Learning Cycle of the Learning Hub. The opinions expressed are those of the author and do not necessarily reflect the views of IDS.

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Multi-level governance approaches in the case of REDD+

REDD+ is a clear case of *multi-level governance*, stretching vertically between international negotiations, national planning processes and community-level implementation and linked horizontally to many sectors beyond forestry, especially agriculture, infrastructure, mining and trade regimes.

International coordination of REDD+ is necessary to avoid the problem of leakage (where restrictions on forest conversion in one country or area merely results in increased conversion elsewhere due to displacement). The principle of *nested institutions* therefore has appeal, to ensure that local and national versions of REDD+ are consistent with international agreements and leakage is avoided.

On the other hand, the principle of *polycentric governance* suggests that countries and localities should be afforded enough space to experiment and innovate in planning and implementation, to aid learning. Affording space for innovation is also important for state sovereignty, for meaningful stakeholder participation, and to account for peculiarities of local or country circumstances. This results in a balancing act between nesting institutions and facilitating the pluralism of a polycentric approach.

A large number of countries with plans for REDD+ have weak capacity for implementing reforms in the forest sector, as evidenced by high rates of illegal logging. *Co-management* therefore offers a way to improve implementation via voluntary compliance, bringing in a wide range of stakeholders and using cross-sector partnerships to build trust and common understandings (a form of social capital).

See Forsyth (2009) for further reading.