



# Governance and tenure of ecosystem restoration projects

The urgent need for nuanced,  
experience-based learning

Rachael Knight

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**Rachael Knight emphasises the critical importance of Indigenous and non-Indigenous local communities being involved in the design and implementation of governance arrangements for ecosystem restoration projects, drawing on learning from her work and other key research. She highlights that projects need to be proactive to discover how natural resource governance will affect their restoration ambitions, as well as ensure that the principles of good governance form a basis for their project's restoration activities.**

In the UN Decade of Ecosystem Restoration significant amounts of climate finance are flowing towards restoration efforts. Until recently, these projects were approached as technical exercises, led by ecologists, botanists, soil scientists, hydrologists, wildlife and conservation biologists, and environmental engineers – characterised under other names, including 'afforestation', 'land reclamation', and 'wetland restoration'. However, it has become clear that while ecosystem restoration efforts are indeed dependent on scientific expertise, authentic, lasting regeneration cannot happen without the expertise and involvement of the local communities – both Indigenous and non-Indigenous – whose land is affected.

Crucially, the viability of ecosystem restoration efforts is also inextricably linked to the strength of a local community's tenure rights and how and by whom the areas being restored are governed – and how they will be governed after they are restored. Despite and perhaps because of their complexity, these matters have received little attention from ecosystem restoration planners.

This paper is an introduction to these topics, inspiring practitioners to innovate successful governance strategies as a key component of any ecosystem restoration project.

### **In summary**

Local people must either lead ecosystem regeneration efforts or be integrally involved, so they can:

- Include traditional knowledge of local ecosystems, indigenous plant and animal species and temporal/seasonal ecological changes in project plans
- Ensure plans align with their spiritual and cosmological understandings
- Ensure that their rights are not violated, eroded or annulled — including rights of ownership, use, access and management, and free prior and informed consent (FPIC)
- Protect their current and projected future livelihood and household needs, including hunting, gathering, and water use from shared commons
- Ensure they benefit from the regeneration effort itself and the future regenerated ecosystem, both financially and through in-kind payments
- Hold responsibility for ground-truthing, monitoring and evaluation of the regenerated landscape over time
- Collaboratively address and navigate the complex politics and relationships between all stakeholders throughout the project and beyond.



## Secure land rights

Any restoration project that does not make sure that the land being regenerated is securely titled and formally owned by the local community will likely run into tenure challenges. As climate change progresses and the human population increases, flourishing, biodiverse ecosystems are already targets for land grabs. In dry regions, areas with water will become especially contested.

When not formally titled or otherwise legally secured, a community's lands can be claimed in two ways:

- Government administrators may grant large tracts of land to international investors without consulting the local people or other government agencies. For example, in Shinyanga, Tanzania, officials granted land within a community-led ecosystem restoration project to a gold mining company, which tore up the regenerated forest to extract the gold located underneath.<sup>1</sup>
- Corrupt government officials may abuse their power, even using force, to grab land that is abundant with water, minerals, timber and other 'natural resources' for their own personal profit or that of their families and associates.<sup>2</sup> Regenerated land is more valuable land; powerful elites may notice and claim it for their own (by force or by corruptly negotiating transfer of title).

In addition to these threats, in every community, a range of pre-existing tenure conflicts is often brewing under the surface; restoration efforts may inflame these conflicts or inadvertently benefit one party and harm others. Once restoration is underway, new tenure conflicts may emerge, with more powerful groups, families or individuals claiming exclusive rights over the regenerated area and the 'resources' now located upon it.

Finally, landscape-level restoration projects involve a range of formal and informal land rights: common areas, private lands, government protected areas, state lands, seasonal use rights of transhumant pastoralists.

### Action points

Before project inception, ecosystem restoration projects should:

- Proactively clarify and map out who has what rights to the land (private rights, communal rights, access rights, use rights, management rights) and make sure that all rights holders are involved in the project from its inception
- Seek formal recognition of customary/Indigenous land claims to ensure that the land cannot and will not be granted as part of a concession or easily stolen by corrupt elites
- Ensure that the project does not weaken the tenure rights of more marginalised groups
- Resolve all pre-existing tenure conflicts within the area to be restored
- Proactively establish conflict resolution mechanisms that can address future conflicts related to conflicting claims to the now-restored landscape.

**Project planners must clarify all the overlapping and embedded tenure rights within the land to be restored and ensure that project activities do not upset the fragile balance carefully negotiated by local people over time.**

## Governance of the land and ecosystem(s) to be restored

Just as critically, inadequate attention to the governance of regenerated ecosystems will create a range of challenges.

### Overlapping governance jurisdictions within and between formal and informal systems

For any one piece of land, there may be dozens of government officials and local leaders who legitimately feel that they have authentic jurisdiction and decision-making authority over what happens to the land and local ecosystems. They may use different maps, enforce different rules, and each have separate, uncoordinated plans for the area. Understanding the basics of ecosystem governance means looking at these overlapping spheres of governance, including:

- The central government and the various national ministries/agencies that have jurisdiction over a specific piece of land (ministries of land, forestry, agriculture, mining, conservation, planning, etc)
- Various province/state/district-level government agencies, which include decentralised versions of the national ministries and local government officials, both elected and appointed
- The most local level of government, including both elected/appointed village-level officials within the formal government system and Indigenous/customary leaders, who in some countries operate outside the state system.

Most ecosystem restoration projects struggle to negotiate these overlaps. It requires getting to know all those systems and carefully navigating them: understanding their rules, understanding the unspoken power dynamics between them all, forging alliances and friendly working relationships with actors of each level and kind of power/authority, and getting them to work together, coordinating plans and sharing maps and information.

### Lack of clear, agreed rules for how the restored landscape will be governed

**Understanding rules.** As a baseline, project planners must have a clear understanding of all national laws that govern the landscape to be restored. These laws are good guides but they may have little to do with the rules and protocols that local people follow when accessing the area and all ecosystems within it. Instead, it is likely that local people align their practices with customary/Indigenous rules, protocols and beliefs.

It is thus necessary to gain a deep comprehension of these rules, which requires significant time spent in conversation with community leaders and a diverse array of community members (women and men, young people and elders, rich and poor, members of minority groups). A nuanced approach might include understanding:

- **The spiritual beliefs** that guide people's interactions with their local ecosystems, including understanding the non-human beings who also govern the area (and their governance strategies/edicts), any taboos that govern human actions, and people's understanding of the complex relationships between species/beings, both human and non-human



- **All ancestral rules** concerning land and ecosystem use, access, and management that the community is still following and no longer following
- **The rules that are currently governing local lands and ecosystems**, especially in places where land is scarce and biodiversity is threatened. Often, degraded landscapes have become so because of a breakdown in local governance. Understanding what rules are complied with, what rules leaders have failed to enforce and the reasons for these breakdowns (including overuse by locals and/or non-locals who come from elsewhere to poach/log/mine) can inform how an ecosystem restoration effort is structured.

**It is critical to bring local people, local leaders, district/province/state leaders, and relevant national ministry/agency officials along on this learning journey, so that everyone with a stake in the proposed ecosystem restoration project begins with the same baseline understanding of the governance forces, power dynamics, and pre-existing rules and practices that will impact the area to be regenerated.**

**The process must be both about learning from all stakeholders and co-learning with all stakeholders.**

**Determining rules.** It may then be useful to gather and support all stakeholders (especially those residing within the ecosystem to be restored) to debate and decide the rules that will govern first the restoration effort and then the restored ecosystem. It is critical that all community members contribute their ideas and take part in decisions about what the rules will be. This rule-making process can take weeks (or months) but is crucial to successful restoration of local ecosystems.<sup>3</sup>

**Enforcing rules.** Rule compliance and enforcement are often core governance challenges, both as the restoration effort progresses and after its completion. When local people or neighbours enter an area marked for ecosystem restoration and log, mine, poach or extract, it is generally due to authentic need but also may stem from simple opportunism. In both instances, it is necessary to establish or support both:

- Strong, respected local leaders who have actual rule enforcement authority, backed up by state security apparatus' (local police with a mandate to help local leaders)
- Rule enforcement systems that have authenticity in the eyes of local people (which may be linked to traditional knowledge and spiritual cosmologies).<sup>4</sup>

### **Exclusion and disenfranchisement of pre-existing and future rights to use, access, and benefit from the land and the restored ecosystem**

**If not carefully governed, regenerated ecosystems may be pillaged by impoverished — or excluded — locals and neighbours who are not woven into the project and directly benefiting from it.**

In some cases, ecosystem restoration efforts may intensify pre-existing conflicts over ownership, use and access rights — especially when use rights to an area have historically been shared by various groups (for example, neighbouring villages often share use and access rights to a forest; farmers and nomadic pastoralists might share rights to land with seasonal springs).

Skilfully negotiating all these overlapping rights – as well as rights to project-related and future financial and in-kind benefits – is complex but necessary. If an ecosystem regeneration project changes the delicate balance of rights, suddenly excludes groups or families who previously had rights, or even merely makes people fear that the project will result in a loss of rights, grieved neighbours or unacknowledged stakeholders may burn down regenerated forests or otherwise sabotage restoration efforts.<sup>5</sup>

### **A path forward: ecosystem restoration projects can and should gather data on governance challenges and innovate governance solutions**

These challenges are just a starting point. There is currently a significant lack of information about the governance aspects of ecosystem restoration efforts. Action-based research must be done to determine how best to support good governance of restored ecosystems, both during the restoration efforts and over the long term.

#### **Action points**

Project planners should convene the full range of officials and leaders and ask about, understand and then negotiate within the overlapping jurisdictions the following matters:

- Who has the authority to **make the rules** that govern the use, access and management of the specific piece of land where the ecosystem regeneration project will take place?
- **What are the rules** that govern this land and the ecosystems within it?
- Who has the authority to **make decisions** about the specific piece of land where the ecosystem regeneration project will take place? What is the protocol to follow if more than one agency/individual has decision-making authority?
- Who has the authority to **enforce rules and decisions** that concern the land and ecosystems?

Ecosystem restoration projects must particularly focus on getting the buy-in and participation of the most local customary/Indigenous leaders who oversee the area's day-to-day governance.

Project planners must make sure that all stakeholders understand and agree on the rules and protocols that govern the land to be restored and that strong rule enforcement mechanism are in place.

Project planners must make sure that everyone with pre-existing rights to the area being restored is directly involved in planning and implementation and perceives that they are or will directly benefit from the effort. It is particularly important to address their fears and concerns, provide for their interests/needs and ensure that they do directly benefit from the project's success.



To this end, REDAA-supported initiatives might, in partnership with implementing communities:

- Conduct baseline research on all pre-existing governance of the restoration site, noting all conflicts, challenges and potential risks
- Innovate strategies, methodologies and protocols for how to proactively address governance
- Create tools and questionnaires that enable communities to assess how well these strategies are working, both immediately and over time
- Iteratively improve upon these strategies and protocols in real time, noting any improvements in outcomes
- Collaborate with one another, brainstorming strategies, sharing lessons learned, and advising one another on emerging best practices
- Monitor governance over the long term, including after the land is deemed 'restored'
- Collectively publish all lessons learned to contribute to the emerging field of ecosystem regeneration governance.

By uniting to pioneer innovative solutions to governance challenges and thoughtfully evaluating their impacts, REDAA project grantees hold the power to ignite a transformative shift in the way we govern ecosystem restoration.



## Endnotes

1. Nzyoka J, Minang PA, Wainaina P, Duguma L, Manda L and Temu E (2021) Landscape governance and sustainable land restoration: evidence from Shinyanga, Tanzania. *Sustainability* 13(14) 7730. <https://doi.org/10.3390/su13147730>
2. See: Knight, R (2022) Tackling political land corruption: the need for a multi-disciplinary, participatory approach. FAO. [www.fao.org/3/cc0079en/cc0079en.pdf](http://www.fao.org/3/cc0079en/cc0079en.pdf)
3. See: Knight, R (2018) Power to the people: a case study on participatory local land and natural resource governance in Nepal. Namati and CSRC. <https://grassrootsjusticenetw.org/resources/power-to-the-people-a-case-study-on-participatory-local-land-and-natural-governance-in-nepal/>
4. To address extraction by locals and neighbors, it can be useful to leverage local spiritual beliefs. For example, in Rajasthan, India, after the local forestry department failed to conserve a forest because of transgressions by local people, officials held a public ceremony during which they sprinkled saffron water around the site to indicate protection, in accordance with the local traditions. The local people subsequently began to respect the boundaries of the conservation area. See: Gandhi 1997, cited by Bhagwat, SA (2012) Sacred groves and biodiversity conservation: a case study from the Western Ghats, India. In: Pungetti G, Oviedo G and Hooke D (eds) *Sacred Species and Sites: Advances in Biocultural Conservation*. Cambridge University Press, 322–334.
5. Stakeholders in Madagascar told researchers: “Enrolling our lands in a native tree planting project is akin to handing our lands back to the government”; and “We fear that the state or other more powerful entities will claim the newly restored lands later.” Rakotonarivo, OS, Rakotoarisoa, M, Rajaonarivelo, HM, Raharijaona, S, Jones, JPG and Hockley, N (2023) Resolving land tenure security is essential to deliver forest restoration. *Communications Earth & Environment* 4 179. <https://doi.org/10.1038/s43247-023-00847-w>.

## Articles for further reading

- Löfqvist, S et al. (2023) How social considerations improve the equity and effectiveness of ecosystem restoration. *BioScience* 73(2) 134–148. <https://doi.org/10.1093/biosci/biac099>
- Mansourian, S, Walters, G and Gonzales, E (2019) Identifying governance problems and solutions for forest landscape restoration in protected area landscapes. *Parks* 25(1) 83–96. [https://serval.unil.ch/resource/serval:BIB\\_25FEF1F680DE.P001/REF.pdf](https://serval.unil.ch/resource/serval:BIB_25FEF1F680DE.P001/REF.pdf)
- Nzyoka J, Minang PA, Wainaina P, Duguma L, Manda L and Temu E (2021) Landscape governance and sustainable land restoration: evidence from Shinyanga, Tanzania. *Sustainability* 13(14) 7730. <https://doi.org/10.3390/su13147730>
- Rakotonarivo, OS, Rakotoarisoa, M, Rajaonarivelo, HM, Raharijaona, S, Jones, JPG and Hockley, N (2023) Resolving land tenure security is essential to deliver forest restoration. *Communications Earth & Environment* 4 179. <https://doi.org/10.1038/s43247-023-00847-w>

