Enhancing the integration of governance in forest landscape restoration opportunities assessments

Analysis and recommendations

Jessica Campese, Stephanie Mansourian, Gretchen Walters, Emmanuel Nuesiri, Amran Hamzah, Benjamin Brown, Mirjam Kuzee and Barbara Nakangu

INTERNATIONAL UNION FOR CONSERVATION OF NATURE

CEESP
Commission on Environmental, Economic and Social Policy

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Executive summary

With vast areas of the world facing deforestation and land degradation, forest landscape restoration (FLR) has become a global priority, as reflected in the Bonn Challenge. Further, recognising the wider loss and degradation of ecosystems, the United Nations has declared 2021–2030 the Decade on Ecosystem Restoration. Landscapes are shaped by decision-making and power relationships across multiple sectors and scales. FLR involves and impacts many actors over long periods, including Indigenous peoples and local communities who own, govern, manage and/or rely on areas, territories and resources within those landscapes. FLR governance concerns, among other issues, how and by whom restoration decisions are made (including on whose land and incorporating whose knowledge, vision and practice) and how FLR can impact rights and well-being in the short- and long-term. Governance is therefore a crucial factor in the effectiveness, equity and sustainability of FLR.

The Restoration Opportunities Assessment Methodology (ROAM) provides a framework for governments and other rights-holders and stakeholders to define and prioritise actions for FLR in national or sub-national contexts, using participatory analysis of multiple factors. This publication analyses strengths, opportunities and challenges in how ROAM guidance and practice address governance issues. It considers both how ROAM processes are designed and carried out, and how they take into account governance of the target landscapes. It then **presents lessons learned and offers recommendations on governance aspects of the ROAM framework and process with the aim of strengthening the ability of ROAM to inform effective, equitable and sustainable FLR**. This analysis focuses on ROAM as a widely used framework that informs longer-term FLR, rather than comprehensively considering FLR itself. It offers inputs for developing additional governance guidance for ROAM processes going forward.

The primary analysis methods were: (1) review of the most relevant sources of ROAM guidance; (2) analysis of the ROAM process in four countries – Colombia, Indonesia, Malawi and Rwanda – based on interviews and document review; and (3) additional research, including a review of targeted literature.

The analysis was undertaken using the Natural Resource Governance Framework (NRGF), an IUCN knowledge resource that aims to provide a robust, inclusive and credible approach to assessing and improving natural resource governance. The NRGF framework includes values, principles and criteria for equitable and effective governance. The analysis also takes into consideration the FLR principles agreed upon by the Global Partnership on FLR (GPFLR), which ROAM seeks to operationalise. These two sets of principles address different subjects and have distinct objectives. Nonetheless, mapping the alignment between them shows that governance is intrinsic to many FLR principles and, thus, the NRGF can reinforce those principles. At the same time, because it goes further in identifying specific elements of effective and equitable governance, the NRGF can deepen consideration of governance in ROAM and, subsequently, the FLR initiatives identified through the ROAM process.

Principles of forest and landscape restoration

- Focus on landscapes
- Engage stakeholders and support participatory governance
- Restore multiple functions for multiple benefits
- Maintain and enhance natural ecosystems within landscapes
- Tailor to the local context using a variety of approaches
- Manage adaptively for long-term resilience

Source: Besseau et al. (2018).

Overall, this publication highlights that ROAM, like FLR, is a social and political process that is impacted by, and in turn impacts, different dimensions of governance, including equity and rights. The assessment process will determine whose knowledge, practice, rights and restoration visions are (and are not) reflected in outcomes. Therefore, while ROAM is not a governance assessment framework per se, taking governance issues into account is critical. This means, in part, ensuring that ROAM processes and outcomes do not inadvertently exacerbate governance concerns, e.g. by prioritising FLR initiatives that may marginalise or

undermine the rights of Indigenous peoples, local communities, women or other rights-holders and knowledge-holders. Further, ROAM processes can (and should) help improve governance through the FLR priorities they identify. For example, ROAM processes can prioritise opportunities for Indigenous- and community-led restoration in ways that respect self-determination and free, prior and informed consent (FPIC). While ROAM guidance and processes already address many governance issues, they do so in variable ways and to different degrees. There is an opportunity to build on ROAM guidance to reinforce how governance considerations are integrated.

Key findings

Key findings from the analysis of how governance considerations are addressed in ROAM guidance and processes include the following (listed in relation to the NRGF principles):[1]

Principle 1 - Inclusive decision-making: *Decision-making regarding natural resource policies and practices is based on the full and effective participation of all relevant actors, with particular attention to the voice and inclusion of rights-holders and groups at risk of marginalisation.*

ROAM guidance and processes emphasise stakeholder participation, including through stakeholder analysis aimed at better understanding which rights-holders and stakeholders can most benefit from FLR and influence the decision-making process . Yet, enabling full and effective participation remains challenging in practice, including with respect to ensuring inclusiveness, equitable power relationships (e.g. in designing and implementing multi-level, multi-stakeholder processes), sufficient resources (including time) and capacity (e.g. in facilitation).

Principle 2 - Recognition of and respect for tenure rights: *Rights to lands, resources and waters are recognised and respected, with particular attention to the customary, collective rights of Indigenous peoples and local communities, and to women's tenure rights.*

Understanding and respecting tenure rights, including customary and collective rights of Indigenous peoples and local communities, is key to equitable and effective FLR. Consideration of tenure rights is not central to ROAM guidance. Yet, in practice, ROAM processes frequently confront tenure issues, and address them in variable ways. Tenure rights, such as those related to ownership, governance, access, use and/or management of land, territories, water, trees and other resources, could be undermined if not well understood and fairly addressed in FLR, including where rights are unclear or unrecognised. More guidance and sharing of experiences about how ROAM processes and FLR can recognise, respect and uphold tenure rights are needed.

Principle 3 - Recognition of and respect for diverse cultures, knowledge and institutions: *Natural resource governance is grounded in sound and diverse forms of knowledge and respect for diverse cultures, values and practices.*

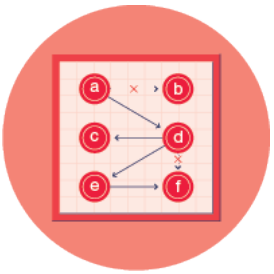
Recognition of diverse knowledge, knowledge-holders and culture has been increasing in ROAM processes, including through a new survey tool on culture. ROAM practice has also improved in recent years in terms of enabling knowledge co-generation and sharing, such as through collaborative learning between rights-holders and stakeholders. There are also aspects that could be strengthened, for example, through further guidance and more systematic practice on equitable knowledge co-generation and collaborative research, as well as the appropriate recognition and inclusion of diverse restoration knowledge, including cultural, Indigenous and local knowledge.

[1] NRGF principles and associated graphics from Springer et al. (2021).

Principle 4 - Devolution: *Decisions are taken at the lowest possible level appropriate to the social and ecological systems being governed, with particular attention to empowering the roles and authority of Indigenous peoples and local communities in natural resource governance.*

Devolution is important to the ROAM process, for example, when ensuring that assessment scales enable decision-making about restoration at the most local level appropriate, with recognition of local (statutory and customary) governance systems, and the full and effective participation of rights-holders and stakeholders. It is also important to consider the opportunities and barriers for decentralised restoration in the landscape. For example, ROAM outputs can recognise and support Indigenous- and community-led restoration, in ways that respect self-determination and FPIC. Devolution is often considered in practice, particularly where national policy encourages or requires a decentralised restoration approach. However, addressing devolution more directly in guidance could ensure more consistent and comprehensive inclusion in ROAM processes.

Principle 5 - Strategic vision, direction and learning: *Natural resource governance is guided by an overall vision of desired environmental and social outcomes, and allows for adaptation in response to learning and changing conditions.*



Achieving FLR objectives requires clear vision, direction and learning. Developing a broadly shared, but often locally differentiated, vision for a future restored landscape is fundamental in ROAM and often one of its key outcomes. In practice, this is challenging to achieve. Rights-holders and stakeholders have different restoration visions and strategies across the landscape, which should be recognised and respected. Equity regarding whose vision is prioritised (and how) in ROAM processes is crucial. Additionally, while ROAM guidance considers the need for long-term learning and adaptation, more could be provided in terms of, for example, supporting learning and adaptation of FLR visions in a dynamic landscape over time. Such learning should be multi-directional and grounded in the context and its history.

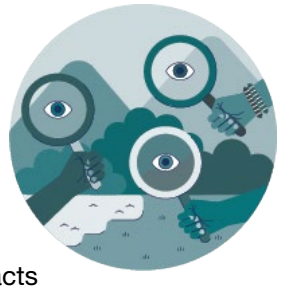
Principle 6 - Coordination and coherence: *Actors involved in or affecting natural resource governance coordinate around a coherent set of strategies and management practices.*

Coordination helps ensure the ROAM process has an appropriate institutional home and harmonised leadership and implementation across sectors, in collaboration with numerous rights-holders and stakeholders. In terms of content, ROAM processes often (although to varying degrees) consider coordination and coherency in the institutional landscape for restoration. ROAM can provide a platform for improved coordination for FLR, with impacts within and beyond the assessment. For example, the creation of multi-stakeholder and cross-sectoral platforms have enhanced FLR coordination and coherence in some countries. Further guidance on the formation and governance of such platforms could help ensure that they are inclusive, including of Indigenous peoples and local communities, and enable equitable and effective FLR over time.

Principle 7 - Sustainable and equitably shared resources: *Actors responsible for natural resources have the means necessary to carry out sustainable management and governance activities, including from the equitable sharing of benefits generated from natural resources*

Restoration has economic, social/cultural and environmental costs and benefits. Benefit sharing and sustainability are often considered in-depth during ROAM processes, and the guidance suggests taking into account economic, environmental and social factors. However, while various material and non-material benefits are considered in ROAM processes, the costs of restoration are generally viewed more narrowly from an economic perspective. Analysing costs and benefits across geographical and temporal scales and considering distributional equity were also noted as challenges. ROAM guidance and processes could also integrate broader concepts of well-being, e.g. when considering impacts of proposed restoration actions.

Principle 8 - Accountability: *Actors responsible for or affecting natural resource governance are accountable for their actions and the environmental and social impacts they produce*



Transparency is important for accountability. ROAM guidance calls for transparency, and case analysis suggests that the process is often transparent to participants. There are also challenges. Process convenors' ability or willingness to coordinate and fulfil their roles varies. Further, when choosing restoration priorities, ROAM guidance does not provide a set of safeguards or a specific way to ensure that potential adverse social impacts are considered and addressed. There are several ways this could be, and sometimes is, done in practice (see Recommendations 11 and 18). Another challenge concerns answerability, or accountability, for longer-term restoration implementation and monitoring. Although long-term accountability is largely outside ROAM's scope, ROAM outputs can point the way to accountability, e.g. by providing information about who should be accountable to whom in FLR initiatives, including accountability to Indigenous peoples and local communities.

Principle 9 - Fair and effective rule of law: *Natural resource-related laws and their application are fair and effective and protect fundamental rights*

ROAM considers laws, policies and rules related to restoration as part of broader legal and policy analysis, e.g. as enabling factors. At the same time, there is little focus in ROAM guidance on considering the fairness of laws and their enforcement, including their consistency with fundamental rights. While resolving concerns related to the content or enforcement of law is likely to be outside the scope of a ROAM process, identifying such concerns can help ensure that they are taken into account, including in the prioritised FLR initiatives.

Principle 10 - Access to justice and conflict resolution: *People are able to seek and obtain remedies for grievances and resolve conflicts regarding land and natural resources*

While conflict resolution is not a focus of the guidance, ROAM processes often address related issues in practice. Some ROAM processes are intended, in part, to acknowledge and resolve conflicts so that rights-holder and stakeholder-defined FLR can move forward. ROAM assessments may also be carried out in landscapes where there are, or recently have been, conflicts that need to be taken into account in process design and facilitation. Conflict may also arise (or become more visible) during ROAM processes, such as around questions of who makes decisions, has rights and responsibilities, and benefits and bears costs related to restoration. Finally, access to justice and conflict resolution are key considerations for ROAM processes because they are important for effective and equitable FLR. More ROAM guidance and experience sharing in this area would be helpful.

Recommendations

Based on this analysis, the publication offers **20 recommendations to enhance the integration of governance considerations in ROAM guidance and practice**. The recommendations summarised in the table below are aligned with the phases and key steps of ROAM processes. **The recommendations reflect both the strengths and challenges identified in the analysis**. For example, some recommendations highlight good practice that was observed in the cases and that could be more strongly reflected in ROAM guidance. The aim is not to be exhaustive, but rather to provide initial, practical recommendations that are (or could be) within ROAM's scope. These offer a step towards more complete governance guidance and tools, which could be developed going forward. Rights-holders and stakeholders in ROAM processes may also have other recommendations and preferred approaches.

Recommendations for enhancing governance considerations in ROAM	Related NRGF Principles
Before beginning ROAM process	
1. **Fully integrate governance and rights in ROAM guidance and training.**	All
ROAM Phase 1: Preparation, consultation and planning	
2. **Convene inclusive and effective coordination for the ROAM process**. The convening and coordinating institutional partners should be trusted and accountable (including to rights-holders and key stakeholders), well-coordinated (including across scales), committed and supported by sufficient resources and capacities. They should reflect the landscape's diversity, including Indigenous peoples and local communities, and involve people with deep understanding of the context, including governance systems. Include FLR 'champions' at all levels to enable long-term, adaptive, devolved implementation.	1, 3, 4, 6, 8
3. **Fully integrate governance and rights in situational and legal and policy analysis and/or do a governance assessment**. Consider, inter alia: the full range of statutory and customary laws and policies, governance institutions and knowledge systems that guide (and can be impacted by) FLR; tenure and other substantive and procedural rights; land and resource- related injustices and conflicts; accountability arrangements and concerns; and the narratives and assumptions about who is responsible for deforestation and why. Take into account both the current and historical situation.	All
4. **Carry out a robust rights-holder and stakeholder analysis**, including any Indigenous peoples, local communities and other local people who have connection to, own, govern, care for and/or rely on land, territories and natural resources in areas that may be impacted by FLR. Take account of differences in power, including across genders.	1, 4
5. **Ensure an inclusive process with full and effective participation in all phases**. This can be enabled by, among others: working with and through appropriate institutions at all levels; engaging rights-holders and key stakeholders as empowered partners; being transparent and responsive; fully budgeting for participation; and enabling full inclusion of Indigenous peoples, local communities, people of different genders and ages and potentially marginalised groups, through self-determined representation.	1, 3, 5
6. **Align the process to the geographical and institutional scale(s), with inclusion at each level**. Enabling meaningful participation across scales and sectors may require phased or tiered approaches, e.g. sub-national followed by national processes. Local actors who will lead, implement and be impacted by FLR should be partners in processes at all scales.	1, 3, 4, 5
7. **Facilitate multi-stakeholder processes in ways that take account of, and positively impact, power dynamics**, including to enable full and effective participation.	All
8. **Co-generate and respect diverse knowledge**, including through multi-directional learning and contextually appropriate collaborative methods in all ROAM phases. Recognise, respect and include diverse ways of knowing, knowledge-holders and systems, including Indigenous and local knowledge, with FPIC.	3
9. **Support fair, effective conflict recognition and resolution at the appropriate level**. Work through statutory or customary mechanisms at the appropriate level and ensure rights-holders and stakeholders have information about and access to grievance mechanisms, including IUCN's.	10
10. **Develop ROAM objectives and FLR visions with rights-holders and key stakeholders** at each level, and with respect for a **diversity of visions and strategies**. Conveners should be transparent about their objectives and facilitate a process that is open and responsive to the visions and priorities of participants. Given ROAM's scale and FLR's timeframe, there may be a broad vision (e.g. a Bonn Challenge commitment) with diverse visions and strategies at more local levels (e.g. sacred forest restoration or expanded agroforestry). Visions and priorities may change over time.	1,5

Recommendations for enhancing governance considerations in ROAM	Related NRGF Principles
ROAM Phase 1: Preparation, consultation and planning (continued)	
11. **Choose FLR initiative assessment criteria that uphold rights and integrate governance principles**. These criteria, selected during the ROAM process, should help ensure that FLR initiatives will respect rights, avoid adverse impacts on marginalised or vulnerable groups and, wherever possible, enhance landscape governance equity and effectiveness, such as through appropriately recognising and supporting restoration initiatives defined and led by Indigenous peoples and local communities, with FPIC.	2,3,7, 8, 9,10
12. **Fully integrate governance and rights in the ROAM theory of change.** Governance is key to whether and how restoration is implemented and sustained. The theory of change is therefore stronger when it considers governance, including the roles of diverse knowledge, culture and practice and the need for adaptation.	All
ROAM Phase 2: Data collection and analysis	
13. **Ensure rights-holders and key stakeholders are leaders and empowered partners in data collection and analysis**, e.g. through contextually appropriate collaborative research and equitable knowledge sharing and co-generation (see Recommendations 5 and 8)	1,3
14. **Fully integrate governance and rights when developing opportunity maps and prioritising FLR initiatives**, including to ensure prioritised strategies/ initiatives reflect the rights, knowledge and visions of Indigenous peoples, local communities and other local actors who will govern, implement and be impacted by FLR.	All
15. **Integrate key governance factors and rights in cost-benefit and multi-criteria analysis and analyse how FLR options may impact well-being.** Consider diverse (material and non- material) costs and benefits and their distribution – e.g. whose costs? whose benefits? where and over what periods of time? (see Recommendation 11)	2,3,7
16. **Prioritise accountability to local actors in financing analysis**. Consider how funds would be governed and which funding options best support rights-holders' and key stakeholders' priorities, including those of Indigenous peoples and local communities. Prioritise arrangements that ensure financiers' answerability to local actors.	3,4,7,8
ROAM Phase 3: Validation of results and recommendations	
17. **Ensure inclusive, transparent validation processes** (consistent with Recommendations 5–10), such that outputs reflect the visions, priorities and knowledge of rights-holders and key stakeholders, including of Indigenous peoples and local communities, with FPIC.	All
18. **Ensure final ROAM outputs identify FLR initiatives that can uphold human rights and enable effective and equitable governance.** If not done earlier (e.g. Recommendations 11 and 15) refine identified and prioritised initiatives as needed and provide guidance on governance issues that will need to be addressed for equitable, effective implementation.	All
19. **Adopt and roll-out an action plan for ROAM outputs through inclusive, coordinated processes**. Include diverse and innovative solutions, including approaches defined and led by Indigenous peoples and local communities, with FPIC. Be clear about scale and build in ongoing safeguards and resources.	1,4,5, 6,8
20. **Enable longer-term and participatory monitoring, learning and adaptation of FLR plans and strategies**, including through devolved processes, and the application, where relevant, of the Restoration Barometer, with additional indicators related to governance.	1,3,5

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The primary lens for analysis in this publication is the IUCN Natural Resource Governance Framework (NRGF). Several of the publication co-authors are NRGF Working Group members. This publication is among the first analyses of this type using the NRGF. In this sense, it is an NRGF pilot analysis. What we have learned through this process will inform the approach to NRGF correspondence/integration analyses going forward.

Acronyms

AFR100	African Forest Landscape Restoration Initiative
BAPPEDA	Badan Perencanaan Pembangunan Daerah (Provincial Development Planning Agency)
CBD	Convention on Biological Diversity
CEESP (IUCN)	Commission on Environmental, Economic and Social Policy
FCP (IUCN)	Forest Conservation Programme*
FLR	Forest landscape restoration
FMNR	Farmer Managed Natural Regeneration
FPIC	Free, prior and informed consent
GEF	Global Environment Facility
GPFLR	Global Partnership on Forest and Landscape Restoration
GPGR (IUCN)	Global Programme on Governance and Rights*
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IUCN	International Union for Conservation of Nature
JAPESDA	Jaring Advokasi Pengelolaan Sumberdaya Alam (Natural Resource Management Advocacy Network)
KKMD	Mangrove Management Working Group
MEA	Multilateral Environmental Agreement
MFLR	Mangrove Forest Landscape Restoration
MNREM	Ministry of Natural Resources, Energy and Mining – Malawi
NCP	Nature's contribution to people
NFLRA	National Forest Landscape Restoration Assessment
NRGF	Natural Resource Governance Framework
ROAM	Restoration Opportunities Assessment Methodology
SUSCLAM	Tomini Bay Sustainable Coastal Livelihoods and Management project

* IUCN programme name in use at the time that this publication was developed. GPGR has now been integrated into the IUCN Centre for Society and Governance – Human Rights in Conservation Team. FCP has been integrated into the IUCN Forest and Grassland Team.

1 Introduction

Governance is a crucial factor in the equity, effectiveness and sustainability of forest landscape restoration (FLR). Governance concerns questions of, inter alia, how and by whom restoration decisions are made (including on whose land and incorporating whose knowledge and visions) and how FLR can impact rights and well-being in the short- and long-term. In 2014, to assist governments and other rights-holders and stakeholders with making FLR actionable, the International Union for Conservation of Nature (IUCN), in collaboration with the World Resources Institute (WRI), produced the Restoration Opportunities Assessment Methodology (ROAM) (IUCN & WRI, 2014). ROAM provides a framework for governments, rights-holders and stakeholders to define and prioritise FLR actions in a national or sub-national context, using participatory analysis of multiple factors. The ROAM framework, and the processes through which it is applied, address governance issues to varying degrees. The objective of this publication is to **present lessons learned and offer recommendations on governance aspects of the ROAM framework and process and, by doing so, reinforce the ability of ROAM to inform effective, equitable and sustainable FLR**. The analysis uses the IUCN Natural Resource Governance Framework (NRGF) (Springer et al., 2021) as its primary lens and also takes into account FLR principles agreed to by the Global Partnership on FLR (GPFLR) (see Besseau et al., 2018). It analyses strengths, opportunities and challenges in how ROAM addresses governance in its guidance and practice. It then offers recommendations for further integrating governance issues in ROAM, as inputs for developing more comprehensive guidance and practice going forward.

1.1 Importance of governance for FLR and ROAM

With vast areas of the globe facing deforestation and forest degradation, FLR has become a priority involving numerous actors. To date, 61 countries, through 74 pledges, have collectively committed to restoring 210 million hectares of degraded and deforested land in response to the Bonn Challenge[2] and associated regional platforms.[3] Further, recognising the wider loss and degradation of ecosystems, the United Nations has declared 2021–2030 a Decade on Ecosystem Restoration.

There is increasing evidence and awareness that governance is fundamental to effective and equitable conservation (e.g. Bennett et al., 2019; Borrini-Feyerabend et al., 2013; Springer et al., 2021), including restoration (Mansourian, 2016). This includes growing recognition of the extensive coverage and conservation contributions of territories and areas governed by Indigenous peoples and local communities (e.g. Dawson et al., 2021; ICCA Consortium, 2021; IPBES, 2019). An expanding body of research addresses forest governance (e.g. Agrawal et al., 2008; Barrow et al., 2016; McDermott et al., 2010; Nuesiri, 2018; Ribot, 2016) and landscape governance (e.g. Blomley & Walters, 2019; Görg, 2007; van Oosten, 2013; van Oosten et al., 2014; Ros-Tonen et al., 2014). While there is far less research on FLR and governance, this work is also growing (e.g. Erbaugh et al., 2020; Guariguata & Brancalion, 2014; Mansourian, 2016; Mansourian, 2017; McLain et al., 2021). This is crucial because, while insights from forest and landscape governance are useful, FLR presents distinct governance issues. Landscapes are social and ecological systems, shaped by decision-making and power relationships across multiple sectors and spatial and temporal scales. FLR involves and impacts many actors, including local rights-holders and stakeholders across landscapes. As Erbaugh et al. (2020, p. 1) note:

[2] The Bonn Challenge is a global goal to bring 150 million hectares of degraded and deforested landscapes into restoration by 2020 and 350 million hectares by 2030.

[3] See, for example, the AFR100 (the African Forest Landscape Restoration Initiative) and the 20x20 Initiative for Latin America.

While "[f]orest restoration occupies centre stage in global conversations about carbon removal and biodiversity conservation… recent research rarely acknowledges social dimensions or environmental justice implications related to its implementation… Forest landscape restoration that prioritizes local communities by affording them rights to manage and restore forests provides a promising option to align global agendas for climate mitigation, conservation, environmental justice and sustainable development."

The governance aspects of FLR intervention design and implementation are critical, including how and by whom decisions are made, and how costs and benefits are distributed (e.g. Adams et al., 2016; Reed et al., 2016; Walters et al., 2019). When these are not considered and appropriately addressed, initiatives carried out under the name of FLR can create or exacerbate resource related inequities or conflicts. For example, in Canada's Cape Breton Highlands National Park, park authorities' removal of a few moose (to facilitate natural regeneration) created tensions between Indigenous peoples and local communities who wanted to benefit from the moose meat (Mansourian et al., 2019).

The large areas over which FLR is planned (through processes such as ROAM) concern many rights-holders and stakeholders with different rights, interests and power relationships. For example, in Madagascar's Fandriana-Marolambo landscape, WWF (World Wide Fund for Nature) International, with the endorsement of the Government of Madagascar, raised funding from the French government in 2004 to implement a FLR programme in a landscape with 150,000 people from three different ethnic groups. These communities were initially wary of engaging in the project. As a result, significant adjustments had to be made to the project once it had started (Mansourian et al., 2016). While concerns were ultimately addressed, this example demonstrates, inter alia, the importance of ensuring that the vision and priorities of local peoples and communities are reflected in and drive initial FLR conceptualisation and planning.

This publication focuses on ROAM rather than comprehensively considering FLR governance. ROAM aims to operationalise FLR principles and is a widely used methodology for identifying and prioritising FLR strategies and initiatives. Accordingly, a ROAM process contributes to the entire FLR process (including design, implementation and monitoring) and is a means to an end – not the end in itself.

In different FLR phases, distinct aspects of governance may take on more importance (Mansourian, 2016). For ROAM, governance issues related to FLR planning and initiation tend to be most important/prominent. Furthermore, governance opportunities and challenges in the landscape will largely define how the ROAM process is carried out and what outcomes it generates. Key issues may relate, for instance, to tenure conflict (Lovelock & Brown, 2020; McLain et al., 2021) or lack of cross-sectoral coordination (Mansourian, 2017).

Therefore, the rights-holders and stakeholders convening and participating in the ROAM process need to consider not only the state of governance in the landscapes in which restoration opportunities are being assessed, but also prioritise effective and equitable FLR strategies and approaches that can adapt to a changing governance context over time. ROAM guidance and processes address governance issues to varying extents and in evolving ways. **A more systematic integration of natural resource governance principles can add value to ROAM**.

Colombia: Participants carry out a Restoration Diagnostic at a stakeholder workshop. *Photo credit: Mirjam Kuzee.*

1.2 Scope and methods

Content and structure: This publication analyses strengths, opportunities and challenges in how ROAM addresses governance in guidance (Section 3) and practice (Sections 4 and 5).[4] It then provides recommendations for more systematically and comprehensively integrating governance principles in ROAM going forward (Section 6). With respect to both guidance and practice, the analysis considers, as much as possible, the process (e.g. how ROAM assessments are, or are meant to be, governed) and content (e.g. how governance issues in the target landscapes are, or are meant to be, considered during those processes).

Audience: This publication aims to support ROAM practitioners, including conveners, coordinators, facilitators and other participants in the process. Some recommendations also pertain to ROAM guidance and training. It assumes that the reader is familiar with ROAM, including its phases and main steps.

Methodology: Primary analysis methods used are: (1) review of the most relevant ROAM guidance; (2) analysis of four ROAM processes (from assessments in Colombia, Indonesia, Malawi and Rwanda) based on interviews and document review; and (3) additional research, including review of selected literature. The analysis also considers some recent changes in ROAM practice and training. It uses the NRGF as its primary lens and takes into account FLR principles.

Case analysis: Cases were selected in collaboration with the IUCN Forest Conservation Programme[5] and IUCN regional offices. Each case provides lessons for how governance has been – and could further be – integrated into ROAM processes. Collectively, the cases cover diverse regions, demonstrate a range of strengths and challenges, and include a variety of institutional partners. Each individual case had sufficient documentation available and associated points of contact willing to share reflections, included IUCN as a supporting partner and had completed all phases of ROAM. Interviews were held with at least three key informants per case.

Evolution as to how ROAM addresses governance: The case-selection criterion that the assessment be 'complete' - including all major steps in the ROAM Handbook (IUCN & WRI, 2014) – is important in part because it enables analysis of how governance is addressed in all phases. However, many ROAM process have also been initiated in the years since the four focal cases began. ROAM is constantly evolving, including in how it addresses governance. Therefore, while most practice-related findings and lessons are drawn from the four focal cases, the analysis also considers recent innovations in ROAM approaches, based on co-authors' experience and interviewee and reviewer inputs.

Comprehensiveness: While this analysis aims to be fairly comprehensive, there is always more to learn. Interviews were largely limited to individuals from convening organisations. They do not include direct accounts from participating community members. This should be a priority for future analysis. Although interviewees were generally open, it was difficult to obtain information about certain issues, including aspects of accountability. This may be due in part to budget constraints that limited the time available for research and necessitated remote interviews.

[4] Where data was available, the analysis also considers impacts, including how and to what extent ROAM has resulted in FLR coordination or implementation.

[5] This refers to the name of the programme at the time that this publication was developed. FCP is now integrated into the IUCN Forest and Grassland Team.

2 Alignment between NRGF and FLR principles

The analysis in this publication was undertaken using the NRGF, an IUCN knowledge resource created to provide a robust, inclusive and credible approach to assessing and improving natural resource governance. At its core is a normative framework of values, principles and criteria for equitable and effective natural resource governance (Springer et al., 2021; see also Annex 1). The NRGF aims to be applicable to diverse levels and natural resource governance contexts, including restoration.

This analysis also takes account of the FLR principles agreed to by the Global Partnership on FLR (GPFLR) in 2018, which ROAM seeks to operationalise and advance.[6] These principles unpack and describe the FLR process.

Table 1 shows the alignment between these two sets of principles. Several points of caution are necessary in understanding this alignment mapping. Firstly, the two sets of principles reflect different objects: a **normative framework** for governance (NRGF) versus largely **descriptive elements** of a long-term forest landscape restoration process (FLR). Secondly, they address different subjects. NRGF principles focus on governance, while FLR principles focus on many dimensions of FLR (including governance). In particular, and in keeping with some of the most widely used definitions of FLR, the FLR principles reflect, among others, FLR's: (1) dual social-ecological dimensions; (2) scale (the landscape); and (3) long-term nature. Finally, the mapping only considers principles. The fuller meaning of NRGF principles is elaborated in criteria that consider, inter alia, the laws and policies, processes and practices that enable their realisation (see Annex 1).

Despite these differences, governance is intrinsic to many FLR principles and thus, **many of the NRGF principles can apply to and reinforce those of FLR**. At the same time, the NRGF generally goes further in describing key elements of effective and equitable governance. Therefore, the **NRGF can add value and deepen the approach to governance within ROAM, as part of longer-term FLR**. Specifically, the mapping exercise (Table 1) highlights that:

- Two principles, concerning participation and the recognition and inclusion of diverse knowledge and cultures, apply *relatively strongly* to both NRGF and FLR.
- Three NRGF principles are *moderately aligned* with/reflected in FLR principles.
- Three NRGF principles are *weakly aligned* with/reflected in FLR principles.
- Two NRGF principles do not appear to be considered in the FLR principles, namely: accountability and fair and effective rule of law.
- One FLR principle (maintain and enhance natural ecosystems within landscapes) does not map explicitly with any NRGF principle but reflects instead an underlying NRGF value.

[6] The FLR principles have seen many iterations. The most widely agreed upon are those articulated by the GPFLR (see Besseau et al., 2018, Fig. 4, p. 18). ROAM initially worked with eight principles, which were broadly similar to those from GPFLR (see IUCN & WRI, 2014). However, more recently, the ROAM process has adopted the GPFLR set of six principles.

Table 1: Alignment between NRGF and FLR principles

NRGF principles		FLR principles
Inclusive decision-making: Decision-making regarding natural resource policies and practices is based on the full and effective participation of all relevant actors, with particular attention to the voice and inclusion of rights-holders and groups at risk of marginalisation.	Relatively strong alignment 	**Engage stakeholders and support participatory governance:** FLR actively engages stakeholders at different scales, including vulnerable groups, in planning and decision-making regarding land use, restoration goals and strategies, implementation methods, benefit sharing, monitoring and review processes.
Recognition of and respect for tenure rights: Rights to lands, resources and waters are recognised and respected, with particular attention to the customary, collective rights of Indigenous peoples and local communities, and to women's tenure rights.	Weak alignment 	**Engage stakeholders:** ... actively engages stakeholders ... including vulnerable groups, in planning and decision-making regarding land use... * **Focus on landscapes:** ... representing mosaics ... under various tenure and governance systems ... * * *These two FLR principles touch on but do not specifically address recognition and respect for tenure rights, including collective rights*.
Recognition of and respect for diverse cultures, knowledge and institutions: Natural resource governance is grounded in sound and diverse forms of knowledge and respect for diverse natural resource values and practices.	Relatively strong alignment 	**Tailor to the local context using a variety of approaches:** FLR uses a variety of approaches that are adapted to the local social, cultural, economic and ecological values, needs, and landscape history. It draws on latest science and best practice, and traditional and Indigenous knowledge, and applies that information in the context of local capacities and existing or new governance structures.
Devolution: Decisions are taken at the lowest possible level appropriate to the social and ecological systems being governed, with particular attention to supporting the roles and authority of local communities in natural resource governance.	Weak alignment 	**Engage stakeholders:** ... actively engages stakeholders at different scales ... * * *This FLR principle addresses engagement at different scales but does not address empowered devolution per se.*

Source: Springer et al. (2021).

Source: FLR Principles agreed upon by the GPFLR (see Besseau et al. (2018), Fig. 4, p. 18).

Table 1: Alignment between NRGF and FLR principles (continued)

NRGF principles		FLR principles
Strategic vision, direction and learning: Natural resource governance is guided by an overall vision of desired environmental and social ends, and allows for adaptation in response to learning and changing conditions.	Moderate alignment 	**Manage adaptively for long-term resilience:** FLR seeks to enhance the resilience of the landscape and its stakeholders over the medium- and long-term. Restoration approaches should enhance species and genetic diversity and be adjusted over time to reflect changes in climate and other environmental conditions, knowledge, capacities, stakeholder needs and societal values. As restoration progresses, information from monitoring activities, research and stakeholder guidance should be integrated into management plans.
Coordination and coherence: Actors involved in or affecting natural resource governance coordinate around a coherent set of strategies and management practices.	Moderate alignment 	**Focus on landscapes:** FLR takes place within and across entire landscapes, not individual sites, representing mosaics of interacting land uses and management practices under various tenure and governance systems. It is at this scale that ecological, social and economic priorities can be balanced.
Sustainable and equitably shared resources: Actors responsible for natural resource governance have the resources they need to carry out sustainable management and governance activities, including from the equitable sharing of benefits generated from natural resources.	Moderate alignment 	**Restore multiple functions for multiple benefits:** FLR interventions aim to restore multiple ecological, social and economic functions across a landscape and generate a range of ecosystem goods and services that benefit multiple stakeholder groups.* ** Also implied - though not explicitly addressed - by FLR principle on stakeholder engagement*
Accountability: Actors responsible for or affecting natural resource governance are accountable for their actions and the environmental and social impacts they produce.	No directly aligned FLR principle	
Fair and effective rule of law: Natural resource-related laws and their application are fair, effective and protect fundamental rights.	No directly aligned FLR principle	

Source: Springer et al. (2021).

Source: FLR Principles agreed upon by the GPFLR (see Besseau et al. (2018), Fig. 4, p. 18).

Table 1: Alignment between NRGF and FLR principles (continued)

NRGF principles		FLR principles
Access to justice and conflict resolution: People are able to seek and obtain remedies for grievances and resolve conflicts regarding land and natural resources.	Weak alignment	*Also implied - though not explicitly addressed - by FLR principle on stakeholder engagement*
Reflected in cross-cutting NRGF value of sustaining nature	Addressed as NRGF value	**Maintain and enhance natural ecosystems within landscapes**: FLR does not lead to the conversion or destruction of natural forests or other ecosystems. It enhances the conservation, recovery and sustainable management of forests and other ecosystems.

Source: Springer et al. (2021).

Source: FLR Principles agreed upon by the GPFLR (see Besseau et al. (2018), Fig. 4, p. 18).

Indonesia: Staff from a local NGO (JAPESDA) discussing the process of mangrove conversion to fish ponds in the Tanjung Panjang Nature Reserve. Photo *credit: Li Jia*

3 Governance in ROAM guidance

This section summarises strengths and gaps in how governance is addressed in ROAM guidance. The analysis here and in Section 5 inform the recommendations in Section 6. The sources, selected as the most relevant among the body of published ROAM guidance, are:

- *A guide to the Restoration Opportunities Assessment Methodology (ROAM)* (hereafter *Handbook*), which was developed in 2014 to guide assessment teams (IUCN & WRI, 2014).
- *Gender-Responsive Restoration Guidelines* (hereafter *Gender Guidelines*), which were developed to "ensure the application of ROAM and the ensuing FLR implementation […] is gender responsive" (IUCN, 2017, p. 1).
- *The Restoration Diagnostic* (hereafter *Diagnostic*), which describes a process for identifying or developing successful FLR strategies. The Diagnostic can be used as a component of ROAM or as a stand-alone tool (Hanson et al., 2015).
- A relatively new culture survey tool (see Box 2).

Table 2. Governance issues integration in ROAM guidance

Strengths	Gaps and topics for enhanced guidance
NRGF Principle 1: Inclusive decision-making	
– All reviewed sources promote multi-stakeholder approaches and identify stakeholder groups, including women[7] – *Diagnostic* notes local people's empowered engagement as FLR enabling condition[8] with strategies to address gaps	– Enabling full and effective participation, including in multi-stakeholder processes in contexts of unequal power – Respecting related rights, including to FPIC[9] – Understanding how inclusive decision-making for FLR is enabled and/or impeded in the landscape
NRGF Principle 2: Recognition and respect for tenure rights	
– *Handbook* and *Diagnostic* highlight clear land rights as enabling factor, with Diagnostic noting importance of customary rights alignment – *Gender Guidelines* encourage ROAM to "[i]mprove women's rights to land and natural resources"	– Understanding why and how to recognise and respect statutory and customary tenure rights in ROAM processes (e.g. ensuring rights are identified) and outcomes (e.g. analysing likelihood that prioritised FLR initiatives will uphold rights)

Sources: Summary analysis of strengths and gaps in how governance issues are addressed in ROAM guidance (IUCN & WRI, 2014; IUCN, 2017; Hanson et al., 2015; and the culture survey tool) in relation to NRGF principles (Springer et al., 2021).

[7] For example, the Handbook states that "[b]alanced stakeholder involvement is a critical aspect of a successful assessment to ensure that the analysis is properly informed by their knowledge and experience, and takes into account their views on the potential impacts of FLR on their livelihoods and interests" (IUCN & WRI, 2014, p. 48).

[8] "People living in and around the candidate landscape are empowered to become involved in the design of the forest restoration program, help define restoration goals, and play a role in management" (Hanson et al., 2015, p. 60).

[9] ROAM Handbook notes that for "actual project interventions on the ground […] consultation, dialogue, information-exchange with, and ultimately consent from, local farmers and communities would be essential" (IUCN & WRI, 2014, p. 114).

Table 2. Governance issues integration in ROAM guidance (continued)

Strengths	Gaps and topics for enhanced guidance
NRGF Principle 3: Recognition of and respect for diverse cultures, knowledge and institutions	
– Culture survey tool supports recognition of traditional and cultural knowledge (see Box 2) – *Handbook* strongly encourages incorporation of stakeholder knowledge ('best knowledge' and 'best data') – *Handbook* and *Gender Guidelines* suggest assessment team with relatively diverse expertise – *Gender Guidelines* have recommendations on incorporating women's knowledge, including gender analysis – *Diagnostic* highlights importance of FLR knowledge generation and sharing, including traditional knowledge	– Appropriately recognising and including diverse knowledge, ways of knowing and institutions in ROAM processes at all scales, including Indigenous and local knowledge and governance systems – Enabling equitable knowledge sharing and co-generation in long-term partnerships, including with Indigenous peoples and local communities
NRGF Principle 4: Devolution	
– ROAM *guidance* can be implemented at multiple levels	– Enabling inclusive assessment across scales – Analysing how devolved FLR is enabled and/or impeded in the landscape, including with respect to Indigenous peoples' and local communities' governance systems
NRGF Principle 5: Strategic vision, direction and learning	
– *Guidance* overall reflects vision and direction in GPFLR principles (see Table 1) – *Handbook* highlights importance of negotiated, local landscape-grounded vision for FLR, noting it may evolve – *Gender Guidelines* highlight importance of reflecting women's rights and needs in FLR vision	– Facilitating processes to develop broadly shared and locally diversified visions for FLR across diverse landscapes – Enabling/encouraging longer-term learning and adaptation of FLR in ROAM outputs
NRGF Principle 6: Coordination and coherence	
– *Handbook* emphasises finding institutional home for assessment and connecting stakeholders and policy makers – *Gender Guidelines* highlight importance of engaging women's groups across sectors and levels – *Diagnostic* notes need for alignment among policies affecting restoration and calls for clear roles among stakeholders and effective institutional coordination	– Enabling coordination between convening organisations – Coordinating inclusive assessment across scales (local to sub-national and national levels) – Analysing in more detail the alignment among laws, policies and processes that can enable and/or impede equitable and effective FLR

Sources: Summary analysis of strengths and gaps in how governance issues are addressed in ROAM guidance (IUCN & WRI, 2014; IUCN, 2017; Hanson et al., 2015; and the culture survey tool) in relation to NRGF principles (Springer et al., 2021).

Table 2. Governance issues integration in ROAM guidance (continued)

Strengths	Gaps and topics for enhanced guidance
NRGF Principle 7: Sustainable and equitably shared resources	
– *Handbook* focuses on restoration of "multiple functions for multiple benefits" for stakeholders – An economic cost and benefit analysis method has been developed – *Gender Guidelines* highlight gender-differentiated roles, opportunities and barriers to benefitting from restoration – *Gender Guidelines* and *Diagnostic* support assessment of benefits across economic, social and environmental aspects, with diagnostic noting need for clear benefits to be understood by stakeholders as an enabling factor	– Ensuring cost-benefit analysis considers material and non-material factors, including their distribution and scale – Integrating broader concept of well-being in ROAM analyses (in line with FLR focus on enhancing human well-being)
NRGF Principle 8: Accountability	
– *Handbook* advises transparent process and outcomes – *Gender Guidelines* help ensure processes and outputs are answerable to all genders – *Diagnostic* notes that empowered decision-making requires accountability for decisions and grievance mechanisms	– Analysing potential social and environmental impacts of FLR options, e.g. through the selection and application of assessment criteria – Considering more explicitly who is accountable to whom in ROAM process and outcomes – Analysing accountability relationships and concerns in the landscape and how these may enable and/or impede effective and equitable FLR
NRGF Principle 9: Fair and effective rule of law	
– *Handbook* and *Diagnostic* address rule of law as enabling condition for restoration[10] – *Gender Guidelines* address extent to and ways in which laws enable gender inclusion	– Further analysing full set of laws and policies related to restoration and social inclusion in it, including fairness and human rights adherence in content and enforcement
NRGF Principle 10: Access to justice and conflict resolution	
– *Handbook* encourages consideration of land related conflicts – *Gender* Guidelines advise learning about social conflicts over resource use in the assessment area – *Diagnostic* notes that empowerment requires grievance mechanisms	– Ensuring rights-holders know what their rights are – Where needed, supporting access to justice and fair resolution of conflict through appropriate statutory or customary processes or grievance mechanisms (including IUCN's)

Sources: Summary analysis of strengths and gaps in how governance issues are addressed in ROAM guidance (IUCN & WRI, 2014; IUCN, 2017; Hanson et al., 2015; and the culture survey tool) in relation to NRGF principles (Springer et al., 2021).

[10] Diagnostic notes that FLR success is enabled where laws requiring restoration are "understood by relevant actors and […] enforced in a visible, credible, and fair manner" (Hanson et al., 2015, p. 30).

4 Case background

This section briefly describes the four ROAM process case examples. The governance related lessons from each case are then analysed in Section 5, in relation to NRGF principles.

As described in Section 1.2 (Scope and methods), these cases were selected in collaboration with IUCN, based on the criteria that they each had sufficient information available, included IUCN as a partner, and had completed all ROAM phases, as well as collectively covering diverse regions and lessons.

4.1 Colombia[11]

Restoration has become a key activity for Colombia to achieve its national conservation priorities and international commitments. The ROAM process in eastern Antioquia identified options for increased connectivity between landscapes, ecosystems and habitats, and provided insight into the potential for FLR in post-conflict Colombia (see Table 3). The process positioned FLR as a key activity to address the 2016 peace agreement, including through enabling alternative livelihood options for the 600,000 displaced people returning to previously occupied conflict zones.

Table 3. Colombia – Context, convenors and entry points of the ROAM Process

Context	ROAM process leads	Entry point(s)
– **Spatial scale**: Sub-national, eastern Antioquia sub-region (827,600 hectares) – **Assessment period**: 2016–2018 – **Bonn Challenge pledge**: 1 million hectares by 2020	– **Humboldt Institute**: Non-regulatory government research centre; technical lead in-country; team included group leader, economist, land use specialist, sociologist and administrator. – **Corporación Autónoma Regional de los Ríos Negro y Nare (CORNARE)**: Decentralised branch of environment ministry; played political role, facilitating local acceptance and integration of ROAM process with other relevant processes. – **Universidad Católica de Oriente (UCO):** Focused on specific restoration aspects, e.g. developing tree nurseries; strong links with local communities. – **IUCN**: Coordinated ROAM process globally and provided technical assistance (knowledge, tools methodologies, etc.) to Humboldt Institute.	– Availability of funding – Well-established and active IUCN Member (Humboldt Institute) – Enabling conditions in area, in particular through CORNARE and the BancO2 initiative[12] – Potential for wider rollout of FLR and ROAM via CORNARE and the Association of Regional Environmental Authorities (ASOCARS) – National restoration plan – Bonn Challenge pledge

Sources: ROAM process details drawn from Isaacs-Cubides et al. (2017) and key informant interviews.

Eastern Antioquia has been strongly impacted by the country's 50-year conflict, where many people were kidnapped or killed or have fled to escape the conflict. The Antioquia region as a whole includes 20% of those who were displaced (over one million people) (Buitrago & Valencia, 2013). The high *páramo* (high-elevation ecosystem) still contains anti-personnel mines and many 'no-go zones'.

The 2016 peace accord impacts land use because it includes the creation of a fund to provide three million

[11] Case background draws on ROAM report (Isaacs-Cubides et al., 2017) and key informant interviews.

[12] For more information, please see: https://banco2.com/.

hectares of land to the most impacted rural communities. These lands are expected to come from the update, demarcation and strengthening of forest reserves, and communities are expected to develop plans to protect the environment and manage it sustainably (Bustos & Jaramillo, 2016).

At the national level, Colombia's 2013–2023 National Restoration Plan (MADS, 2013) promotes restoration of degraded ecosystems while recognising traditional uses that do not degrade ecosystems. The plan has three priorities: (1) ecological restoration; (2) rehabilitation; and (3) reclamation. Each priority includes corresponding actions, objectives and indicators, which are to be carried out over 20 years in the short term (three years), medium term (eight years) and long term (20 years).

In Antioquia, multi-stakeholder dialogues were a key component of the ROAM process. Their outputs provided policy makers with options for strengthening territorial management. These options are informed by policy, legal and financial analyses, and many seek to build on initiatives already initiated by CORNARE.[13]

The ROAM process in Colombia also included a study of financial incentives for restoration as well as the identification and prioritisation of restoration opportunities in eastern Antioquia. Following the process, Grupo Argos S.A (a Colombian conglomerate with large investments in the cement and energy industries) and Celsia (Grupo Argos S.A's energy company, which owns hydro, thermal and wind power generation plants in Antioquia) financed pilot restoration projects in the six prioritised areas identified from the ROAM process. This form of FLR financing highlights both the potential for ROAM outputs to inform longer-term FLR initiatives and the importance of such initiatives being implemented through continued rights-holder and stakeholder engagement and monitoring, with accountability for social and environmental impacts.

4.2 Indonesia[14]

The ROAM process in Gorontalo, Sulawesi, Indonesia was initiated to assess mangrove FLR opportunities in a landscape where 5,304 hectares (out of an original 8,847 hectares) of mangrove forests had been converted to aquaculture ponds over the past two decades (see Table 4). The Tanjung Panjang Landscape includes a National Nature Reserve (TPNR) and a District-level Conservation Forest Management Unit (FMU-C), both of which had been illegally deforested for aquaculture use.

The ROAM process included three phases: (1) planning and preparation; (2) data collection and analysis; and (3) results to recommendations. Phase 1 involved an inception workshop with 19 participants from 13 institutions, as well as an independent stakeholder analysis performed by the research team. Phase 2 involved field data collection, including stakeholder interviews, economic costs and benefits analysis and biophysical research to inform restoration opportunities mapping.

The restoration opportunity mapping took place during a second workshop, attended by 42 participants representing 20 stakeholder groups from local government agencies, NGOs, the local fish farming community of Tanjung Panjang and academia. The participants were given information about the collected data, which they then used to collectively construct an historical timeline of mangrove restoration-related policy and governance in the landscape. After further discussion, restoration opportunity mapping and work planning, three restoration scenarios were developed for the landscape at that time: conservative (133 hectares); moderate (842 hectares); and full restoration (2,492 hectares) scenarios – each proposing ecological mangrove rehabilitation methods.

Phase 2 also included qualitative content analysis of stakeholder interviews to uncover underlying issues that posed barriers to mangrove FLR. Some of these barriers did not emerge during the multi-stakeholder workshop due to power inequities.

[13] These include BancO2, initiatives related to the regional protected areas system and a biodiversity offsetting mechanism for offsetting large-scale projects.

[14] Case background draws on Brown (2021).

Table 4. Indonesia – Context, convenors and entry points of the ROAM Process

Context	ROAM process leads	Entry point(s)
– **Spatial scale**: Sub-national, Province of Gorontalo, on the island of Sulawesi, Indonesia; specific landscape included Tanjung Panjang National Nature Reserve (3,211 hectares) and Pohuwato District Protected Forest (1,644 hectares) – **Assessment period**: January–December 2017 – **Bonn Challenge pledge**: NA	– **Blue Forests**: Indonesian NGO based in South Sulawesi with 20 years' experience in integrated mangrove management, including mangrove forest landscape restoration; led facilitation and coordination of ROAM in Tanjung Panjang and provided research support. – **JAPESDA**: Indonesian NGO based in Gorontalo; co-facilitated ROAM process and provided research support; has prior experience with IUCN-managed the Tomini Bay Sustainable Coastal Livelihoods and Management (SUSCLAM) project in the region. – **Mangrove Management Working Group of Gorontalo (KKMD)**: Multi-stakeholder provincial-level working group; the institutional home for ROAM in Indonesia. – **Charles Darwin University Research Institute for Environment and Livelihoods**: Provided research support for ROAM. – **IUCN Asia**: Provided funding for ROAM process and development of a short documentary, as well as facilitation and planning assistance.	– Availability of funding – ROAM adopted as FLR assessment process by Ministry of Environment and Forestry – Official policy (2017) mandating full mangrove restoration in Indonesia by 2045[15]

Sources: ROAM process details drawn from Brown (2021), key informant interviews and co-author inputs.

Phase 3 involved a validation workshop with 24 representatives from 14 institutions. During this workshop, the three restoration scenarios were adopted as phases of restoration. This phased approach was later ratified by the Provincial Planning Agency (BAPPEDA).

Although the ROAM process resulted in consensus, clear concerns and barriers emerged during the process. The concerns became more evident once private sector funding was offered for the full restoration scenario, but was rejected by stakeholders for fear of inciting conflict or resulting in leakage.[16] Stakeholders are currently interested in implementing phases 1 and 2, which would restore 2.5% and 15.9% of the deforested landscape, respectively.

4.3 Malawi[17]

In 2016, Malawi made a 4.5 million hectare national restoration commitment to the African Forest Landscape Restoration Initiative (AFR100)[18] and the Bonn Challenge (two million hectares by 2020 and 2.5 million hectares by 2030). Prior to their commitments, a pilot ROAM process was conducted in the Liwonde Forest Reserve by the Department of Forestry, USAID and WRI. Malawi then conducted a ROAM process in 2016 at both the national and local levels with support from IUCN, WRI and USAID. A multi-sector Task Force was organised to guide the process (see Table 5).

[15] More recently, Presidential Instruction No. 120 (2020) defined supportive processes to enable realisation of this 2045 commitment, including a feasibility assessment, livelihoods support and improved governance to ensure conservation of restored mangroves.

[16] Leakage in this context refers to the unanticipated increase in deforestation elsewhere.

[17] Case background draws on ROAM report (Ministry of Natural Resources, Energy and Mining (MNREM) Malawi, 2017) and key informant interviews.

[18] For more information, see https://afr100.org/.

Table 5. Malawi – Context, convenors and entry points of the ROAM Process

Context	ROAM process leads	Entry point(s)
- **Spatial scale**: National and sub-national - **Assessment period**: February–November 2016 - **Bonn Challenge & AFR100 pledge**: 2 million hectares by 2020 and 2.5 million hectares by 2030	–**Minister of Natural Resources, Energy and Mining**: Worked in close collaboration with the following ministries: Agriculture, Water and Irrigation; Lands; Local Government; Finance; Gender and Social Services; and other concerned stakeholders. –**USAID (PERFORM project), IUCN and WRI**: Facilitated the ROAM process; provided technical assistance (knowledge, tools, methodologies, etc.); carried out the spatial data analysis, mapping and cost-benefit analysis; and drafted the resulting ROAM report and strategy documents.	–Full funding –Bonn Challenge pledge –AFR100 pledge

Sources: ROAM process details drawn from MNREM Malawi, (2017) and key informant interviews.

The key steps in the 2016 ROAM process in Malawi included:

- stakeholder consultations at national, district and rural community levels;
- stocktaking of successful restoration interventions, with participation from all 28 District Assemblies;
- spatial analysis and mapping of degradation and restoration opportunities;
- economic and financial analysis of restoration costs and benefits;
- identification of baseline information and proposed monitoring indicators;
- policy and institutional analysis in support of restoration; and
- application of the gender-responsive restoration guidelines, the WRI Restoration Diagnostic and a cultural restoration assessment.

The ROAM process was funded by the USAID/Malawi Protecting Ecosystems and Restoring Forests in Malawi project. Additional assistance was provided to the National Forest Landscape Restoration Assessment (NFLRA) team by WRI (with support from BMZ[19]) and IUCN (with support from UKAid[20]). The ROAM process stimulated several projects between 2017 and 2019 on monitoring restoration and communication to rural populations. Restoration implementation projects began in 2020.

4.4 Rwanda[21]

In 2011, in response to the Bonn Challenge, Rwanda pledged to restore two million hectares of deforested and degraded land by 2020 – an ambitious target given that Rwanda's total land area is 2.64 million hectares. The country has adopted related policies and plans that prioritise the forest sector, such as:

- The Economic Development and Poverty Reduction Strategy, which elaborates a programme to increase forest cover to 30% of the country's land area;
- Vision 2020, the national development plan; and
- The national Green Growth and Climate Resilient Strategy, which aims to enable development of a climate-resilient and low-carbon economy by 2050.

[19] BMZ is Germany's Federal Ministry for Economic Cooperation and Development.

[20] UKAid is the UK Department for International Development.

[21] Case background draws on ROAM report (Ministry of Natural Resources–Rwanda, 2014) and key informant interviews.

Table 6. Rwanda – Context, convenors and entry points of the ROAM Process

Context	ROAM process leads	Entry point(s)
– **Spatial scale**: National – **Assessment period**: 2014, with a follow-up forest cover mapping in 2019 – **Bonn Challenge & AFR100 pledge**: 2 million hectares by 2020	– **Department of Forestry and Nature Conservation** (of the Rwanda Natural Resources Authority – RNRA): Worked in collaboration with IUCN and WRI, with the support of international partners, including: BMU Germany,[22] DFID UK,[23] UKAID, World Bank, United Nations, the African Union and the Global Partnership for Forest Landscape Restoration (GPFLR).	– Full funding – Bonn Challenge pledge – AFR100 pledge

Sources: ROAM process details drawn from Ministry of Natural Resources–Rwanda (2014) and key informant interviews.

The government aims to expand opportunities for investment in FLR over the long-term by creating enabling conditions for social enterprises, donors and investors. It also aims to meet its related international development and environmental commitments. These include commitments under AFR100, the Sustainable Development Goals (SDGs) and Multilateral Environmental Agreements (MEAs), e.g. the United Nations Convention to Combat Desertification (UNCCD) Land Degradation Neutrality Target, the UN Framework Convention on Climate Change (UNFCCC) Nationally Determined Contributions (NDCs), and the Convention on Biological Diversity (CBD) Aichi Targets.

In 2014, the Government of Rwanda, in partnership with IUCN and WRI, carried out a national forest restoration assessment using ROAM (see Table 6), in part to define how it would meet its commitment under the Bonn Challenge. The assessment identified forest restoration potential from expanding agroforestry (1,110,476 hectares), changing management in woodlots (255,930 hectares) and timber plantations (17,849 hectares), and restoring natural forests (13,933 hectares) and protected forests (128,191 hectares). The assessment report also noted a need for capacity building in the forestry sector, which had yet to fully recover from loss of knowledge and human resources due to the 1994 genocide (Ministry of Natural Resources–Rwanda, 2014). The assessment showed that, for it to succeed, the strong FLR commitment from the government must be supported by an equally strong, coordinated effort by civil society, development partners and donors.

The Rwanda ROAM process and its outputs have had a strong impact on FLR. For example, since 2015, they have directly informed IUCN FLR projects in the Eastern provinces (Clear Horizon Consulting, 2016) and influenced the execution of the GEF-funded Landscape Approach to Forest Restoration and Conservation (LAFREC) project, which commenced in January 2015 in the Gishwati-Mukura corridor and surrounding forest landscapes.[24]

Rwanda: Heavy sediment loads in rivers pose problems for energy output and continuity. ROAM processes can help identify strategies to address such challenges. *Photo credit: Mirjam Kuzee*

[22] BMU is Germany's Federal Ministry of the Environment, Nature Conservation and Nuclear Safety.

[23] DFID was the UK's Department for International Development. DFID has been replaced by the Foreign, Commonwealth & Development Office (FSDO).

[24] For more information, see https://www.thegef.org/projects-operations/projects/4952.

5 Case analysis and key findings

This section presents an analysis of the four cases introduced in Section 4 and summarises strengths, opportunities and challenges in how NRGF principles have been addressed. *The aim is not to evaluate or compare these cases*, each of which is a rich story in its own right. Rather, this section draws broad lessons from across the cases to inform the recommendations in Section 6. It also briefly introduces NRGF principles and criteria and their relevance for FLR and ROAM (see also Annex 1).[25]

Principle 1: Inclusive decision-making

Relevance of principle

In the NRGF, inclusive decision-making means that "decision-making regarding natural resource policies and practices is based on the full and effective participation of all relevant actors, with particular attention to the voice and inclusion of rights-holders and groups at risk of marginalization" (Springer et al., 2021, p. v). The criteria for realising this principle include having legal and policy frameworks that mandate inclusion, as well as having socially and culturally appropriate processes that enable full and effective participation in practice. Inclusive decision-making requires, inter alia, rights holder and stakeholder capacity, access to information and appropriate support, as well as recognition and respect for the right to FPIC (Springer et al., 2021).

Sustainable forest management practices and guidance acknowledge that inclusion is important for both ethical and practical (e.g. implementation facilitation) reasons (Ananda, 2007). Inclusive decision-making in FLR helps ensure legitimacy of interventions (van Oosten et al., 2019). When decisions to plant trees are made for political reasons and/or in a top-down manner, implementation may be hampered by a lack of funding, engagement or other obstacles (e.g. Wiegant et al., 2020). Participation in environmental decision-making is also a procedural right in itself and a key aspect of exercising other human rights.

Inclusion means more than a 'seat at the table'. It concerns who has (and who does not have) power and voice, and why. Where restoration is implemented at large scales, as with FLR, more rights-holders and stakeholders are involved, adding to the complexity of ensuring inclusive decision-making. Within FLR, it is therefore critically important to consider inequitable power relations in multi-stakeholder processes (Hjortso et al., 2005), such as in mangrove restoration (Thompson, 2018).

Key findings

Convening stakeholders and policy makers to identify restoration opportunities is central to ROAM processes. The cases show an overarching orientation towards inclusive stakeholder engagement. They also highlight challenges in enabling full and effective participation in practice.

Convenors: ROAM processes are typically convened by governments and/or large national institutions (often in collaboration with international actors such as IUCN). It is less clear whether/how communities in the targeted landscapes are part of initial discussions. This is an area for further exploration.

[25] While this section is structured as a principle-by-principle analysis, the principles are also inter-related and mutually reinforcing; some key interlinkages are noted.

Gender inclusiveness: Gender inclusiveness in ROAM processes varies. Gender mainstreaming in the Malawi assessment enabled considerable attention to gender roles and labour issues, particularly for women. The Malawi ROAM report suggests ways to improve women's inclusion and empowerment (MNREM Malawi, 2017). In Indonesia, the assessment (focused on negotiating between government and fish farmers) tried to encourage women's participation, but did not conduct a gender analysis, sensitisation or action-planning.[26]

Who is included? Who decides? Convenors typically decide which groups to invite based on stakeholder analysis and mapping. This analysis should be inclusive, well-informed and unbiased. In Indonesia, an independent organisation conducted additional stakeholder mapping to help ensure decisions were not made by any specific convenor. Rights-holders and stakeholders may also decline or limit their engagement. This choice should be respected, although it can also pose challenges and should prompt convenors to ask whether the process can be improved. For example, opportunity mapping in Indonesia could not resolve issues around fish farmers' livelihood requirements, in part because their direct participation was limited by their organisation's choice to send only two representatives, with positions prepared in advance. Furthermore, the Indonesian ministry responsible for natural resource law enforcement would not attend ROAM workshops, which eroded trust in the process and weakened the ability of people to hold the ministry accountable through the process.[27]

Representation: Inclusion in ROAM processes often involves representative rather than direct participation, e.g. having representatives from multiple communities in landscape-level processes (as in Colombia) or nested representation in national level processes (as in Rwanda). Ensuring trusted, self-determined representation is crucial – and often challenging.[28] In Colombia, the assessment involved the *junta de acción comunal*, a community-level committee representing rural organisations. Juntas supported and coordinated with technicians during the assessment, including to ensure they were speaking to the right people. They have convening power at the community level and can help represent communities, including by relaying messages between the community and higher political levels. At the same time, some people felt that their representatives did not represent all community members' interests.

Appropriate formats: Full and effective participation requires appropriate formats – including with respect to time, location, language, facilitation methods, etc. (see Recommendation 5). For example, in Malawi, workshops were conducted in local languages in many cases, in particular when facilitating discussions on culture. Workshops were also conducted with groups including women, youth and traditional leaders.

Access to information: ROAM workshops are the key avenue for sharing information with and between participants. A rights-holder's or stakeholder's choice of whether to participate in the ROAM process, and their ability to do so fully and effectively, also depends in part on having access to complete, reliable information in appropriate formats and languages. This should include information about the process and its potential benefits, risks and limitations.[29]

Trust: Trust (and trustworthiness) are important factors in inclusion and other governance principles. For example, in Colombia, communities were understandably wary of another planning process and tool from the outside. The university played an important role in facilitating discussions, responding to communities' concerns about the ROAM process and highlighting potential benefits. Trust between these partners had grown over time, allowing the university to work closely with communities, including to share information. Questions from communities included whether restoring land would result in it being taken from them.

Power dynamics and their impact on inclusion and voice: Power relationships influence who participates and how they participate. Not taking power dynamics into account in participatory processes can have unintended outcomes such as recognising some actors while inadvertently excluding others (Walters et al., 2019). Even in ostensibly inclusive processes, those with more power can easily have more influence on the

[26] Notably, these assessments were planned before publication of the ROAM Gender Guidelines. Further, more recent ROAM training includes content on gender inclusion and responsiveness.

[27] See Box 1 for more information about willingness of different groups to participate in this ROAM process.

[28] This also relates closely to issues of appropriate institutional choice across scales, discussed under Principle 4.

[29] Inclusion also requires that community members and other rights-holders and stakeholders know their rights (see Principle 10) and have space to effectively share their own learning and knowledge (see Principle 3).

process and its outcomes. For example, in Colombia, decisions about who to include in the ROAM process were largely made by one government institution, whose choices likely reflected historical and political factors. Murcia et al. (2016), in reviewing restoration projects in Colombia, found that the vast majority were designed and implemented by government agencies with little to no local stakeholder participation. In Indonesia, the assessment brought together numerous government, NGO and academic stakeholders. However, while community rights-holders and stakeholders were represented, direct community participation was limited (some communities chose not to participate due in part to lack of interest in the process and, as noted above, fish farmers opted to send only two representatives) and power dynamics limited community members' voice in the multi- stakeholder process. The main land users (fish farmers) settled in the protected areas in the last two decades and have no formal rights or decision-making power over the lands in question (see Box 1). Such limits to participation were later addressed through household interviews and qualitative content analysis (Brown, 2021) conducted to amplify the fish farmers' concerns that were not raised during multi-stakeholder meetings due to these power dynamics.

Resources: The assessment in Malawi involved a district-level participatory process, including 'stocktaking' meetings with stakeholders in their localities, district level technical groups and mobilised communities. This was enabled by the availability of substantial funds. In contrast, in Colombia, while the ROAM process convenors' intention was to reach many local communities, in practice relatively few were represented, due in part to insufficient funds to support engagement. Beyond funding, meaningful participation requires appropriate skills (e.g. to facilitate effective and equitable multi-stakeholder processes), time (with some groups needing substantially more, including to meet in advance if they wish), and other resources.

Inclusion beyond ROAM: ROAM processes often establish or strengthen multi-stakeholder platforms for FLR. For example, in Rwanda, partners established an inter-ministerial platform that interviewees felt enhanced FLR participation and coordination. One interviewee noted that there are now youth movements for FLR across the country and that extension workers proactively reach out to women to participate in FLR activities. Interviewees also indicated that the ROAM process strengthened inclusive decision-making regarding natural resource governance more generally by focusing on village residents' participation. These multi-stakeholder ROAM/FLR platforms provide the potential for sustained participation in FLR beyond the assessment period. There are also important considerations about the governance of these platforms, such as whether they build on existing institutions (versus creating new ones) and are accountable and inclusive, including of Indigenous peoples and local communities.

In summary, participation is clearly central to ROAM processes. However, ensuring full and effective participation across levels is challenging. It requires commitment, power-sharing, facilitation skills, time and financial resources, and a deep understanding of the context, among others. More sharing of experiences and guidance on enabling full and effective participation in ROAM processes would be beneficial.

Malawi: A group of participants discusses gender-responsive landscape restoration interventions. *Photo credit: Mirjam Kuzee.*

Principle 2: Recognition and respect for tenure rights

Relevance of principle

Recognition and respect for tenure rights calls for "*rights to lands, [territories,] resources and waters [to be] recognised and respected, with particular attention to the customary, collective rights of Indigenous peoples and local communities, and to women's tenure rights*". NRGF criteria concern, among others, the existence of laws/policies/rules, processes and capacities to recognise, respect and enforce land and resource rights (Springer et al., 2021, p. 7). As summarised by Larsen and Springer (2016, p. 5):

> *"Tenure rights with regard to natural resources refer to the social relations and institutions governing access to and use of land and resources (von Benda-Beckmann, von Benda-Beckmann, and Wiber 2006). Tenure rights determine who is allowed to use which resources, in what way, for how long and under what conditions, as well as who is entitled to transfer rights to others and how (Larson 2012). Tenure rights are often described as a "bundle of rights" comprised of rights to access, use, manage, exclude others from, and alienate land and resources (Schlager and Ostrom 1992). Different rights in the bundle may be shared or divided in a number of ways and among stakeholders, along with the obligations and responsibilities associated with rights."*

Appropriately recognising and supporting Indigenous peoples' and local communities' collective rights to lands, territories, water and natural resources is crucial for equitable and effective biodiversity conservation, including in light of their contributions to global environmental sustainability (see Dawson et al., 2021; ICCA Consortium, 2021). In FLR, tenure is important with respect to land and territories, forests, trees and goods and services from the trees (Mansourian & Sgard, 2019). Secure and fair tenure rights are important to equitable and sustainable restoration (McLain et al., 2021; Nagendra, 2007), while insecure tenure and the inability to resolve tenure issues are barriers to effective and equitable FLR (Lovelock & Brown, 2020). Persistent challenges include insecure or unclear rights to trees and forests, insecure and/or inequitable rights for women, lack of statutory requirements for landholders to restore land, and conflicts over forest ecosystem services amongst communities, commercial concessions and governments (McLain et al., 2021).

Key findings

ROAM processes grapple with tenure in varying ways. Tenure security can be considered as a 'bottle neck' or 'success factor'. However, tenure rights and systems are rarely addressed in depth.

Scope of rights considered: Where tenure rights are addressed in ROAM processes, the focus is often (though not exclusively) on statutory land rights. For example, in Rwanda, the majority of people have title deeds because national policy requires all land to be registered. In line with this, both the ROAM process and the broader Rwanda FLR taskforce focus on respecting titled land rights. In Colombia, land tenure maps were used to help identify those with statutory land rights. These are important considerations. Recognising and respecting tenure rights also often goes beyond respecting land title deed. It involves recognising and appropriately supporting communal and individual statutory and customary rights over access, use and ownership of land and territories, water, trees and other natural resources. Respecting tenure rights requires understanding how tenure systems function in both law and practice (which may differ).

Unrecognised or contested tenure: ROAM processes are often implemented in landscapes where tenure rights are unclear, unrecognised, contested, shifting or otherwise insecure. It is important in ROAM processes to understand the tenure systems in the landscape, including any concerns and grievances. For example, engaging *only* those who currently hold secure, statutory tenure may lead to inequitable results, e.g. by excluding people(s) whose rights are not appropriately recognised in that statutory system. At the same time, FLR initiatives must ensure respect for human rights, even where tenure is not secure. In Indonesia, analysis of the ROAM process highlights the challenge and importance of meaningfully including and addressing the

human rights and well-being of land-users who do not have recognised tenure rights, and are therefore vulnerable to bearing the costs of, but being excluded from the benefits of, restoration (see Box 1).

In Colombia, resolving tenure questions was difficult in part because of historical challenges in the landscape, including widespread displacement and resettlement during the 50-year armed conflict. A key question – and a hope of many stakeholders – was whether restoration could play a role in integrating people who had been displaced or who laid down their arms. An important related challenge, in terms of the ROAM timeline, was that many of the people who had been displaced would only be returning to the area following the assessment.

In Malawi, as in many countries, tenure rights are unclear, particularly on communal lands; tenure rights were to be clarified in a land act that was forthcoming at the time that this case analysis was completed. While tenure rights were not directly addressed in the Malawi assessment, they were touched on in the *Diagnostic* (e.g. as a barrier to restoration) and through work on community forests. The work on community forests aims to reduce pressure on nearby protected areas and bring resource use in community forests closer to users, especially women.

While not specifically raised in the cases analysed here, many regions where FLR might be implemented are facing widespread land grabbing and mass migration. Tenure rights are dynamic and complex, but it is crucial that they are understood within ROAM processes and reflected in the restoration priorities identified.

Enabling discussions on tenure: Even where the ROAM process cannot resolve tenure issues, understanding the challenges and (in appropriate ways) making them visible during the process can have additional benefits, such as opening or advancing dialogues among rights-holders and stakeholders. In Indonesia, while ROAM had little direct influence on tenure laws/policies, government authorities involved in the process considered increasing community access to some areas for sustainable use. In Rwanda, interviewees felt that the process strengthened recognition and respect for tenure rights, including in the FLR projects it informed.

In summary, case analysis shows that ROAM processes frequently contend with tenure (and other inter-connected procedural and substantive rights), whether by default or design. More in-depth and systematic guidance and training on taking account of tenure, including to clearly identify customary and statutory rights and related concerns in the landscape, could enhance the ROAM process. This can, in turn, contribute to the effectiveness, equity and sustainability of the FLR initiatives identified and prioritised through the process.

Box 1. Inclusion and voice in the context of contested tenure: reflections from the ROAM process in Tanjung Panjang

by Benjamin Brown, PhD, Research Associate at Charles Darwin University Research Institute for Environment and Livelihoods and Co-Founder of Blue Forests (Yayasan Hutan Biru)

The ROAM process in Indonesia demonstrates the importance and challenge of enabling full and effective participation of all rights-holders and stakeholders in the landscape, including those who lack formal or recognised tenure rights. Two communities lived in or used the Tanjung Panjang landscape on a subsistence basis prior to large- scale conversion of mangroves, which began in 2000. Terrestrial farmers from the Gorontaloan community lived in the area behind the mangrove forests, utilising the mangrove area only minimally, as the resources in the upper watershed and terrestrial area behind the coast and were rich and more easily accessible. Capture fishers from Bugis, Bajau, Siau and Gorontaloan suku (ethnic groups) living to the East or West of the Tanjung Panjang peninsula frequently fished the rich waters offshore from the mangroves, occasionally entering the forest for subsistence gathering of crab and molluscs. These traditional uses have continued but at a reduced level, as the mangrove forest has been degraded. It is important to remember that no community tenure (access, use) rights are recognised within the mangrove forests of the Strict Nature Reserve, which comprises half of the peninsula) and was gazetted in 1995.

Box 1 (continued)

From 2000 to present day, 5,304 hectares of the original 8,847 hectares of mangrove forest across the entire District of Pohuwato were converted to brackish water aquaculture ponds. Most of the fish farmers working these ponds relocated from South Sulawesi, many settling and establishing fish farms in areas where they did not have formal land rights. Currently, up to 8,000 fish farmers and their families live in the area, integrated to some extent with the Gorontalo farming community. The median income of a fish farming household is US$ 14,074 per year (compared to US$ 2,880 average annual income for the province), posing a significant opportunity cost to mangrove restoration.

During the stakeholder analysis to identify participants for the ROAM process, members of these three communities were interviewed to determine their degree of interest in the process and in mangrove FLR (MFLR). The interviewed Gorontalo farmers showed little interest in ROAM or MFLR, as they felt their agrarian livelihoods were not impacted by mangrove loss, and they were glad for the economic contribution of the fish farmers. Capture fishers expressed interest in the results of MFLR to enhance offshore fisheries populations but were un-willing to participate in the ROAM process, stating that they did not wish to become involved in the politics of the situation, which they felt were between the fish farmers, park managers and authorities. The transmigrant fish farmers did participate in ROAM, sending two representatives from an 8,000-member community-based organisation (the KKSS), who came to the ROAM process prepared with main advocacy points and a unified political stance.

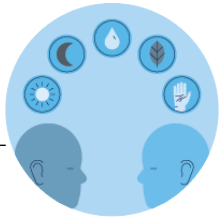
Throughout the ROAM process, 42 participants representing 20 institutions attended three workshops: (1) introductory; (2) restoration opportunity mapping; and (3) validation. By the end of the workshop series, participant consensus was reached on a three-phase approach to MFLR totalling 113 hectares, 842 hectares and 2493 hectares of restoration respectively for each phase. This three-phase approach was adopted in Province of Gorontalo Spatial (RTRW) and Development Plans (RPJM) in 2018. Later in 2018, substantial private finance was offered to implement the three-phases of MFLR. However, at that stage, stakeholders rejected the financing offer over concerns of potential conflict and/or leakage (i.e. policy or practice change in one place that causes unanticipated increase in deforestation in other places) if MFLR were implemented.

Noting that power inequities in the multi-stakeholder forums may have inhibited fish farmers and other stakeholders from sharing their true concerns, 22 interviews were carried out with fish farmer households and extension workers, and qualitative content analysis (Erlingsson & Brysiewicz, 2017) was performed to uncover latent themes that did not emerge during ROAM workshops.

Based on the themes uncovered during these interviews, as well as discussions in the ROAM meetings, five socio-economic concerns with MFLR were identified: (1) issues around the legality of providing compensation to those considered to be “illegal” land users; (2) the expressed desire of fish farmers to continue farming for five to 20 years; (3) lack of fish farmer access to future benefits from MFLR; (4) lack of viable commensurate livelihood alternatives in the landscape, due to lack of land ownership/tenure by current land users (fish farmers); and (5) concerns about conflict being exacerbated if MFLR were to proceed. In addition to these major themes, 16 social, economic and political barriers were identified that inhibited or restricted MFLR.

In summary, this case highlights the challenge and importance of ensuring that the ROAM process meaningfully includes and addresses the human rights and well-being of land-users who do not have recognised tenure rights, and are therefore vulnerable to bearing the costs of, but being excluded from, the benefits of restoration. These are not ‘outlier’ cases; they are common in deforested and degraded landscapes, and as such warrant attention in ROAM guidance and processes.

Principle 3: Recognition of and respect for diverse cultures, knowledge and institutions



Relevance of principle

Recognition of and respect for diverse cultures, knowledge and institutions calls for "*natural resource governance… grounded in sound and diverse forms of knowledge and respect for diverse cultures, values and practices".* It speaks to the importance of governance arrangements that respect cultural rights and enable people to contribute their diverse knowledge, innovation and capacity to sustaining nature, including through their own institutions and systems[30] (Springer et al., 2021).

Despite the importance of culture, Wehi and Lord (2017) find that it is rare to incorporate cultural practices in restoration. Indigenous and local knowledge systems remain underrepresented and, therefore, not properly integrated into restoration plans (Lake et al., 2018; Hernandez & Vogt, 2020). Appropriately recognising and including Indigenous and local knowledge and practice can enhance restoration effectiveness and scope, while upholding rights, as seen in Tanzania, Hawaii and South Korea (Walters et al., 2019; Lee & Krasny, 2015; Chang et al. 2020; Kurashima et al., 2020). It is also in keeping with the growing recognition and inclusion of diverse cultures and knowledge systems in international policy processes around ecosystem services, such as in the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) conceptual framework (see Díaz-Reviriego et al., 2019).[31]

Key findings

Rapid cultural assessment tool: The IUCN team in Eastern and Southern Africa developed a rapid cultural assessment tool consisting of 10 questions aimed at understanding and supporting the use of traditional and cultural knowledge in FLR (see Box 2). Interviews indicated that the stakeholders in the ROAM processes in Malawi found that using the tool enabled integration of cultural knowledge. This is reflected in the ROAM report from the assessment in Malawi, which repeatedly mentions the themes of traditional knowledge, graveyard forests[32] and the role of Traditional Authorities[33] in restoration, and further notes a lack of involvement of Traditional Authorities as an indirect driver of degradation (MNREM Malawi, 2017). The questions in the cultural assessment tool have since been integrated into ROAM training materials and the Environmental Leadership and Training Initiative (ELTI) online course developed by IUCN,[34] and have been used in other ROAM processes.

Other entry points for recognising and integrating diverse culture and knowledge: ROAM processes may incorporate this principle when developing the theory of change and/or identifying 'success factors' for proposed FLR initiatives. For example, in Malawi, there was a focus on farmer-managed natural regeneration, a peer-to-peer technology transfer amongst farmers fostering natural regeneration of trees on their farms. ROAM processes may also include collective mapping and discussions about preferred local strategies, e.g.

[30] The role of appropriate recognition and inclusion of local institutions and governance systems in ROAM processes, including those of Indigenous peoples and local communities, is discussed in relation to devolution (see NRGF Principle 4, next section).

[31] As summarised by Diaz et al. (2018, p. 270), "One of the more recent key elements of the IPBES conceptual framework […] is the notion of nature's contributions to people (NCP), which builds on the ecosystem service concept popularized by the Millennium Ecosystem Assessment (MA) […] NCP as defined and put into practice in IPBES differs from earlier work in several important ways. First, the NCP approach recognizes the central and pervasive role that culture plays in defining all links between people and nature. Second, use of NCP elevates, emphasizes, and operationalizes the role of Indigenous and local knowledge in understanding nature's contribution to people."

[32] These community-conserved forests contain community graveyards. They are often small forests which have high cultural and biodiversity value.

[33] In Malawi, customary leaders (Traditional Authorities) are formally recognised and hold a number of governing roles, including over customary land and resolution of related disputes.

[34] For more information, see https://elti.yale.edu/about-elti.

for growing food. For instance, in Rwanda, the process included steps to help ensure that local people participated in choosing the native tree species they wanted on their land. One interviewee noted that Indigenous knowledge was important in this ROAM process, particularly in relation to sacred groves.

Challenges and considerations: Case analyses also highlighted challenges and considerations for meaningfully and respectfully incorporating diverse knowledge and ways of knowing in ROAM processes, including:

- **Respecting knowledge-holders**: Recognising and respecting diverse knowledge, including Indigenous and local knowledge, needs to be grounded in recognition and respect for diverse knowledge-holders. This includes respecting rights to FPIC. The ROAM process may be best approached as one of equitable knowledge co-generation and sharing (Austin et al., 2018).
- **Respecting different visions**: Respecting diverse knowledge and cultural systems also means respecting diverse visions and perspectives regarding FLR, including where they do not align with those of ROAM process convenors.
- **Inclusiveness**: Governance principles are inter-related. This principle (recognition and respect for diverse cultures, knowledge and institutions) is closely related to inclusive decision-making. People who are not meaningfully engaged in the process cannot effectively share their knowledge. This principle also relates to learning, as recognition of other knowledge systems can stimulate exchange.
- **Power dynamics**: During an assessment process, power dynamics can impact whose knowledge is recognised and respected. For example, in Malawi, despite the direct and innovative way that cultural knowledge was accounted for in the assessment, the recognition of traditional knowledge was a political issue. As one interviewee noted, “there's always a tussle between the TAs [Traditional Authorities] and the nation-state authorities”.

In summary, this principle is central to ROAM, and FLR more broadly. Innovative approaches in ROAM processes in Malawi and Mozambique, including use of the survey tool (Box 2), could be adopted in other contexts. Likewise, knowledge co-generation and sharing approaches in more recent ROAM processes could be expanded. ROAM guidance and practice can also be strengthened through further integration of collaborative research approaches (including by and with local people) and guidance that supports more systematic recognition of diverse cultures and forms of knowledge, including Indigenous and local knowledge, with FPIC.

Colombia: Using local practices and knowledge to grow seedlings for landscape restoration.
Photo credit: Miriam Kuzee.

Box 2. A rapid cultural assessment for FLR using 10 questions

by Robert Wild, Department of Environment and Geography, University of York, UK

This box provides and describes the development and use of a rapid cultural assessment tool consisting of 10 questions for FLR. For an in-depth analysis of the use of these questions, see Wild & Walters (2022). FLR is largely seen as a technical process of restoring land through trees, requiring a policy and legal framework and financial resources to achieve restoration on-the-ground. FLR's multiple benefits are related to ecological, economic and social outcomes. However, the cultural dimension of landscape or ecosystem restoration is under-recognised, a fact that is a common weakness in conservation programmes (Wehi & Lord, 2017). Between 2015–2016, the FLR programme of the IUCN Eastern and Southern Africa Regional Office (ESARO) developed 10 questions to address the cultural dimension during ROAM processes. The questions were applied in Malawi and Mozambique. The tool was built on policy work undertaken by the IUCN World Commission on Protected Areas (WCPA) Specialist Group on Cultural and Spiritual Values of Protected Areas (CSVPA) from 2000–2010, which resulted in several publications (Verschuuren et al., 2010; Wild & McLeod (eds.), 2008) and IUCN resolutions and recommendations.

The FLR questions were derived and tested so that culture might be better taken into account in restoration programmes. The tool *'10 culture questions for FLR'* can be used as part of ROAM guidance and practices and included as one of the success or barrier factors in the Restoration Diagnostic (Hanson et al., 2015). The questions can be applied at the national, sub-national (e.g. district) or landscape level. Key informants who possess cultural knowledge are important interviewees, especially as cultural dimensions are often hidden or undisclosed within a landscape. Some knowledge is the domain of local communities or Indigenous peoples and will require free, prior, informed consent (FPIC) for its collection, use, storage and dissemination.

The questions were applied in Malawi as key informant interviews (taking 14–60 mins to administer) and in the margins of workshops or during groupwork sessions. As culture is often ethnically distinct, different ethnic groups were interviewed. One particularly useful strategy was to apply the tool with traditional leaders who are custodians of culture and often play important roles in land governance in Sub-Saharan Africa. In Malawi, for example, the Traditional Authorities play an important and government- recognised role within communities and over land and natural resources. In Mozambique, the *régulo* (chief) plays a similar role. Interviews with TAs and *régulos* flagged the importance of involving traditional leadership, and, as a result, this involvement was strengthened during the FLR processes. The interviews also highlighted the presence of landscape features such as sacred groves – which are often nodes of local biodiversity and where local norms about landscape governance are often embedded and can affect whole landscapes – and the presence of species with specific cultural values. Overall, and depending on the context, cultural knowledge can be either a supporting factor or a barrier to restoration, and there may be different elements in a single culture that can work in different directions with regard to FLR. Successful restoration efforts may require the development of new, culturally sensitive knowledge about restoration, and this tool helps as a starting point.

The '*10 culture questions for FLR'* are:

1. To what extent does culture influence FLR in the area?
2. What are the main themes or domains where culture influences FLR?
    a) Land, land tenure, governance and rights
    b) Specific landscapes, features in the landscape, specific sites (e.g. sacred natural sites)
    c) Specific plant and animal species (e.g. food, taboos and beliefs, medicines, construction)
    d) Arts and crafts
    e) Institutions and cultural leadership
    f) Spirituality and religion

Box 2 (continued)

3. Are there cultures that could be described as forest cultures? (Societies whose culture tends to protect or restore forests.) What is their status in the area?
4. Is culture an opportunity or barrier to FLR in the area? Or both? How?
5. How does culture influence other key social elements, gender, youth, ethnicity, politics, arts and economics with regard to restoration?
6. Does the overarching group culture of the area predominantly lead to restoration or degradation?
7. Are there 'centres of excellence' or specific cultural events that can be consulted for a deeper understanding of cultural dimensions of forests, landscapes and FLR?
8. Are there cultural or religious institutions that could make commitments to the Bonn Challenge?
9. Are any relevant culture or cultural services recognized in existing national laws, conservation or science programs? (e.g. National cultural laws, World Heritage Convention, National Biodiversity Strategy)
10. In what way should the FLR program that is currently being designed take into account culture? Can a restoration culture be developed? If yes, how?

Principle 4: Devolution

Relevance of principle

In the NRGF, devolved governance means "*decisions are taken at the lowest [most local] possible level appropriate to the social and ecological systems being governed, with particular attention to empowering the roles and authority of Indigenous peoples and local communities in natural resource governance*" (Springer et al., 2021, p. v) Devolution concerns ensuring a good 'fit' between the social and ecological scales at which decisions are taken. The extent of and arrangements for devolution vary by context and can be informal or formal, with decision-making devolved to more local levels through policy, customary mechanisms, project management, grass-roots activism or participatory approaches, such as joint forest management.

Devolved governance can be exercised by various institutions, such as district organisations, village committees, corporations, traditional authorities, individuals and local organisations (Shackleton et al., 2002). The NRGF focuses in part on recognition and support for Indigenous peoples' and local communities' roles, rights and governance systems.

In many countries, decentralised natural resource governance is the main approach to devolution and is inscribed in law (Ribot & Larson, 2005), e.g. Malawi's 1998 National Decentralisation Policy. Other countries may require public consultation about natural resource rules. Even when supported by policy, decentralisation may not be implemented or effective in practice, due to limited resources or a lack of governmental will (Ribot et al., 2006). Further, decentralisation policies and practices may or may not recognise customary institutions.

Devolution is important for FLR, particularly where it recognises and supports local actors as leaders and change agents in restoration, including Indigenous peoples and local communities. Devolution is not typically addressed in the wider restoration literature, but can be seen as fundamental to supporting collective action in restoration (Akello et al., 2017).

Key findings

ROAM process scale: Aligning the ROAM process with the social and ecological scales of the FLR initiatives that will follow is both critical and challenging. ROAM processes can be done at a single scale such as national or sub-national or at multiple scales such as a series of local/sub-national assessments followed by a national

assessment. The process scale often affects how devolution is considered. For example, a national-level process may not consider devolution to local authorities to the same extent as a sub-national process. However, restoration is implemented in specific sites. Strategies identified at national (or even landscape) scales may not be relevant for or respectful of local actors if they are not included in the process. Therefore, ROAM processes at any scale should centre local issues and actors, including Indigenous peoples and local communities (see Box 3).

At the same time, local and landscape-level initiatives often require decisions or actions at multiple levels. For example, in Indonesia the assessment primarily concerned the landscape level, but key decisions had to be taken at the provincial level. Therefore, decision makers from the provincial level were included. Given this, devolution in ROAM processes is likely to be less about finding the 'right' scale and more about designing a process through which rights-holders, stakeholders and other decision makers can meaningfully connect across scales, with empowered inclusion of local actors in all cases. Devolution in ROAM is thus closely linked with coordination (see Principle 6).

Institutional recognition and relationships: ROAM processes are implemented in partnership with various institutions. Recognising and working with appropriate institutions is crucial for the process to be fittingly devolved, as well as inclusive (see Principle 1), well-coordinated (see Principle 6) and accountable (see Principle 8). In Rwanda, interviewees reported that the ROAM process strengthened forest governance devolution by recognising the policy, finance and coordination roles of the central government, as well as the leadership across Rwanda's five provinces, 30 districts, 416 sectors, 2,148 cells and 14,837 villages. They acknowledged that FLR initiatives must have both strong 'bottom-up' and 'top- down' support and consent to be successful.

The institutional relationships and pathways in ROAM processes often reflect national decentralisation law and policy. In Malawi, the process involved district level consultation and local government collaboration to align with the National Decentralisation Policy. As one interviewee noted, "in Malawi, districts are implementers". The district level has the administrative budgets and ability to locally implement national projects. Meanwhile, in Indonesia, the process involved stakeholders from across national, provincial, district and village-levels, but the institutional home was a provincial-level multi-stakeholder working group (and outcomes were captured in the Provincial Spatial Planning Policy), consistent with national decentralisation law.[35]

Prioritising devolved FLR: ROAM processes sometimes take account of whether and how decentralised restoration is enabled, e.g. in law and policy analysis. ROAM can also be an opportunity to further support devolution, e.g. by appropriately recognising and supporting Indigenous- and community-led restoration initiatives.

In summary, the principle of devolution is important to both how the ROAM process is designed and what governance issues it considers. Appropriate devolution can enable meaningful participation; recognise and support locally-governed restoration (including Indigenous- and community-led approaches); and allow restoration budgets to be attributed to local levels for implementation.[36]

[35] Governance had previously devolved from the national level in Indonesia to the district level as part of a 2002 Regional Autonomy Law, but was re-positioned at the provincial level due to capacity and corruption issues at the district level.

[36] Devolution is closely linked to the principles on inclusive decision-making, recognition of diverse knowledge, culture and institutions, coordination and accountability, among others.

Box 3. The importance of recognising and centring local actors in the assessment of FLR opportunities

by Emmanuel Nuesiri, NRGF Initiative Chair, IUCN CEESP

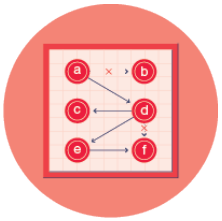
Recognising the roles and contributions of Indigenous peoples and local communities, and respecting their free, prior and informed consent (FPIC), should be a first objective of FLR policy and implementation decision-makers at all levels, including global and national level policy makers. The costs of not recognising the primary position of local people is that FLR programmes and projects may not be just, and will not stand the test of time, as they will not have the local leadership and 'ownership' that is critical for enduring success. ROAM processes can contribute to recognising and encouraging local leadership and ownership of FLR initiatives.

When governments signed on to the Bonn Challenge to restore 150 million hectares of degraded and deforested landscapes around the world by 2020, and 350 million hectares by 2030, some, like the Malawi government, did so by listening to the needs of local communities. Before the government launched its National Forest Landscape Restoration Assessment (NFLRA) process in February 2016, it carried out a ROAM pilot assessment from October 2015 to February 2016 in Liwonde Forest Reserve, in the Machinga District. This included consultations with district officials and local people, including women and traditional leaders. The Malawi government initiated this bottom-up process before pledging 4.5 million hectares to the Bonn Challenge in September 2016 at the IUCN World Conservation Congress.

The Government of Malawi maintains that its FLR process aims to achieve a higher quality of life for rural people alongside achieving national and global development targets. Malawi's consultations represent a good practice, achieved with support from the ROAM process. It ensures that FLR is bottom-up, avoiding situations where Indigenous peoples and local communities are implicitly coerced to support top-down decisions made by national governments without prior consultations. The Malawi case illustrates that FLR can and should follow a more inclusive path, which diverges from past histories of other natural resource interventions that have been pursued to the detriment of local people and without respect for their environmental and social rights.

Indigenous peoples and local communities are often among the last actors and authorities to be informed, consulted and empowered in national and sub-national decision-making about natural resources. Token gestures like inviting representatives of local communities to regional, national and global dialogues, sometimes without ensuring that these representatives are freely chosen by local people, can be commonplace. The Malawi ROAM process implemented a different strategy by centring local institutions and actors. The local level should not be viewed as 'beneath' national and global actors in a vertical hierarchy; rather, national and global levels are constituted of local groups and serve local rights-holders and stakeholders. The local level is primary, and ROAM processes and FLR efforts and financing should fully invest in working with and at the local level.

Principle 5: Strategic vision, direction and learning



Relevance of principle

Strategic vision, direction and learning calls for "*natural resource governance […] guided by an overall vision of desired environmental and social outcomes, and allow[ing] for adaptation in response to learning and changing conditions."* Vision and direction should be developed through "inclusive processes that account for diverse values and forms of knowledge of rights-holders and stakeholders," considering present circumstances and future challenges. It requires, among others, "ongoing monitoring, reflection and learning that enables responsiveness to changing conditions and needs" (Springer et al., 2021).

For FLR, an adaptable vision informed by ongoing learning is important because restoration is a long-term process that needs to be integrated across diverse and dynamic landscapes. The landscape scale adds complexity in reaching a common vision for FLR because of its intrinsic diversity and plurality (van Oosten et al., 2019). Lesson learning is important for relatively new processes like FLR, but is missing in most interventions (Mansourian & Vallauri, 2020).

Key findings

Objectives for ROAM process: The degree to which ROAM processes have clear, shared objectives varies. Typically, the ROAM process begins with an inception workshop where the socio-economic and environmental challenges, associated (drivers of) degradation, and objectives for doing FLR are discussed. This forms the basis of the theory of change and guides the subsequent ROAM process. In Indonesia, for example, the facilitator drafted a problem statement (i.e. the motivations for assessment) which was presented, discussed and revised during the first workshop. It is crucial that these foundational steps for understanding and defining the ROAM process are inclusive, including of Indigenous peoples, local communities and others who govern land and territories in the landscape.

Vision and direction for FLR: The ROAM process typically involves defining (or refining) a vision and strategy/direction for FLR. The process for reaching an FLR vision varies, including in how it includes rights-holders and key stakeholders. In Indonesia, participants listed their long-term objectives for FLR. These included a protected landscape, tranquillity, community well-being, sustainable livelihoods, alternative livelihoods for fish farmers, increased value of aquaculture products, intensification of aquaculture, improved technology, mangrove-based eco-tourism, and education and awareness. Key challenges and considerations around defining an FLR vision and direction include:

- **Diverse vision and strategies** – ROAM processes often highlight different perspectives and priorities among rights-holder and stakeholder groups across the landscape. Some actors may already have a clear vision for whether and how they wish to support restoration, while others may wish to refine or create new visions and strategies and some may choose not to participate. In all cases, visions and strategies for restoration may or may not align with one another, or with those of ROAM convenors. Equity regarding whose visions and priorities related to FLR are prioritised through the ROAM process is therefore crucial, including ensuring that those of Indigenous peoples and local communities are recognised and respected. ROAM can seek a broadly shared but locally differentiated vision for FLR – e.g. a commitment to the Bonn Challenge implemented through diverse strategies, including Indigenous- and community-defined and led restoration and with respect for rights including to self-determination and FPIC.
- **Negotiated vision and strategies** – Strategies may also be negotiated among participants. In Indonesia, the three distinct FLR visions (scenarios) initially developed through the ROAM process were eventually merged into a three-phased approach that would enable full restoration over 10-20 years. This three-phased approach was a compromise to enable sign-on by government bodies that would not agree to any strategy that they felt conflicted with formal government mandates, including a mandate to achieve full restoration.
- **Short-term and site-specific strategies integrated in a long-term landscape vision** – Short- term and site-specific strategies can be part of the pathway to a long-term, landscape vision for equitable FLR. For example, small woodlots might ensure community fuelwood supply as other areas are designated for forest restoration or agroforestry systems.

Embedding ROAM processes in existing visions and strategies: ROAM processes and FLR plans are often embedded in existing, related government visions, strategies or plans. For example, in Rwanda, FLR is aligned with the national forest policy and national transformation policy, and the ROAM process was seen as providing a roadmap to deliver these larger-scale visions. In Colombia, the ROAM process was embedded in the national restoration plan and seen as a way of delivering on the national restoration plan in eastern Antioquia. In Indonesia, participants noted how MFLR in Tanjung Panjang could contribute to national and

global policy and strategic commitments, such as Nationally Determined Contributions, National Blue Carbon Strategy, the national mangrove restoration policy, the 13th and 14th SDGs and the CBD Aichi Targets.

Multi-directional learning grounded in historical and current context: The FLR vision and strategies resulting from the ROAM process are informed by numerous analyses. In this sense, learning is at the centre of the process. Which questions are asked (and unasked) in these analyses, and whose knowledge is (and is not) reflected in the answers, are therefore crucial considerations. The analyses informing the ROAM process should be inclusive and credible. Learning should be multi-directional, multi-scalar and inclusive (see Principle 3). The process should also reflect a deep understanding of the historical and current context, e.g. in analysing 'drivers of degradation' (see Box 4).

Looking beyond the ROAM process: ROAM and FLR have different timelines. FLR visions and strategies developed during ROAM processes have to live beyond the assessment to be meaningful. Related challenges and considerations include:

- **Long-term learning and adaptation** – The ROAM process can impact governance and, through that, long-term FLR implementation. For example, ROAM can improve the cross-sectoral collaboration needed for FLR implementation (as was seen in Rwanda). However, many governance issues may remain stumbling blocks for effective and equitable FLR, and new issues will emerge over time. Therefore, a long-term FLR vision developed through a point-in-time ROAM assessment will have to be adapted based on ongoing learning. ROAM processes can (and should) reflect the need for long-term learning and adaptation, such as by considering how FLR strategies or initiatives should be implemented and monitored. This is in line with the adaptive management principle of FLR.
- **Long-term engagement towards a shared vision** – Realising a long-term vision requires long- term engagement of committed actors. This can be a challenge for ROAM processes. In Colombia's eastern Antioquia region, there were three proponents leading the ROAM process: the Humboldt Institute (a research arm of the Colombian environmental ministry), CORNARE (the decentralised environment ministry in the region) and the Pontifical Catholic University. Some interviewees suggested that the three leads lacked a common vision, and that only CORNARE had long-term legitimacy in the region, which adversely impacted ROAM outcomes and follow-up.

In summary, this principle is important to ROAM, as the process seeks to reach a broad, shared vision for FLR. Particularly where the ROAM process and outputs can align with existing plans, strategies and visions, it can add significant value. Lack of a shared vision may impede future implementation of effective and equitable FLR.[37] At the same time, ROAM processes often highlight the diversity of visions, priorities and strategies for restoration across the landscape. It is crucial that the process respects this diversity and ensures equity in terms of whose restoration visions and priorities are prioritised through the process. Learning and adaptation are also critical to the longer-term restoration efforts that ROAM processes aim to support.

[37] Implementation may also be impacted by many other factors, such as lack of funding and/or clear champions.

Box 4. Placing drivers of degradation in context

by Gretchen Walters, Assistant Professor, University of Lausanne, Institute of Geography and Sustainability

ROAM assessments often list or analyse drivers of degradation. However, interpreting degradation and its drivers can be complicated, and sometimes driven by "received wisdom" which adopts a degradation narrative,[38] often incorrect and/or lacking analysis (Leach & Mearns, 1996). According to Leach and Mearns, for example, it is common to assume that swidden (sometimes referred to as "slash and burn") agriculture causes deforestation, when this is not always the case. They note that is important to consider drivers of deforestation and degradation in context and to ensure they are not unfairly placed at the feet of marginalised people.

Land degradation is a common theme associated with Malawi. In the Malawi ROAM report, indirect drivers of deforestation, as identified by stakeholders and rights-holders, include poor agricultural practices and the harvest of fuelwood. However, according to social scientists, there is another story behind Malawi's degradation, as described in the next paragraphs. Understanding these drivers will ultimately help target restoration initiatives appropriately.

Drivers of degradation can vary spatially and by usage. For example, fuelwood consumption, a major concern in Malawi, comprises different uses, from using deadwood to collecting wood for commercial fish smoking. While some uses have little impact, others may be larger (Abbot & Homewood, 1999). For instance, fuelwood impacts can be highly localised and diverse, especially when destined for charcoal making, a key concern (Zulu, 2010). Zulu calls for "a nuanced understanding of principle causes of deforestation, of wood fuel supply patterns and chains, wood fuel markets and trade, and patterns of energy use", demonstrating the variation in fuelwood demand throughout Malawi.

The origins of degradation may not be straightforward and have long histories that should be taken in consideration. For example, in Malawi, degradation might be attributed to colonial era policies, which reduced local people's capacities to govern and manage their natural resources (Kwashirai, n.d.; McCracken, 1987). Degradation in the form of erosion emerged from large-scale colonial estates, which went unmanaged for many years (Mulwafu, 2002). These examples demonstrate that degradation is neither the result of one specific social group nor solely the result of present-day practice.

Peter Walker's (2004) work on historical influences on restoration in Malawi is useful and is summarised in this paragraph. He found that degradation may be caused by land dispossession and resistance to tree planting. Large areas of land were taken from local farmers in the colonial era to create European estates, which occupied as much as 45% of the cultivable land and thus created land shortages for local farmers. The practice of creating estates continued under the Banda regime in the 1980s. A colonial concern was fuel wood supply, and although colonial foresters acknowledged that deforestation was driven by European tobacco estates, blame was placed on local farmers. Colonial efforts to address deforestation focused on planting exotic species, and colonial programmes to encourage villagers to plant exotic trees created an "apathy toward afforestation". Resistance to these tree planting programmes continued from the 1910s into the 1990s. This resistance was interpreted as farmers being "backward" and resisting change, in particular around their refusal to plant blue gum (*Eucalyptus saligna*). However, in reality, the farmers' resistance was due to their unwillingness to plant strictly fuel wood trees, which diverted land from food production; instead, farmers preferred multiple use species. The urban-rural divide also played a role, where urban-based governmental officials may perceive a fuelwood scarcity that does not exist evenly throughout the country.

[38] Degradation narratives are stories about the origins of environmental degradation that are accepted without question or evidence.

Principle 6: Coordination and coherence

Relevance of principle

Coordination and coherence mean that the "actors involved in or affecting natural resource governance coordinate around a coherent set of strategies and management practices" (Springer et al., 2021, p. 23). This includes *horizontal* coordination among actors working at the same governance level (e.g. within a district or village) as well as *vertical* coordination among actors working at different levels (e.g. from village to district to national government). It also pertains to coherence and alignment within and across natural resource and related sectors – e.g. in the laws and policies governing land tenure, forestry and agriculture in a restoration landscape (Springer et al., 2021). Given its multi-scalar, landscape orientation, this kind of coordination and coherence can be important for the success of ROAM processes and the FLR initiatives they prioritise.

Key findings

Leadership for ROAM processes: The choice of institutional leads in a ROAM process helps determine its governance and ultimate impact. In Colombia, for instance, a lead organisation helped to ensure broad acceptance of the process by rights-holders and stakeholders, make linkages with other relevant processes and actors, and provide long-term follow-up. In Malawi, the Forestry Department, as institutional lead, coordinated across devolved structures and helped ensure long-term sustainability and government follow-up. This resulted in a national programme and district level implementation plans with allocated funding.

Multi-stakeholder coordination for ROAM processes: The ROAM process typically requires multi-stakeholder coordination. This can also enable longer-term coordination for FLR. For example, in Rwanda, a 'cross sectoral taskforce for FLR' was established. Interviewees indicated that this task force is widely seen as a major success, with neighbouring countries seeking to replicate it. In Malawi, a multi-sector task force guided and supported the national assessment process. This coordination translated into concrete collaboration around FLR, with the Ministry of Finance, Ministry of Energy and local government coming together to reflect on implementing the FLR strategy. In Indonesia, the selection of the (pre-existing) Gorontalo Mangrove Management Working Group (KKMD) as the institutional home for the process helped ensure multi-sectoral, multi-stakeholder involvement.

More recent ROAM processes have involved identifying or establishing a governance structure and team to implement the assessment following training. These governance structures are critical to participation throughout the ROAM process, and training teams encourage convenors to be inclusive in forming them. Areas for further exploration include how ROAM governance structures build on and align with existing institutions and connect local, landscape and national decision-makers.

Cross-scale collaboration: ROAM processes often build on existing policies and institutions to enable cross-scale collaboration. For example, in Indonesia, national and district level forest governance arrangements required cross-scale collaboration between agencies. In Colombia, the ROAM process brought an international dimension to an existing restoration policy and increased the policy's visibility.

At the same time, practice illustrates a number of related challenges**.** For example, operating jointly at larger (landscape) scales often requires a shift in mindset. This is particularly true as each convening group wants to emphasise its own independent actions. Coordination across diverse rights-holders and stakeholders in the landscape, operating with different timeframes, is also a challenge when bridging ROAM outcomes with implementation. For example, in Rwanda, one interviewee noted that, "the plethora of actors involved in FLR (…) would imply a need for strong coordination efforts; the large amount of funds being generated for FLR also speak to the need for equitable benefit sharing". In all cases, cross-scale collaboration should support, rather than diminish, the role of local actors who will govern, implement and be impacted by FLR (see Box 3 and Principle 4).

Overlapping and unclear roles: ROAM processes may lead to "over-coordination". For example, one interviewee felt that, in Colombia, too many people were seeking to lead, with limited resources and staff to deliver change on the ground. There are also challenges in understanding and respecting the roles of each rights-holder and stakeholder group, especially when there are many involved. For example, in Malawi, when the Restoration Diagnostic was carried out, it emerged that roles and responsibilities were not clearly understood, and it was unclear who held ultimate authority. In particular, Traditional Authorities hold power over public lands they manage, but they were not previously engaged by line ministries in restoration. Ultimately, Traditional Authorities participated in the ROAM process and their role was clarified.

Law and policy coherence: The ROAM process can be an opportunity for rights-holders and stakeholders to consider how different laws, policies and plans enable or inhibit equitable and effective FLR. For example, in Malawi, the process included a review of policies, laws and regulations affecting restoration and concluded that there was need for harmonisation. In Colombia, the process contributed to the national restoration plan. To be complete, such analyses should consider alignment across the range of statutory and customary laws and policies related to restoration, including overlapping and conflicting provisions. These may include local, sub-national or national instruments across multiple sectors.

In summary, this principle is highly relevant to ROAM and FLR, which call for coordinated approaches. ROAM guidance recognises the need to include key rights-holders and stakeholders, including women, both in the development of a coherent process and in the convening of a coordination group. Yet practice shows that achieving coordination and coherence across diverse groups and scales is challenging. Time is needed to enable reconciliation of different interests and priorities, even within the core team. ROAM processes can also help to identify ways to improve coherence among restoration related laws, policies and plans, including to better enable equitable and effective FLR.

Principle 7: Sustainable and equitably shared resources

Relevance of principle

The principle of sustainable and equitably shared resources calls for "actors responsible for natural resources [to] have the means necessary to carry out sustainable management and governance activities, including from the equitable sharing of benefits generated from natural resources" (Springer et al., 2021, p. 24). Those who are governing and managing resources should have sufficient revenues and/or support from sustainable livelihoods and a fair share in diverse benefits. Losses borne by local rights-holders and vulnerable people resulting from conservation should be avoided or, where avoidance is not possible, minimised and fairly compensated. Benefits should be sustained over time, including for future generations. This principle addresses equitable benefit and cost sharing in its own right, and highlights that such equity is an important factor in whether people are able to meet environmental responsibilities (Springer et al., 2021).

Restoration results in more than economic and environmental benefits; it extends to well-being and livelihoods (Erbaugh & Oldekop, 2018). Despite this, restoration literature often uses a financial perspective to focus on restoration costs and benefits (e.g. Löfqvist & Ghazoul, 2019).

Key findings

The cases illustrate a strong overall focus on FLR costs and benefits in ROAM processes, as well as some associated challenges. For example:

Indonesia: Milkfish farming is lucrative in Tanjung Panjang. The median annual income per household fish farm is US$14,074. Here, MFLR presents high opportunity costs for the fish farmers, who do not have secure tenure rights.
Photo credit: Benjamin Brown.

Distribution, including for those without secure tenure rights: ROAM processes typically include cost-benefit analysis of proposed restoration scenarios or initiatives. To understand whether these initiatives are likely to be equitable, the analysis needs to consider distribution, such as whose costs? who benefits? over what time? The analyses done in ROAM processes typically consider direct benefits for land-owners as well as indirect benefits for both people in the landscape more generally (e.g. clean water, and climate adaption, etc.). However, ROAM guidance does not substantively address questions of cost - benefit analysis where land users lack secure rights. These challenging cases do arise in practice. In Indonesia, for example, benefit sharing was considered in light of various groups' needs. Most fish farmers had migrated to and settled in the area without legal rights to the land or fish ponds (see Box 1). Given this, many fish farmers would not directly benefit from MFLR, and would face high opportunity costs. This, along with lack of commensurate livelihood alternatives for current land users within or around the landscape, posed a significant barrier to equitable and effective MFLR.

Spatial and temporal scales of restoration: FLR is a long-term process. Some benefits will only accrue after many years, e.g. the 35 years it may take for a return on investing in mahogany trees (Colomer et al., 2018). Other FLR initiatives can generate shorter-term benefits, such as water retention, erosion control and increased soil fertility. Farmer Managed Natural Regeneration (FMNR), for example, can yield relatively quick benefits in soil and wood material provision. These timeframes should be taken into account when discussing options with rights-holders and stakeholders.

To understand if FLR initiatives will be equitable and cost effective, costs and benefits need to be considered in relationship to one another, both spatially and over time. Integrating these factors can be challenging. For example, national-level assessments can lead to decisions that are a poor fit at other administrative levels, as noted for Malawi. Benefits and costs also vary over time. In Indonesia, the cost-benefit analysis modelled how the value of mangrove forest growth will change over time. This showed that, of the three restoration scenarios, the one proposing the largest restored area had a better cost-benefit proposition over time (and when including indirect economic benefits, like improved ecosystems services) because it captured economies of scale. Conversely, in the scenario with the smallest proposed restoration area, the cost of restoration outweighed benefits even in the longer-term, particularly given the high opportunity cost to fish farmers.

Considering diverse benefits and costs and well-being more broadly: The costs and benefits of restoration extend well beyond economic and financial aspects. While more recent ROAM processes have considered a fairly wide set of benefits, the considered costs still tend to be limited to economic factors. Considering a fuller set of social, cultural and economic benefits and costs, as well as the broader concept of well-being, could enrich the ROAM process. Robust trade-off analysis could also help rights-holders and stakeholders consider the intersections of social, economic and environmental outcomes of FLR.

In Malawi, the National Land Policy (2002) includes provisions for a community's right to a share of revenue derived from any public land established on land managed by Traditional Authorities. However, many people do not benefit from the natural resources due to degradation. One interviewee suggested reframing the issue from "sharing the consequences of degradation" to "sharing the benefits of restoration". This reframing could support communities in claiming rights, e.g. by raising this issue to governments to seek funding for restoration initiatives to increase food security.

Communities as partners: According to one interviewee for Malawi, the approach to ROAM and finance was at times oriented around companies looking for labour for activities, such as tree-planting, rather than establishing a fair partnership with communities for investing in locally-controlled forests (see Elson, 2012).

Agreeing on restoration costs and benefits: Funding and other limitations may result in insufficient time to resolve disagreements between rights-holders and key stakeholders on benefit and cost sharing, including opportunity costs.

In summary, key aspects of this principle are reflected in the cost-benefit analysis in the ROAM framework. However, there are several factors that could be strengthened, including ensuring that the geographical and temporal scale of analysis matches the scale of implementation; considering a full set of social, cultural and economic costs and benefits, including their distribution; and integrating broader conceptualisation of human well-being.

Principle 8: Accountability

Relevance of principle

Accountability calls for the *"actors responsible for or affecting natural resource governance [to be answerable] for their actions and the environmental and social impacts they produce"* (Springer et al., 2021, p. 25). It is enabled when those actors (and their institutions) are transparent and have clearly-defined roles, capacities and processes/mechanisms through which to meet their obligations. It involves being answerable for the impact of governance and management on rights-holders and vulnerable people and environments, as well as being able to address corruption (the use of public power for private gain) (Springer et al., 2021).

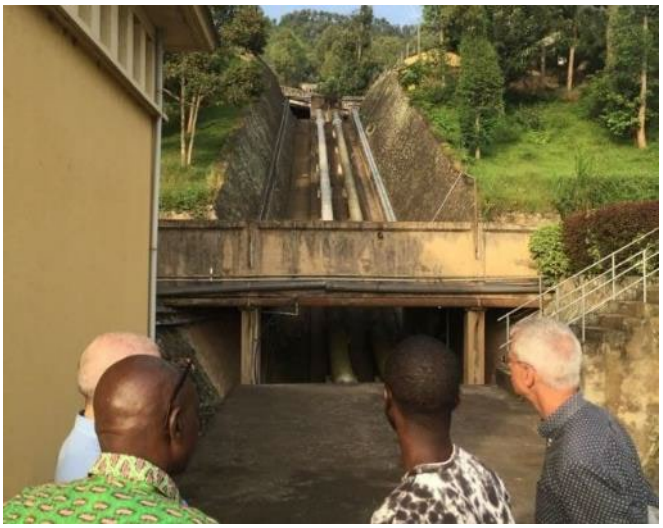
Accountability can be seen as an instrument for just outcomes in the relationships among different agents, such as governments and citizens (Caddy et al., 2007). Accountable actors may be elected representatives, project managers (e.g. for the ROAM process), customary leaders or government agents or representatives. In processes involving powerful actors, accountability can be hindered by lack of political will, weak capacity for collective action, lack of resources and weak regulations (Nuesiri, 2016). FLR implementation requires accountability, i.e. answerability, especially given the timeframes and direct and indirect costs involved, including opportunity costs (Murcia et al., 2016). Importantly, accountability relates to being responsible for both *actions* (e.g. whether those with responsibility act fairly) and *inactions* (e.g. whether those with responsibility fail to meet their commitments and/or be transparent).

Key findings

Accountability relationships during the ROAM process: It is both important and challenging to ensure that the roles and responsibilities of actors in the ROAM process are clear, including how convenors will be accountable to the rights-holders and stakeholders involved. In Colombia, there were concerns raised about the accountability of the main government and international actors to local communities, although the university partner had a relationship of trust with communities.

Accountability for social and environmental impacts: FLR initiatives identified through ROAM processes should be socially and environmentally sound, including upholding rights and generating multiple, equitably shared benefits. However, the detailed planning and implementation – and thus the impacts – of these initiatives typically take place after the ROAM process ends. Upfront consideration of likely social and environmental impacts, and planning for ongoing safeguards, can be strengthened in ROAM (see Recommendations 11, 15, 18 and 19).

Accountability for the potential impacts of FLR can also be enhanced through ensuring an inclusive ROAM process. If the process is not inclusive, important restoration considerations may be excluded. For example, according to one interviewee working at the regional level in Kenya, where rangelands cover 75% of the country, a ROAM assessment did not include rangelands restoration as a key intervention until it was noted by a senior staff member of a participating NGO well into the process.



Rwanda: Tubes carrying water to a power plant. When sand-mining causes heavy siltation of this water, the power plant is regularly shut down to clean the turbines. The ROAM process can help stakeholders identify better siltation capture solutions upstream, allowing for a more stable electric power source. *Photo credit: Mirjam Kuzee.*

At the same time, ROAM processes should avoid becoming forums for assigning blame for degradation. For example, in Indonesia, ROAM meetings were facilitated with an eye towards minimising scapegoating, especially of the fish farmers who established fish farms inside the protected area and the forest managers who previously "allowed" this landscape conversion. In this case, there were also efforts by fish farmers and an allied NGO to seek accountability for recent injustices, as well as stated intent from a government official to hold fisher farmers accountable for contributing to restoration[39] (see also Boxes 1 and 4 and Principle 10).

Accountability for FLR implementation: As FLR implementation and monitoring are outside the scope of the process, ROAM outputs generally do not define accountability mechanisms for these steps. This enables flexibility[40] and might also avoid creating pressure to impose initiatives on rights-holders or stakeholders who were not directly involved. Further, funding and convening ROAM processes with the expectation that they *must* result in FLR could incentivise downplaying barriers to or risks of FLR.

At the same time, concluding the ROAM process without clarity about whether (and by whom, when, etc.) the identified priorities will be carried forward can be frustrating for participants. In Colombia, for example, community members were disappointed when ROAM finished without any clear follow-up in the short-term, due in part to lack of funding. (In Malawi, funding from the GEF supported FLR implementation.) Assessment without responsive action is not a challenge unique to ROAM (e.g. Campese & Sulle, 2019). Nonetheless, it is a challenge worth addressing, including out of respect for the rights-holders and stakeholders who contribute their time, knowledge and vision. As noted in the Diagnostic, part of empowered decision-making is accountability for the decisions made.

[39] Fish farmers and a local NGO filed a petition to the Ministry of Human Rights during the assessment period related to the GAKUM agency dismantling five fish farmers' houses the year prior in an enforcement operation. At the same time, the head of the Forest Management Unit said that the fish farmers should contribute in some way to restoration (reparations), and that he would pursue that mechanism in his jurisdiction.

[40] For example, in Malawi, the assessment was convened by the Forest Department, but two of the five recommended initiatives were then implemented by the Ministry of Gender.

ROAM processes do often point the way to accountable implementation through describing 'pathways for uptake' in the theory of change,[41] identifying financing options, and/or raising accountability concerns that will need to be addressed. For example, the Malawi ROAM report notes areas where restoration could be enhanced by addressing accountability, e.g. in participatory forest management (MNREM Malawi, 2017). These steps could also include a focus on accountability for social impacts.

At the national and international levels, the Bonn Challenge, while not a ROAM framework component, helps create accountability for FLR and could be linked to ROAM outputs. In particular, the Barometer[42] promotes follow through on commitments (Dave et al., 2019). However, the Barometer includes only one social indicator – the creation of green jobs.[43]

In summary, while FLR implementation and monitoring are largely outside the scope, ROAM processes can point the way towards accountable restoration – e.g. by building in safeguards and being clear about who is (or could be) accountable to whom, including accountability to Indigenous peoples and local communities.

Box 5. How a ROAM process contributed to making Rwanda an FLR leader in Africa

by Emmanuel Nuesiri, NRGF Initiative Chair, IUCN CEESP, and Alain Ndoli, Senior Programme Officer, Forest Landscape Restoration, IUCN Rwanda

Experience in Rwanda demonstrates that the ROAM process can be a powerful entry point for institutionalising FLR through a multi-sector approach.

Primary challenges facing the Rwandan forestry sector include increased demand for agricultural land and fuel wood. These pressures result in forest loss and degradation, which exacerbate poverty. The forest sector is considered a high priority economic development sector in Rwanda (Ministry of Natural Resources Rwanda, 2014). Rwanda's Vision 2020 includes a target to increase forest cover to 30% of land area by 2020. A 2019 Rwanda Forest Cover Mapping exercise supported by IUCN shows progress towards meeting this target (Republic of Rwanda, 2019).

Rwanda's FLR programme is impacting economic development, including expanding investment opportunities. The first steps Rwanda took to operationalise its FLR vision included the 2014 national forest restoration assessment using ROAM, in partnership with IUCN and WRI. Impacts of this ROAM process include:

- Substantially influencing Rwandan FLR policy;
- Providing a technical roadmap to move from the FLR vision to guided activities on the ground;
- Enabling investment in FLR projects, such as the Forest Landscape Restoration in the Mayaga Region project, funded by the GEF for US$ 33 million;
- Creating the 'Cross Sectoral Taskforce for FLR,' which strengthens coordination of FLR activities in Rwanda; and
- Being the first African country to pilot the Bonn Challenge Barometer of Progress, which positioned Rwanda as a model for FLR in the region.
- In short, the ROAM process provided practical inputs to execute Rwanda's FLR vision and made the country a leader in FLR on the African continent. This success has also raised the challenge of accountability between actors (top-down and bottom-up) and among actors (horizontal peer accountability) in FLR implementation. There is also an urgent need for independent verification of achievements (diagonal accountability). Strong accountability is crucial for sustainability, effectiveness and equity of FLR initiatives in Rwanda.

[41] These pathways vary widely. For example, in Malawi the government wanted to use ROAM to address degradation, including the enhancement of public funding for restoration. In Colombia, the government saw ROAM as a contribution to ongoing peace crops initiatives.

[42] The Restoration Barometer is a "framework for identifying, assessing and tracking action on global restoration commitments". More information is available on: https://www.iucn.org/resources/conservation-tool/restoration-barometer.

[43] It also includes the "flexibility to designate by job duration, gender type, or job type (i.e. maintenance versus implementation)".

Principle 9: Fair and effective rule of law

Relevance of principle

Fair and effective rule of law means that "*natural resource-related laws and their application are fair, effective and protect fundamental rights."* This requires, among others, a clear system of natural resource-related laws and policies that are "consistent with human rights and take account of the situation of Indigenous peoples and local communities, women and vulnerable groups" and that "incorporate principles of environmental sustainability." It requires that laws and policies are equitably and humanely enforced, and that those responsible for implementation have the resources and capacities they need. (Springer et al., 2021) These are crucial considerations, as reforestation and restoration efforts have been associated with the miscarriage of justice in several instances (e.g. Zoomers, 2010; Rai et al., 2018).

Case analysis and key findings

When and how rule of law is considered: ROAM processes may consider rule of law in legal/policy analysis, theory of change analysis, and/or application of the Diagnostic, among others. These analyses often focus on how laws and policies facilitate or impede restoration. It is also important to consider the fairness of laws and their enforcement. Resolving concerns related to the content or enforcement of laws is likely outside the scope of a ROAM process. However, identifying concerns helps ensure that they are taken into account, e.g. in prioritising FLR initiatives and highlighting issues to be addressed during FLR implementation. For example, if there are unjust (or unjustly enforced) statutory tenure laws, FLR initiatives implemented through them may themselves be unjust. If there is a community forestry policy in place, but the processes for its implementation are unclear or inaccessible, FLR initiatives implemented through that policy may face those same barriers. For example, in the Malawi ROAM report, enforcement of some laws is highlighted as essential for reducing degradation (MNREM Malawi, 2017).[44] The Rwanda assessment recognised a need to strengthen natural resource rule of law, though doing so has not yet been prioritised in FLR implementation. Taking such issues into account can help ensure that FLR initiatives identified through ROAM processes will be fair and effective.

Putting rule of law in context: Rule of law is a question often deeply embedded in the landscape history and context. In Colombia, issues related to rule of law are delicate and challenging, given the post-conflict situation. This was (and needs to be) taken into account in the ROAM process. In Indonesia, participants discussed the results of the policy, legal and institutional analysis during the formation of a historical timeline. This revealed an important but complex story about the role that rule of law had played in the landscape over the last two decades, and what that implied for the current restoration options. Broadly, the conversion of mangroves to 'illegal' fish farming ponds had been tacitly allowed over the last 20 years for a number of reasons, including that this conversion resulted in substantial financial benefits for local law enforcement officers and other government agencies, and that restoration was not a legal option until 2013. In that context, most stakeholders realised the risk of only fully enforcing the law 20 years after conversion, including that doing so would result in displacement and violent conflict. This situation cannot be fairly resolved through law enforcement alone. A more comprehensive solution is required to fairly resolve this complex set of problems.

[44] The ROAM report notes that it will be important to: "Establish appropriate compliance mechanisms to strengthen enforcement of related laws and policies, in particular for forest clearing restrictions and for community forest management. Weak enforcement of forest laws – underpinned by high resource demand, limited financial and human resources, rent seeking behaviour and corruption risks – were identified as a main barrier to achieving FLR at scale". One interviewee noted that the Forest Act was old and that the revision was not yet complete (but was underway at that time). It will largely raise fines and penalties to reduce illegal activities and so support restoration.

In summary, ROAM takes account of the legal and policy landscape. Giving more focus to whether the content and enforcement of laws is fair and consistent with human rights could enhance the ability of ROAM processes to support effective and equitable FLR implementation. This could be addressed in ROAM guidance.

Principle 10: Access to justice and conflict resolution

Relevance of principle

Access to justice and conflict resolution means that "people are able to seek and obtain remedies for grievances and resolve conflicts regarding land and natural resources". This requires, among others, that impartial and effective "formal or informal mechanisms are in place to resolve conflicts and grievances regarding land and natural resources", that these mechanisms are known by and accessible to rights-holders and stakeholders, and that people are aware of their rights (Springer et al., 2021, pp. 28–29). Access to justice and the ability to resolve natural resource conflicts are part of ensuring sustainable restoration processes (Herrick et al., 2019).

Case analysis and key findings

Effective and equitable FLR requires access to justice and pathways for conflict resolution. While conflict resolution is not a focus of ROAM guidance, it is often a (more or less explicit) part of the process. Restoration involves governance questions such as how and by whom decisions are made, who has rights and responsibilities to what and who benefits and bears related costs. Injustices, grievances and conflicts related to such questions often precede – and can impact and/or be impacted by – the ROAM process.

ROAM as part of a conflict resolution process: Some ROAM processes, such as in Indonesia, include an explicit objective of resolving a conflict. This requires substantial preparation, trust, appropriate and skilled facilitation, and follow-up. In Indonesia, historical timeline creation and opportunities mapping helped rights holders and stakeholders identify (sometimes conflicting) narratives about the creation of the nature reserve, the conversion of mangroves to aquaculture, and the forcible evictions of fish farmers (Bahsoan et al., 2014; Brown, 2021). Most stakeholders felt that enforcement operations were "heavy-handed" and appreciated that ROAM was seeking to identify a resolution (Brown, 2021). Importantly, the opportunity mapping and validation workshops in Indonesia included a nationally certified forest conflict resolution facilitator.

Grounding the process in the context: There may be ongoing or past conflicts that are beyond the scope of what ROAM can (or should) resolve, but that are (or should be) defining aspects of the ROAM process approach, as was the case in Colombia (see Box 6).

Access to justice and conflict resolution in ROAM processes and FLR actions: Concerns related to access to justice and conflict resolution were not raised in all cases. In Rwanda, interviewees stated that the ROAM process helped establish village land use planning as part of FLR decision-making, and that this has given local people a voice in FLR and led to conflict avoidance at the local level. (One interviewee also pointed out that, because resolving local tenure disputes satisfactorily in Rwanda is still very difficult to do,[45] lands under ownership disputes tend to be excluded from FLR activities.) Interviewees in Malawi suggested that ROAM and FLR are generally viewed as positive. When there is an issue, such as when pine plantations in the north failed to hire from local communities, people can raise their concerns through the local chief to resolve the conflict.

[45] For more information, see the LANDac's Food Security and Land Governance Factsheet on Rwanda available at: https://www.landgovernance.org/wp- content/uploads/2019/09/20160627-Factsheet-Rwanda.pdf.

However, grievances or conflicts may arise in relation to ROAM processes themselves and/or the FLR initiatives they identify. It is crucial that they be recognised and fairly resolved. Often conflicts can be addressed through existing (formal or informal) mechanisms at the appropriate level (village, district, etc.). Convenors should also ensure that there are fair, accessible and known grievance mechanisms for ROAM processes, including IUCN's grievance mechanism, when applicable. This is an area where more guidance and analysis are needed.

In summary, this principle is important because FLR often involves challenging rights and governance issues. Equitable, sustainable restoration is unlikely in the context of ongoing conflict. ROAM processes have the potential to either help resolve and/or exacerbate resource-related conflicts and injustice in the landscape. More dialogue, guidance and training on enabling equitable conflict resolution and ensuring effective and fair mechanisms for grievance redress could strengthen ROAM.

Box 6. Post-conflict landscapes and ROAM in Colombia

by James McBreen, Senior Programme Officer, Forest Landscape Restoration, IUCN

Experience with the ROAM process in Colombia highlights the importance of grounding assessments in their historical, social, and political context, and shows in particular the potential challenges and benefits of the process in a post-conflict setting.

The department of eastern Antioquia, where the ROAM process was carried out, has one of the highest deforestation rates in Colombia, has been exacerbated by decades of internal armed conflict. Given that reality, and the new 'post-conflict' phase, there are inherent challenges in Colombia, which have implications for the environmental, cultural and socio-economic dynamics in the landscape. These include how landowners or users make decisions and challenges related to land tenure, and the arrival of displaced farmers and former guerrill3as who are reintegrating into society. There is uncertainty as to what patterns of land use can be expected in Colombia in the 'post-conflict' phase, and what the consequences for nature and livelihoods will be.

In this context, the ROAM process in Colombia offered an opportunity and generated valuable experience for multiple stakeholders involved in landscape-scale planning, especially for restoration, to understand and practice the necessary integration of biophysical and ecological aspects with the social reality of the landscape.

ROAM is characterised by its multi-stakeholder process, which should be built on dialogue and existing collaborative structures in the assessment area. In this post-conflict context, the ROAM process itself can be a valuable catalyst to foster relationships and dialogue between key stakeholders. The process offered FLR interventions to restore degraded landscapes through productive and sustainable activities, such as ecotourism and new livelihood opportunities for internally displaced people and ex-guerrillas affected by decades of conflict. In this sense, ROAM in eastern Antioquia contributed towards positioning restoration as a key activity to support the peace process, providing alternative livelihood options for returning populations to previously occupied conflict zones.

There is a clear opportunity for participatory monitoring in the FLR design and implementation phases, by incorporating indicators of socio-economic well-being and promoting and enabling local participation in monitoring, data analysis and discussion of the results, including those that highlight the social, ecological, and economic benefits of FLR at the landscape scale.

In the 'post-conflict' process, FLR can play a significant role in supporting durable peace in Colombia, considering restoration as a long-term process with sustainable results that start from the local level. It can enable a greater connection to earth through nature and restoring degraded landscapes, restore trust and confidence among the community, and engage youth in promoting local change and peacebuilding.

6 Recommendations

This section includes recommendations to enhance the ways that ROAM guidance and practice address governance, drawing on the 10 NRGF principles. Recommendations **reflect both strengths and challenges** identified in the preceding analysis, including good practices that were found in case analyses and that could be more widely practiced and/or strongly reflected in guidance. The aim is not to be exhaustive. It is, rather, to provide starting-point, practical recommendations that are (or could be) within ROAM's scope and that can further enable equitable and effective processes and outcomes, including for respect, protection and further fulfilment of human rights.

Recommendations are structured around the phases and main steps of the ROAM framework. Rights-holders and stakeholders may also have other recommendations and preferred approaches, including those grounded in local systems and practice. These recommendations aim to offer a step towards more complete governance guidance, which could be developed going forward.

6.1 Before starting ROAM process

Recommendation 1: Fully integrate governance and rights in ROAM guidance and training.

Related NRGF principles: All

- Use the ROAM guidance and tools that already address governance and rights issues (see Table 2 and Box 2).
- Draw on and develop additional guidance, tools and practices, including to address gaps (see Table 2) and further operationalise the recommendations below. This may include new ROAM-specific guidance as well as related resources (see Annex II) and approaches, protocols or guidance from rights-holders and stakeholders in a ROAM process.
- Co-generate and share governance- and rights-related knowledge and experiences, including in ROAM training.[46]
- Engage partners with related skills and knowledge, including from Indigenous peoples' and local communities' organisations.

6.2 ROAM Phase 1: Preparation, consultation and planning

Several recommendations that pertain to all ROAM phases are listed under Phase I because addressing them starts during planning.

Recommendation 2: Convene inclusive and effective coordination for the ROAM process.

Related NRGF principles: 1, 3, 4, 6, 8

Institutional partners convening and coordinating the ROAM process should be:

- **Representative** of the diversity in the landscape, including Indigenous peoples and local communities. Partnerships with international organisations, including IUCN, may be helpful, but the process should not be driven by external actors.
- **Trusted** by and **accountable** to rights-holders and key stakeholders. Engage facilitators experienced

[46] Training could include skill-building in key governance areas, such as rights-mapping, facilitating multi-stakeholder groups that include diverse rights-holders and knowledge-holders, appropriately recognising and integrating diverse forms of knowledge, social/well-being analysis and conflict resolution.

in multi-stakeholder participatory processes and other requisite skills (e.g. conflict resolution).

- **Knowledgeable** about the governance systems, rights and cultures in the landscape.
- **Well-coordinated** amongst themselves (including across scales), with clear, agreed-upon roles and relationships.
- **Committed**, with appropriate **capacity**. Longer-term impact may be enhanced by engaging diverse 'champions' with the political will, commitment and capacity to see FLR through.

Recommendation 3: Fully integrate governance and rights in situational and legal and policy analysis and/or do a governance assessment.

Related NRGF principles: All

Carry out **in-depth situational and legal and policy analyses** that identify governance issues that may impact the equity, effectiveness and sustainability of FLR initiatives. If these analyses (and the FLR Readiness Diagnostic) are done early in the process, results can inform the initial restoration opportunities mapping. At a minimum, this information helps ensure that prioritised FLR initiatives will not cause harm. Beyond this, it can help identify areas where landscape governance can be improved. This may include appropriate recognition and support for Indigenous peoples' and local communities' rights (including self-determination and FPIC) and restoration / natural resource governance initiatives. Issues to consider include:

Malawi: Sharing local knowledge for landscape restoration activities. *Photo credit: Mirjam Kuzee*

- **Governance arrangements -** e.g. who governs (*de jure* and *de facto*) land, territories and resources across the landscape, and how? Is there appropriate recognition and devolution in policy? In practice? Why or why not?
- **Tenure[47] and other human rights -** e.g. what (and whose) are the customary and statutory rights to govern, own, access and use land, territories and natural resources in the landscape? What other procedural and substantive human rights may be impacted by FLR? Are local rights-holders aware of and freely able to act upon their rights? If not, what are the conflicts and barriers?
- **Laws, policies, rules and protocols** that set the terms of, enable or impede equitable and effective FLR. Consider laws and policies from across levels and sectors, and from statutory and customary systems. With respect to statutory laws, consider fairness in their content and implementation across groups. Take into account local by-laws and community plans and protocols.[48]
- **Cultural and knowledge systems -** e.g. who are knowledge-holders in the context? How can diverse knowledge and practice for restoration, including Indigenous and local knowledge, be recognised, respected and included (with FPIC)? How can knowledge be fairly co-generated?

[47] See McLain et al. (2021) for a framework for strengthening tenure analysis in restoration opportunities assessments.

[48] For example, community protocols, may "articulate community-determined values, procedures and priorities" and "set out rights and responsibilities under customary, state and international law as the basis for engaging with external actors such as governments, companies, academics and NGOs" (Natural Justice website). For information about community protocols, see, among others, the Community Protocol Toolkit (Shrumm & Jonas, 2012).

- **Accountability -** e.g. do those with governing and managing authority have the resources and capacity to meet their responsibilities? Are there concerns about corruption or abuse of power? Are the accountability relations between actors clearly defined? Are accountability mechanisms effective (e.g. to ensure answerability and just application of sanctions when due)?
- **Access to justice and conflict resolution –** e.g. are there land, territory or resource-related injustices or conflicts in the landscape? Are there fair, effective ways that people can seek redress and that conflicts can be resolved? If not, what are the barriers?
- **History** – e.g. what information about the history of natural resource governance in the landscape can deepen understanding of the context for FLR? (See Box 4.)

Beyond situation and legal analysis, consider **convening a more complete landscape governance assessment** to help ensure comprehensive understanding of governance issues.

Recommendation 4: Carry out a robust rights-holder and stakeholder analysis.

Related NRGF principles: 1, 4

ROAM processes typically involve a stakeholder analysis. A meaningful analysis can help ensure an inclusive, legitimate process – knowing not just who to reach out to, but how different rights-holders and stakeholders can best be engaged and appropriately supported throughout the process. Towards this end:

- **Ensure analysis using unbiased, inclusive methods** and based in deep understanding of the social, cultural and historical context – including Indigenous peoples, local communities and other rights-holders, knowledge-holders and stakeholders.
- **Take account of rights and power relationships**. This could involve, e.g. 'rights and responsibilities' analysis and power mapping (together with the 'interest and influence' mapping often used in ROAM processes). Include groups who may be (positively or negatively) impacted by restoration but face barriers to influencing decisions.

Recommendation 5: Ensure an inclusive process with full and effective participation in all phases.

Related NRGF principles: 1, 3, 5

Inclusive decision-making with full and effective participation is important at all ROAM phases. Among others:

- Respect and appropriately work with existing **institutions**, including community-defined processes and protocols for discussion and decision-making.
- Be **transparent and proactively share information** with rights-holders and stakeholders[49]
- **Invite and enable**, but do not force or coerce, participation. If rights-holders and key stakeholders are opting out, listen to why and address concerns where possible.
- Ensure rights-holders and key stakeholders are **empowered partners**. Share power and be inclusive of and responsive to diverse views, knowledge and priorities.
- Ensure **self-determined representation** where direct participation is not an option.[50]
- Use **contextually-appropriate, participatory methods** co-selected/developed with rights-holders and stakeholders (in workshops as well as in data collection and analysis occurring between them).
- Fully **budget for participation** throughout the process.

[49] This can include information about what ROAM is; who is convening the process and what they are proposing; how (and in what) people can participate; what the potential benefits, limitations and risks are; and how concerns can be raised and addressed. Rights holders also need clear information about their rights, if not already known.

[50] Representation can occur in different ways, and through elected officials, customary authorities or others with (formal or informal) legitimate mandates. Working with a diversity of representatives can enhance representation (Nuesiri, 2018)

- Include **gender sensitisation** and collectively develop a gender action plan for the ROAM process.
- Proactively and appropriately support **full and effective participation**,[51] including of Indigenous peoples, local communities, people of different genders and ages (including women and youth), and vulnerable or marginalised groups.

Recommendation 6: Align the participatory process to the geographical and institutional scale(s) of the assessment, with inclusion at each level.

Related NRGF principles: 1, 3, 4, 5

ROAM's landscape and multi-scalar approach is a strength and a challenge. To help enable an inclusive, well- governed assessment across scales:

- Ensure that the **geographical scales for the assessment are clear, agreed upon and aligned** with the process, including engaging the rights-holders and stakeholders who make, are impacted by and implement restoration decisions across those scales.
- Enable **dialogue and coordination between rights-holders and stakeholders across the landscape** (and across scales, from national to local), while respecting different visions, priorities and/or timelines for FLR. In addition to any national level platforms, enable cross-scalar dialogue through which local people can freely share their views, hosted in areas and through processes defined by local actors.

Aligning participation to scale may require **phased and/or tiered approaches** – e.g. devolved sub-national processes followed by a national-level process. Centre local rights-holders and key stakeholders as leaders and partners in both national and sub-national process, e.g. through self-determined representation.

Recommendation 7: Facilitate multi-stakeholder processes in ways that take account of, and positively impact, power dynamics, including to enable full and effective participation.

Related NRGF principles: All

Conservation (and restoration) initiatives are often exercises in power, including through assumptions about people, environments, knowledge and the right to intervene (Carpenter, 2020). Multi-stakeholder processes in ROAM involve complex power dynamics that can impact whose voices are heard and whose restoration (and other) priorities are reflected in outcomes. To help address this:

- Ensure a **deep understanding** of the current and historical governance context.
- Take **proactive measures** (including those under Recommendations 5 and 6) to support full and effective participation.
- Include **appropriate facilitation** throughout the process.
- Take account of **power dynamics** throughout the process, including in rights-holder and stakeholder analysis, gender analysis, and identification of deforestation and degradation drivers and their historical dynamics. Avoid marginalised people becoming 'scapegoats' for degradation (see Box 4).

Recommendation 8: Co-generate and respect diverse knowledge.

Related NRGF principles: 3

- Plan for and support equitable, **multi-directional learning and collaborative methods**.[52]

[51] Among others - enable rights-holders to define their own processes for participation; allocate plenty of time for inclusive processes; use accessible formats, languages, timing and location (e.g. Neba et al., 2018); enable those who may be marginalised to hold preparatory meetings to define their restoration visions and priorities before joining multi-stakeholder processes if they wish to; and enable other ways to participate if some do not feel safe voicing their views in multi-stakeholder forums, e.g. smaller focus groups or interviews.

[52] This may require reflecting on assumptions and shifting mindsets and power dynamics, e.g. to enable equitable partnerships between actors working at different levels and with different forms of knowledge. Centre Indigenous- and community-led research and methods that include people of different genders and age groups.

- Recognise, respect and include **diverse knowledge systems**, including Indigenous and local knowledge, with FPIC.
- Build on **past restoration experience** in the landscape, e.g. with lessons inventories.

Colombia: Exploring FLR opportunities with local farmers. Local knowledge is crucial. *Photo credit: Mirjam Kuzee.*

Recommendation 9: Support fair and effective conflict recognition and resolution at the appropriate level.

Related NRGF principles: 10

- As many ROAM processes involve conflict resolution (by design or default), plan for that possibility.
- Work through **statutory or customary mechanisms at the appropriate level** (village, district, national, etc.).
- Ensure rights-holders and stakeholders have information about and **access to grievance mechanisms**, including IUCN's.
- Ensure **sufficient resources (including time) and appropriate facilitation** for ROAM processes involving conflict resolution.

Recommendation 10: Develop ROAM objectives and FLR visions with rights-holders and key stakeholders at each level and with respect for diverse visions and strategies.

Related NRGF principles: 1, 5

ROAM conveners should be **transparent about their own objectives and facilitate a process that is respectful of and responsive to rights-holders' and stakeholders' diverse visions, priorities and strategies**, including those of Indigenous peoples and local communities. Many actors will already have visions and plans for land and resource governance and management, which may (or may not) include restoration. Some may wish to refine or create new visions. Some may choose not to participate. Given ROAM's scale and FLR's timeframe, there may be a broad vision (e.g. meeting commitments to the Bonn Challenge, SDGs, MEAs, etc.) with diverse visions and strategies at more local levels (e.g. sacred forest restoration or expanded agroforestry). These visions and priorities may change over time.

Recommendation 11: Choose FLR initiative assessment criteria that uphold rights and integrate governance principles.

Related NRGF principles: 2, 3, 7, 8, 9, 10

ROAM convenors and partners typically define the criteria they use to analyse the potential of FLR strategies and initiatives.[53] When selecting/defining these criteria:

- **Use inclusive processes** and ensure criteria reflect the views of rights-holders and key stakeholders.[54]
- **Build-in safeguards** and/or use criteria that fully consider and address the likely social and environmental impacts of identified/prioritised FLR initiatives, including human rights impacts.
- **Prioritise initiatives that enhance landscape governance** equity and effectiveness, e.g. through appropriate recognition and support for restoration initiatives defined and led by Indigenous peoples and local communities, with respect for rights, including to self-determination and FPIC.
- **Consider criteria both individually and collectively** to help anticipate overall impacts.[55]

Recommendation 12: Fully integrate governance and rights in the ROAM theory of change.

Related NRGF principles: All

Governance is a factor in whether and how restoration is implemented and sustained (Mansourian, 2016; Mansourian, 2017; Mansourian & Sgard, 2019). The ROAM theory of change is therefore stronger when it considers governance and rights more comprehensively, including as a basis for sustainability. Among other issues, ensure that theories of change:

- Show **pathways to accountability** for effective and equitable FLR implementation. This can help ensure answerability in resulting restoration initiatives, and, consequently, legitimacy and sustainability. Identify who is (or should be) accountable to whom (including upward, downward, peer and diagonal accountability) and how they can be supported over time.
- Recognise Indigenous peoples' and local communities' **leadership and rights**, including any concerns related to lack of recognition or weak enforcement of rights.
- Appropriately recognise, respect and include **diverse knowledge and ways of knowing**, including Indigenous and local knowledge, with FPIC.
- Reflect the need for **adaptation and flexibility** in FLR over time, including as circumstances change.

As the theory of change is typically derived from the situation analysis (ELTI & IUCN, 2018), **integrating governance and rights in the situation analysis** can help ensure they are reflected in the theory of change.

6.3 ROAM Phase 2: Data collection and analysis

Phase II is meant to address data gaps and refine and deepen the analysis in Phase I, while maintaining the "consultative, stakeholder-driven approach" (ELTI & IUCN, 2018). Data collection and analysis should be participatory and grounded in a rich understanding of the governance context, developed in Phase I. More specifically:

[53] As described in the ROAM Handbook: "… Beyond the limited number of criteria used to guide stratification… identify a broader set of assessment criteria that can be used to analyse FLR potential within each sub-area… selected on the basis that they can help assess the core issues of a ROAM application: The need for FLR; The type and potential of appropriate FLR interventions; The scope and availability of land for the different intervention types; The costs and benefits of potential FLR interventions; and The legal, institutional, policy and financial limitations/opportunities. The criteria selected will vary with the particular objectives of the assessment…" (IUCN & WRI, 2014, p. 42).

[54] See, for example, Hernandez & Vogt (2020) on indicators that evaluate restoration from an Indigenous lens.

[55] For example, excluding FLR where there are tenure disputes may help ensure the ROAM process and the initiatives it identifies do not exacerbate concerns. At the same time, consistently prioritising restoration in areas with "ideal" enabling conditions (e.g. clear and secure tenure, interested financiers, etc.) may reinforce marginalisation.

Recommendation 13: Ensure rights-holders and key stakeholders are leaders and empowered partners in data collection and analysis.

Related NRGF principles: 1, 3

Use contextually appropriate collaborative research and equitable knowledge co-generation methods (see Recommendations 5 and 8).

Recommendation 14: Fully integrate governance and rights when developing opportunity maps and prioritising FLR initiatives.

Related NRGF principles: All

Where Phase II includes refining restoration opportunity maps and proposed initiatives from Phase I:

- Enable full and effective participation (see recommendation 5).
- Consider governance and rights implications (see recommendation 11).
- Ensure prioritised strategies/initiatives **reflect the rights, knowledge and visions** of Indigenous peoples, local communities and other rights-holders and key stakeholders who will govern, implement and be impacted by FLR, with respect for rights, including to self-determination and FPIC.

Recommendation 15: Integrate key governance factors and rights in cost-benefit and multi-criteria analysis and analyse how FLR options may impact well-being

Related NRGF principles: 2, 3, 7

Phase II includes cost-benefit analysis and/or a multi-criteria spatial analysis (MCA) "to identify unique combinations of overlapping criteria to design targeted restoration intervention technical packages that directly respond to degradation or thematic input criteria" (ELTI & IUCN, 2018, p. 18).

Consistent with Recommendation 11, include criteria in MCA that build-in social and environmental safeguards and encourage improved landscape governance, e.g. regarding tenure rights and equitable benefit-sharing.

Indonesia: Interviewing fish farmer household in Sidowonge Village. *Photo credit: Benjamin Brown*

In cost-benefit analysis:

- Consider diverse (**material and non-material) costs and benefits**.
- Provide time and facilitation to identify and **resolve concerns and disagreements**, including about opportunity costs.
- **Match analysis to the scale**, e.g. ensuring local resource use and distribution analysis is done at the appropriate level, and with the direct participation of local rights-holders and stakeholders.
- **Analyse costs and benefits in relation to one another** (e.g. whose costs? whose benefits? what compensation, if any?) and **across time** (e.g. are costs short-term? are benefits longer-term? what can be done in the interim to help ensure that upfront costs are practical and equitable?).
- **Ground cost and benefit discussions in the governance context**.

Beyond economic cost-benefit analysis and MCA, **analyse how FLR options are likely to impact human well-being.**

Recommendation 16: Prioritise accountability to local actors in financing analysis.

Related NRGF principles: 3, 4, 7, 8

Where Phase II includes analysis of FLR financing options and constraints, including from the private sector:

- Consider how funds should be governed, including funders' answerability to and transparency with local rights-holders and stakeholders governing and implementing restoration.
- Assess flexibility of different funding options and funders' willingness to support higher-risk initiatives (on fair terms) so that funding does not solely flow to the 'lowest hanging fruit' initiatives.
- Seek innovative, fair and sustainable ways to financially support Indigenous peoples' and local communities' restoration approaches and priorities – e.g. investment in locally governed forests, with FPIC and rights-holders as leading partners.

6.4 ROAM Phase 3: Validation of results and recommendations

Several recommendations in this phase address ways that ROAM guidance and processes can help ensure longer-term, equitable FLR.

Recommendation 17: Ensure inclusive, transparent validation.

Related NRGF principles: All

Use **inclusive, transparent processes** (see Recommendations 5–10) for validating ROAM results and recommendations, so that final outputs reflect the rights, knowledge and visions of rights-holders and key stakeholders, including Indigenous peoples and local communities, with FPIC.

Recommendation 18: Ensure final ROAM outputs identify FLR initiatives that can uphold rights and are aligned with governance principles.

Related NRGF principles: All

If not already done (e.g. see Recommendations 11 and 15), use participatory methods to assess whether **initiatives identified or prioritised in ROAM outputs will uphold human rights and governance principles**. This can be informed by the analyses in Phase I and II and further discussion with rights-holders and stakeholders during validation.

In **Rwanda**, ongoing landscape restoration efforts aim to prevent mudslides and flooding. *Photo credit: Mirjam Kuzee.*

While detailed restoration implementation plans are typically beyond ROAM's scope, the assessment process requires substantial financial, time and knowledge investments in identifying opportunities. Initiatives identified through ROAM processes should uphold and, wherever possible, enhance effective and equitable FLR governance, including the rights and priorities of Indigenous peoples, local communities, people of different genders and ages (including women and youth), and vulnerable or marginalised people who would be impacted. If the FLR initiatives identified cannot be effectively, equitably and sustainably implemented in a given landscape (a question that will often be determined by governance factors), they should only be included as 'opportunities' if ROAM outputs also offer clear guidance on what issues need to be addressed to make them viable options.

Recommendation 19: Adopt and roll-out an action plan for ROAM outputs through inclusive, coordinated processes.

Related NRGF principles: 1, 4, 5, 6, 8

As part of ROAM outputs, adopt and roll-out an action plan to **take forward FLR priorities**:

- Include diverse, innovative solutions, including approaches defined and led by Indigenous peoples and local communities, with FPIC.
- Be clear about scale.
- Build in ongoing social and environmental safeguards.
- Include funding (or plans to secure it) for ongoing coordination and participation.

Coordination to carry forward ROAM outputs may require **continuing or establishing multi-stakeholder processes**. These should:

- Work with and build on existing institutions and platforms as much as possible.
- Represent and be answerable to rights-holders and key stakeholders, including Indigenous peoples and local communities. Accountability can be strengthened through, for example, peer review and shared reporting, for FLR financing and action.
- Be comprised of diverse groups with the mandates, capacities and political will to carry out equitable and effective FLR over the long term. Some attributes may be built over time, such as through advocacy, training and shared learning.
- Include diverse FLR 'champions' who are widely trusted and viewed as legitimate.

Detailed FLR planning and implementation should be done with the leadership and partnership of local actors, including those whose lands, territories, waters and resources may be impacted, and should respect, promote and help more fully realise human rights.

Recommendation 20: Enable longer-term and participatory monitoring, learning and adaptation of FLR plans and strategies

Related NRGF principles: 1, 3, 5

While FLR implementation is beyond ROAM's scope, ROAM outputs should include **recommendations or plans for participatory FLR monitoring, learning and adaptation.** These could include peer exchange among local actors and analysis, documentation and communication of lessons learned. Monitoring could be done in connection with the Restoration Barometer,[56] with additional indicators.

[56] More information is available here: https://www.iucn.org/resources/conservation-tool/restoration-barometer.

7 Conclusion

The success of restoration efforts is in large part socially determined and governance is a crucial factor in the equity, effectiveness and sustainability of FLR initiatives. Mapping NRGF and FLR principles (Table 1) shows how applying the NRGF can reinforce and add value to FLR. ROAM seeks to operationalise the FLR principles through processes to identify and prioritise FLR initiatives. Understanding and enhancing the ways that ROAM guidance and practice integrate governance issues, therefore, can set the stage for and support equitable, effective and sustainable FLR.

The preceding analysis shows that governance issues are important in each phase of ROAM. Many governance issues are already considered in ROAM guidance and practice, to varying extents and in different ways. There are also challenges and gaps that can be addressed. More fully integrating governance principles can enhance the opportunity for ROAM guidance and processes to support effective and equitable FLR and improved landscape governance. This publication offers 20 recommendations towards that end. The recommendations reflect both strengths and challenges identified in the analysis, including good practice that can be better reflected in ROAM guidance.

In summary, key issues addressed in the analysis and recommendations include:

- **Inclusion and power dynamics:** ROAM processes, like FLR more broadly, often confront and seek to address complex and inequitable power relationships. Key questions include who convenes and is invited into the process; who funds it; whose assumptions, knowledge and visions are reflected in prioritised restoration actions; who decides; who follows-up and implements FLR, etc. The ROAM assessment should be designed and implemented as an inclusive, multi-stakeholder process, with Indigenous peoples and local communities and people of all genders and age groups engaged as empowered leaders and partners in restoration, ensuring respect for rights, including FPIC. While ROAM processes generally strive to achieve inclusion, there are also challenges when it comes to practice. More systematic guidance and sharing of experiences can help ensure inclusive ROAM processes.
- **Rights and equity:** FLR has the potential to (positively or negatively) impact rights and equity. Restoration's impacts on well-being need to be understood, including equity in the nature, scope and distribution of material and non-material benefits (and losses). In keeping with this, the leadership and focus of ROAM processes should include those who govern and implement FLR and are most impacted by land use decisions, including Indigenous peoples, local communities and women. Likewise, ROAM process convenors and stakeholders need a clear understanding of the governance context and tenure arrangements and, where appropriate, support for just tenurial and conflict resolution.
- **Diverse knowledge, culture and visions for FLR:** Rights-holders and stakeholders bring diverse and valuable knowledge to FLR, including Indigenous and local knowledge. They also have diverse visions for what restoration means and how it can be achieved on their lands and territories. ROAM processes can be an opportunity for knowledge co-generation and sharing and for recognising and supporting the FLR contributions of different actors, including Indigenous peoples and local communities and people of different genders and age groups, with FPIC.
- **Scale and timeframe:** As a cross-sectoral and cross-scale process informing the planning and design of long-term FLR, ROAM processes must effectively enable participation across scales. This requires understanding where rights-holders, stakeholders and other knowledge-holders are situated and where policy decisions are made. ROAM must also account for the time differences between when FLR opportunities are identified, implemented, pose costs and generate benefits.

- **Context and history:** ROAM processes should be based in a deep understanding of how current and historical governance contexts inform current restoration opportunities and how restoration can inform and improve (or undermine) broader landscape governance.
- **Continued learning and action:** ROAM processes and outputs should encourage ongoing monitoring and action learning, including about governance, and contribute to adaptation, accountability and sustainability in FLR.

This publication provides a step towards more fully integrating governance considerations in ROAM processes and resulting FLR strategies and plans. It can inform ROAM guidance, training, practice and learning going forward, including further research about the importance of governance for FLR.

Malawi: Including perspectives from local stakeholders during a scoping meeting.
Photo credit: Mirjam Kuzee

References

Abbot, J.I.O. and Homewood, K. (1999). 'A history of change: causes of *miombo* woodland decline in a protected area in Malawi'. *Journal of Applied Ecology* 36(3): 422–433. Available at: https://doi.org/10.1046/j.1365-2664.1999.00413.x

Adams, C., Rodrigues, S.T., Calmon, M. and Kumar, C. (2016). 'Impacts of large-scale forest restoration on socioeconomic status and local livelihoods: what we know and do not know'. *Biotropica* 48(6): 731–744. Available at: https://doi.org/10.1111/btp.12385

Agrawal, A., Chhatre, A. and Hardin, R. (2008). 'Changing Governance of the World's Forests'. *Science* 320: 1460–1462. Available at: https://doi.org/10.1126/science.1155369

Akello, S., Turyahabwe, N., Sseguya, H. and Agea, J.G. (2017). 'Devolution policy and its implication on watershed restoration in eastern Uganda'. *African Journal of Rural Development* version 2: 403–415. Available at: https://www.afjrd.org/jos/index.php/afjrd/article/view/229

Ananda, J. (2007). 'Implementing participatory decision making in forest planning'. *Environmental Management* 39(4): 534–544. Available at: https://doi.org/10.1007/s00267-006-0031-2

Austin, B.J. et al. (2018). 'Integrated Measures of Indigenous Land and Sea Management Effectiveness: Challenges and Opportunities for Improved Conservation Partnerships in Australia'. *Conservation & Society* 16(3): 372–384. Available at: https://doi.org/10.4103/cs.cs_16_123

Bahsoan, A., Amin, B., Kadir, I.A., Wiharisno, J., Dako, R. and Massa, Y.N. (2014). 'Cagar Alam Tanjung Panjang – Menenun Harapan Baru'. Manado, Indonesia: BKSDA. Available at: http://repo.unsrat.ac.id/2655/

Barrow, E., Walters, G., Nakangu, B., Angu, K.A., Bobtoya, S., Cruz, R., Kutegeka, S. and Savadogo, M. (2016). *RFGI Handbook II: Implementing Improved Natural Resource Governance in Practice: An Action Learning handbook for Sub-Saharan Africa. Responsive Forest Governance Initiative Working Paper No. 35*. Dakar: CODESRIA, IUCN and University of Illinois. Available at: https://portals.iucn.org/library/sites/library/files/documents/RFGI-WP-035.pdf

Bennet, N., Di Franco, A., Calo, A., Nethery, E., Niccolini, F., Milazzo, M. and Guidetti, P. (2019). 'Local support for conservation is associated with perceptions of good governance, social impacts, and ecological effectiveness'. *Conservation Letters*. Available at: https://doi.org/10.1111/conl.12640

Besseau, P., Graham, S. and Christophersen, T. (eds.) (2018). Restoring forests and landscapes: the key to a sustainable future. Global Partnership on Forest and Landscape Restoration, Vienna, Austria. Available at: https://www.globallandscapesforum.org/wp-content/uploads/2019/09/RESTORING-FORESTS-AND-LANDSCAPES.pdf

Blomley, T. and Walters, T. (eds.) (2019). *A Landscape for Everyone: Integrating Rights-Based and Landscape Governance Approaches.* Gland, Switzerland: International Union for Conservation of Nature (IUCN). Available at: https://doi.org/10.2305/IUCN.CH.2019.08.enhttps://portals.iucn.org/library/sites/library/files/documents/2019-026-En.pdf

Boedhihartono, A.K. and Sayer, J. (2012). 'Forest Landscape Restoration: Restoring What and for Whom?' In: J. Stanturf, D. Lamb and P. Madsen (eds.), *Forest Landscape Restoration*, pp. 309–323, World Forests Book Series Vol. 15. Dordrecht, The Netherlands: Springer. Available at: https://doi.org/10.1007/978-94-007-5326-6_16

Borrini-Feyerabend, G. (ed.) with Buchan, D. (1997). *Beyond Fences: Seeking Social Sustainability in Conservation*. Vol. 2. IUCN, Gland, Switzerland and Cambridge, UK. Available at: https://portals.iucn.org/library/node/9007

Borrini-Feyerabend, G., Campese, J. and Niederberger, T. (eds.) (2021). *Strengthening your territory of life: guidance from communities for communities*. Available at: https://ssprocess.iccaconsortium.org/wp-content/uploads/2021/10/ICCA_Territories-of-Life_2021-ENG.pdf

Brown, B. (2021). 'Evaluating Mangrove Forest Landscape Restoration Opportunity in Indonesia'. PhD Thesis. Charles Darwin University Research Institute for Environment and Livelihoods, Australia. Available at: https://doi.org/10.25913/MJGT-QX71

Bustos, C. and Jaramillo, M. (2016). 'What does peace in Colombia have to do with the environment?' *The Guardian*. Available at https://www.theguardian.com/global-development-professionals-network/2016/oct/24/peace-colombia-government-guerrilla-environment

Caddy, J., Peixoto, T. and McNeil, M. (2007). *Beyond public scrutiny: stocktaking of social accountability in OECD countries*. Washington, DC: World Bank. Available at: http://www.oecd.org/gov/digital-government/38983242.pdf

Campese, J. and Sulle, E. (2019). *Management Effectiveness, Governance, and Social Assessments of Protected and Conserved Areas in Eastern and Southern Africa: A rapid inventory and analysis to support the BIOPAMA programme and partners.* BIOPAMA, IUCN ESARO. Available at: https://biopama.org/wp-content/uploads/2019/11/inline-files_BIOPAMA_Sept_2019_MEGSA-of-PCA-in-ESA_0.pdf

Carpenter, C. (2020). *Power in conservation: environmental anthropology beyond political ecology*. New York, USA: Routledge, Abingdon, Oxon.

Chang, K., Winter, K.B. and Kekuewa Lincoln, N. (2019). 'Hawai'i in Focus: Navigating Pathways in Global Biocultural Leadership'. *Sustainability* 11(1): 283. Available at: https://doi.org/10.3390/su11010283

Clear Horizon Consulting (2016). *Rwandan Forest Landscape Restoration Opportunity Assessment: Tracing the Influence*. Prepared for the International Union for the Conservation of Nature (IUCN). Victoria, Australia: Clear Horizon. Available at: https://www.iucn.org/sites/dev/files/content/documents/flr_opportunity_assessment_-_tracing_the_influence.pdf

Colomer, J., Imbach, A., Raes, L., Parrilla, U., Reinhard, F., Fernandez, M., and Allemant, M. (2018). *Value for Money: Guatemala's Forest Landscape Restoration*. Gland, Switzerland: IUCN. Available at: https://doi.org/10.2305/IUCN.CH.2018.06.en

Cowie, W. et al. (2020). *IUCN Guidelines for gathering of fishers' knowledge for policy development and applied use*. IUCN, Gland, Switzerland; and Environment Agency–Abu Dhabi, United Arab Emirates. Available at: https://doi.org/10.2305/IUCN.CH.2020.11.en

Dave, R. et al. (2019). *Second Bonn Challenge Progress Report*. Gland, Switzerland: IUCN. Available at: https://doi.org/10.2305/IUCN.CH.2019.06.en

Dawson, N. et al. (2021). 'The role of Indigenous peoples and local communities in effective and equitable conservation'. *Ecology and Society* 26(3): 19. Available at: https://doi.org/10.5751/ES-12625-260319

Díaz-Reviriego, I., Turnhout, E. and Beck, S. (2019). 'Participation and Inclusiveness in the Intergovernmental Science–Policy Platform on Biodiversity and Ecosystem Services'. *Nature Sustainability* 2(6): 457–464. Available at: https://doi.org/10.1038/s41893-019-0290-6

Díaz, S., et al. (2018). 'Assessing nature's contributions to people'. *Science* 359(6373): 270–272. Available at: https://doi.org/10.1126/science.aap8826

Edwards, K., Triraganon, R., Silori, C. and Stephenson, J. (2012). *Putting Free, Prior, and Informed Consent into Practice in REDD+ Initiatives*. A Training Manual. Bangkok, Thailand: The Center for People and Forests (RECOFTC), the Institute for Global Environmental Strategies (IGES) and the Norwegian Agency for Development Cooperation (Norad). Available at: https://www.recoftc.org/publications/0000211

Elson, D. (2012). *Guide to investing in locally controlled forestry*. Growing Forest Partnerships in association with FAO, IIED, IUCN, The Forests Dialogue and the World Bank. London, UK: IIED. Available at: http://www.fao.org/docrep/017/ap860e/ap860e00.pdf

Emborg, J., Walker, G., Daniels, S. (2012). 'Forest Landscape Restoration Decision-Making and Conflict Management: Applying Discourse-Based Approaches'. In: J. Stanturf, D. Lamb, P. Madsen (eds.), *Forest Landscape Restoration. World Forests Book Series* 15: 131–153. Dordrecht, The Netherlands: Springer. Available at: https://doi.org/10.1007/978-94-007-5326-6_7

Environmental Leadership & Training Initiative (ELTI) and International Union for Conservation of Nature (IUCN) (2018). *Forest Landscape Restoration and the Restoration Opportunities Assessment Methodology – Training Handbook*. New Haven, CT and Gland, Switzerland: Environmental Leadership & Training Initiative (ELTI), Yale University, and International Union for Conservation of Nature (IUCN). Available at: https://iwrm.fda.gov.lr/wp-content/uploads/2019/10/flr_and_roam_handbook_with_layout.pdf

Erbaugh, J.T. and Oldekop, J.A. (2018). 'Forest Landscape Restoration for Livelihoods and Well-Being'. *Current Opinion in Environmental Sustainability* 32: 76–83. Available at: https://doi.org/10.1016/j.cosust.2018.05.007

Erbaugh, J.T., Pradhan, N., Adams, J., Oldekop, J.A., Agrawal, A., Brockington, D., Pritchard, R. and Chhatre, A. (2020). 'Global forest restoration and the importance of prioritizing local communities'. *Nature, Ecology & Evolution* 4: 1472–1476. Available at: https://doi.org/10.1038/s41559-020-01282-2

Erlingsson, C. and Brysiewicz, P. (2017). 'A hands-on guide to doing content analysis'. *African Journal of Emergency Medicine* 7(3): 93–99. Available at: https://doi.org/10.1016/j.afjem.2017.08.001

Görg, C. (2007). 'Landscape governance: The "politics of scale" and the "natural" conditions of places'. *Geoforum* 38(5): 954–966. Available at: https://doi.org/10.1016/j.geoforum.2007.01.004

Guariguata, M.R. and Brancalion, P.H.S. (2014). 'Current Challenges and Perspectives for Governing Forest Restoration'. *Forests* 5(12): 3022–3030. Available at: https://doi.org/10.3390/f5123022

Hanson, C., Buckingham, K., Dewitt, S. and Laestadius, L. (2015). *The Restoration Diagnostic: A Method for Developing Forest Landscape Restoration Strategies by Rapidly Assessing the Status of Key Success Factors*. Washington, DC: World Resources Institute. Available at: https://www.wri.org/research/restoration-diagnostic

Hernandez, J. and Vogt, K.A. (2020). 'Indigenizing Restoration: Indigenous Lands before Urban Parks'. *Human Biology* 92(1): 37–44. Available at: https://doi.org/10.13110/humanbiology.92.1.02

Herr, D., Himes-Cornell, A. and Laffoley, D. (2016). *National Blue Carbon Policy Assessment Framework: Towards effective management of coastal carbon ecosystems*. Gland, Switzerland: IUCN. Available at: https://portals.iucn.org/library/sites/library/files/documents/2016-080.pdf

Herrick, J. et al. (2019). *Land Restoration for Achieving the Sustainable Development Goals: An International Resource Panel Think Piece*. International Resource Panel of the United Nations Environment Programme (UNEP). Nairobi, Kenya: UNEP. Available at: https://www.resourcepanel.org/reports/land-restoration-achieving-sustainable-development-goals

ICCA Consortium (2021). *Territories of Life: 2021 Report*. ICCA Consortium: worldwide. Available at: report.territoriesoflife.org

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (2019). *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. E.S. Brondizio, J. Settele, S. Díaz and H.T. Ngo (eds.). Bonn, Germany: IPBES Secretariat. Available at: https://ipbes.net/global-assessment

International Union for Conservation of Nature (IUCN) (2017). *Gender-responsive restoration guidelines: A closer look at gender in the Restoration Opportunities Assessment Methodology*. Gland, Switzerland: IUCN. Available at https://portals.iucn.org/library/node/46693. Available in French, Spanish, Portuguese and Russian.

IUCN and the World Resources Institute (WRI) (2014). *A Guide to the Restoration Opportunities Assessment Methodology (ROAM).* Gland, Switzerland and Washington, DC: IUCN and WRI. Available at: https://portals.iucn.org/library/node/44852

Isaacs-Cubides, P.J. et al. (2017). Implementación del protocolo Metodología para la Evaluación de Oportunidades de Restauración (ROAM). Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, Cornare, Universidad Católica de Oriente, Bogotá, Colombia.

Kennedy, T., Martin, T., Lee, M. (2021). *The Practice of FPIC: Insights from the FPIC Solutions Dialogue*. RESOLVE. Available at: https://fpicdialogue.org/wp-content/uploads/FPICGuide_English.pdf

Kurashima, N., Jeremiah, J., Whitehead, A.N., Tulchin, J., Browning, M. and Duarte, T. (2018). 'Āina Kaumaha: The Maintenance of Ancestral Principles for 21st Century Indigenous Resource Management'. *Sustainability* 10(11): 3975. Available at: https://doi.org/10.3390/su10113975

Kwashirai, V.C. (n.d.). 'Environmental History of Africa'. *Encyclopedia of Life Support Systems (EOLSS)*. Essen, Germany: University Duisburg-Essen. Available at: http://www.unecefaoiufro.lsu.edu/certificate_eccos/documents/2013Mar/ce13_03.pdf

Lake, F., Parrotta, J., Giardina, C., Hunt-Davidson, I. and Uprety, Y. (2018). 'Integration of Traditional and Western knowledge in forest landscape restoration'. In: S. Mansourian and J. Parrotta (eds.), *Forest Landscape Restoration: Integrated Approaches to Support Effective Implementation*. Chapter 12, pp. 198–226. New York, USA: Routledge. Available at: https://www.fs.usda.gov/treesearch/pubs/57158

Larson, A.M. and Springer, J. (2016). *Recognition and Respect for Tenure Rights*. NRGF Conceptual Paper. Gland, Switzerland: IUCN CEESP and CIFOR. Available at: https://www.cifor.org/publications/pdf_files/Papers/PLarson1601.pdf

Leach, M. and Mearns, R. (eds.) (1996). *The Lie of the Land: Challenging received wisdom on the African environment*. London: James Currey.

Lee, E. and Krasny, M.E. (2015). 'The Role of Social Learning for Social-Ecological Systems in Korean Village Groves Restoration'. *Ecology and Society* 20(1): 42. Available at: http://dx.doi.org/10.5751/ES-07289-200142

Lovelock, C.E. and Brown, B.M. (2019). 'Land tenure considerations are key to successful mangrove restoration'. *Nature Ecology & Evolution* 3. Available at: https://doi.org/10.1038/s41559-019-0942-y

MacInnes A., Colchester M. and Whitmore, A. (2017). 'Free, prior and informed consent: how to rectify the devastating consequences of harmful mining for indigenous peoples?' *Perspectives in Ecology and Conservation* 15(3): 152–160. Available at: https://doi.org/10.1016/j.pecon.2017.05.007

Ministerio de Aubiente y Desarrollo Sostenibile (MADS) (2013). Plan nacional de restauración ecológica, rehabilitación y recuperación de áreas disturbadas. Bogota: Ministerio de Ambiente y Desarrollo Sostenible.

Mansourian, S. (2016). 'Understanding the Relationship between Governance and Forest Landscape Restoration'. *Conservation and Society* 14(3): 267–278. Available at: https://doi.org/10.4103/0972-4923.186830

_____ (2017). 'Governance and Forest Landscape Restoration: A framework to support decision-making'. *Journal for Nature Conservation* 37: 21–30. Available at: https://doi.org/10.1016/j.jnc.2017.02.010

Mansourian, S., Razafimahatratra, A., Ranjatson, P. and Rambeloarisoa, G. (2016). 'Novel governance for forest landscape restoration in Fandriana-Marolambo, Madagascar'. *World Development Perspectives* 3: 28–31. Available at: https://doi.org/10.1016/j.wdp.2016.11.009

Mansourian, S. and Sgard, A. (2019). Diverse interpretations of governance and their relevance to forest landscape restoration. *Land Use Policy*. Available at: https://doi.org/10.1016/j.landusepol.2019.05.030

Mansourian, S. and Vallauri, D. (2020). 'How to Learn Lessons from Field Experience in Forest Landscape Restoration: A Tentative Framework'. *Environmental Management* 66: 941-51. Available at: https://doi.org/10.1007/s00267-020-01295-4

Mansourian, S., Walters, G.M. and Gonzales, E. (2019). 'Identifying governance problems and solutions for forest landscape restoration in protected area landscapes'. *Parks* 25(19): 83–96. Available at: https://doi.org/10.2305/IUCN.CH.2019.PARKS-25-1SM.en

McCracken, J. (1987). 'Colonialism, Capitalism and Ecological Crisis in Malawi: A Reassessment'. In Anderson, D. and Grove, R. (eds.). *Conservation in Africa, People, Policies and Practice*. Cambridge, England: Cambridge University Press. *Journal of Tropical Ecology* 6(3): 385–386. Available at: https://doi.org/10.1017/S0266467400004739

McDermott, C.L. et al. (2012). 'Governance for REDD+, forest management and biodiversity: Existing approaches and future options'. In: J. Parrotta, C. Wildburger and S. Mansourian (eds.), *Understanding relationships between biodiversity, carbon, forests and people*: *The key to achieving REDD+ objectives. A global assessment report prepared by the Global Forest Expert Panel on Biodiversity, Forest Management, and REDD+*, pp. 115–137. Vienna: IUFRO. Available at: https://www.fs.usda.gov/treesearch/pubs/47822

McLain, R., Lawry, S., Guariguata, M.R. and Reed, J. (2021). 'Toward a Tenure-Responsive Approach to Forest Landscape Restoration: A Proposed Tenure Diagnostic for Assessing Restoration Opportunities'. *Land Use Policy*. Available at: https://doi.org/10.1016/j.landusepol.2018.11.053

Ministry of Environment – Rwanda (2019). *Rwanda Forest Cover Mapping*. Ministry of Environment, NISR, IUCN, ENABEL and BMU. Available at: https://www.environment.gov.rw/fileadmin/user_upload/Moe/Publications/Reports/Forest_cover_repo rt_2019.pdf

Ministry of Natural Resources, Energy and Mining (MNREM) Malawi (2017). *Forest Landscape Restoration Opportunities Assessment for Malawi*. NFLRA (Malawi), IUCN, WRI. Available at: https://portals.iucn.org/library/node/46837

Ministry of Natural Resources–Rwanda (2014). *Forest Landscape Restoration Opportunity Assessment for Rwanda*. MINIRENA (Rwanda), IUCN and WRI. Available at: https://portals.iucn.org/library/node/45147

Mulwafu, W.O. (2002). 'Soil Erosion and State Intervention into Estate Production in the Shire Highlands Economy of Colonial Malawi, 1891-1964'. *Journal of Southern African Studies* 28(1): 25–43. Available at: https://doi.org/10.1080/03057070120116962

Murcia, C., Guariguata, M.R., Andrade, Á., Andrade, G.I., Aronson, J., Escobar, E.M., Etter, A., Moreno, F.H., Ramírez, W. and Montes, E. (2015). 'Challenges and prospects for scaling-up ecological restoration to meet international commitments: Colombia as a case study'. *Conservation Letters* 9(3): 213–220. Available at: https://doi.org/10.1111/conl.12199

Nagendra, H. (2007). 'Drivers of reforestation in human-dominated forests'. *Proceedings of the National Academy of Sciences* 104(39): 15218–15223. Available at: https://doi.org/10.1073/pnas.0702319104

Neba, A.G., Walters, G. and Jung, H.-Y. (2018). 'Examining the Supply and Demand of Effective Participation and Representation'. In: E.O. Nuesiri (ed.), *Global Forest Governance and Climate Change: Interrogating Representation, Participation, and Decentralization*. Palgrave Studies in Natural Resource Management book series. Cham, Switzerland: Palgrave Macmillan. Available at: https://doi.org/10.1007/978-3-319- 71946-7

Nuesiri, E.O. (2016). *Accountability of Powerful Actors for Social and Environmental Outcomes*. NRGF Conceptual Paper. Gland, Switzerland: IUCN and CEESP. Available at: http://dx.doi.org/10.13140/RG.2.2.15254.96329

_____ (ed.) (2018). *Global Forest Governance and Climate Change: Interrogating Representation, Participation, and Decentralization*. London: Palgrave Macmillan.

Rai, N.D., Bhasme, S. and Balaji, P. (2018). 'Power, inequality and rights: A political ecology of forest restoration'. In: S. Mansourian and J. Parrotta (eds.), *Forest landscape restoration*, pp. 47–62. London: Routledge. Available at: https://www.taylorfrancis.com/books/e/9781315111872/chapters/10.4324/9781315111872-4

Reed, J., Van Vianen, J., Deakin, E.L., Barlow, J. and Sunderland, T. (2016). 'Integrated landscape approaches to managing social and environmental issues in the tropics: learning from the past to guide the future'. *Global Change Biology* 22(7): 2540–2554. Available at: https://doi.org/10.1111/gcb.13284

Ribot, J. (2016). 'RFGI Handbook I: Leveraging Local Democracy through Forestry'. Responsive Forest Governance Initiative Working Paper No. 34. Dakar, Senegal: CODESRIA, IUCN and University of Illinois. Available at: https://portals.iucn.org/library/node/46164

Ribot, J., Agrawal, A. and Larson, A.M. (2006). 'Recentralizing while decentralizing: how national governments reappropriate forest resources'. *World Development* 34(11): 1864–1886. Available at: https://doi.org/10.1016/j.worlddev.2005.11.020

Ribot, J. and Larson, A.M. (eds.) (2005). 'Democratic Decentralisation through a Natural Resource Lens: An Introduction'. *The European Journal of Development Research* 16: 1–25. Available at: https://doi.org/10.1080/09578810410001688707

Ros-Tonen, M.A.F., Derkyi, M. and Insaidoo, T.F.G. (2014). 'From Co-Management to Landscape Governance: Whither Ghana's Modified Taungya System?'. *Forests* 5(12): 2996–3021. Available at: https://doi.org/10.3390/f5122996

Shackleton, S., Campbell, B., Wollenberg, E. and Edmunds, D. (2002). 'Devolution and community-based natural resource management: Creating space for local people to participate and benefit?'. *ODI Natural Resource Perspectives* 76: 1–6. Available at: https://www.files.ethz.ch/isn/91369/NRP76.pdf

Springer, J., Campese, J. and Nakangu, B. (2021). *The Natural Resource Governance Framework: Improving governance for equitable and effective conservation*. Gland, Switzerland: IUCN. Available at: https://doi.org/10.2305/IUCN.CH.2021.16.en

Sustainable Development Institute (SDI) and Social Entrepreneurs for Sustainable Development (SESDev) (2015). *Communities in the Driving Seat: A Manual on Free, Prior and Informed Consent (FPIC).* SDI & SESDev. Available at: https://www.forestpeoples.org/sites/fpp/files/training/2016/02/Communities%20in%20the%20Driving%20Seat.pdf

Thompson, B.S. (2018). 'The political ecology of mangrove forest restoration in Thailand: Institutional arrangements and power dynamics'. *Land Use Policy* 78: 503–14. Available at: https://doi.org/10.1016/j.landusepol.2018.07.016

United Nations Food and Agriculture Organization (FAO) (2014). *Respecting free, prior and informed consent. Practical guidance for governments, companies, NGOs, indigenous peoples and local communities in relation to land acquisition*. Rome, Italy: FAO. Available at: https://www.fao.org/3/i3496e/i3496e.pdf

van Oosten, C. (2013). 'Restoring Landscapes – Governing Place: A Learning Approach to Forest Landscape Restoration'. *Journal of Sustainable Forestry* 32(7): 659–676. Available at: https://doi.org/10.1080/10549811.2013.818551

Van Oosten, C., Gunarso, P., Koesoetjahjo, I. and Wiersum, F. (2014). 'Governing forest landscape restoration: Cases from Indonesia'. *Forests* 5(6): 1143–1162. Available at: https://doi.org/10.3390/f5061143

van Oosten, C., Runhaar, H. and Arts, B. (2019). 'Capable to govern landscape restoration? Exploring landscape governance capabilities, based on literature and stakeholder perceptions'. *Land Use Policy*. Available at: https://doi.org/10.1016/j.landusepol.2019.05.039

Verschuuren, B. Wild, R., McNeely, J.A. and Oviedo, G. (eds.) (2010). *Sacred Natural Sites: Conserving Nature and Culture*. London and Washington, DC: Earthscan. Available at: https://portals.iucn.org/library/node/9662

Walker, P.A. (2004). 'Roots of Crisis: Historical Narratives of Tree Planting in Malawi'. *Historical Geography* 32, 89–109. Available at: https://ejournals.unm.edu/index.php/historicalgeography/article/view/2955

Walters, G., Baruah, M., Karambiri, M., Osei-Wusu Adjei, P., Samb, C. and Barrow, E. (2019). 'The Power of Choice: How Institutional Selection Influences Restoration Success in Africa'. *Land Use Policy*. Available at: https://doi.org/10.1016/j.landusepol.2019.104090

Wehi, P.M. and Lord, J.M. (2017). 'Importance of including cultural practices in ecological restoration. *Conservation Biology* 31(5): 1109–1118. Available at: https://doi.org/10.1111/cobi.12915

Wiegant, D., Peralvo, M., van Oel, P. and Dewulf, A. (2020). 'Five scale challenges in Ecuadorian forest and landscape restoration governance'. *Land Use Policy* 96: 104686. Available at: https://doi.org/10.1016/j.landusepol.2020.104686

Wild, R.G. and McLeod, C. (eds.) (2008). *Sacred Natural Sites: Guidelines for Protected Area Managers*. IUCN Best Practice Protected Area Guidelines Series No. 16: Gland, Switzerland and Paris, France: IUCN and UNESCO. Available at: https://portals.iucn.org/library/node/9201. Also available in Estonian, French, Japanese, Korean, Russian and Spanish.

Wild, R. and Walters, G. (2022). 'The forest is clothing for the ancestors: A rapid cultural assessment tool for forest landscape restoration policy processes'. *Forest Ecology and Management* 504: 119825. Available at: https://www.sciencedirect.com/science/article/pii/S0378112721009166

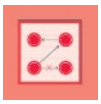
Zoomers, A. (2010). Globalisation and the foreignisation of space: seven processes driving the current global land grab'. *The Journal of Peasant Studies* 37(2): 429–447. Available at: https://doi.org/10.1080/03066151003595325

Zulu, L.C. (2010). 'The forbidden fuel: Charcoal, urban woodfuel demand and supply dynamics, community forest management and woodfuel policy in Malawi'. *Energy Policy* 38(7): 3717–3730. Available at: https://doi.org/10.1016/j.enpol.2010.02.050

Annex I: NRGF principles and criteria

Source: Springer et al. (2021).

Principles	Criteria
1. Inclusive decision- making:  *Decision- making regarding natural resource policies and practices is based on the full and effective participation of all relevant actors, with particular attention to the voice and inclusion of rights-holders and groups at risk of marginalisation*	– Relevant legal and policy frameworks include robust provisions on the inclusion of rights-holders and stakeholders in decision-making. – Platforms and processes are in place to enable full and effective participation in decision-making. – Processes for inclusive decision-making engage diverse groups, are socially and culturally appropriate and take into account power dynamics within and between groups. – Rights-holders and stakeholders have access to information on the environment and natural resources. – Rights-holders and stakeholders have the capacities and support they need to participate in decision-making, including through appropriate representation. – Natural resource decisions take into account the views expressed through participatory processes. – Free, prior and informed consent is required, secured and maintained for decisions concerning Indigenous peoples and other customary rights-holders and their lands and resources.
2. Recognition and respect for tenure rights:  *Rights to lands, resources and waters are recognised and respected, with particular attention to the customary, collective rights of Indigenous peoples and local communities, and to women's tenure rights*	– Relevant laws, policies and rules mandate recognition and respect for all tenure rights, with particular attention to the customary (including collective) rights of Indigenous peoples and local communities and to women's rights. – Tenure rights are robust – enabling rights-holders to sustainably access, use, benefit from, manage and protect lands and other natural resources from threats. – Accessible and effective processes and capacities are in place to recognise and respect land and resource rights, including for the purposes of formal recognition. – Effective processes and capacities are in place to protect and enforce tenure rights. – Overlapping tenure rights and claims are clarified in law and resolved in practice.
3. Recognition of and respect for diverse cultures, knowledge and institutions:  *Natural resource governance is grounded in sound and diverse forms of knowledge and respect for diverse cultures, values and practice*	– Governance strategies and actions are informed by sound, diverse forms of knowledge, including Indigenous and local knowledge. – The diverse cultural values and practices that sustain natural resources are respected and protected. – Governance institutions foster learning and adaptive management, valuing insights from diverse cultures and knowledge systems. – Indigenous and local knowledge is integrated into natural resource governance in respectful, appropriate and meaningful ways, including through appropriate free, prior and informed consent.

Principles	Criteria
4. Devolution: *Decisions are taken at the lowest possible level appropriate to the social and ecological systems being governed, with particular attention to empowering the roles and authority of Indigenous peoples and local communities in natural resource governance* 	– Legal and policy frameworks devolve natural resource management to capable institutions closest to the natural resources concerned. – Legal and policy frameworks for devolved – including Indigenous and community-led – natural resource governance are widely implemented. – Local institutions (including customary institutions) have the capacities and support they need for effective and equitable natural resource governance. – Appropriate recognition is given to the roles and authority of Indigenous peoples and local communities in natural resource governance.
5. Strategic vision, direction and learning: *Natural resource governance is guided by an overall vision of desired environmental and social outcomes, and allows for adaptation in response to learning and changing conditions* 	– Relevant legal, policy and management frameworks establish strategic vision and direction for natural resource governance. – The strategic vision and direction are set through inclusive processes that take into account the diverse values and forms of knowledge of rights-holders and stakeholders. – The strategic vision and direction incorporate key principles of environmental sustainability, such as the precautionary principle against risks of environmental and social harm. – The strategic vision and direction effectively and equitably address present threats and anticipate future challenges. – Natural resource governance and management activities are consistent with the strategies articulated in the vision. – Governance institutions have processes in place for ongoing monitoring, reflection and learning, thereby enabling responsiveness to changing conditions and needs.
6. Coordination and coherence: *Actors involved in or affecting natural resource governance coordinate around a coherent set of strategies and management practices* 	– Legal and policy frameworks across sectors responsible for or affecting natural resource governance are aligned. – Coordination mechanisms are in place to enable horizontal collaboration and coherence among multiple actors and sectors operating in the same geographical space or thematic area. – Mechanisms are in place to enable vertical coordination across multiple levels of actors with roles in the governance of an ecosystem or resource. – Institutions collaborate and overlap functions in ways that increase resilience.

Principles	Criteria
7. Sustainable and equitably shared resources: *Actors responsible for natural resources have the means necessary to carry out sustainable management and governance activities, including from the equitable sharing of benefits generated from natural resources* 	– People responsible for natural resource governance have access to revenues and/or livelihoods that enable them to carry out resource management activities. – Available revenues and other resources provide sufficient economic sustainability for the people and actions required to sustainably manage the natural resource. – Benefits arising from the use of natural resources are shared equitably. – The sharing of revenues and other benefits provides sufficient incentive for the sustainable management of natural resources. – Losses borne by Indigenous peoples, local communities and all vulnerable, marginalised and/or minority people due to conservation – including restrictions on resource use to ensure sustainability – are prevented or, where unavoidable, are compensated. – Natural resources are managed sustainably so that following generations have equitable access to the benefits those resources provide.
8. Accountability: *Actors responsible for or affecting natural resource governance are accountable for their actions and the environmental and social impacts they produce* 	– The institutions responsible for natural resource governance have clearly defined roles and responsibilities. – The actors responsible for or affecting natural resource governance operate transparently and share relevant information on their actions openly and accessibly. – Appropriate capacities and mechanisms are in place to hold authorities involved in natural resource governance responsible for their actions (and inactions). – Social and environmental safeguards are adopted and implemented that explicitly take into account the situation of vulnerable groups and environments. – The potential impacts of governance decisions on vulnerable people and environments are understood in advance and avoided or minimised to the fullest extent possible. – Accountability mechanisms effectively rein in corruption.
9. Fair and effective rule of law: *Natural resource-related laws and their application are fair and effective and protect fundamental rights* 	– A clear system of natural resource norms and sanctions is defined in laws, policies or rules and is widely shared. – Natural resource-related laws, policies and rules are consistent with human rights and take into account the situation of Indigenous peoples, local communities, women and all vulnerable, marginalised and/or minority groups. – Natural resource-related, laws, policies and rules incorporate principles of environmental sustainability. – Enforcement bodies have the capacity and commitment to uphold the norms and sanctions established to protect rights and the environment. – Natural resource-related laws, policies and rules are carried out equitably, effectively and humanely.

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9. Fair and effective rule of law:  *Natural resource-related laws and their application are fair and effective and protect fundamental rights*	– A clear system of natural resource norms and sanctions is defined in laws, policies or rules and is widely shared. – Natural resource-related laws, policies and rules are consistent with human rights and take into account the situation of Indigenous peoples, local communities, women and all vulnerable, marginalised and/or minority groups. – Natural resource-related, laws, policies and rules incorporate principles of environmental sustainability. – Enforcement bodies have the capacity and commitment to uphold the norms and sanctions established to protect rights and the environment. – Natural resource-related laws, policies and rules are carried out equitably, effectively and humanely.
10. Access to justice and conflict resolution:  *People are able to seek and obtain remedies for grievances and resolve conflicts regarding land and natural resource s*	– Formal or informal mechanisms are in place to resolve conflicts and grievances regarding land and natural resources. – People are aware of their natural resource-related rights and the avenues available to them for resolving conflicts or seeking redress. – Grievance- or dispute-resolution mechanisms are accessible to rights-holders and stakeholders, including vulnerable, marginalised and/or minority groups. – Mechanisms operate impartially and effectively to resolve disputes and redress rights violations.

Annex II: Additional resources

In addition to ROAM-specific guidance, there are many resources and tools that may be helpful in enhancing integration of governance and rights considerations in ROAM processes. This annex includes just a handful of examples. It is not exhaustive and not all resources will be relevant for all contexts. **Rights-holders and stakeholders may also have their own guidance and approaches, or other resources they prefer.**

Recognising and respecting rights and diverse governance systems, knowledge and practice

ROAM processes should enable FLR approaches that recognise and respect human rights and diverse governance systems, knowledge and practice, including of Indigenous peoples and local communities. This requires that the ROAM process itself embodies such recognition and respect.
The ROAM processes in Malawi and Mozambique incorporated innovative measures to recognise and include cultural knowledge and practice in restoration, including through the 10-question survey (see Box 2). This tool can be diffused more broadly, including within and beyond ROAM training and guidance.

Recent publications that can provide important examples and sources of guidance include:

- Toward a Tenure-Responsive Approach to Forest Landscape Restoration: A Proposed Tenure Diagnostic for Assessing Restoration Opportunities (McLain et al., 2021) proposes a rights actualisation framework for strengthening tenure analyses in future restoration opportunities assessments.
- The Territories of life: 2021 Report (ICCA Consortium, 2021) "highlights the importance of recognising Indigenous peoples' and local communities' rights and governance systems for effective and equitable conservation". It includes, inter alia, recommendations, over 17 detailed case examples and a global spatial analysis of the estimated extent of territories and areas conserved by Indigenous peoples and local communities.
- In Indigenizing Restoration: Indigenous Lands before Urban Parks, Hernandez and Vogt (2020) describe three indicators that "restoration projects must incorporate" to "re-evaluate[ ] restoration from an Indigenous lens": eco-colonialism, kincentric ecology and environmental narratives. They apply these indicators in the context of a restoration project at Daybreak Star Indian Cultural Center located at Discovery Park in Seattle, Washington.
- The IUCN guidelines for gathering of fishers' knowledge for policy development and applied use (Cowie et al., 2020) support recognition and inclusion of "fishers' knowledge as an important data stream in resource management. The report includes details on the breadth of knowledge that can be gathered, how it can be gathered, and how this information can be applied to support sustainable fisheries policy and broader applications in society. It contains case studies from Africa, Asia, the Caribbean, Central and South America, and the Pacific".
- In Hawai'i in Focus: Navigating Pathways in Global Biocultural Leadership, Chang et al. (2019) "provide[ ] background on the term 'biocultural restoration,' and contextualize[ ] it within … conservation". They then summarise the content of the journal Sustainability Special Issue of scientific papers authored by Native Hawaiians and kama'āina (Hawai'i-grown) scholars.
- In 'Āina Kaumaha: The Maintenance of Ancestral Principles for 21st Century Indigenous Resource Management, Kurashima et al. (2018) "provide an example of the maintenance and adaptation of an indigenous resource management system in Hawai'i from the perspective of an instrumental *'Ōiwi* (Indigenous Hawaiian) social institution, Kamehameha Schools" as well as "a guide for indigenous organizations (re)defining their ancestral ways of stewardship [and]… the many non-indigenous agencies with obligations to native lands and people today working to incorporate indigenous systems into their current management".

A framework for bridging knowledge systems is provided in Weaving knowledge systems in IPBES, CBD and beyond—lessons learned for sustainability (Tengo et al., 2017). They highlight that "[b]ridging indigenous and local knowledge systems with scientific knowledge systems is vital to enhance knowledge, practice, and ethics to move towards sustainability at multiple scales" and describe a framework for building these bridges, including:

- Mobilise: "develop knowledge-based products or outcomes through a process of innovation and / or engaging with past knowledge and experience".
- Translate: "adapt knowledge products or outcomes into forms appropriate to enable mutual comprehension in the face of differences between actor".
- Negotiate: "interact among different knowledge systems to develop mutually respectful and useful representations of knowledge".
- Synthesise: "shape broadly accepted common knowledge bases for a particular purpose".
- Apply: "Use common knowledge bases to make decisions and / or take actions and to reinforce and feedback into the knowledge systems".

Developing and respecting visions for restoration

As noted above, while offering a pathway to new or refined FLR visions and strategies, ROAM processes should recognise and respect the visions, priorities and plans that communities in the landscape may already have or wish to develop.[57] Where there is FLR demand, ROAM can incorporate participatory methods for further refining or reaching both broadly shared and diverse visions for restoration. Some resources and methods that may be useful resources and methods are described below.

Participatory (2D and 3D) mapping: Participatory mapping can help build shared understanding of the landscape as it exists and as participants envision its restoration. It can also facilitate exchange about what (and whose) rights and responsibilities exist across the landscape. Among many examples and resources are:

- In Forest Landscape Restoration: Restoring What and for Whom?, Boedhihartono and Sayer (2012) describe different visualisation exercises used in FLR, noting that their "preferred approach to initiate the participatory exploration of landscape scenarios has been the use of simple drawing exercises."
- Mapping for change: practice, technologies and communication (PLA issue no. 54) includes articles and examples of participatory mapping, including considerations for ethical practice (see Rambaldi et al., 2009).
- This Participatory Methods portal page has information about and links to resources on participatory geographical reference systems (PGIS) for mapping.

Timelines and seasonal calendars: Participatory historical timeline creation can help reach shared understanding of how the landscape and its use have changed. This method was used to identify (sometimes conflicting) narratives about the landscape in the ROAM assessment in Indonesia (Bahsoan et al., 2014; Brown, 2021). Seasonal calendars can help illustrate changes in the landscape throughout the year – e.g. what resources are available and how and by whom they are used and governed (see Borrini-Feyerabend with Buchan, 1997).

Visioning exercises and guided imagery: Beyond Fences Vol. 2 (Borrini-Feyerabend with Buchan, 1997) summarises guided imagery, starting by "encourage[ing] participants to think [of] …a vision for the future …".

[57] For example, Indigenous peoples and local communities governing conserved territories and areas may have (or wish to implement) community-led processes for documenting, visioning and taking steps to strengthen their governance and management, which may (or may not) include restoration. See, e.g. the process described in Strengthening your territory of life: guidance from communities for communities (Borrini-Feyerabend et al., 2021).

Facilitated modelling: Innovative, facilitated modelling and 'games' can help rights-holders and stakeholders explore potential solutions for the types of complex problems that FLR presents.

Understanding and respecting free, prior and informed consent (FPIC)

While widely recognised as a right, FPIC is, in practice, often wholly overlooked or approached in superficial or inappropriate ways. Clear guidance on FPIC is therefore important, including as a crucial component of FLR. Resources for understanding FPIC include:

- The Practice of FPIC: Insights from the FPIC Solutions Dialogue (Kennedy et al., 2021), an online guide developed "to capture insights from an ongoing initiative […] bringing civil society, Indigenous representatives, and business together to look at practical ways communities and companies can work together during FPIC processes".
- The UN Food and Agriculture Organization (FAO) website on FPIC, which includes an e-learning course and toolkit. Here you can also find the technical guide on "Respecting free, prior and informed consent: Practical guidance for governments, companies, NGOs, indigenous peoples and local communities in relation to land acquisition" (FAO, 2014). This "sets out practical actions for government agencies to respect and protect FPIC and for civil society organizations, land users and private investors globally to comply with their responsibilities in relation to FPIC" and "describes how consultation and participation can be carried out with those rights-holders affected by land-use changes" (p. 3).
- Free, prior and informed consent: how to rectify the devastating consequences of harmful mining for indigenous peoples (MacInnes et al., 2017).
- Making FPIC Work: Challenges and Prospects for Indigenous People (Colchester & Farhan, 2007), a review of Indigenous peoples' experiences with applying the principle of FPIC in Suriname, Guyana, Peru, Peninsular Malaysia, Indonesia, Papua New Guinea and the Philippines.
- Putting Free, Prior, and Informed Consent into Practice in REDD+ Initiatives – Training Manual (Edwards et al., 2012), including key steps for applying FPIC.
- Communities in the Driving Seat is a suite of training materials developed for communities in Liberia, aimed at increasing awareness and improving implementation of the principles of FPIC. Resources are available in English (e.g. SDI & SESDev, 2015) and French (2019).

Recognising and fairly resolving conflict in FLR

ROAM could be enhanced with guidance on the types of conflicts and justice issues that might emerge around restoration and ways that they can be fairly acknowledged and addressed, including in relation to recognition of rights and diverse visions and priorities for FLR (see section above on developing and respecting visions for restoration).

There are also resources that speak more specifically to conflict management within FLR decision-making, which may be useful in ROAM processes. For example, the book chapter Forest Landscape Restoration Decision-Making and Conflict Management: Applying Discourse-Based Approaches (Emborg et al., 2012) "portrays FLR as a social and political process in which there is no 'single' correct view of reality: 'good forestry or 'bad forests' are value-laden social constructions that transcend objective facts. If not recognized, this alone can lead to misunderstanding and conflict. Social constructions often emerge and evolve through public discourse …" It suggests that "[m]asters of FLR conflict management must be able to: (a) read the cultural-institutional context, (b) understand people, and (c) create an environment of constructive communication, fair power distribution, and strong incentives".

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