Integrating Justice into Restoration Practice

Aim: To provide evidence-based guidance for deepening the incorporation of social justice objectives into restoration projects, including those located in and around protected and conserved areas.

Audience: Conservation professionals, government officials, donors, NGOs and private sector actors, and local organizations involved in the design and implementation of landscape restoration projects, particularly in protected and conserved areas, and who are addressing the challenges of social justice in these contexts.

© Michal Collection, Getty Images

© Kavram, Getty Images

Introduction

Targets for restoration, such as the Kunming-Montreal Global Biodiversity Framework (GBF) Target 2 have become increasingly ambitious, placing high demands on professional conservationists, communities and others responsible for their implementation. Landscape restoration is both socially and ecologically challenging because lands often remain in continual use, e.g., for hunting, gathering, farming, grazing, or commercial forestry (Djenontin et al. 2020). These land uses can create tensions between restoration projects and local livelihoods and cultures that can undermine legitimacy and effectiveness. For example, the 2024 EU Restoration Law had to be modified due to growing claims of injustice from farmers and other primary land users (Cliquet et al., 2024); Indonesia's social forestry program has faced challenges due to conflicts with local values (Fisher et al. 2018); and Vietnam's forest land allocation system has been criticised for not adequately considering the needs of the marginalised, leading to increased landlessness (Pham et al. 2012). Around the world, many externally driven and corporate-led restoration projects have created conflict with livestock-rearing communities, for example in Chile (Carmona, 2023) and Iran (Kolahi et al. 2023, 2024).

Whilst tensions about justice continue to hamper restoration projects, some important lessons have been learned about how best to avoid these problems. In particular, there is strong evidence that highly inclusive and respectful practices - especially those involving local leadership - lead to better ecological and social outcomes (Mansourian et al 2021, Löfqvist et al. 2023, Dawson et al. 2024). Principles of justice already feature in many conservation and restoration policies. For example, in Vietnam, the government considers social justice in the design of its national Payment for Forest Environmental Services scheme, by aiming to recognise and reward local contributions to protecting and restoring forest landscapes. Similarly, in Scotland, large-scale restoration should in principle contribute to a national 'just transition', requiring awareness of local social priorities such as child poverty, as well as ecological priorities. However, there is still a knowledge gap regarding how to achieve 'just restoration' in practice. This technical note aims to bridge that gap by summarising lessons learned about promoting just restoration and highlighting opportunities and tools to facilitate these efforts.

Why justice should be central to restoration

Restoration must navigate a difficult path to fairness because those most responsible for global environmental damage (wealthy consumers benefiting from luxury consumption) often live far from the sites being restored. Conversely, those least responsible for degradation often bear the greatest burdens. For example, villagers around the Gola forest in Liberia feel they are paying a high price for restoration by foregoing upland shifting cultivation. Meanwhile, those who profited from timber concessions, mining or rubber plantations in Liberia (such as the multinational corporations and distant consumers) are unlikely to bear any costs. These geographical and historical inequities pose challenges for restoration practitioners, who must strive for fair distribution of costs and benefits in the places they operate.

The conservation sector often approaches this responsibility through a 'rights-based approach', making the rights of local people central to the objectives and implementation of policy and project initiatives (Barletti et al. 2023). Recognising long-term rights and tenure over resources and territories is seen as a requirement for providing other human rights, including the right to a clean and healthy environment (Rakotonarivo et al. 2023). However, whilst restoration might aim to take a rights-based approach, and to deliver substantive rights and social benefits, it can also impose costs. In many cases, restoration creates opportunity costs, such as restricted access to local resources which can also have an impact on community and culture, by preventing valued ways of life.

There is a clear moral imperative for just restoration - the need to avoid unreasonable harms and to ensure fairness for local people. Additionally, research shows that prioritizing justice actually enhances ecological and social outcomes (Löfqvist et al. 2023, Dawson et al. 2024). When justice is neglected, restoration efforts often face resistance, fail to meet local needs, clash with local livelihoods, or reinforce inequalities (Pascual et al. 2014, Holmes 2007). Practitioners frequently encounter 'justice barriers' in the field, such as insufficient benefits, lack of meaningful participation, loss of resource access, or failure to address historical and structural injustices, and these dynamics can be a challenge to address (Ockendon et al. 2025). However, numerous cases show that when restoration projects include local communities and respect their knowledge systems, they achieve better ecological results and promote long-term social stability. This can seem counter-intuitive - for example there is an assumption by some that prioritising local socioeconomic concerns will compromise ecological priorities. There is increasingly an understanding of the reasons why emphasis on social dimensions might support more ecologically effective results: reduced conflict can enhance collaboration; local or customary knowledge can lead to better quality decisions; respect for local institutions can lead to more effective governance; local leadership is more likely to address the drivers causing degradation (Santini and Miquelajauregui 2022, Ramcilovic-Suominen et al. 2024; Reyes-Garcia et al 2019, Mansourian et al. 2025). This positive link between justice and effective restoration is increasingly acknowledged. For example, forest carbon project proponents in Vietnam cannot secure government approval unless they demonstrate clear commitments to social justice.

In summary, there are strong reasons to adopt a justice-oriented approach to restoration. However, significant gaps remain in implementation. Most restoration projects are still primarily designed based on ecological considerations, often neglecting local knowledge (Mansourian et al. 2021). Many projects are also criticised for undermining local governance structures, eroding cultures, and contributing to displacement (Vasilescu 2022). Addressing these gaps requires embedding justice into restoration design and practice to ensure fair, effective, and sustainable restoration efforts.

What justice issues matter for restoration practice?

- *Distributional Justice* concerns the allocation of burdens, benefits, and risks associated with restoration efforts.
- *Procedural Justice* focuses on meaningful participation in decision-making processes and ensuring that all voices and interests are heard and considered.
- *Recognition Justice* addresses the respect and status given to diverse identities, knowledge systems, and cultural traditions.

The principles applied to these three dimensions of environmental justice vary by context. For instance, while equal voting rights might be a standard for political participation, equitable distribution of resources may require different considerations. Table 1 outlines key principles for each justice dimension.

Table 1. Restoration Justice: Dimensions, Issues, and Principles

Dimension	Defining issues	Examples of principles
Distribution	How does land degradation affect different groups, including non-human entities?	Restoration should reduce inequalities in exposure to environmental degradation.
	How are burdens, benefits and risks of restoration distributed?	Distribution should be fair - to the advantage of the most marginalised.
Procedure	Who participates in restoration decision-making, and on what terms?	Affected groups should always be included in decision-making.
	How are future generations and non-human entities represented in restoration decision-making?	Represent the rights of future people to requirements to live well.
Recognition	What status is afforded to different worldviews and knowledge systems?	Restoration planning should integrate Indigenous and local knowledge, practices, and values.
	What recognition is given to different identities, based on e.g., livelihoods, gender, or ethnicity?	Restoration efforts should counteract discrimination based on e.g., age, gender, and race.
	What/whose rights are recognised, respected and promoted?	Recognising and respecting the rights of Indigenous peoples and local communities.

Interconnectedness of Justice Dimensions

While these three dimensions can be analyzed separately, their interdependence is crucial. Working towards just processes and outcomes can rarely occur through focusing on a single dimension, instead requiring attention to aspects of all three. For example, loss of access to forest resources may seem like a distributional issue but often stems from procedural and recognition injustices– such as tenure and governance systems that exclude marginalized groups and did so, historically with both colonial and post-colonial land and forest policies. Case studies (see below) illustrate these interconnections: in the Pewenche community (from Chile), failed tree seedling care resulted from inadequate benefits, lack of participation, and disregard for Indigenous

© Nattrass, Getty Images

knowledge. In Costa Rica, the Chomes community achieved successful mangrove restoration by integrating traditional ecological knowledge into planning.

A framework for assessing just restoration

Building on participatory justice models like Arnstein's (1969) ladder of citizen participation, we propose a framework assessing restoration justice on a scale from Exclusionary to Transformative across all three dimensions.

Table 2. Justice Typology for Restoration.

Dimension Level	Distributional Justice	Procedural Justice	Recognition Justice
Exclusionary	Indigenous Peoples (IPs) and local communities (LCs) bear costs without benefits.	No participation in decision-making.	Indigenous and local knowledge is ignored.
Managerial	Some benefits provided to offset costs.	Tokenistic participation.	Indigenous and local knowledge is co-opted.
Collaboration	IPs and LCs co-design distribution rules.	Shared governance with local participation.	Local values and rights are partially respected.
Transformative	Structural causes of injustice are addressed.	IPs and LCs lead restoration governance.	IP and LC knowledge and institutions are fully engaged.

Note: In practice, different dimensions of justice are inter-connected. E.g. lack of participation is a cause of unfair decisions about distribution. For this reason, there will often be alignment across rows. E.g. an exclusionary approach to restoration will fail to address each dimension of justice. But there will be exceptions and understanding different levels of achievement across justice dimensions might reveal important contextual issues.

In summary, there are strong reasons to adopt a justice-oriented approach to restoration. However, significant gaps remain in implementation. Most restoration projects are still primarily designed based on ecological considerations, often neglecting local knowledge (Mansourian et al. 2021). Many projects are also criticised for undermining local governance structures, eroding cultures, and contributing to displacement (Vasilescu 2022). Addressing these gaps requires embedding justice into restoration design and practice to ensure fair, effective, and sustainable restoration efforts.

- *Exclusionary* approaches have not yet engaged with any dimensions of justice. Project design is driven by ecological targets such as numbers of trees to be planted. Social issues such as access to resources are at best of secondary concern. Efforts are made to mitigate conflicts after they arise, rather than to proactively avoid conflict.

- *Managerial* approaches taken address issues of distribution, procedure and recognition but in limited or even tokenistic forms. Distribution is often addressed through benefit-sharing and compensation schemes, providing material incentives to adhere to rules restricting access and resource use. These incentives can be important for local communities but in the absence of more meaningful participation and recognition, there is a danger that they legitimise and perpetuate models of restoration that undermine local institutions, cultural connections with nature, and control over land (Vasilescu 2022).
For example, McElwee & Nghi (2021) studied Vietnam's three-decade program of smallholder-led tree plantations. Although often regarded as a successful forest restoration programme, they showed smallholders had very limited decision-making power and there was no engagement with local knowledge. Many households did not benefit due to lack of ownership rights over land, with ethnic minorities, women and the poor most excluded. Income was sometimes achieved through very short rotations, limiting ecological outcomes. At the same time, policies promoted expansion of industrial cash crops which threatened food security and meant deforestation and degradation continued.

- *Collaborative* approaches are defined by more genuine partnerships based on much higher levels of participation that enable some local control over matters of distribution. Partnerships are founded on forms of shared governance that support and empower local institutions (such as customary land tenure systems) and involve efforts to acquire local knowledge, identify livelihood concerns and respect rights. However, collaborative approaches continue to prioritise the restoration goals and values developed externally.

Rana and Miller (2021) highlight the importance of some of these qualities through a review of community-based tree planting in northern India, primarily by the Himachal Pradesh Forest Department but with varying quality of participation from local communities. In cases where property rights were respected, communities led the monitoring and enforcement and local livelihood benefits were provided, evidence shows comparatively better ecological outcomes such as enhanced tree cover.

- *Transformative* approaches place strong emphasis on the dimension of recognition, promoting equality of status for different knowledge systems and ways of valuing and living with nature. Working towards status equality requires structural changes that reconfigure power between local and external actors. This typically requires some profound re-imagining of restoration from ecological to social-ecological (or biocultural) goals, incorporating elements of social restoration, such as cultural resurgence, revitalisation of local knowledge and institutions and healing of relationships with nature. For example, Fox et al. (2022) illustrate how tribal involvement in dam removals in the Ottaway, Penobscot, and Elwha rivers, USA, helps to undo colonial injustices. This process has led to shifting relations and new collaborations. The First Nations' cultural and economic resources were utilized to advance ecosystem restoration in their territories and their knowledge systems and contribution to restoration gained increased recognition, politically and from the various actors collaborating in the process.

This typology can be used to support assessment of where a current project, programme or organisation is moving to and what aspirations are developing. As has been noted, restoration operates in highly diverse contexts and there is no single blueprint pathway to engaging with justice in ways that are transformative. In some cases, government laws and policies limit participation by local communities for instance, so that any project aiming for just restoration approaches will need to be innovative in its approach. Nevertheless, the general direction of travel should be towards higher levels of justice, not simply because a high degree of justice is good in itself, but also because of the evidence that this leads to more successful outcomes.

Progress is clearly being made, for example international conservation agencies increasingly employ safeguards that include requirements for participation, including Free, Prior and Informed Consent (FPIC). However, it is also clear that there is still a gap between what is said and what is done and that people-centred approaches to restoration still need to be acted upon (Shelton et al. 2025). Prescribed safeguards are often not well implemented (Cubas-Baez 2025) and the majority of restoration projects continue to be entirely informed by external ecological knowledge and values (Anguelovski and Corbera 2023, Mansourian et al. 2021). In summary, many restoration projects currently operate at a managerial level of enacting justice and will benefit from engagement with higher levels.

© Getty Images

Barriers and opportunities for just and transformative restoration

Here we highlight some of the more general barriers and opportunities for achieving higher levels of justice integration. Practitioners may feel frustrated by the difficulties of proceeding from 'managerial' towards 'collaborative' or 'transformative' forms of just restoration. There are several important barriers to achieving higher justice levels:

Table 3. Barriers to collaborative and transformative approaches to just restoration

Type of Barrier	Example
Financial	Donors might allocate funds for livelihoods projects but not for e.g., revitalising local governance or environmental knowledge.
Time	Project time-scales might be too short to enable the longer-term collaboration needed to build genuine partnerships.
Political	National security agendas might place limits on local decision-making for particular communities, especially in border areas.
Business	The power of private businesses in e.g., mining, logging, agricultural commodities and tourism might undermine local control.
Institutional (rules, laws)	Formal structures, such as national land tenure systems often do not recognise local, customary forms of land governance.
Cultural (norms, customs)	Informal structures such as cultural norms around gender might make it difficult to achieve status equality and inclusion.
Personal	Our cultural and educational backgrounds can make it difficult to collaborate with those with very different perspectives.

Some of these barriers can be compounded for some groups of people. For example, recognising the rights of nomadic pastoralists can run up against political constraints (e.g., security agendas), institutional constraints (e.g., demise of common property tenure systems) and cultural barriers (e.g., conflicts with farmers). The example of pastoralists reminds us that political priorities, and the institutions designed to enact these, commonly reflect the interests of those with most power, from local to global scales. This is in itself a major barrier to justice which – by most accounts – involves a special commitment to champion the rights of the least powerful. Identifying barriers to justice is not therefore a call to limit aspirations but to begin to reflect on the depth of the challenge.

Whilst some of these barriers are beyond the scope of individual restoration projects, and the conservation sector as a whole, there are nonetheless some emerging opportunities to make progress implementing justice. Firstly, international and national legal and policy frameworks have developed a stronger mandate and stronger platform in international law for going beyond managerial approaches to justice.

- UN Declarations on the Rights of Indigenous Peoples (2007) and Rights of Peasants (2018) provide reference points that are regularly used to advocate for the rights of Indigenous Peoples and rural communities. This includes rights to full and effective participation in all matters concerning them and to pursue their own priorities in all matters.
- ILO Convention 169 also concerns the rights of Indigenous Peoples but is legally binding. Whilst only ratified by 23 countries (mainly in Latin America) it provides international legal support that has been successfully used, e.g., to demand Indigenous participation in decision-making processes.
- Global environmental policy agreements increasingly commit member states to justice and/or rights-based approaches. These include the CBD's Global Biodiversity Framework, the UNFCCC's Paris Agreement, UNCCD's Land Degradation Neutrality targets and various assessments by the Intergovernmental Science-Policy Panel for Biodiversity and Ecosystem Services (IPBES).

Secondly, there are signs that advocacy in support of rights and justice has gained strength within the global restoration and conservation sector. For one thing, this advocacy has been supported by stronger evidence of the link between justice and effectiveness, providing confirmation that the social pillar of sustainability is critical for the long-term success of restoration initiatives. Effective advocacy, supported by this evidence, is

helping to shift donor support towards community-driven projects and direct funding, opening opportunities for just restoration.

Case Studies

1. **Community-led restoration in Pewenche, Chile**
   The Pewenche territory was usurped by the Chilean state in the late 19th century, followed by exploitative gold mining, logging and livestock farming that led to ecological destruction, poverty and spiritual damage. Current inequities persist through poorly designed development policies that have promoted dependency while degrading traditional practices and environmental sustainability. In 2017, two Pewenche communities challenged top-down climate mitigation programmes – implemented by the National Forestry Corporation and the Ministry of Environment – transforming them into opportunities for environmental justice. By demanding community control over implementation, the communities successfully negotiated to restore ceremonial sites using native species, the development of local tree nurseries, cultural education programmes, and family gardens. Negotiation processes strengthened officials' intercultural capacities while legitimising communities' capabilities. These experiences demonstrated how centring social justice and Indigenous sovereignty in environmental initiatives leads to more effective outcomes, allowing communities to reclaim their cultural and ecological balance. The success in shifting from imposed solutions to community-driven restoration offers critical lessons for addressing historical debt while building environmental resilience.

2. **Payments for restoring forests, Vietnam**
   In Vietnam, government-led reforestation programmes such as the 5 Million Hectares Reforestation Programme were often top-down, with the role of local communities limited to tree planting labour. This has led to continuation of forest loss and although forests were planted, they are monocultures with low biodiversity value. To address the problem, the Vietnam government developed its National Scheme on Payment for Forest Environmental Services (PFES) with the aims to increase Vietnam's forest cover and forest quality as well as improving local livelihoods. This programme recognises local communities and individual households as forest owners with the right to negotiate contractual conditions for payments. Local communities now develop their own forest management plans using local knowledge and valuing traditional use of native species. They also have the right to design their own benefit sharing mechanism. This significant change in national forestry policies have led to increased forest cover and forest quality throughout Vietnam with the active involvement and leadership of local people.

© Fabianirsara, Getty Images

3. **Hageulu community forest restoration, Solomon Islands**
   The Hageulu community in Isabel Province, Solomon Islands, is working to restore Tubi trees (*Xanthostemon melanoxylon*), a species crucial to their environment and culture. Due to overharvesting, Tubi tree populations have drastically declined, threatening biodiversity and traditional livelihoods. In response, the community has come together to rehabilitate degraded forests and promote sustainable resource management. Women play a key role in this initiative, participating in seed collection, tree planting, and decision-making. This initiative is driven by the recognition that the loss of Tubi trees affects not only the ecosystem but also local livelihoods, as the trees provide essential materials for traditional practices (including constructing houses and building tools to make food). Their involvement strengthens both environmental conservation and gender equity, ensuring a more inclusive approach to sustainability. By combining traditional knowledge with modern conservation techniques, the Hageulu community aimed to secure a future where biodiversity and local livelihoods thrive together. This initiative highlights the power of community-driven conservation and the importance of inclusive environmental stewardship.

4. Mangrove Restoration by the Chomes community women, Costa Rica
Despite their essential role in small-scale fisheries, women mollusc gatherers of Chomes, Puntarenas, Costa Rica face significant challenges, including exclusion from policy-making, lack of formal recognition, and environmental threats from large-scale shrimp farming. In response, they have taken proactive steps to restore and sustainably manage their mangrove ecosystem. Through their cooperative, CoopeMolus-Chomes R.L., they have developed participatory management plans that integrate traditional knowledge with scientific approaches. Their restoration efforts focus on protecting no-take zones where juvenile molluscs grow, implementing size regulations for sustainable harvesting, cleaning and monitoring the mangroves, and raising awareness through guided tours and conservation workshops. Since 2022, they have engaged in reforestation, planting over 6,000 mangrove saplings to restore degraded areas. By advocating for their rights and developing an Agenda for Fisherwomen, they are working towards greater policy recognition and long-term sustainability. Their efforts highlight the importance of integrating human rights into conservation, ensuring that environmental restoration benefits both ecosystems and the communities that depend on them.

Available Tools and links to resources

Assessment and planning tools
- *Site level Assessment of Governance and Equity* (SAGE)*.*
  The SAGE toolkit developed by the International Institute for Environment and Development (IIED) provides a well-tested method for site-level stakeholders to assess the social impacts, governance and equity of conservation efforts using distribution, procedure and recognition dimensions of justice.
- *The 4 Returns Framework for Landscape Restoration.*
  The 4 Returns Framework is an approach to landscape level restoration that integrates a holistic set of social and ecological objectives through landscape partnership and collaborative planning.
- *The Restoration Partnership Development toolkit.*
  This self-guided manual and associated Apps was developed as part of the Endangered Landscapes and Seascapes Programme and is designed to help restoration practitioners better understand the perspectives of different stakeholders. It is UK focused but may be of wider interest.

Training and learning materials
- *Just Restoration curriculum and MOOC*
  The curriculum was developed by the University of East Anglia in collaboration with Conservation International. It provides the materials for a workshop-based training event that covers the ideas in this guideline in greater depth. The Mass Online Open Course (MOOC) is an online training course that will be hosted on the FutureLearn platform (expected release August 2025).
- *Gender and inclusion in forest landscape restoration*
  This course is developed by the CGIAR Research Programme on Forests, Trees and Agroforestry (FTA). It provides an overview of gender and social inclusion to support stakeholder engagement in forest landscape restoration projects.
- *Power – A Practical Guide for Facilitating Social Change.*
  This handbook was developed for the Carnegie Trust and provides a process to facilitate discussions that help to understand power in ways that can help explore strategies for achieving change.

Implications for Practice

The main implication of this technical note is that restoration practice should strive to implement justice more fully. This means attention to all three dimensions of justice (distribution, procedure, recognition) but it also requires attention to the level at which these are being addressed. First steps towards just restoration often involve lower levels of justice involving some degree of consultation, benefit-sharing and perhaps some recognition that local knowledge can be helpful, while focusing primarily on the provision of material incentives alongside enforcement rules. But taking justice further, towards inclusive and meaningful partnerships and to restoration as a transformative practice, involves more radical shifts towards local leadership. Whilst the barriers to just restoration make this a challenging proposition there are tools to support this process and there is strong evidence of the beneficial outcomes, for both justice and sustainability.

Acknowledgements

References

Anguelovski, I. and Corbera, E., 2023. Integrating justice in nature-based solutions to avoid nature-enabled dispossession. *Ambio*, *52*(1), pp.45-53.

Arnstein, S.R., 1969. A ladder of citizen participation. *Journal of the American Institute of planners*, *35*(4), pp.216-224.

Barletti, J.P.S., Prouchet, L. and Larson, A.M., 2023. Rights-based approaches and Indigenous peoples and local communities: Findings from a literature review. *CABI Reviews* 18:1, 2023.0028

Carmona, R., 2024. Global guidelines, local interpretations: ethnography of climate policy implementation in Mapuche territory, Southern Chile. *Climate Policy*, *24*(8), pp.1018-1033.

Cliquet, A., Aragão, A., Meertens, M., Schoukens, H. and Decleer, K., 2024. The negotiation process of the EU Nature Restoration Law Proposal: bringing nature back in Europe against the backdrop of political turmoil? *Restoration Ecology, 32*(5), p.e141

Cubas-Baez, A., Sunderlin, W., Larson, A. M., & Frechette, A., 2025. From promises to practice: Persistent challenges in safeguarding local rights in forest carbon market initiatives. *CABI Reviews*, *20*(1), 2025.0025.

Dawson, N.M., Coolsaet, B., Bhardwaj, A., Booker, F., Brown, D., Lliso, B., Loos, J., Martin, A., Oliva, M., Pascual, U. and Sherpa, P., 2024. Is it just conservation? A typology of Indigenous peoples' and local communities' roles in conserving biodiversity. *One Earth* 7, pp1007-1021.

Fisher, M.R., Moeliono, M., Mulyana, A., Yuliani, E.L., Adriadi, A., Judda, J. and Sahide, M.A.K., 2018. Assessing the new social forestry project in Indonesia: recognition, livelihood and conservation? *International Forestry Review*, *20*(3), pp.346-361.

Fox, C.A., Reo, N.J., Fessell, B. and Dituri, F., 2022. Native American tribes and dam removal: restoring the Ottaway, Penobscot and Elwha Rivers. *Water Alternatives*, *15*(1), pp.31-55.

Holmes, G., 2007. Protection, politics and protest: understanding resistance to conservation. *Conservation and society*, *5*(2), pp.184-201.

Kolahi, M., Abdollahzadeh, A. & Noori, R. (2024). Holistic Management Approach for Social-Ecological Systems in Iran. *Environmental Reviews, 33*, pp.1-15.

Kolahi, M., Jannatichenar, M., Davies, K., & Hoffmann, C. (2023). Legal conflicts among natural resources stakeholders in Iran. *British Journal of Middle Eastern Studies*, 50(1), pp.160-179.

Löfqvist S, Kleinschroth F, Bey A, de Bremond A, DeFries R, Dong J, et al. (2023) How social considerations improve the equity and effectiveness of ecosystem restoration. *Bioscience* 73, pp.134–148

Mansourian, S., Derkyi, M., Djenontin, I., Elias. M., Oldekop, J., Pacheco, P., Burns, J., Diederichsen, A., Kleine, M., Vallauri, D. and Walder B., 2024. *Human Dimensions of Forest Landscape Restoration.* Vienna: IUFRO, 76 pages. https://hdl.handle.net/10568/141866

Mansourian, S., Berrahmouni, N., Blaser, J., Dudley, N., Maginnis, S., Mumba, M. and Vallauri, D., 2021. Reflecting on twenty years of forest landscape restoration. *Restoration Ecology*, *29*(7), p.e13441.

Mansourian, S., Djenontin, I. N., Elias, M., Oldekop, J. A., Derkyi, M. A., Kull, C. A., & Pacheco, P. (2025). Ecosystem restoration centered in people. *Restoration Ecology*, e70049.

McElwee, P., and Huu Nghi, T., 2021. Assessing the Social Benefits of Tree Planting by Smallholders in Vietnam: Lessons for Large-Scale Reforestation Programs. *Ecological Restoration*, 39(March 2021), pp. 52-53.

Ockendon, N., Shaw, T., Bautista, S., Bhattacharjee, A., Cortina-Segarra, J., Iordache, V., López, V.O., Thomas, D., Satyal, P., Van doninck, J. and Birk, S., 2025. Overcoming barriers and leveraging opportunities to scale up landscape-scale restoration in Europe. *Restoration Ecology*, p.e70075.

Pascual, U., Phelps, J., Garmendia, E., Brown, K., Corbera, E., Martin, A., Gomez-Baggethun, E. and Muradian, R., 2014. Social equity matters in payments for ecosystem services. *Bioscience*, *64*(11), pp.1027-1036.

Pham,T.T., Moeliono, M., Nguyen,T.H., Nguyen, H.T., Vu, T.H. 2012. The context of REDD+ in Vietnam: Drivers, agents and institutions. Occasional Paper 75. CIFOR, Bogor, Indonesia.

Rakotonarivo, O. S., Rakotoarisoa, M., Rajaonarivelo, H. M., Raharijaona, S., Jones, J. P., & Hockley, N., 2023. Resolving land tenure security is essential to deliver forest restoration. *Communications Earth & Environment*, *4*(1), 179.

Ramcilovic-Suominen, S., Chomba, S., Larson, A.M. and Sinclair, F., 2024. Decolonial environmental justice in landscape restoration. In: *Restoring Forests and Trees for Sustainable Development* (pp. 74-101), Oxford University Press.

Rana, P. and Miller, D.C., 2021. Predicting the long-term social and ecological impacts of tree-planting programs: Evidence from northern India. *World Development*, *140*, p.105367.

Reyes-García, V., Fernández-Llamazares, Á., McElwee, P., Molnár, Z., Öllerer, K., Wilson, S.J. and Brondizio, E.S., 2019. The contributions of Indigenous Peoples and local communities to ecological restoration. *Restoration Ecology*, *27*(1), pp.3-8.

Santini, N. S., & Miquelajauregui, Y., 2022. The restoration of degraded lands by local communities and Indigenous peoples. *Frontiers in Conservation Science*, 3, 873659.

Shelton, M. R., Kanowski, P. J., Kleinschmit, D., & Ison, R. L., 2024. Critical social perspectives in forest and landscape restoration–a systematic review. *Frontiers in Environmental Science*, *12*, 1466758.

Vasilescu, C.M., 2022. Participatory Governance and Restorative Justice: What Potential Blending in Environmental Policymaking? In *The Palgrave handbook of environmental restorative justice* (pp. 171-200). Cham: Springer International Publishing.