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POLICYBRIEF
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How land management approaches meet key criteria for addressing global goals

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Approaches to managing land and water play increasingly important roles in addressing environmental and social challenges, such as land degradation, food insecurity, water scarcity, health, climate change and biodiversity decline. These approaches vary in name, objectives, principles, methods and technologies, yet all aim to tackle land degradation, desertification and drought along with other environmental, economic and social benefits.

While some approaches are explicitly recognized for these benefits by intergovernmental conventions, many others are not. Without this formal recognition, these approaches risk being overlooked for their potential to contribute to global goals and excluded from consideration in the design and funding of efforts to achieve these goals.

Using the key framework of land degradation neutrality (LDN) and the concept of sustainable land management (SLM) as benchmarks, the United Nations University Institute for Environment and Human Security (UNU-EHS) assessed land and water management approaches and found seven that align with many (but not all) of the SLM and LDN criteria known to address global environmental, economic and social challenges.

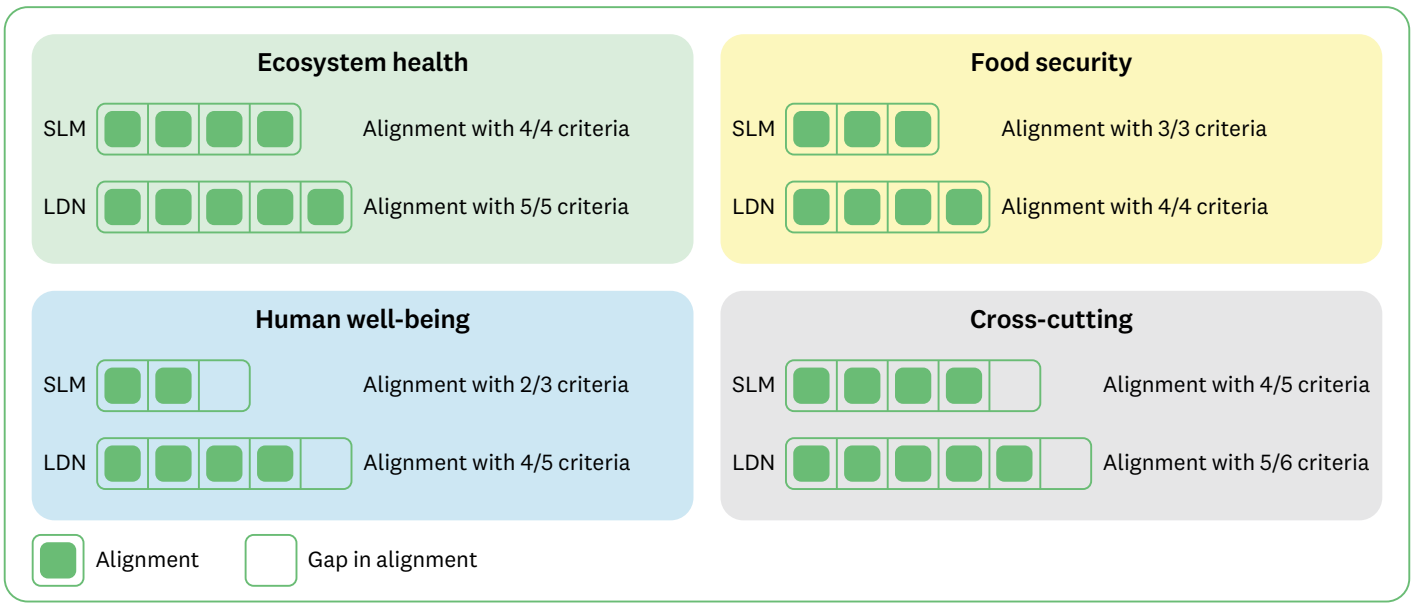
The seven are
1. agroecology,
2. climate-smart agriculture,
3. conservation agriculture,
4. forest landscape restoration,
5. integrated agriculture,
6. regenerative agriculture and
7. rewilding.

Understanding the degree of alignment of these approaches with LDN and SLM can help communities collaborate to address environmental challenges and can support formal recognition of these approaches by intergovernmental conventions. SLM ensures that the use of land to produce societal goods sustains its functioning natural resource base (WOCAT, 2024) by, among other things, combating desertification, land degradation and drought and addressing climate change. LDN — which is integral to the Strategic Framework of the United Nations Convention to Combat Desertification (UNCCD) as well as to Sustainable Development Goal 15 'Life on Land — aims to ensure the amount and quality of land resources needed to provide vital functions and benefits to people remain stable or increase (Orr and others, 2017).

This brief and its supporting report aim to guide UNCCD parties in planning and evaluating land and water management projects, leveraging policy and donor support and advancing both SLM and LDN.

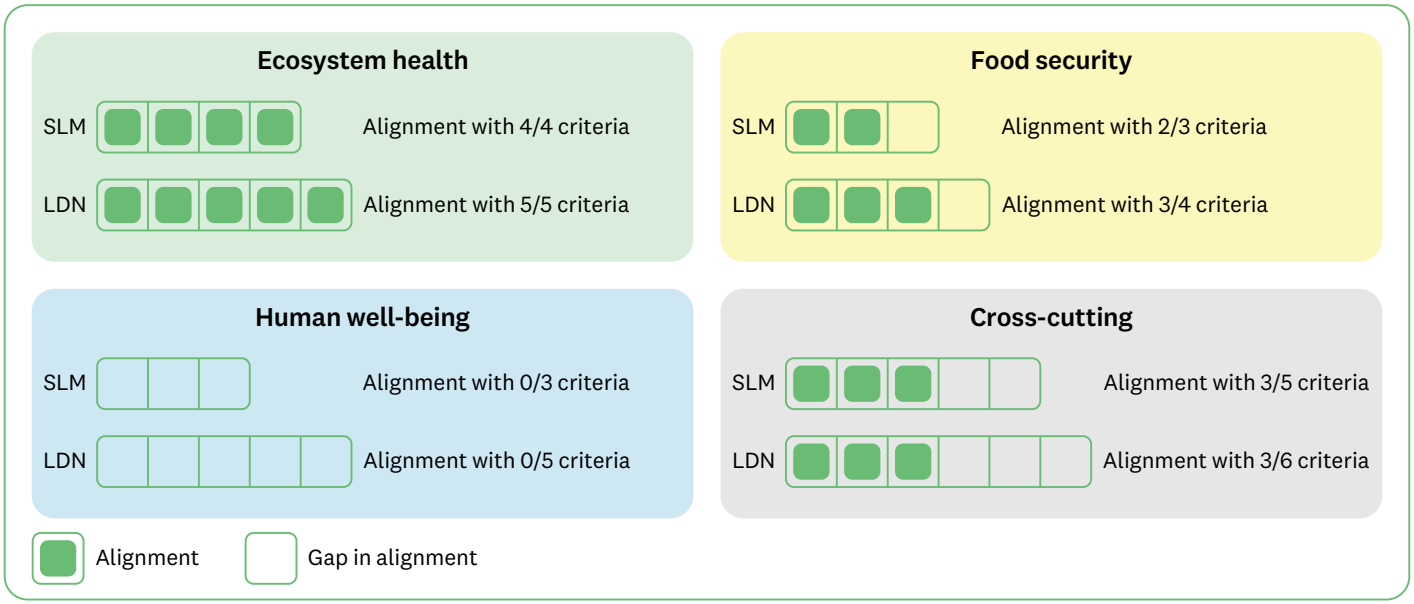
1. Agroecology

Agroecology is a holistic approach that considers ecological, economic, social and political aspects beyond agricultural production. It aligns with all or most criteria of the four SLM and LDN pillars ecosystem health, food security, human well-being and cross-cutting criteria.. Gaps in alignment relate to some cross-cutting criteria and criteria of the human well-being pillar, because it tends to challenge established structures to the detriment of broad social acceptance.



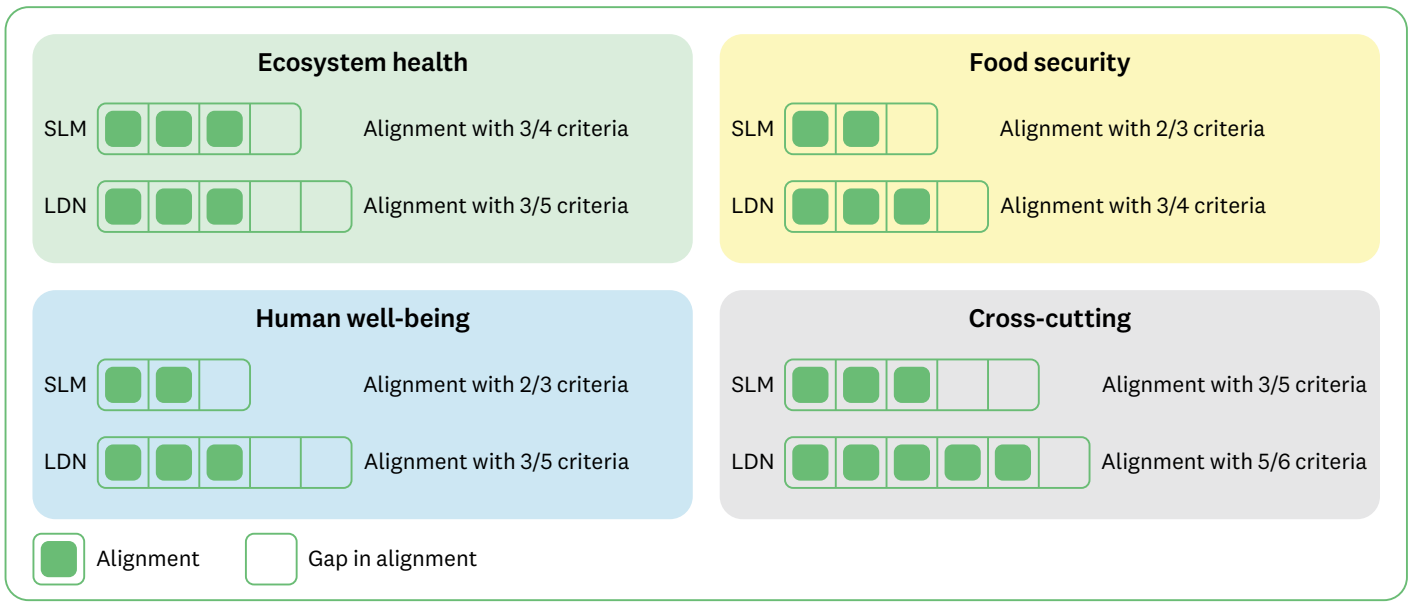
2. Climate-smart agriculture

Climate-smart agriculture emphasizes greater productivity, emissions mitigation and climate adaptation in agricultural systems. These objectives align it with many criteria belonging to the ecosystem health and the food security pillars. Gaps in alignment concern criteria of the human well-being pillars, as the approach may overlook social needs and considerations.



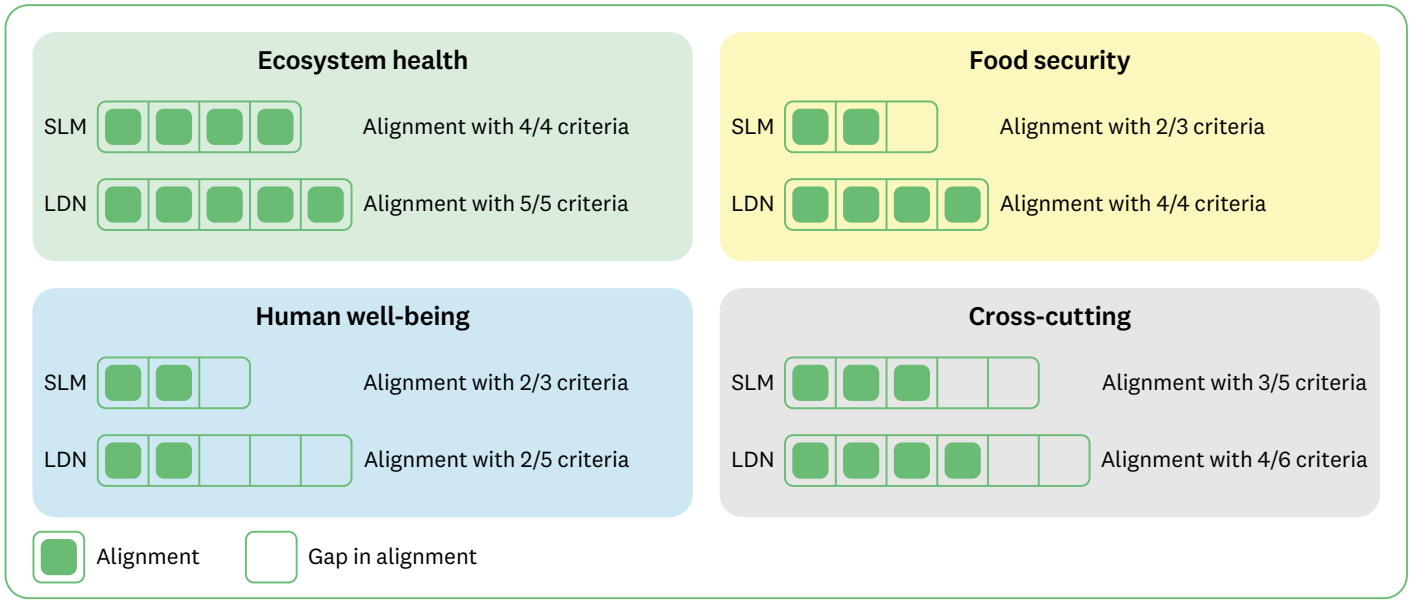
3. Conservation agriculture

Conservation agriculture addresses the biophysical conditions of agroecosystems and soil conservation, and aligns with many criteria of the ecosystem health and food security pillars. The approach's frequent use of environmentally detrimental glyphosate and a lack of attention to local knowledge and communities result in gaps in alignment.



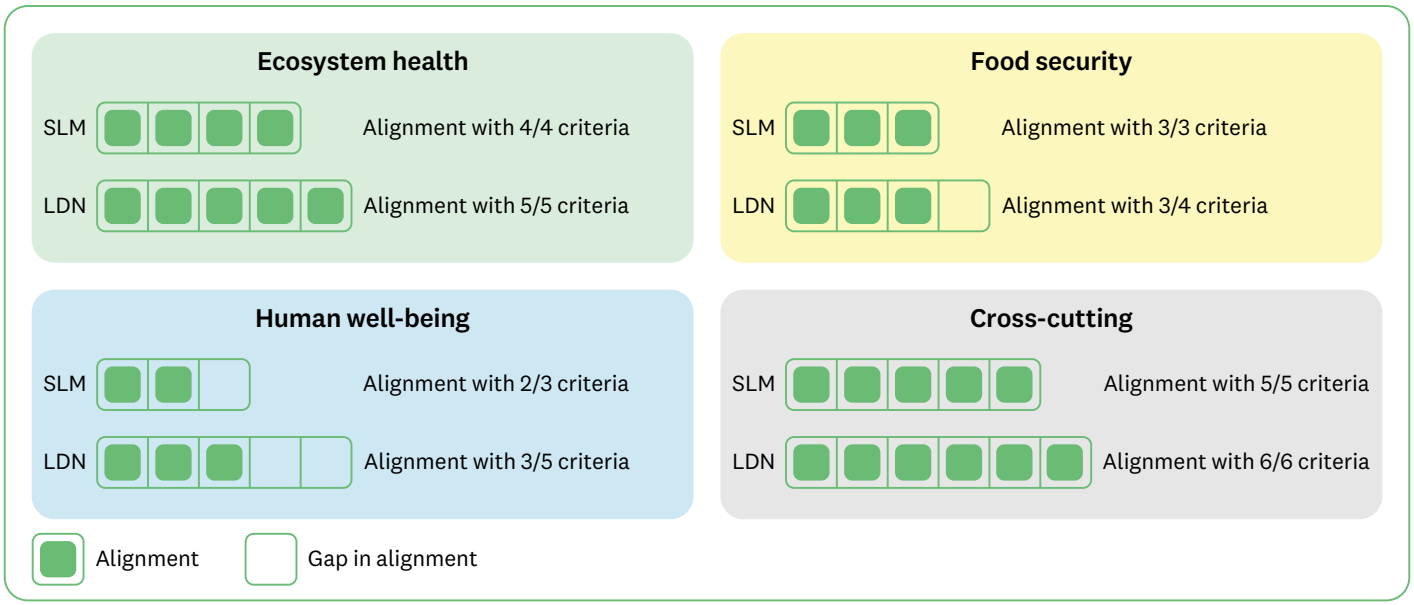
4. Forest landscape restoration

The aim of forest landscape restoration to restore forest ecosystems and enhance human well-being aligns this approach with many SLM and LDN criteria, especially of the ecosystem health pillar. Gaps in alignment result from failures to actively include local stakeholders or to address other human well-being criteria.



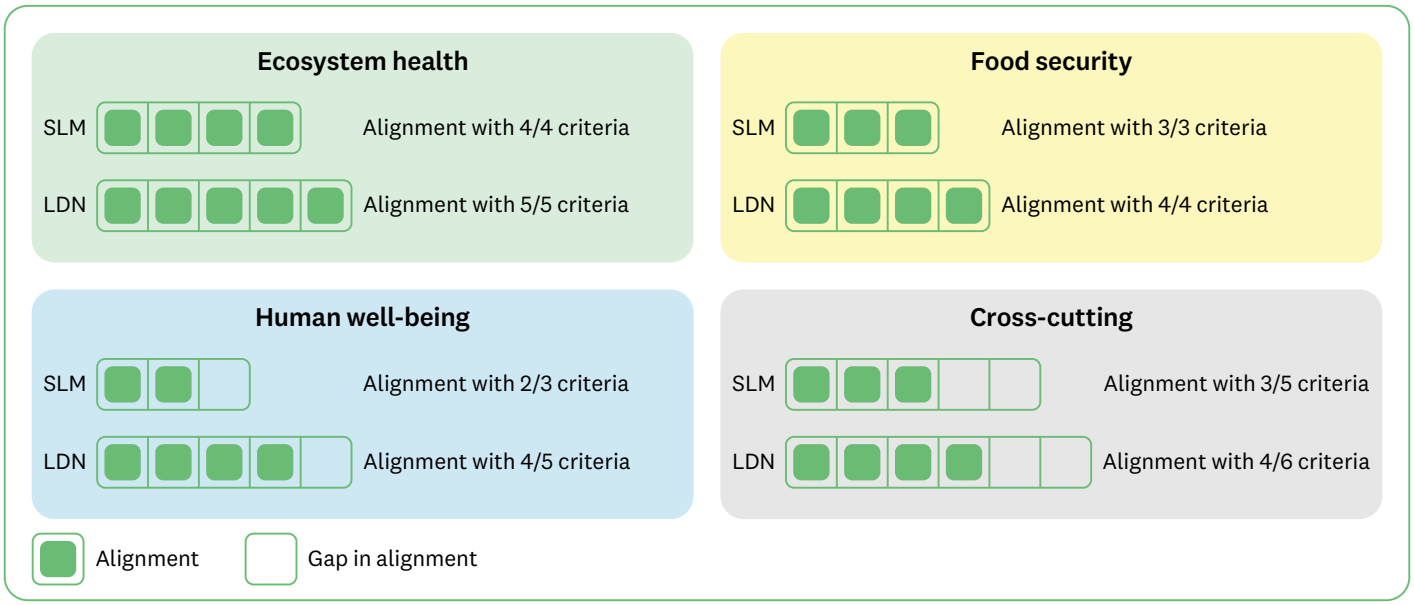
5. Integrated agriculture

Integrated agriculture promotes the integration of different systems, such as crop and livestock. It aligns with SLM and LDN criteria of all pillars, especially those related to improving the biophysical conditions of agroecosystems and the sustainable use of resources. Gaps in alignment related to the human well-being pillar reflect the approach's general failure to include gender or land tenure considerations.



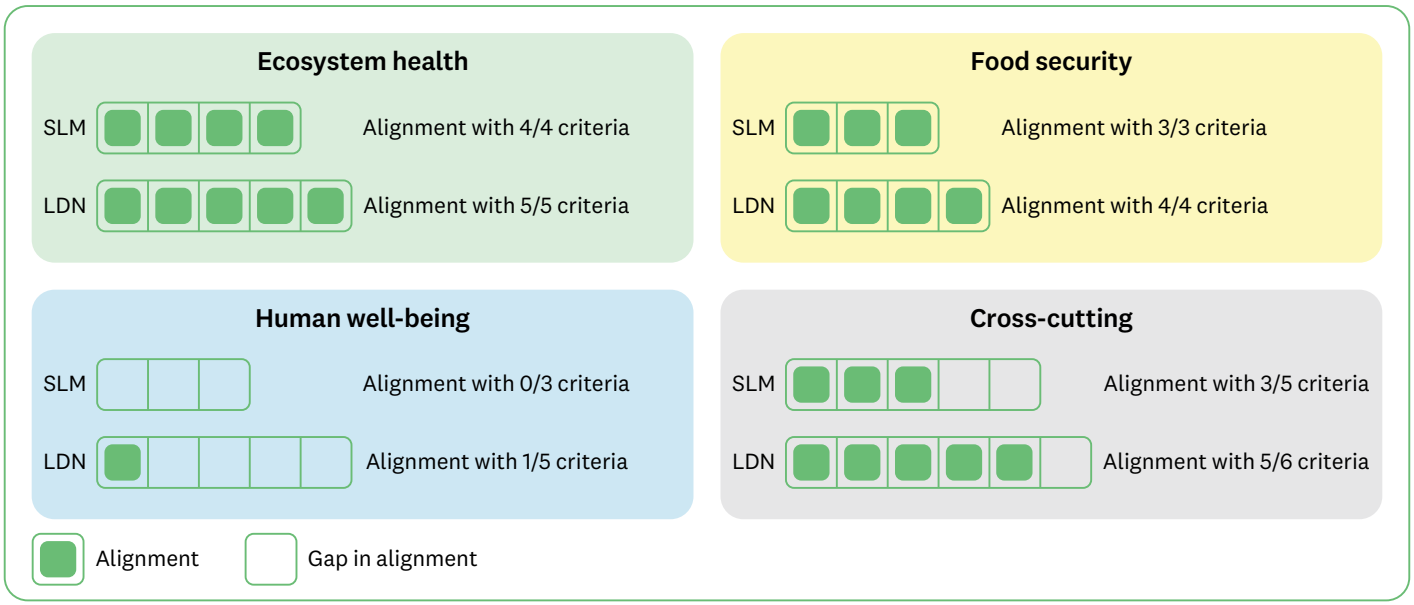
6. Regenerative agriculture

Regenerative agriculture focuses on soil conservation to regenerate agroecosystems and aligns with many SLM and LDN criteria, especially of the ecosystem health and food security pillars. Gaps in alignment mainly concern cross-cutting criteria and the tendency of the approach to favor biophysical over social and economic needs in practice.



7. Rewilding

Rewilding emphasizes the restoration of natural processes. It aligns with all criteria of the ecosystem health and food security pillars, as it offers opportunities for sustainable food production. Gaps in alignment concern human well-being and cross-cutting criteria, and reflect criticism of the approach for neglecting social needs in some contexts.



Women in rice fields in the village of Nalma, Nepal.

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Improving the alignment of land and water management approaches with SLM and LDN

Of the SLM and LDN criteria with which the seven land management approaches align, most comprise criteria of the ecosystem health and the food security pillars of SLM and LDN. Most gaps in alignment, on the other hand, concern criteria comprising the human well-being pillar of SLM and LDN, along with certain cross-cutting socioeconomic criteria that span all pillars.

Importantly, context matters: While the practices of a land and water management approach may align with certain SLM and LDN criteria in one circumstance, another context might show evidence to the contrary. Thus, the alignment assessment conclusions presented here should not be considered universally valid. The effective implementation of each approach depends on spatially explicit data on environmental, economic and social factors to ensure evidence-based design and practices that provide multiple benefits.

Nevertheless, where gaps in alignment of the seven land management approaches and SLM and LDN criteria appear, these can be addressed in the following ways:

INCLUDING SUPPLEMENTARY, RELEVANT REMEDIAL ACTIVITIES IN THE PROJECT DESIGN AND IMPLEMENTATION

Integrated agriculture may not explicitly address gender responsiveness, but projects adopting this approach can nevertheless include gender equality and empowerment within their design, implementation and monitoring.

INCORPORATING SITE-SPECIFIC BUT COMPLEMENTARY APPROACHES AT LANDSCAPE SCALE TO SYNTHESIZE INDIVIDUAL STRATEGIES

Integrating regenerative agriculture practices within rewilding contexts can ensure the restoration of natural ecological processes while contributing to livelihoods and food security.

ENSURING MORE RIGOROUS ADHERENCE TO THE PRINCIPLES OF EACH APPROACH THROUGH MONITORING AND EVALUATION

Forest landscape restoration, for example, is a participatory approach, in principle, but is criticized for not engaging with local people in practice. Monitoring and evaluating during project implementation can help ensure continued adherence to the approaches' principles.

CONSULTING AND APPLYING ESTABLISHED GUIDELINES

The *Voluntary Guidelines on the Responsible Governance of Tenure* and the *Gender and Land Rights Database* of the Food and Agriculture Organization can be applied to ensure the integration of gender and lend tenure considerations in project design and implementation.

For more information see Hartmann, L., and others (2024). The contribution of land and water management approaches to Sustainable Land Management and achieving Land Degradation Neutrality. UNU-EHS. Bonn, Germany.

Further reading

Orr, B., and others (2017). Scientific Conceptual Framework for Land Degradation Neutrality: A Report of the Science-Policy Interface. Bonn: United Nations Convention to Combat Desertification.

World Overview of Conservation Approaches and Technologies (2024). SLM. Available at https://www.wocat.net/en/slm/