

## Integrated landscape approaches to reconcile competing land uses

A set of principles to support the implementation of integrated landscape approaches that emphasize adaptive management, stakeholder involvement, and multiple objectives.



Agroforestry landscape in Chittagong Hill Tracts, eastern Bangladesh  
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Trees provide food and feed in semi-arid areas and during the dry season. Silvopastoralism, Khejri, Churu District, Rajasthan, India.  
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### /// Context ///

Meeting the multiple demands of a growing global population with a limited amount of land, water and natural resources, while combating climate change, biodiversity loss and ecosystem degradation require integrated approaches that reconcile multiple and conflicting land-use claims within complex, dynamic and multifunctional landscapes. Based on published literature and a consensus-building process validated by practitioners, ten principles were identified to support the implementation of landscape approaches – integrated approaches to improve landscape management in areas where agriculture, forest, mining, and other productive land uses compete with environmental, climate, and biodiversity goals. These principles emphasize adaptive

management, stakeholder involvement, and multiple objectives. They illustrate how conservation and development can be reconciled at landscape scale where many issues intersect and unfold. These principles are: (i) continual learning and adaptive management; (ii) common concern entry point; (iii) multiple scales; (iv) multifunctionality; (v) multiple stakeholders; (vi) negotiated and transparent change logic; (vii) clarification of rights and responsibilities; (viii) participatory and user-friendly monitoring; (ix) resilience; (x) strengthened stakeholder capacity. The LandLabs could be a privileged channel through which these principles could be applied, tested, and adapted to specific Mediterranean landscapes.

### /// Solution for a Resilient Future ///

Sectoral approaches are likely to create trade-offs across development objectives or over space or time. Integrated approaches are needed to reconcile multiple and often conflicting development objectives and land-use claims within complex, dynamic and multifunctional landscapes. Such integrated approaches need to be adapted to the local biophysical, socio-economic, cultural and institutional context, and to the common objectives pursued. Ten principles were identified to guide the decision-making process in landscape contexts. These principles promote more inclusive landscape governance that help identify common concerns, improve coherence across scales, and negotiate trade-offs. They emphasize the need for integrated and people-centered landscape approaches to reconcile conservation and development, address conflicting interests, maximize synergies and minimise trade-offs across development objectives, and across sectors, actors and scales:

1. *Continual learning and adaptive management* are critical to

deal with non-linear dynamics, uncertainties and surprise, in continuously changing landscapes.

2. *Common concern entry point.* As stakeholders have different interests, values and objectives, identifying immediate ways forwards or easy-to-reach intermediate targets to address topics of common concern can help building trust and consensus, thus facilitating collective action.

3. *Multiple scales.* Management outcomes are influenced by processes and actors operating at multiple spatial and temporal scales. A better understanding of cross-scale interactions and a better coordination across scales is therefore critical in any landscape approach.

4. *Multifunctionality.* Acknowledging the multifunctionality of landscapes is the first step to manage synergies and trade-offs among competing land uses and reconcile the various needs, preferences and aspirations of all the stakeholders involved or affected.

5. *Multiple stakeholders.* Without inclusive, meaningful and equitable participation of all stakeholders, the decision-making process may lead to sub-optimal or unfair outcomes or exacerbate conflicts and power asymmetries.

6. *Negotiated and transparent change logic.* Trust among stakeholders is key for good management, collective action, conflict prevention and resolution. Trust cannot appear without transparency, negotiation and good governance.

7. *Clarification of rights and responsibilities.* A clear and widely accepted repartition of rights, roles and responsibilities, and access to a fair justice system are required to prevent and solve conflicts. Facilitation and negotiation processes are replacing the traditional command-and-control approach.

8. *Participatory and user-friendly monitoring* is key to integrate different forms of knowledge, and enable shared learning, knowledge co-generation and adaptive management.

9. *Resilience*, which enables a system to absorb, avoid or deflect threats and to recover after a disturbance, is fundamental to sustain ecosystem processes, services and benefits over time and ensure that a system can persist under and respond to changes.

10. *Strengthened stakeholder capacity.* Meaningful participation in the decision requires improved skills and capacities, as well as effective representation and competent institutions.



Upland and paddy rice being grown on Cat Ba Island, Vietnam  
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Paddy fields on the slopes of Gunung Halimun, West Java, Indonesia  
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### /// Always Moving Forward ///

The lack of consensus on the definition and basic rules of integrated landscape approaches may have hindered their implementation on the ground and evaluation of their effectiveness. The abovementioned principles could help address this implementation gap. This will require broad stakeholder engagement, through continuous or at least regular negotiations, within polycentric and multi-level governance mechanisms that facilitate the emergence of new actor constellations and enhance coordination across sectors, actors and scales. Furthermore, developing an

understanding of the historical context, contemporary power dynamics, and current constraints to access and engage in decision-making spaces for marginalized groups will greatly benefit application of landscape approaches.

The ten abovementioned principles align quite well with resilience thinking as emerging from the literature, even if they focus more on the social and governance dimensions than on ecological ones. The LandLabs are a promising channel through which these principles could be applied, tested and adapted to specific Mediterranean landscapes.

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