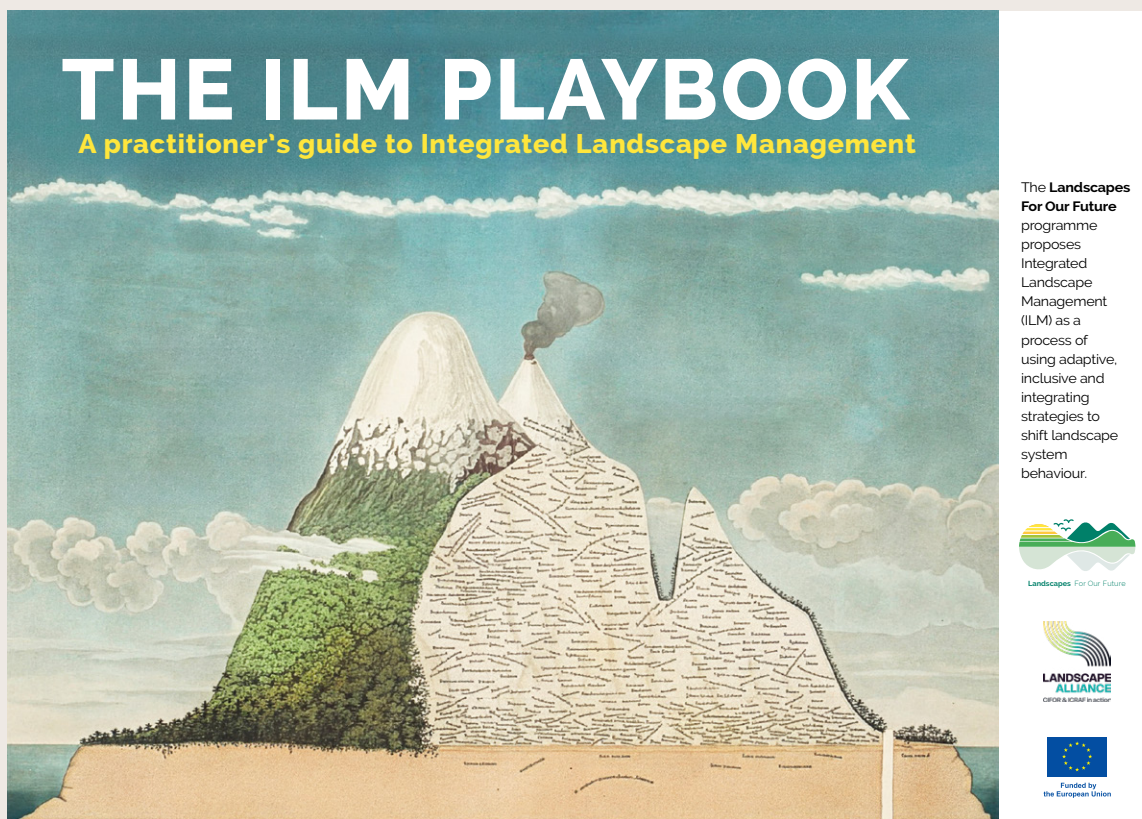


Extract from The ILM Playbook

The ILM Playbook is a practitioner curriculum developed through the EU-funded Landscapes For Our Future programme. Its **interactive web edition** provides a quick, non-linear route through the concepts and tools, while the **full-length PDF** provides the conceptual foundations, evidence and methodological depth behind them.

The concepts, methods and practical guidance were developed through the Central Component's work with project teams, partners and practitioners across the programme, and through the experience and learning generated in participating landscapes.



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Explore the full interactive ILM Playbook or access the complete reading edition at:
landscapesfuture.org/ilm-playbook

Landscape multi-functionality and trade-offs

Key take-aways

- Conventional landscape multifunctionality treats trade-offs as a biophysical optimization problem – but the real trade-offs in ILM are in the power domain, where any heading shift creates winners and losers.
- Power has two faces: redistribution (who gets to act) and capacity (the tenure, voice, authority and material resources that make action possible) – and any well-designed intervention works both at once.
- ‘Benefit-sharing’ framings typically obscure cost-sharing: the powerful externalize costs to others, and forcing those costs to be internalized is the heart of the trade-off, not an afterthought.
- Losers from any heading shift will resist, and the system’s institutional infrastructure will work to snap back to its prior configuration – so trade-offs must be confronted honestly, not optimized away.
- Designing your alt-heading is designing a different distribution of power, benefits and costs – there is no neutral design, and pretending otherwise produces interventions that the system absorbs without changing.

Background

Much landscape literature focuses on landscape multifunctionality – the joint supply of several ecosystem services at the landscape scale. Understanding the synergies and trade-offs between these services is, it is argued, essential to designing land-use systems that increase provision of desired services while maintaining or restoring biodiversity.¹

1 Jay and Plieninger, 2025.

The trade-offs, then, focus on, for example:

- Land-use competition: agriculture vs conservation, production vs protection, intensive vs extensive use.
- Ecosystem service trade-offs: provisioning services (food, timber) vs regulating services (water quality, carbon storage) vs cultural services.
- Spatial optimization: where to locate which functions to maximize overall landscape benefits.
- Temporal trade-offs: short-term productivity vs long-term sustainability.

This framing treats landscapes as portfolios where different functions compete for space and resources, and the challenge is finding the optimal allocation or configuration. The underlying logic is often technocratic: if we can map the functions, model the interactions, and identify the Pareto frontiers, we can design better landscapes.

Re-framing trade-offs

We agree that landscapes are multi-functional. As we have argued elsewhere in this Playbook, however, landscape condition depends on the people who influence and exploit it. We cannot resolve biophysical trade-offs without engaging (human) distributional and power dimensions. This raises some important considerations.

If you go back to our page on systems, you will remember that we see landscapes as complex systems; within human systems, power dynamics serve to pattern these systems; these patterns emerge as particular sets of human practices. If we judge the system's heading to be undesirable, we need to focus on these (and not only biophysical or ecosystem properties), and consider the ways in which we might gain a shift by influencing its power dynamics.

Power as redistribution

Any shift in a system's heading redistributes power. If one group of people is empowered, then another group is disempowered. This is not necessarily a bad thing – it may be exactly what we need to create a system shift. It is, however, a trade-off, and it needs to be understood as such.

This can have important strategic implications for the implementation of your intervention, which need to be thought through – the group being disempowered will almost certainly resist, and empowering marginalized groups threatens powerful actors who benefit from current arrangements.

Traditional literature often frames this in positive terms: 'benefit-sharing' – in our systems thinking, this would be like Actor A only sharing those benefits that will not disturb its predominance in the system. It seems unlikely that it would because this is contrary to its interests. Thus, the 'benefits' shared are superficial and symbolic. In any case, close attention should be paid to 'cost-sharing' – i.e., the 'externalities' created by Actor A that have to be shouldered by other actors in the system. For example, perhaps

Actor A pollutes local streams, a cost that downstream communities have to address. At a larger scale, a country that focuses on hydropower development exports associated ecological problems, changes to the river's hydrology and reductions to the river's sediment load to downstream countries who share the same river system. The powerful are often those who have successfully externalized costs. Shifting this – making polluters pay, making extractive industries internalize environmental damage, or having their products reflect the 'true' costs of production – challenges existing power distributions.

Power as capacity

Power can also be understood as a prerequisite for agency – the material resources and structural conditions that agents need in order to act. These include decision-making authority, voice in policy, enforcement capability, market access, information, legal standing, and collective organization. Without these, agents cannot change their practices even if they want to.

For example:

- A community cannot adopt 'sustainable land use' if they lack tenure security (a capacity deficit).
- A county officer cannot enforce protections if politicians override them (redistribution at work).
- Farmers cannot shift practices if traders control market access (a capacity constraint).

These two dimensions – power as redistribution and power as capacity – are not separate problems; they are two faces of the same intervention. Strengthening a community's tenure security (a capacity move) simultaneously weakens the discretionary authority of those who previously controlled access (a redistributive move). This is why conventional trade-off analysis, conducted in the biophysical domain of ecosystem services and land-use optimization, misses the point. The real trade-offs in ILM are in the power domain. Any intervention that seeks to shift a system's heading will create winners and losers. The losers – typically those who benefit from current arrangements – will resist, and the system's institutional infrastructure will work to restore its prior configuration (the 'snap-back effect' discussed elsewhere in this Playbook). Framing this as 'benefit-sharing' obscures more than it reveals: it implies that the powerful will voluntarily redistribute without cost to themselves, which is contrary to their interests and rarely observed in practice. Designing your [alt-heading](#) means designing a different distribution of power, benefits and costs. This is not a problem to be optimized away. It is the central political reality of landscape intervention, and it must be confronted honestly if the intervention is to have any chance of shifting the system rather than being absorbed by it. How these trade-offs are navigated is addressed in our discussion on [Compromise](#).

References and further reading

Jay M and Plieninger T. 2025. Addressing landscape multifunctionality in conservation and restoration. *Nature Reviews Biodiversity* 1(2025): 717-732. [LINK](#)