

# POLICY BRIEF

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## Mainstreaming Socio-Ecological Production Landscape Management Approaches

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### Highlights

Integrating socio-ecological production landscapes and seascapes (SEPLS) concepts into mainstream landscape management requires dynamic and innovative approaches that are tailored to local conditions and contexts. This must leverage knowledge, inclusive participation, and adaptive planning in order to maintain ecosystem diversity in landscapes without eroding the ecosystem services and benefits that they provide.

#### Recommendations:

- Both traditional and scientific knowledge must be mobilized at the landscape level, through inter- and trans-disciplinary approaches.
- Up-scaling of activities should be supported by inclusive participation, including by political actors, for better leverage of human capital and effective collaboration.
- Replication of successful sustainable production approaches needs to be adaptive, context-sensitive, and based on a long-term perspective supported by continuous monitoring.

### SEPLS: Socio-Ecological Production Landscapes & Seascapes

SEPLS are areas with “dynamic mosaics of habitats and land and sea uses where the harmonious interaction between people and nature maintains biodiversity while providing humans with the goods and services needed for their livelihoods, survival and well-being in a sustainable manner” (IPSI Secretariat 2015). They can be found in many parts of the world where humans are directly linked with nature through various forms of resource use, including primary industries, subsistence activities, tourism, and cultural uses such as in arts and crafts (UNU-IAS & IGES 2015). These systems have often evolved over time and represent interdependence and reciprocity between humans and nature.

However, many SEPLS are suffering loss and degradation, due to anthropogenic and natural drivers, which jeopardize their future sustainability. Despite the increasing number and variety of innovative responses, sustainable management of SEPLS is still far from being sufficiently integrated into mainstream landscape-management practices. Unless effective, innovative activities become regular, ubiquitous, and operated continuously at larger scales, it will be difficult to achieve sustainable development with harmonious human–nature relationships that safeguard ecosystems and biodiversity while increasing human well-being.

In this context, this policy brief presents recommendations for mainstreaming the concepts and approaches of SEPLS in policy and decision-making processes related to landscape management. It will be of relevance for a broad range of stakeholders who are reciprocally related to changes in SEPLS. The mainstreaming process envisaged would involve larger-scale adoption of SEPLS conservation activities at various levels. For example, at the relatively small social level of local community groups, activities that have been effective in one place can be replicated in other places, or at a larger scale as part of policy-planning and implementation processes. In both cases, activities and associated principles of resource and ecosystem-service use would be implemented more widely. Given the diversity of SEPLS and related activities, it is not possible to produce rigid, comprehensive guidance for all types of mainstreaming activities. However, successful mainstreaming would be expected to ensure greater visibility and attention for issues related to the conservation of natural resources and biodiversity. It should also contribute to their sustainable use, the preservation and promotion of related knowledge, and associated cultural and livelihood values. This is especially important given the increasing global emphasis on locally relevant solutions that meet the goals of sustainable development (Gu & Subramanian 2012).

This policy brief is based on ideas developed at a UNU-IAS workshop that explored seven case studies conducted by members of the International Partnership for the Satoyama Initiative (IPSI; see note), which are compiled in the Satoyama Initiative Thematic Review, Vol.2 (UNU-IAS & IGES 2016).

### **Tuscany, ITALY — Reintroducing Traditional Wheat Cultivation**

The Ancient Grain Project in Tuscany addresses issues with wheat production due to increased use of mechanization, genetic modification, and plant protection inputs, among others, through the revival of traditional wheat varieties. Knowledge held by agronomists, microbiologists, and other experts has been linked with wheat growers, processors, and customers through dialogue to find the best ways to bring back know-how on traditional varieties and processing. The process has led to the return of locally self-sufficient, environmentally friendly cultivation and a stronger sense of solidarity in the community, in addition to new economic opportunities built on strong local demand. This case is an important example of mobilizing different types of knowledge through multi-sectoral collaboration.

## **Principles for Mainstreaming SEPLS**

Based on the experiences of IPSI, broad principles have been identified for mainstreaming SEPLS concepts and approaches, which are described in the following sections.

### **1. Mobilise Knowledge toward Action**

#### *Integrate Traditional & Modern Scientific Knowledge*

Human–nature relationships in SEPLS revolve around traditional knowledge, practices, and beliefs; effective approaches promote their complementary use together with scientific knowledge and technology (Moller et al. 2004). While new knowledge should be constantly created and accumulated, traditional knowledge and other types of relevant knowledge must be equally respected and utilized. Traditional knowledge that is not documented must also be captured, as it can be lost within a single generation despite its relevance to sustainable resource management. Scientific knowledge can support public policymaking and help to maintain or restore resilience. Leveraging these two types of knowledge can be an effective means for the successful management of SEPLS.

#### *Adapt Knowledge through Inter- & Trans-Disciplinary Approaches*

Successful mainstreaming will require capturing the existing knowledge base for sustainable resource use and translating, transcribing, and transforming it appropriately to the socio-economic and ecological context. This includes transforming practices in the field into more formal knowledge through a multilateral approach to action research and policy advocacy towards sustainable management of natural resources.

Different types of knowledge and expertise are shared as a result of multi-stakeholder interactions through various levels of planning and management. A project can begin as academic research, with subsequent cooperation between the research institution and local organizations built on the results, as additional knowledge and expertise are needed to attain more practical objectives, such as developing new products and helping to create sustainable markets.

### **2. Encourage & Leverage Inclusive Participation**

#### *Foster a Participatory Approach for a Shared Vision*

Multi-stakeholder involvement and participatory approaches are key to grounding the concept of SEPLS, in many cases. This is because SEPLS involve a diverse mosaic of land uses and production activities, which support local communities with a variety of ecosystem services.

Multi-stakeholder engagement first requires a good understanding of the stakeholders and institutions, as well as the customary rules and norms associated with natural resource management and ecosystem services. Measures to build trust and cooperation between these stakeholders are then needed, which requires factoring in power dynamics and communication. Power dynamics can cause difficulties in identifying cooperative mechanisms, while good communication is crucial for full stakeholder engagement.

#### *Foster "Collective Efficacy"*

SEPLS reflect the values and societal meanings that people attach to them. To ensure that a landscape is sustainable, it is critical to foster "collective efficacy" — the ability of members of a community to exhibit a high degree of social cohesion and intervene in the behaviour of other members in the interest of the community's well-being or for the common good (Sampson et al. 1997). This requires robust engagement between stakeholders, and involves:

- **Building trust between stakeholders.** Trust is vital for involving a wider spectrum of stakeholders, including women and minorities, to ensure equitable use of resources and sharing of benefits for livelihood development. Enhancing mutual understanding and a common view among processors, retailers, and consumers (who exist beyond the producers on-site) is also essential to realizing their collaboration in sustainable resource use practices. It is a vital attribute for multi-sectoral networking and cooperation that binds the whole process of production together to strengthen the economy and quality of life, while also internalizing biodiversity connected to the products.
- **Identifying relevant institutions and defining roles.** Institutions, laws, policies, financial mechanisms, and customary rules and norms play important roles in SEPLS from the local and national levels to the global level. Institutions relevant to those involved in projects should be identified, and their roles defined, considering potential synergies and complementarities to avoid the unnecessary institutional mismatches that can occur during stakeholder interactions and activities. For instance, sustainable governance of SEPLS may not be possible if laws and policies do not work well for local and indigenous communities, who may have their own rules for survival and well-being shaped by their own circumstances, knowledge, and practices.
- **Engaging higher levels of government and receiving feedback.** Continuous support from government, at both local and higher levels, can help make land use

#### **Shyafru, NEPAL — Cultivation of Wild Herb Species in Forested Villages**

In Shyafru the newly developed Local Biodiversity Strategies and Action Plans (LBSAPs) have been a major venture for safeguarding forest resources through better rural livelihoods. The domestication of wild herbs and aromatic plants has helped to reduce the rampant deterioration of their wild habitats in the national parks and around villages due to overharvesting. In fact, illegal extractions are now reported by the locals, creating a win-win situation for conservation. The case is an important example of inclusive participation, as the local populace has begun policing the use of the resource (i.e., wild herb harvesting), an act that would not have been possible without collective efficacy and a shared vision.

activities effective in the long term. Involving politicians and national- and regional-level production systems is important for strengthening the stability of an activity and ensuring the mainstreaming process. This should be coupled with regular feedback at higher levels of government to share knowledge learned at the grassroots level.

- **Encouraging cross-learning between communities and stakeholders for capacity development and raising awareness.** Pursuing a transformation toward environmentally, economically, and socially sustainable landscapes requires changing values and behaviour. Peer learning between communities and other stakeholders is one of the most effective ways of raising awareness and changing behaviour. It is also necessary to increase awareness among consumers and external actors about the values of SEPLS, because they can contribute to SEPLS by consuming products and services that support sustainable resource use practices.

### **3. Foster Adaptive Planning & Management of Activities**

#### *Establish Long-term Monitoring & Periodic Review*

SEPLS are dynamic in nature and are maintained through adaptive co-management regimes, with interlinkages between natural and cultural processes that operate on different time frames. Successful mainstreaming requires management that allows for differing temporal changes through constant monitoring of the situation on the ground.

### Ensure Mainstreaming Efforts are Flexible

Mainstreaming can be promoted by replicating efforts and activities taking place in other locations. Sensitivity to both ecological and social conditions is required during such efforts, meaning they must be adaptable to the local context, and achievable within the capacities of the communities involved, without degrading the landscapes or cultures in question.

## Conclusions

Incorporating sustainable and integrated landscape management practices into policies and other institutional mechanisms requires sound knowledge and planning of interventions — while promoting locally sustainable and profitable production practices and associated knowledge. SEPLS are increasingly being recognized and promoted as examples for such sustainable management interventions. In line with policy developments, there has been a resurgence of enthusiasm for local and traditional production, processing, and consumption practices. Interest has also grown in sharing lessons and information between practitioners and other stakeholders, and ensuring greater awareness of products and services from SEPLS and adoption of these practices in policymaking, and in society.

Efforts to mainstream various innovative activities (e.g., policy tools and market mechanisms for cultural landscape conservation; tailoring concepts of SEPLS in national planning process; activating traditional forest-related knowledge through community participation; and integrating conservation, cultivation, consumption, and commerce of agrobiodiversity in biodiversity hotspot areas) would create pathways to achieving sustainable development that safeguards ecosystems and biodiversity while increasing and sustaining human well-being.

### Note

The International Partnership for the Satoyama Initiative (IPSI) is a global network of more than 200 organizations that promotes efforts to realize societies in harmony with nature through a landscape approach to sustainability. It was launched in 2010 at CBD COP 10 through collaboration between UNU and the Ministry of Environment, Japan.

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