



50
YEARS

Empowered lives. Resilient nations.

The role of resilience outcomes in developing the COMDEKS landscape strategy



SATOYAMA
INITIATIVE



Japan Biodiversity Fund



環境省
Ministry of the Environment
Government of Japan



Convention on
Biological Diversity



UNITED NATIONS
UNIVERSITY

UNU-IAS

Institute of Advanced Studies

Two essential ideas



Empowered lives. Resilient nations.

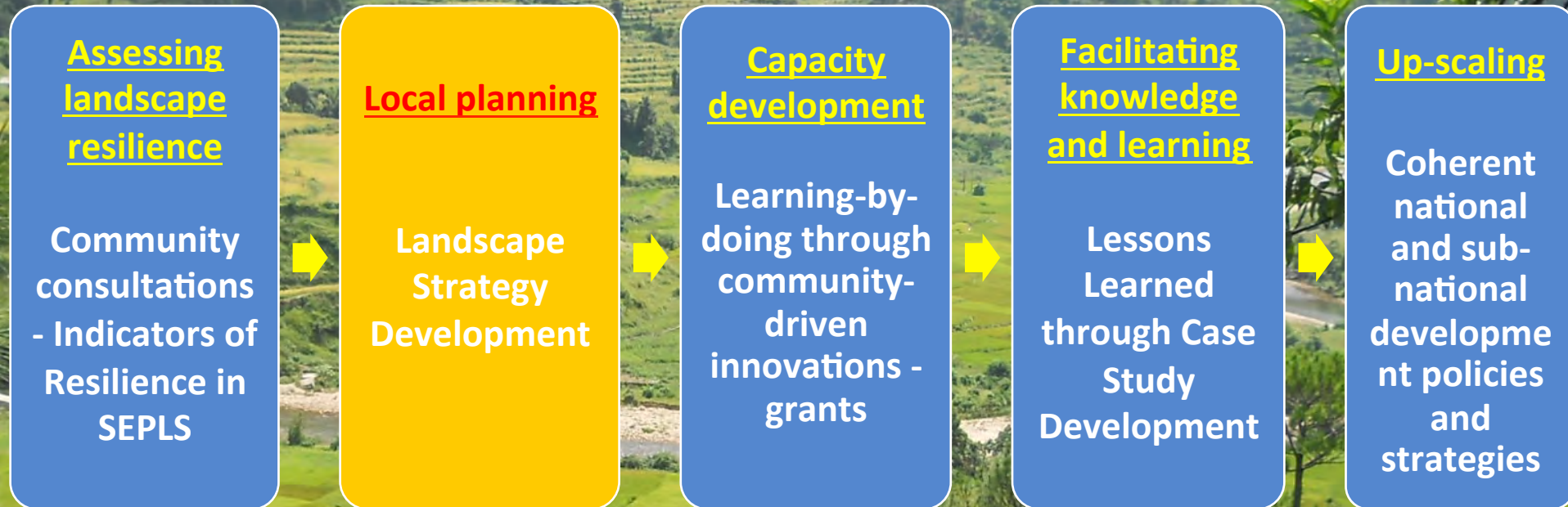
- “**Utopia** lies at the horizon. When I draw nearer by two steps, it retreats two steps. If I proceed ten steps forward, it swiftly slips ten steps ahead. No matter how far I go, I can never reach it. What, then, is the purpose of utopia? It is to cause us to advance.”
- “A **heuristic**, is any approach to problem solving, learning, or discovery that employs a practical **method** not guaranteed to be optimal or perfect, but sufficient for the immediate goals.”

The method

- *Community Consultations* and Baseline Assessment
- ***Participatory Landscape Strategy Development***
- *Capacity Development* through learning-by-doing
- *Generating knowledge* and facilitating dissemination
- *Upscaling and broader adoption* of successful practices and technologies



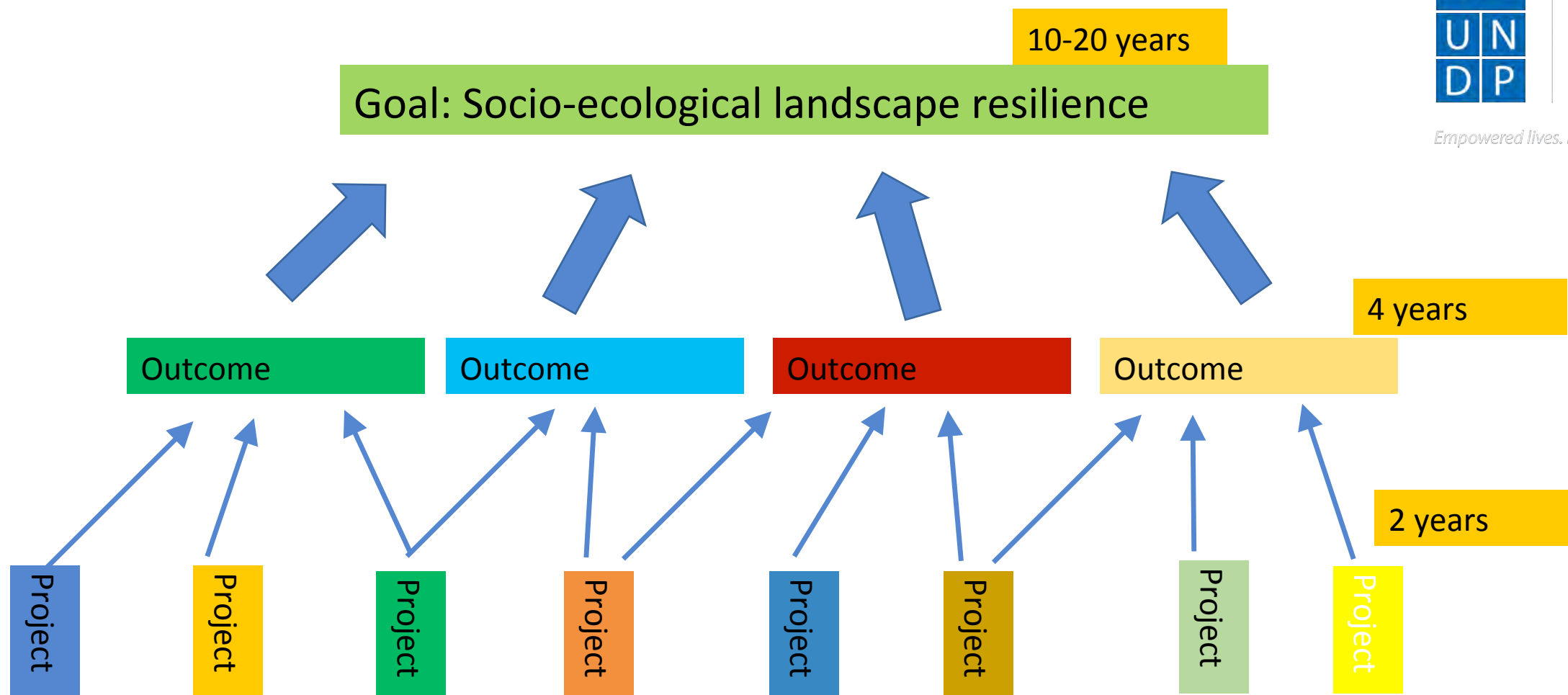
COMDEKS Strategic Framework: Adaptive management to enhance socio-ecological landscape resilience



- **Resilience** – the ability of a system to “bounce back” from shocks, resist pressures – not a static quality given constantly changing conditions
- Resilience is a **measure of health** – maintaining health requires active management
- **Adaptive management** towards resilience – implementing those measures that influence the structure and function of social and ecological systems
- Structure and function – influencing the components of the structure to affect the processes

Resilience Outcomes - considerations

- Essential backbone of Landscape Strategy – **organizing framework**
- Outcomes are defined by stakeholders in relation to social and ecological conditions, circumstances in the landscape i.e. the baseline assessment and the Resilience Indicators work
- Stakeholders decide – they own the Outcomes
- Consistent with **Satoyama** philosophy
- Aligned with GEF Focal Areas – ***landscape resilience based on GEB***



Strategic logic for landscape management

People, organizations, collective action



50
YEARS

Empowered lives. Resilient nations.

- Achieving socio-ecological landscape **resilience requires innovations in behavior** (adoption of new practices, adapting traditional practices, establishing new partnerships, strengthening community organizations, etc.)
- A change in behavior **requires empowerment of and through organizations** so that they can change conditions, structures, functions through collective action
- Empowerment of community organizations is not imposed but **develops organically through deliberate processes of action and reflection** i.e. learning-by-doing
- Learning-by-doing describes the process of design, implementation and evaluation of community driven initiatives by the organizations themselves

Social Resilience



- **Social resilience** = communities willing and able to work together in solidarity
- Solidarity = social capital through **collective action**
- **Empowerment** – exercising agency in decision making leads to ownership, responsibility, trust, greater and better knowledge of context, factors, diversity of perspectives, creation/strengthening of social capital, sustainability and resilience
- *Developing/strengthening the capacities of organizations* and their members to understand, adapt to or change conditions, function and structures, whether social or ecological
- **Capacities are developed through learning-by-doing** a.k.a community-driven projects in a process of adaptive management (analysis-planning-implementation-evaluation-planning-implementation . . .)

Barriers at landscape level

- **Community organizations often lack an explicit vision and strategy** for change across the landscape
- **Weak capacity to practice adaptive management** consciously and deliberately i.e. to practice innovation while managing risk, test alternatives, monitor and evaluate results, then adjust practices to address new challenges and incorporate lessons learned and best practice into new processes of planning and management
- **Scarcity of financial resources** that permit innovation and the testing of new ideas – also to reduce the risk associated with failure

Barriers at landscape level (2)



50
YEARS

Empowered lives. Resilient nations.

- **Emergent organizational capacities** to plan and manage initiatives efficiently and effectively of their own design and in favor of their goals and aspirations
- **Insufficient coordination with other organizations** to achieve effective collective action across the landscape
- **Knowledge derived** from reflection on experience with innovation and experimentation is **rarely subject to systematic analysis, codification and dissemination** to policy makers and other communities, organizations and programs

Ecological Resilience



- Ecosystem **structure** – *components*: water, biodiversity, soil, pollinators, microclimate, biomass, etc.
- Ecosystem **function** – *services*: water provision, disaster risk mitigation, pollination, fuel, soil fertility, etc.
- Understanding the ecosystem processes in the landscape; overlay on production systems to understand potential for increasing ***sustainability and productivity*** i.e. what measures might be necessary to ensure sustainability/productivity of agro-ecosystems, aquaculture, forestry, as well as alternative livelihoods like ecotourism

- **Four basic outcome categories** on the landscape that reflect social and ecological resilience – derived from Baseline Assessment and Resilience Indicator work
- Aligned with ***Satoyama principles and philosophy***
- Aligned with ***GEF Focal Areas*** (BD, LD, CC(A&M), IWARM)
- *Identified, refined and articulated by stakeholders* as part of landscape strategy development : contextualized
- Articulation and refinement by stakeholders to reflect their priorities – **builds ownership**

Landscape Resilience Outcomes



1. Enhancing ecosystem services

- Sustainable production practices that maintain ecosystem services and conserve biodiversity
- Forest restoration activities
- Soil conservation and improved water management
- Ecosystem-based Adaptation



2. Strengthening the sustainability of production systems

- Diversification of agricultural landscapes (agroforestry; multifunctionality)
- Diversification of production systems (cultivation of a higher diversity of crops and crop-livestock-trees integration)
- Low-input agriculture; agroecology
- Conservation of Plant Genetic Resources



3. Developing and diversifying livelihoods and income generation

- Activities that promote access to new markets for biodiversity-friendly products
- Activities that promote nature-based tourism initiatives generating income for local communities
- Other activities supporting diversification of livelihoods.



4. Strengthening institutions and governance systems

- Promotion of participatory governance systems at the local and landscape levels
- Strengthening NGO and COB capacities for landscape governance and management
- Promotion of networks for policy advocacy, learning, economies of scale

A scenic landscape view of a river valley. In the foreground, a river flows through a lush green valley, bordered by terraced fields and dense vegetation. The middle ground shows a wide expanse of green fields and a winding river. In the background, steep, forested mountains rise, with some small buildings visible on the slopes. The sky is clear and blue. The overall scene is a vibrant, natural landscape.

1. Enhancing ecosystem services and conserving biodiversity

1. Enhancing ecosystem services and conserving biodiversity

- *Manage ecosystem components to influence processes* – interactions between components affect processes and thereby services e.g. water and soil, crop varieties and pollinators, etc.
- *Preserve and manage species, soil, water* – communal and individual actions
- *Proxy indicators* (coverage, capacities, income) – targets
- **Typical initiatives**: community conservation areas, wild species management, soil conservation, sustainable forest management



2. Strengthening the sustainability of production systems

2. Strengthening the sustainability of production systems

- Recognize that **production systems are ecosystems** e.g. agroecosystems
- *Manage ecosystem components to influence processes* that sustain productivity without degradation (species, varieties, landraces, soil, water, etc.)
- **Proxy indicators** (coverage, capacities, income, species) - targets
- **Typical initiatives:** soil conservation (terraces, conservation cropping, etc.), efficient irrigation, crop genetic resource conservation (seed fairs, etc.), mixed systems (agroforestry; agrosilvopastoral, etc.); cover crops, green manures, composting, etc.

3. Developing and diversifying livelihoods and income generation



3. Developing and diversifying livelihoods and income generation

- **Reduce pressure on ecological systems**, including agro-ecosystems and other production systems
- **Innovate new economic activities** that generate income
- *Add value* to current products
- **Proxy indicators** (capacities, income, numbers of new products) – targets
- **Typical initiatives:** ecotourism, medicinal plants, crafts, new foodstuffs, etc.



4. Strengthening institutions and governance systems at the landscape level

4. Strengthening institutions and governance systems at the landscape level

- **Create/strengthen the social capital** required to withstand shocks and pressures
- **Empowerment of community organizations** as primary agents of change
- ***Strengthen organizations and networks*** across the landscape to improve analysis, planning, management and coordination in achieving landscape resilience outcomes; including advocacy skills
- ***Organizational capacity building***: technical, internal functioning (financial mgt, procedures, etc.), leadership, methodological re adaptive management through learning-by-doing

Mongolia: Multi-stakeholder groups identify landscape level outcomes and indicators

Table M-1. Landscape Outcomes and Indicators from the Mongolia Landscape Strategy

Landscape Outcomes	Key Performance Indicators
Outcome 1: Biodiversity conservation strengthened and ecosystem services restored, by linking or cohering advanced farming and traditional livelihood practices with protection of and conservation measures in community protected areas.	<ul style="list-style-type: none"> Number of hectares within the landscape protected for their ecological and cultural importance.
Outcome 2: Food security in the target landscape enhanced by increasing productivity and sustainability of agroecosystems through agroforestry, watershed restoration, agrobiodiversity management and farming practice diversification.	<ul style="list-style-type: none"> Type and number of resilience-enhancing agricultural practices introduced to promote food security. Number of hectares within the target landscape where innovative practices in agricultural biodiversity management are promoted. Percent of local population that is under-nourished.
Outcome 3: Livelihoods of communities enhanced through diversification of agricultural products, income-generating activities and development of community livelihood enterprises.	<ul style="list-style-type: none"> Increase in household income and assets as a result of supported activities. Number of alternative income sources created through livelihood diversification. Number of people practicing sustainable land use management and other eco-friendly nonagricultural activities
Outcome 4: Institutional governance systems created and/or strengthened through participatory decision making processes and knowledge sharing at the landscape level.	<ul style="list-style-type: none"> Number of community groups established or strengthened that are engaged in integrated landscape management. Number and type of policies influenced at the local, landscape, and national levels. Number of best practices and lessons learned shared among landscape stakeholders.

Pursuing achievement of the Outcomes - projects

- After identifying Outcomes, *stakeholders develop a typology of potential projects* that if implemented would lead to achievement of Outcomes
- The typology and Outcomes form part of the Landscape Strategy
- **Community organizations discuss and identify initiatives** within the agreed typology.
- **Community organizations propose initiatives** and begin design with the help of the National Coordinator or others. Initiatives should address more than one Outcome.

Table C-2. COMDEKS Community-Led Projects in Steung Siem Reap Watershed Areas, Cambodia

Project	Grantee (LNGO/CBO)	Contribution to Landscape Resilience Outcomes	Description
Ecology System Restoration and Community Livelihood Improvement of Steung Siem Reap Watershed	Sataphana Chivit Organization (SCO) US\$50,000	Outcomes 1, 2, 3	Build capacity of communities in the Kok Thlok Leu commune to conserve 10 ha of forest and to manage its 9-ha Community Fisheries Conservation area to increase the natural fish stock. Rehabilitate 2500 m of small canals and 70 m of dams so that farmers have sufficient water to increase crops yields on 500 ha of crop land. Introduce integrated farming systems to 100 farmers. Organize 5 women's saving groups to increase livelihood options.
Promoting Community Forestry Management and Community Livelihood Improvement in Chansor Commune, Sout Nikum District, Siem Reap Province	Human Resource and Rural Economic Development Organization (HURREDO) US\$47,600	Outcomes 1, 3, 4	Build capacity of three Community Forestry Committees to conserve more than 550 ha of Community Forest Areas by preparing 15-year Community Forestry Management Plans. Demarcate community forestry areas in Chansor Tbong Community Forest and organize community to construct 5,000 m of fire road there. Construct community tree nursery to produce seedlings for forest restoration. Establish agroforestry demonstration sites (pineapple and Chinese Bamboo) and provide training in bee-keeping, as well as developing market connections for these enterprises.
Flooded Forest and Fish Refuge Management of Community-Based Eco-Tourism at Kampong Phluk Commune, Prasat District, Siem Reap Province	Kampong Phluk Community-Based Ecotourism (KPCBET) US\$47,200	Outcomes 1, 3, 4	Improve the economic and ecological resilience of Kampong Phluk Commune by conserving more than 7,900 ha of flooded forest and replanting 15 ha of flooded forest on degraded land. Conserve 13 ha of fish refuge to increase natural fish stock in the target areas. Improve the success of community-based eco-tourism by strengthening the management capacity of community members and community-based ecotourism.

An aerial photograph of a mountain valley. The landscape is characterized by terraced green fields and patches of forest. A small village with several buildings is visible in the lower right. A river flows through the bottom left corner. The overall scene is lush and green, with a clear sky in the background.

Thank you!

Gracias !