



# The Satoyama Development Mechanism

progress evaluation summary report



## Key findings

The Satoyama Development Mechanism (SDM) is a seed funding programme to support bottom-up initiatives to address biodiversity and human livelihood issues in socio-ecological production landscapes and seascapes (SEPLS). An analysis of the results of a set of 30 SDM projects selected from 2013 to 2017 revealed four major findings:

All SDM projects contributed to the strategic objectives of the International Partnership for the Satoyama Initiative (IPSI): enhancing human, institutional and financial capacities; increasing knowledge and understanding of SEPLS; enhancing the benefits from SEPLS; and addressing the causes of the loss and decline of biological and cultural diversity.

The SDM projects demonstrated the potential of SEPLS to contribute to multiple Aichi Biodiversity Targets (ABTs), particularly Target 1 on increasing awareness of biodiversity, 14 on safeguarding ecosystem services, 4 on sustainable production & consumption, 7 on sustainable agriculture, aquaculture & forestry, 2 on integrating biodiversity values and 18 on respecting traditional knowledge.

SEPLS also can contribute to multiple Sustainable Development Goals (SDGs), especially Goal 15 "Life on land", 2 "Zero hunger", 14 "Life below water", 12 "Responsible consumption & production" and 1 "No poverty".

Relatively modest seed funding, as provided through the SDM, can stimulate innovation and incubate small-scale best practice examples that trigger larger-scale uptake towards ABTs and SDGs. For example, some SDM initiatives led to policy uptake and obtaining policy support – in some cases into national and sub-national laws, plans and strategies, as well as in attracting additional financing.



### Highlighted global sustainability targets and goals

Aichi Biodiversity Targets



© BIP/SCBD

Sustainable Development Goals



## Contents

- 2 Introduction
- 3 Methodologies
- 4 The SDM in a nutshell
- 6 Addressing the IPSI Strategic Objectives
- 6 Contributing to Aichi Biodiversity Targets
- 7 Contributing to Sustainable Development Goals
- 8 Best practices and innovations
- 11 Upscaling

## Authors

Yasuo Takahashi<sup>a</sup>, Nicolas Schauffele<sup>b</sup>,  
Sabrina Mengrani<sup>c</sup>, Rajarshi Dasgupta<sup>a</sup>,  
Andre Mader<sup>a</sup> and Federico Lopez-Casero<sup>a</sup>

a. Institute for Global Environmental Strategies, Japan

b. University College Dublin, Ireland & Justus Liebig  
University, Germany

c. Stanford University, The United States

## Acknowledgement

We sincerely thank all the SDM grantees listed in Table 3, page 4–5, for the support to the production of this report in various forms, including the submission of full project data in their final evaluation report and responses to the online survey, as well as sharing beautiful project site photographs that were used for this report layout. We also thank Mr. Eiji Tanaka and Mr. Yohsuke Amano and Ms. Ayami Imai, United Nations University Institute for the Advanced Study of Sustainability, Mr. Kenji Nakajima, Ministry of the Environment of Japan as well as Dr Yoji Natori, Conservation International Japan, for their insightful comments in drafting the contents of the report. All their cooperation made the publication of this report possible.

## Publisher

© 2018 Institute for Global Environmental Strategies

Institute for Global Environmental Strategies (IGES)  
2108-11 Kamiyamaguchi, Hayama,  
Kanagawa 240-0115 Japan  
Tel: +81-46-855-3700 / E-mail: iges@iges.or.jp  
www.iges.or.jp

United Nations University Institute for the  
Advanced Study of Sustainability (UNU-IAS)  
5-53-70 Jingumae, Shibuya-ku,  
Tokyo 150-8925 Japan  
Tel: +81 3 5467 1212

## Design and printing

Match-up Co. Ltd.

## Citation

IGES and UNU-IAS 2018, Satoyama Development Mechanism progress evaluation summary report, Institute for Global Environmental Strategies and United Nations University Institute for the Advanced Study of Sustainability, Japan.



## Introduction



Socio-ecological production landscapes and seascapes (SEPLS) are “*dynamic mosaics of habitats and land 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*” (MOEJ and UNU-IAS 2010). Globally, SEPLS constitute vital components of biological and cultural diversity.

## The Satoyama Initiative

The Satoyama Initiative was initiated in 2010 to lead an international effort towards sustainability in SEPLS, and thereby to contribute to the realisation of “*Living in harmony with nature*” envisaged in the United Nations 2050 global biodiversity vision. To promote collective efforts of diverse stakeholders for this vision, the International Partnership for the Satoyama Initiative (IPSI) was established<sup>1</sup>. As of October 2018, IPSI has 240 members across the globe encompassing national and local governments, non-governmental organisations (NGOs), research institutes, private companies and international organisations.

The Satoyama Development Mechanism (SDM) is a seed funding mechanism to encourage IPSI members to develop and accelerate sustainability actions in SEPLS.

<sup>1</sup> For more information on IPSI, please visit the IPSI website: <http://satoyama-initiative.org> or contact the IPSI Secretariat: [isi@unu.edu](mailto:isi@unu.edu)  
The IPSI Secretariat is hosted by the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS)



## The aim of this report

This report aims to present the SDM projects and their contributions to global goals, for the consideration of policymakers, businesses, researcher institutions, organizations and civil society. It highlights the contributions of the SDM projects to the IPSI Strategic Objectives (Table 1), the Aichi Biodiversity Targets (ABTs) and Sustainable Development Goals (SDGs).

**Table 1. IPSI Strategic Objectives**

1	Increase knowledge and understanding of SEPLS – values, history, status and trends of SEPLS; traditional and modern knowledge to sustain SEPLS
2	Address the direct and underlying causes responsible for the decline or loss of biological and cultural diversity as well as ecological and socio-economic services from SEPLS
3	Enhance benefits from SEPLS
4	Enhance the human, institutional and sustainable financial capacities for the implementation of the Satoyama Initiative

Source: IPSI Plan of Action 2013-2020 (IPSI 2013)

## Methodologies

This report summarises the results of the SDM Progress Evaluation, which quantitatively assessed the

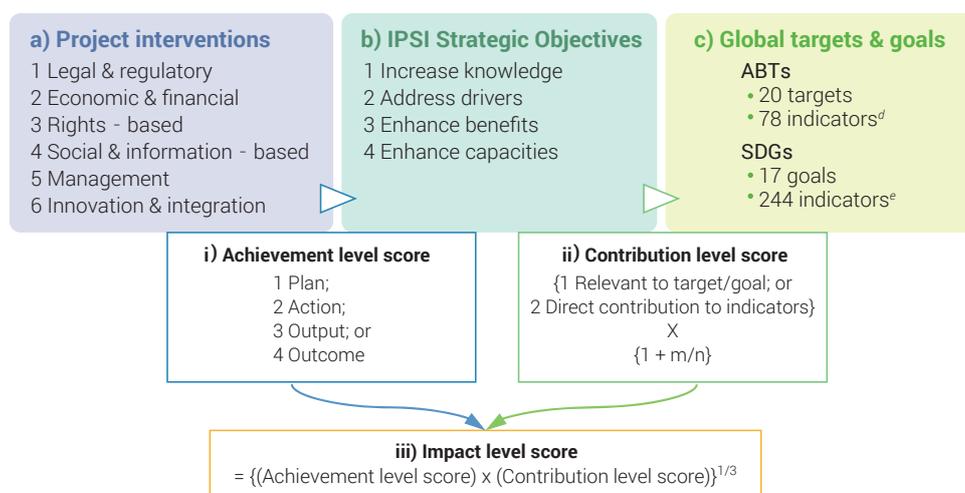
achievements of SDM projects mainly in three aspects. The first two aspects were the achievements of SDM projects aligned with the IPSI Strategic Objectives, and their contributions to ABTs and SDGs (Figure 2). The third aspect was the efforts of the grantees to upscale the SDM project achievements beyond the project site and time period.

First, each project was disaggregated into multiple project interventions referring to a common policy instrument categorisation (Acosta et al. 2018) (Figure 2 a). This process enabled a rigorous meta-analysis, as most SDM projects have implemented a mix of different interventions responding to unique local needs embedded in complex ecological, economic and socio-cultural context. Then the achievement of each intervention aligned with the IPSI Strategic Objectives (Figure 2 b) was scored using four levels (Figure 2 ii).

Second the relevance of each intervention to ABTs and SDGs (Figure 2 c) was evaluated using a contribution level score (Figure 2 ii). Finally impact level score (Figure 2 iii) was calculated for each and every combination between project intervention and ABT/SDG. In our assessment impact level score represents the level of contribution of each intervention to individual ABT/SDG.

Third efforts to harness SDM project achievements were assessed in terms of the policy integration, follow-up financing, partnership building and outreach. SDM projects are inherently small scale and short in duration. Upscaling is, thus, critical to ensure long-lasting effects, and thereby to contribute meaningfully to global sustainability goals.

The results presented in this report were informed mostly by project proposals from all grantees; final project evaluation reports submitted by all the grantees who already have completed their SDM projects; and an online survey of all grantees conducted from 3 May to 3 June 2018.



**Figure 1. Analytical frame for the assessment of the contribution of SDM projects to ABTs and SDGs.**

<sup>d</sup> CBD/COP/DEC/XIII/28 (CBD 2016);

<sup>e</sup> A/RES/71/313 E/CN.3/2018/2 (UNSD 2018);

'n' in box ii) indicates the number of all indicators associated with an ABT/SDG, while 'm' expresses the number of indicators associated with the same ABT/SDG to which an intervention has made tangible contribution.

# The SDM in a nutshell

Every year the SDM provides seed funding to six selected projects proposed by IPSI members, that aim to implement activities in line with the IPSI strategic objectives, and thereby also the ABTs and SDGs.

Projects can be: i) community/field-based; ii) research-oriented; iii) partnership building through meetings, conferences or workshops; or iv) capacity building. Each project receives a grant of up to US\$ 10,000. Since its establishment in 2013, the SDM has received 86 eligible applications and selected 30 projects (Table 2, Figure 2, Table 3).

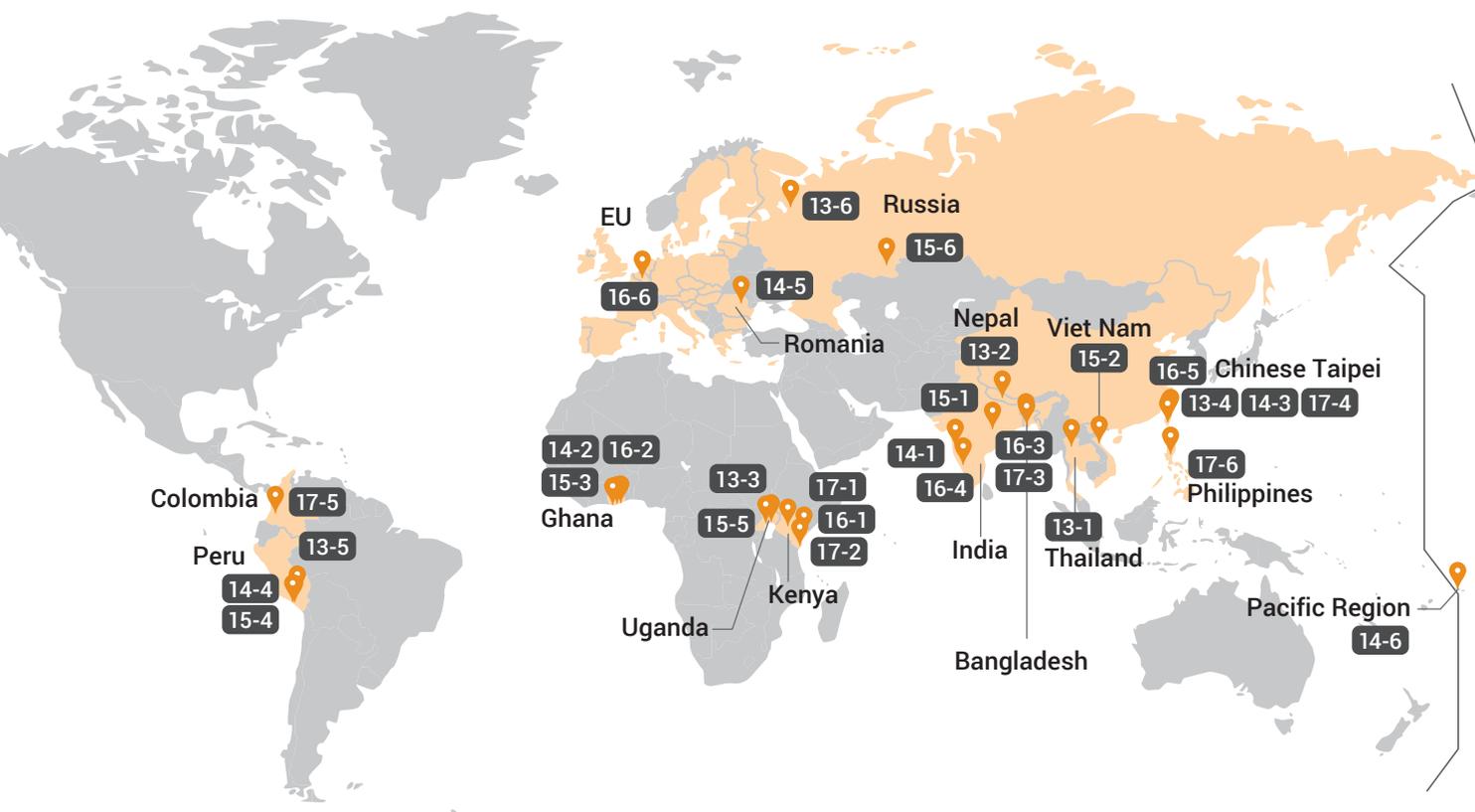
**Table 2. SDM project distribution across project types and regions**

Project type	Region				Total
	Africa	Americas	Asia-Pacific	Europe	
i) Community/field-based implementation (CFI)	6	0	8	0	14
ii) Research (RES)	1	1	3	0	5
iii) Partnership building (PB)	1	2	1	2	6
iv) Capacity building and outreach (CB)	0	1	2	2	5
<b>Total</b>	<b>8</b>	<b>4</b>	<b>14</b>	<b>4</b>	<b>30</b>

**Table 3. SDM project list**

Grantee, country	Project ID and title	Type <sup>a</sup>	Status
<b>Selected in 2013</b>			
Indigenous Knowledge and Peoples Foundation (IKAP), Thailand	13-1. Supporting and promoting the Karen indigenous socio-ecological production system in northern Thailand	CFI	Completed (Feb 2015)
Kathmandu Forestry Collage (KAFCOL), Nepal	13-2. Documentation of biological resources for preparation and piloting of Local Bio-diversity Strategy and Action Plan (LBSAP) in three ecological production landscapes of Nepal	CFI	Completed (Aug 2014)
Nature and Livelihoods, Uganda	13-3. Experimenting on production of high value market products from indigenous wild fruits	RES	Completed (Aug 2015)
SWAN International, Chinese Taipei	13-4. Converting pests as allies in tea farming - a potential case of Satoyama landscape in Hualien, Taiwan	RES	Completed (Dec 2014)
Asociación ANDES, Peru	13-5. Hosting the Satoyama Initiative Steering Committee Meeting and Global Conference in 2015	PB	Completed (Jan 2018)
Environmental Education Center Zapovedniks, Russia	13-6. Cultural landscapes as vectors for local sustainable development	CB	Completed (Dec 2014)
<b>Selected in 2014</b>			
Applied Environmental Research Foundation (AERF), India	14-1. Promoting Green Entrepreneurship for conservation of Satoyama landscapes in the North Western Ghats, India	CFI	Completed (Nov 2015)
A Rocha Ghana, Ghana	14-2. Restoration of community sacred forest to enhance socio-ecological landscape in the Effutu Traditional Area, Ghana	CFI	Completed (Feb 2016)

**Figure 2. Map of SDM project locations**



Grantee, country	Project ID and title	Type <sup>a</sup>	Status
National Dong-Hwa University, Chinese Taipei	14-3. Tailoring Satoyama Initiative concepts to national and local context: A case study of the collaborative planning process of a Rice Paddy Cultural Landscape in an Indigenous Community, Taiwan	CFI	Completed (Apr 2016)
Asociasion Pro Desarrollo Agroindustrial de Camana (APAIC), Peru	14-4. Evaluation of the biodiversity chain in barren landscapes ecosystems restored through reforestation with <i>Caesalpinia spinosa</i> , in the southern semiarid coast of Peru	RES	Completed (Aug 2015)
Landcare Germany, Romania	14-5. Fostering cooperative nature conservation to preserve and develop the cultural landscape (SEPL) in the Carpathian Region of Pogány-havas	PB	Completed (Jun 2016)
Secretariat of the Pacific Regional Environment Programme (SPREP), Pacific Region	14-6. Healthy islands, oceans and people	CB	Ongoing

#### Selected in 2015

IORA Ecological Solutions, India	15-1. Integrated participation of institutional stakeholder for upliftment of rural livelihood through sustainable harvesting and market linkages of NTFPs and Agri products	CFI	Completed (Dec 2017)
Social Policy Ecology Research Institute (SPERI), Vietnam	15-2. Restoration of local valuable tree species in the Huong Son upper catchment through nursery, extension of plantings, and field documentation for ensuring sustainability of SEPLS	CFI	Completed (Jan 2017)
Conservation Alliance International, Ghana	15-3. Enhancing cocoa agroforestry in Ghana through an integrated Geographic Information Based (GIS) based monitoring system	CFI	Completed (Jan 2017)
Asociasion Pro Desarrollo Agroindustrial de Camana (APAIC), Peru	15-4. Towards a strategy for mitigation of climate change effects in the coastal region of Peru, in the context of the El Nino event	PB	Completed (Sep 2016)
Environmental Protection Information Centre (EPIC), Uganda	15-5. Satoyama Initiative National Network Workshop for UGANDA	PB	Completed (Dec 2016)
Environmental Education Center Zapovedniks, Russia	15-6. Cultural landscapes as vectors for local sustainable development	CB	Completed (Dec 2016)

#### Selected in 2016

Community Based Environmental Conservation (COBEC), Kenya	16-1. Strengthening community participation in biodiversity conservation through benefit sharing and capacity building	CFI	Completed (Apr 2018)
---	--	-----	----------------------

Grantee, country	Project ID and title	Type <sup>a</sup>	Status
A Rocha Ghana, Ghana	16-2. Mangrove restoration to improve socioecological production landscapes and seascapes for fisheries recovery at the Muni Pomadze Ramsar Site	CFI	Completed (Dec 2017)
Japan Environmental Education Forum (JEEF), Bangladesh	16-3. Project for conserving Bangladesh Sundarbans SATOYAMA and developing its showcase through creating action plan and ensuring the sustainable use of natural resources by promoting mangrove restoration, traditional culture and skill of mangrove's shrimp collection	CFI	Ongoing
M. S. Swaminathan Research Foundation, India	16-4. Problems and 'prospects' of SEPLS' conversion for alternate benefits – A research case study from the Western Ghats	RES	Ongoing
National Dong-Hwa University, Chinese Taipei	16-5. Facilitating the development of a Taiwan Partnership for the Satoyama Initiative (TPSI)	PB	Completed (Jan 2018)
Landcare Germany, European Region	16-6. Preparing the conservation and development of cultural landscapes on a European level	PB	Ongoing

#### Selected in 2017

Conservation Solutions Afrika, Kenya	17-1. Use of mobile technology for assessing community and wildlife use of rangeland resources	CFI	Ongoing
Kenya Forestry Research Institute (KEFRI), Kenya	17-2. Restoration of Sacred Kaya forests in Kenyan coast for enhanced provision of ecosystem services and products for improved livelihoods	CFI	Ongoing
Unnayan Onneshan, Bangladesh	17-3. Designing an enhanced bio-diverse adaptation to climate change in the Sundarbans	CFI	Ongoing
Hualien District Agricultural Research and Extension Station (HDARES), Chinese Taipei	17-4. Taiwan stingless bee field investigation and greenhouse pollination preliminary work	RES	Ongoing
Corporación Ambiental y Forestal del Pacifico (CORFOPAL), Colombia	17-5. Resilience level assessment of the Key Biodiversity Areas San Antonio Forest/KM 18 and community empowerment on conservation	CB	Ongoing
University of the Philippines Open University (UPOU), Philippines	17-6. Contextualization of the instructional materials for the training of youths toward the conservation of Ifugao Rice Terraces as a Satoyama landscape	CB	Ongoing

<sup>a</sup> **CFI:** Community/field-based project implementation; **RES:** Research; **PB:** Partnership building through meetings, workshops or conferences; **CB:** Capacity building

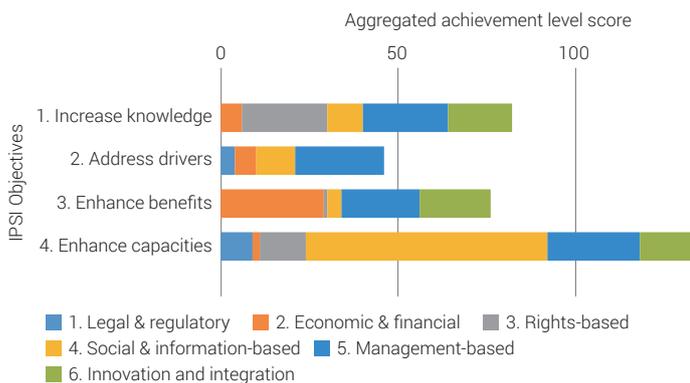


## Addressing the IPSI Strategic Objectives

Of the four IPSI Strategic objectives, “*enhance capacities*” was addressed most consistently across SDM projects, followed by “*increase knowledge*”, then “*enhance benefits*”, and “*address drivers*” (Figure 3).

Social and information-based interventions, particularly the promotion of social norms in sustainable lifestyles and practices through awareness raising and environmental education, was found effective to enhance capacities. Rights-based approaches made the greatest contribution to increasing knowledge, notably in activities to recognise and support indigenous and customary tenure, rights, practices and knowledge. Economic and financial instruments, such as the provision of alternative sustainable livelihoods and income sources, were effective in addressing the third Objective “*enhance benefits*”. Management-based interventions were effective in addressing drivers particularly through landscape/seascape management plan development and implementation, as well as through land restoration and reforestation.

Following “best practices and innovations” section (from page 8) presents concretely how different interventions lead to the achievements aligned with the four IPSI Strategic Objectives.



**Figure 3. Level of the achievement of IPSI Strategic Objectives through SDM project interventions:** The length of the bars in different colours expresses the sum of the achievement level scores of individual interventions falling under either of the six intervention categories from all 30 SDM projects.

## Contributing to Aichi Biodiversity Targets

The SDM projects collectively contributed most to Aichi Biodiversity Target 1 “*Awareness of biodiversity increased*”, followed by 14 “*Ecosystem & essential services safeguarded*”, 4 “*Sustainable production & consumption*”, 7 “*Sustainable agriculture, aquaculture & forestry*”, 2 “*Biodiversity values integrated*” and 18 “*Traditional knowledge respected*” (see Table 4). Different types of interventions achieved different Targets.

Management-based interventions, such as land restoration and reforestation, landscape or seascape

planning, and collaborative management, made the greatest contributions to progress towards the ABTs. Social and cultural approaches also highly contributed to ABTs, which include the promotion of social norms on sustainable lifestyles and practices through public information and education, as well as voluntary agreements, partnerships and participation.

Other types of intervention contributing to the ABTs included economic and financial instruments, e.g., alternative livelihoods and income sources and ecological certification; innovation and integration, e.g., knowledge integration and ecological production; and rights-based approaches, e.g. supporting indigenous and customary tenure, rights, practices and knowledge. SDM projects demonstrated how individual interventions in SEPLS can contribute to multiple ABTs, especially when projects respond to specific local needs and aim for combined biodiversity and livelihood outcomes.

Following “best practices and innovations” section (from page 8) demonstrates how different projects addressed ABTs.

**Table 4. The magnitude of the contribution of the project interventions under different categories to Aichi Biodiversity Targets, expressed in the aggregated impact level scores for each combination between intervention category and ABT.**

		Intervention Category						Total	
		Int 5. Management	Int 4. Social & cultural	Int 2. Economic & financial	Int 6. Innovation & integration	Int 3. Rights-based & customary	Int 1. Legislation & regulation		
Aichi Biodiversity Targets	1	Awareness of biodiversity increased	28	62	9	25	19	7	150
	14	Ecosystem & essential services safeguarded	42	32	13	2	6	8	104
	4	Sustainable production & consumption	16	18	18	21	8	5	85
	7	Sustainable agriculture, aquaculture & forestry	24	15	20	12	5	4	80
	2	Biodiversity values integrated	19	19	6	12	16	4	76
	18	Traditional knowledge respected	14	28	4	5	22	2	74
	5	Habitat loss halved or reduced	27	16	2		1		46
	15	Ecosystem restored and resilience enhanced	22	7	8	2			38
	6	Sustainable management of marine living resources	5	9	8	3	1	2	29
	11	Protected areas increased and improved	10	9	2		5	2	29
	3	Incentives reformed	1	1	17	7			27
	19	Knowledge improved, shared & applied	8	3	5	7	2		26
	13	Genetic diversity maintained		2	6	1	5		13
	8	Pollution reduced	4	2	2	3			12
	10	Pressures on vulnerable ecosystems reduced	2	1	5	2	1		11
	12	Extinction prevented	3		2	3		2	9
	9	Invasive alien species prevented & controlled	2	2	3				6
17	National biodiversity action plans & strategies	3	1	2				6	
Total		229	229	132	105	90	35	821	

## Contributing to Sustainable Development Goals

Overall, SDM projects contributed the most to SDG 15 “Life on land”, followed by 2 “Zero hunger”, 17 “Partnership for goals”, 14 “Life below water”, 12 “Responsible consumption & production” and 1 “No poverty”(see Table 5). Contribution of the projects to SDG 4 “Quality education”, 8 “Decent work & economic growth”, 5 “Gender equality” and 13 “Climate action” were implied but relatively weak.

Management-based interventions, such as land restoration and reforestation, landscape or seascape planning, and collaborative management, made the highest contributions to the progress towards SDGs. Social and cultural interventions followed, which contributed highly to Goal 17 “Partnership for the goals” and Goal 15 “Life on land”. Economic and financial instruments, and innovation and integration contributed strongly to Goal 2 “Zero hunger”.

Following “best practices and innovations” section (from page 8) demonstrates how different projects addressed SDGs.

The total impact level score for SDGs (243) was significantly smaller than that for ABTs (821). This, on one hand, could indicate the higher relevance of the SDM projects to ABTs. On the other hand, this can be attributed to the relatively limited scope of the SDGs indicators. The SDGs with low total impact level scores were conceptually relevant to SDM projects, but did not have the indicators to which the projects made direct contribution. The official indicator metrics for SDGs mostly use global and national statistics and observation data, which sometimes technically cannot represent the trends and efforts at local scale in SEPLS.

**Table 5.** The magnitude of the contribution of the project interventions under different categories to SDGs, expressed in the aggregated impact level scores for each combination between intervention category and SDG.

Sustainable Development Goals	Intervention category						Total
	Int 5. Management	Int 4. Social & cultural	Int 2. Economic & financial	Int 6. Innovation & integration	Int 3. Rights-based and customary	Int 1. Legislation & regulation	
15 Life on land	35	16	11	7	8	2	77
2 Zero hunger	12	3	16	14	5		51
17 Partnership for the goals	14	21	1	6	8	2	51
14 Life below water	8	6	3	3	1	4	26
12 Responsible consumption & production	6	5	1	3			15
1 No poverty		1	6	2	1		10
4 Quality education		4			2		5
8 Decent work & economic growth				4			4
5 Gender equality	2						2
13 Climate action		1					1
<b>Total</b>	<b>76</b>	<b>57</b>	<b>39</b>	<b>38</b>	<b>25</b>	<b>8</b>	<b>243</b>



## Best practices and innovations

Certain SDM projects embodied the ethos of the mechanism particularly well. Some of these are showcased below, according to the type of intervention they represent. Their contributions to the IPSI objectives, Aichi Biodiversity Targets and SDGs are specified.



top: Women braiding wreaths / bottom: Cultural landscape in Kenozero National Park

### Social & information-based intervention

Many cultural landscapes in Russia are found in rural areas with low living standards and high unemployment rates, where economy is prioritised over landscape conservation. The project, “*Cultural landscapes as vectors for local sustainable development*” (ID: 15-6) strengthened the capacity of protected area managers and local communities to manage cultural landscapes in protected areas. It introduced a new approach to managing, protecting and interpreting cultural landscapes, and developed information material on cultural landscape management which were distributed to other protected area managers. The project also developed ecotourism in protected areas in which local communities are involved.

#### IPSI Strategic Objectives achieved:

**1** Increase knowledge; **3** Enhance benefits; **4** Enhance capacities

#### Contribution to Aichi Biodiversity Targets:

**1** Awareness of biodiversity increased –In1.1, 1.2<sup>2</sup>; **2** Biodiversity values integrated –In2.1, 2.3; **4** Sustainable production and consumption –In4.2, 4.3, 4.5; **7** Sustainable agriculture, aquaculture and forestry –In7.1; **11** Protected areas increased and improved –In11.1, 11.3, 11.4, 11.6; **14** Ecosystems and essential services safeguarded –In14.1, 14.3, 14.5; **18** Traditional knowledge respected –In18.1, 18.3

**Contribution to SDGs:** **8** Decent work and economic growth –In 8.9.1, 8.9.2<sup>3</sup>;

**12** Responsible consumption & production –In12.b.1

### Rights-based intervention

The Karen people’s rotational farming system is recognized by the Thai government as a national cultural heritage, but in Mae Um Phai village it is threatened by expanding commercial mono-cropping which, in turn, threatens villagers’ livelihoods. The project, “*Supporting and promoting the Karen indigenous socio-ecological production system in northern Thailand*” (ID: 13-1) conducted participatory GIS mapping of customary land use, practices and knowledge, and used the map to get the governments recognise their customary land uses. The project also documented indigenous seed varieties and their cultivation techniques, and soil enrichment practices, which enhanced the recognition of women as knowledge holders and managers of seed and plant resource. The project also reinvigorated indigenous knowledge among young villagers, and helped the village maintain traditional self-sufficiency and identify a new income source from wild fern.

#### IPSI Strategic Objectives achieved:

**1** Increase knowledge; **3** Enhance benefits; **4** Enhance capacities

#### Contribution to Aichi Biodiversity Targets:

**2** Biodiversity values integrated –In2.3; **3** Incentives reformed –In3.2; **4** Sustainable production and consumption –In4.2, 4.5; **7** Sustainable agriculture, aquaculture and forestry –In7.1; **11** Protected areas increased and improved –In11.1, 11.6; **13** Genetic diversity maintained –In13.2, 13.4, 13.6; **14** Ecosystems and essential services safeguarded –In14.1, 14.5; **18** Traditional knowledge respected –In18.1, 18.3; **19** Knowledge improved, shared and applied –In 19.1

**Contribution to SDGs:** **1** No poverty<sup>4</sup>; **2** Zero hunger –In 2.3.2, 2.4.1, 2.5.1;

**4** Quality education; **5** Gender equality



top: A Karen woman explaining traditional crops / bottom: Upland rice cropping in rotational farming system

<sup>2</sup> ‘In’ here in the list of relevant Aichi Biodiversity Targets refers to the generic indicator number listed in CBD/COP/DEC/XIII/28 (CBD 2016).

<sup>3</sup> ‘In’ here in the list of relevant SDGs refers to the indicator number listed in A/RES/71/313 E/CN.3/2018/2 (UNSD 2018).

<sup>4</sup> Target/Goal without indicator number means that the project achievement is conceptually relevant to the Target/Goal but cannot be explicitly linked to any indicator for the Target/Goal (Step 1 relevance: See ‘Evaluation framework and methodologies’ section, page 4)



top: GPS device training for farmers /  
bottom: Cocoa pod

## Economic & financial intervention

Bordering Kakum National Park, the central region of Ghana is endowed with rich biodiversity. However, the majority of cocoa producers in the area had been suffering from low household income due to low productivity. The *Enhancing Cocoa Agroforestry in Ghana through an integrated Geographic Information System (GIS) based monitoring system* project (ID: 15-3) trained 40 lead farmers on good agricultural practices, including integrated pest management and record keeping. The lead farmers, in turn, trained a further 246 farmers. These activities resulted in yield increase, the establishment of 20 tree nurseries, and improved awareness of biodiversity conservation among more than 200 farmers. More than 80% of these farmers enhanced their capacity that was necessary to receive an audit for certification by the Rainforest Alliance Certification.

### IPSI Strategic Objectives achieved:

**2** Address drivers; **3** Enhance benefits; **4** Enhance capacities

**Contribution to Aichi Biodiversity Targets:** **1** Awareness of biodiversity increased –In1.1, 1.2; **2** Biodiversity values integrated –In2.3; **3** Incentives reformed –In3.1, 3.2; **4** Sustainable production and consumption –In4.2, 4.3; **5** Habitat loss halved or reduced –In5.1, 5.2; **7** Sustainable agriculture, aquaculture and forestry –In7.1; **15** Ecosystems restored and resilience enhanced –In15.1; **19** Knowledge improved, shared and applied –In19.1

**Contribution to SDGs:** **2** Zero hunger –In2.3.1, 2.3.2, 2.4.1, 2.5.1; **12** Responsible consumption & production; **15** Life on land –In15.1.1, 15.3.1,

## Management-based intervention

Kenya's coastal and marine ecosystems have become increasingly degraded. Poverty, population pressure and limited environmental awareness have resulted in indiscriminate mangrove wood cutting, sea turtle catches, and overexploitation of other natural resources. Facing these, the project *“Strengthening community participation in biodiversity conservation through benefit sharing and capacity building”* (ID: 16-1), strengthened local environmental governance focusing on the restoration of mangroves and the conservation of sea turtles and their habitats. The project produced 59,800 mangrove seedlings and restored 31 ha of mangrove forest. It also implemented collaborative beach patrolling by fishermen and Kenya Wildlife Service staff, which reduced sea turtle killing by half. As a means of supplementing the resources that were protected, alternative livelihood means including poultry farming, vegetable farming and sustainable fishing gear were facilitated.

### IPSI Strategic Objectives achieved:

**2** Address drivers; **3** Enhance benefits; **4** Enhance capacities

### Contribution to Aichi Biodiversity Targets:

**1** Awareness of biodiversity increased –In1.1, 1.2; **2** Biodiversity values integrated –In2.1, 2.3; **3** Incentives reformed –In3.2; **4** Sustainable production and consumption –In4.1, 4.2; **5** Habitat loss halved or reduced –In5.2, 5.4; **6** Sustainable management of marine living resources –In6.4; **7** Sustainable agriculture, aquaculture and forestry –In7.1, 7.3; **10** Pressures on vulnerable ecosystems reduced –In10.6, 10.7; **12** Extinction prevented –In12.3; **14** Ecosystems and essential services safeguarded –In14.1, 14.2, 14.3, 14.4, 14.5; **15** Ecosystem resilience restored and enhanced –In15.1; **18** Traditional knowledge respected –In18.1, 18.3

### Contribution to SDGs:

**2** Zero hunger –In2.3.2, 2.4.1; **4** Quality education; **14** Life below water –In14.5.1, 14.6.1, 14.7.1, 14.b.1; **15** Life on land –In15.1.1, 15.1.2, 15.2.1, 15.3.1, 15.7.1



top: Mangrove restoration /  
bottom: Releasing a caught sea turtle



top: Biological survey /  
bottom: Socio-economic survey

## Innovation and integration

Conventional tea farming in Taiwan has seriously impacted surrounding biodiversity through the application of herbicides and pesticides. In the project, “*Converting pests as allies in tea farming - a potential case of Satoyama landscape in Hualien, Taiwan*” (ID: 13-4), two tea producers in Hualien County of eastern Taiwan stopped using pesticides, after finding that tea leaves damaged by green leafhopper, one of the insects that were previously considered as pests, produced a unique honey flavour in tea which was preferred by the consumers. By combining biological and socio-economic surveys, the project demonstrated that the chemical-free honey-flavoured black tea production enhanced biodiversity, while increasing economic return and job opportunities.

### IPSI Strategic Objectives achieved:

**1** Increase knowledge; **3** Enhance benefits; **4** Enhance capacities

### Contribution to Aichi Biodiversity Targets:

**1** Awareness of biodiversity increased –In1.1, 1.2; **2** Biodiversity values integrated –In2.3; **3** Incentives reformed –In3.2; **4** Sustainable production and consumption –In4.2; **7** Sustainable agriculture, aquaculture and forestry –In7.1; **8** Pollution reduced –In8.1

**Contribution to SDGs:** **2** Zero hunger –In2.3.1, 2.3.2, 2.4.1

## Legal & regulatory intervention

The fisheries sector contributes significantly to Ghana’s national economy but, so far, its sustainability has received limited attention. The project, “*Mangrove restoration to improve socioecological production landscapes and seascapes for fisheries recovery at the Muni Pomadze Ramsar Site*” (ID: 16-2), aimed to empower the coastal communities in the Effutu Area, one of the fishing centres in the Central Ghana, towards sustainable fisheries management and enhancing the integrity and resilience of coastal ecosystems. The project demarcated a community fisheries recovery zone, which fostered readiness for future marine protected area designation. The project also rehabilitated five hectares of degraded mangroves, organised a mangrove litter cleaning campaign, designated a community waste dumping site, and initiated community-based waste monitoring and management.

### IPSI Strategic Objectives achieved:

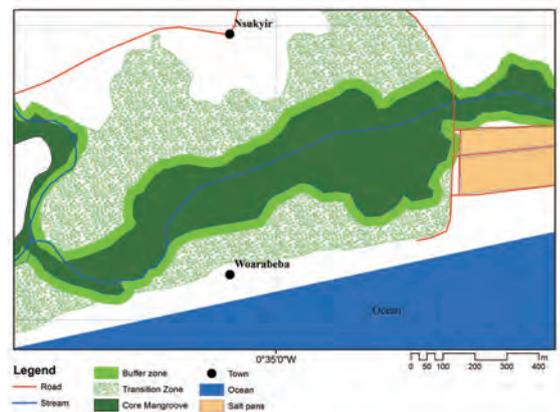
**1** Increase knowledge; **2** Address drivers; **3** Enhance benefits; **4** Enhance capacities

### Contribution to Aichi Biodiversity Targets:

**1** Awareness of biodiversity increased –In1.1, 1.2; **2** Biodiversity values integrated –In2.2, 2.3; **4** Sustainable production and consumption –In4.2, 4.3, 4.5; **5** Habitat loss halved or reduced –In5.2, 5.3, 5.4; **6** Sustainable management of marine living resources –In6.2, 6.4; **7** Sustainable agriculture, aquaculture and forestry –In7.3, 7.5; **8** Pollution reduced –In8.1; **11** Protected areas increased and improved –In11.2, 11.4, 11.6; **14** Ecosystems and essential services safeguarded –In14.1, 14.3, 14.4, 14.5; **15** Ecosystems restored and resilience enhanced –In15.1, 15.2

### Contribution to SDGs:

**14** Life below water –In14.5.1, 14.6.1, 14.7.1, 14.b.1; **15** Life on land –In15.1.1, 15.1.2, 15.2.1, 15.3.1



top: Marking fisheries recovery zone boundary /  
bottom: Fisheries recovery zone map

# Upscaling

Most grantees made efforts to upscale the initiatives that they have developed or promoted in their SDM projects beyond the project site and timeframe.

The progress of their efforts in four different forms are described below, i.e., the policy uptake of and support to the initiatives they developed or promoted in the project, additional fundraising for further continuing and developing the initiative, as well as partnership building and outreach. These are good indication of the progress and possibility of upscaling local initiatives in SEPLS to broader area and stakeholders.

## Policy uptake and support

Nineteen out of 30 projects achieved policy uptake or policy support (see Figure 4a). These included the integration of project outputs into national and sub-national law, plans and strategies. Some projects were successful in securing government financing to continue their activities (Table 6).

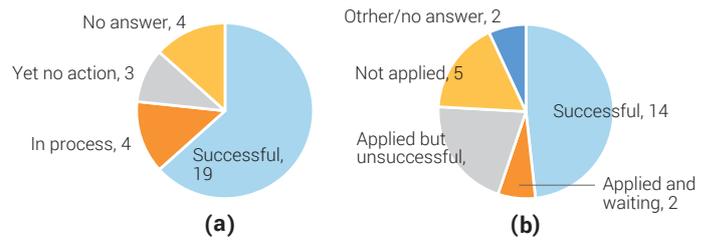
**Table 6. Examples of success in policy uptake of or support to the project activities**

Level	Gov. entities or relevant policies
National	The project prepared a draft State Strategy for Tourism Development for PAs of Federal Significance and submitted to the Ministry of Natural Resources (Russia)
	The Forest Law incorporated an article on planting native trees (Vietnam)
	The National Forest Service used the experiences from the project for the 2020 Initiative for the Reforestation of Degraded Forest Landscapes (Peru)
	The Forestry Bureau adopted the National Strategic Framework for Promoting Satoyama Initiative (Chinese Taipei)
	The Soil and Water Conservation Bureau used the project results to develop the Rural Regeneration Policy (Chinese Taipei)
	National Agricultural Research Organisation provided grant to continue the project activities (Uganda)
	A regional environmental authority included the project initiative into its four-year action plan (Colombia)
	A County Environmental Policy incorporated a component on marine resource protection and use proposed by the project (Kenya)
	Cihalaay Cultural Landscape Management Principle and Plan was developed (Chinese Taipei)
	A village development committee allocated 15% of agriculture, forestry and environment fund for implementation of LBSAP in 2015. (Nepal)
Subnational	

## Financing

The majority of SDM projects have been successful in mobilising additional investments beyond their initial lifespan. The SDM invested approximately US\$ 294k in 30 projects since 2013. Collectively, these mobilised approximately US\$ 352k in matching funds from the grantees or other sources including in-kind contributions. Of the 20 projects that have already completed their SDM deliverables, 14 were attracted additional funding from other sources (Figure 4b). In total they raised approximately US\$

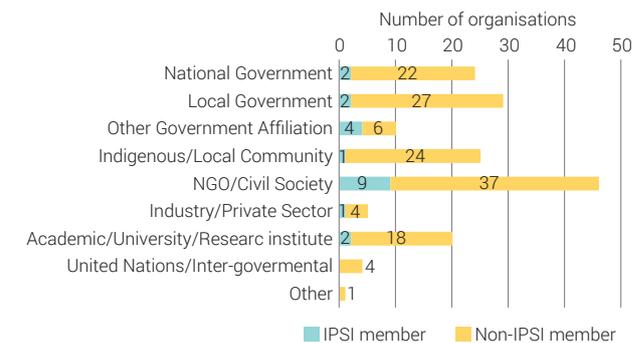
696k, primarily from governments and international donors. In sum, SDM gained 457% return on investment.



**Figure 4. SDM projects' success in policy uptake/support (a) and additional fundraising (b)**

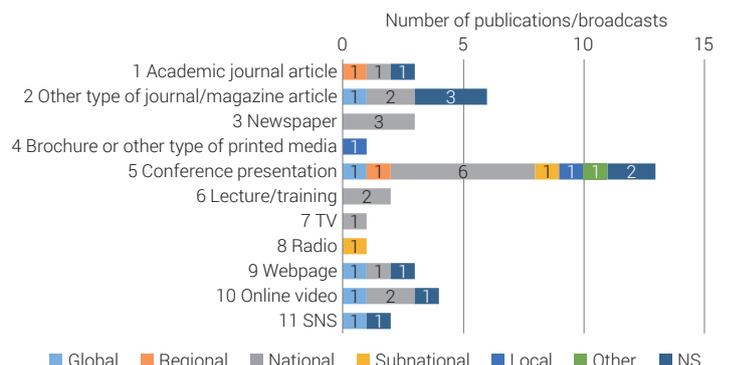
## Partnership and outreach

SDM projects have strengthened collaboration with and between IPSI members and other stakeholders, across sectors. In sum 164 organisations, aside from SDM grantees, were involved, including 21 IPSI members (see Figure 5). NGO and civil society organisations' involvement was highest, followed by local government, national government, indigenous or local community organisations, and academic or research institutes.



**Figure 5. Organisations engaged in SDM projects by organisation types**

The majority of SDM projects also made efforts to disseminate their results through various media. In sum 39 publications, presentations or media, broadcasting targeting mainly domestic or local audiences, were made by 16 organisations (Figure 6). Among these, the number of conference presentations was by far the highest, followed by non-academic journal or magazine articles, online video, academic journal article, newspapers and web pages.



**Figure 6. Number of publications and broadcasts by media types**



## References

- Acosta, L. A., A. Virk, R. Kumar, S. Sharma, T. Ikeda, G. R. Joshi, M. S. Karim, K. Kuriyama, M. Makino, K. Okabe, N. Pascal, Z. Phang, N. M. Tamin, and Y. Takahashi. 2018. "Chapter 6. Options for Governance and Decision-Making across Scales and Sectors." in *The IPBES regional assessment report on biodiversity and ecosystem services for Asia and the Pacific*, edited by M. Karki, S. Senaratna Sellamuttu, S. Okayasu, and W. Suzuki. Bonn, Germany: Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.
- CBD. 2016. "Decision adopted by the Conference of the Parties to the Convention on Biological Diversity XIII/28. Indicators for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets."
- IPSI. 2013. "IPSI Plan of Action: 2013-2020."
- MOEJ and UNU-IAS. 2010. "Paris Declaration on the Satoyama Initiative."
- UNSD. 2018. "A/RES/71/313 E/CN.3/2018/2 1/21 Global Indicator Framework for the Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development."

