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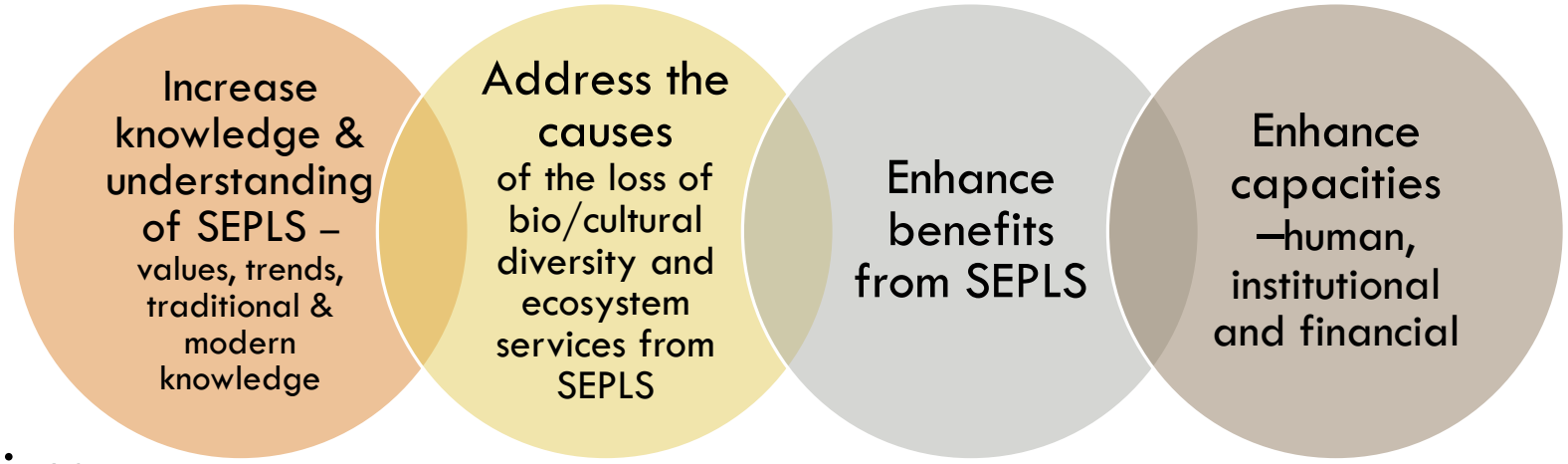
SDM

Satoyama Development Mechanism

KEY MESSAGES



The four IPSI Strategic Objectives embodied in the SDM projects

They demonstrated the role of SEPLS to synergistically achieve multiple Aichi Biodiversity Targets and Sustainable Development Goals

- Highlighted targets/goals:

Aichi Biodiversity Targets

SUSTAINABLE DEVELOPMENT GOALS

Modest seed funding can stimulate innovation and incubate best practices that trigger larger-scale uptake towards the global sustainability goals

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1. The SDM in a nutshell
2. The SDM progress evaluation overview
3. Best practices and innovations
4. Contributions to Aichi Biodiversity Targets and SDGs
5. Upscaling

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THE SDM OBJECTIVES AND SCOPE

Facilitates activities in line with the IPSI Strategy and Plan of Action by providing **seed funding (USD 10,000**) to the selected projects (6 projects/year) proposed by IPSI members

Objectives

- Promote the **implementation of activities under the IPSI Strategy and Plan of Action**
- Promote the **development of model practices for living in harmony with nature**
- Provide an incentive for IPSI members to **strengthen partnerships**

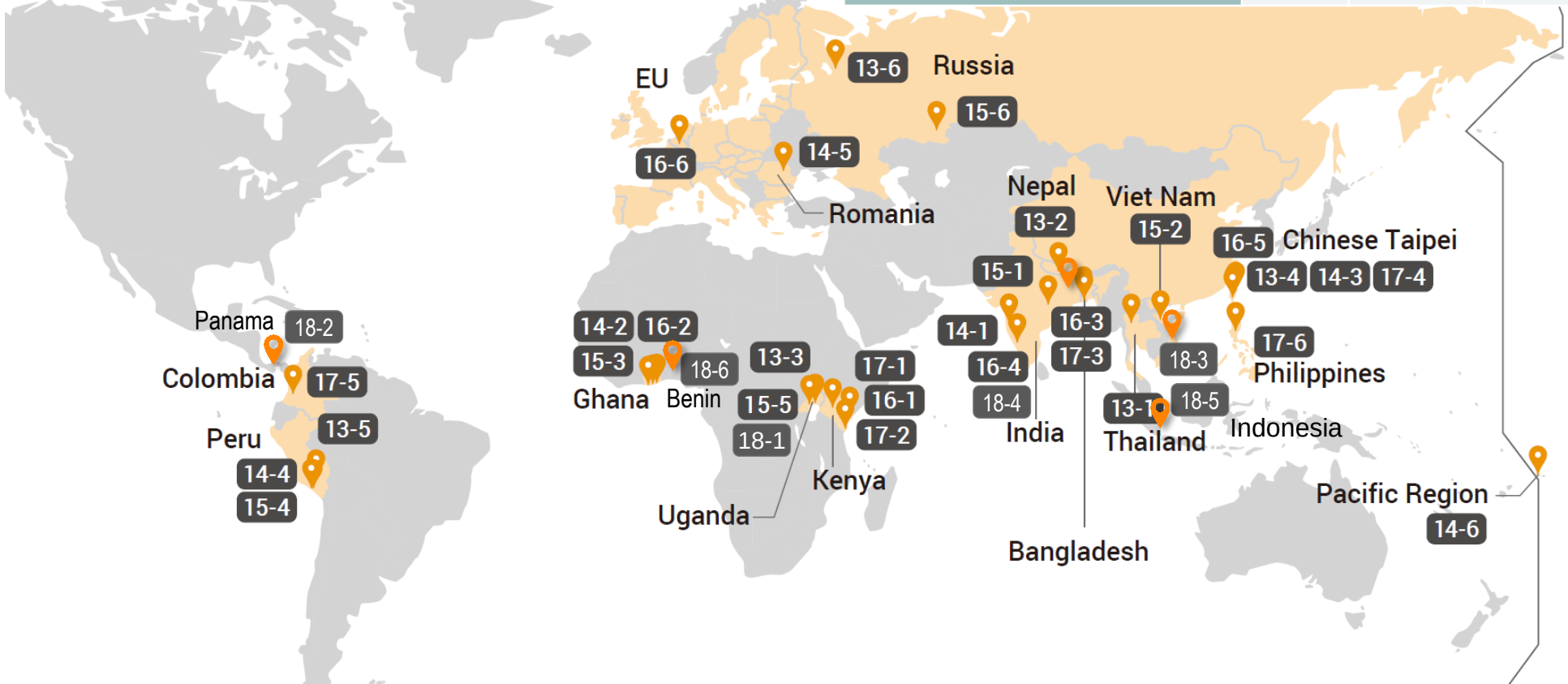
Scope

- Community/field-based project implementation
- Research
- Partnership building e.g. through meetings, workshops and conferences
- Capacity building

OVERVIEW OF APPLICATIONS & PROJECTS

Received 101 applications;
Selected 36 projects in 2013-2018

Project type	Region				Total
	Africa	Americas	Asia-Pacific	Europe	
1. Community/field-based implementation	7	1	10	0	18
2. Research	1	1	4	0	6
3. Partnership building	1	2	1	2	6
4. Capacity building	1	1	2	2	6
Total	10	5	17	4	36



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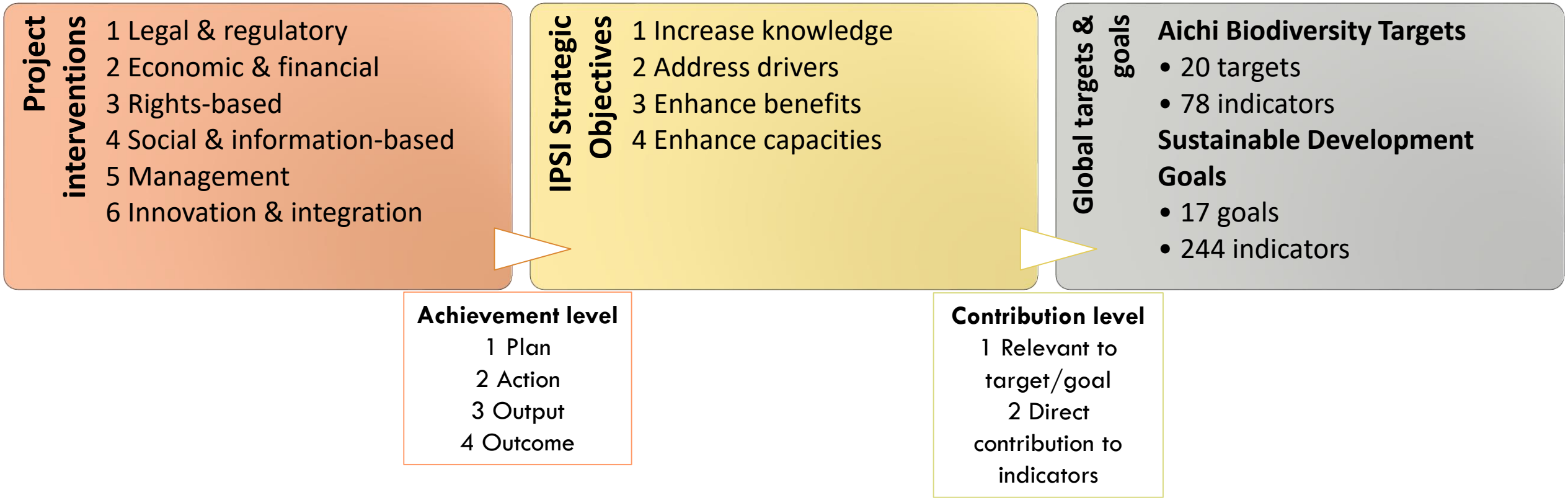
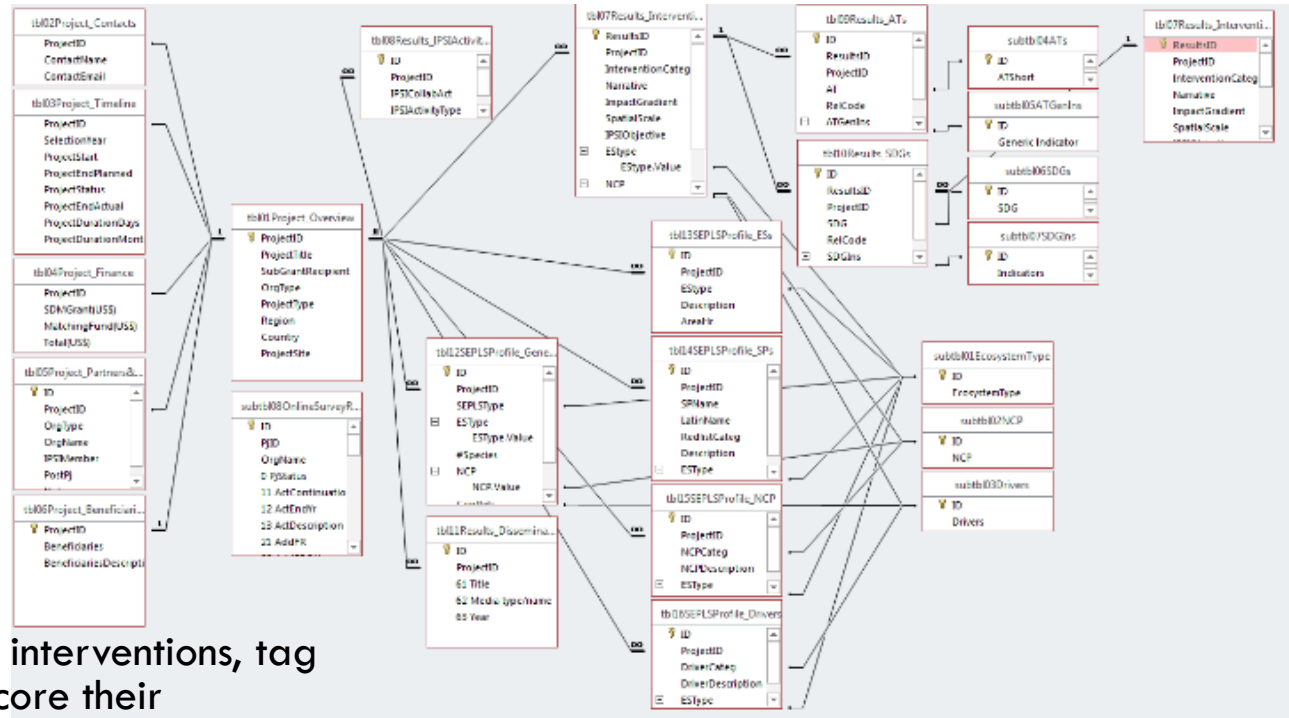
SCOPE


Project interventions
1 Legal & regulatory
2 Economic & financial
3 Rights-based
4 Social & information-based
5 Management
6 Innovation & integration
IPSI Strategic Objectives
1 Increase knowledge
2 Address drivers
3 Enhance benefits
4 Enhance capacities
Global targets & goals
Aichi Biodiversity Targets
• 20 targets
• 78 indicators
Sustainable Development Goals
• 17 goals
• 244 indicators
Achievement level
1 Plan
2 Action
3 Output
4 Outcome
Contribution level
1 Relevant to target/goal
2 Direct contribution to indicators

METHODS

Data sources:

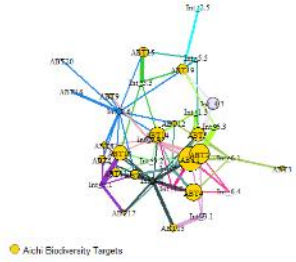
- Project implementation plan
- Project final evaluation report
- Online survey (28/30)



Analysis:

- Disaggregate each project into multiple interventions, tag them with intervention categories, and score their achievement level in line with the IPSI Strategic Objectives
- Score the level of the contributions of each intervention to specific ABTs & SDGs, and calculate impact level scores (ILS):
  ILS = {Achievement level (1~4)
  * Contribution level (1~2) * {1+m/n}}^1/3,
  where 'n' is the number of all indicators associated with each ABT/SDG, and 'm' is the number of the ABT/SDG indicators to which the intervention directly contributes
- Data storage and manipulation using Microsoft Access relational database, and network diagram development employing *igraph* package in the statistical software R

```
> nodes<-read.csv("nodes.csv")
> links<-read.csv("edges.csv")
> net<-graph_from_data_frame(d=links,vertices=nodes,directed=T)
> colrs<-(c("gold","tomato","deeppink","lawngreen","cyan","dodgerblue2"
en","darkslategray","lavender","darkorchid","cadetblue","limegreen","pi
een","darkolivegreen3","darkorange2","greenyellow","violetred1"))
> colo<-(c("gold","deeppink","lawngreen","cyan","dodgerblue2","plum","p
lategray","lavender","darkorchid","cadetblue","limegreen","pink2","ligh
olivegreen3","greenyellow","violetred1"))
> V(net)$color <- colrs[V(net)$media.type]
> E(net)$width <- E(net)$weight/6
> E(net)$arrow.size <- .2
> E(net)$width <- E(net)$weight
> E(net)$width <- E(net)$weight
> l<-layout_with_kk(net)
> edge.start <- ends(net, es=E(net), names=F)[,
> edge.col <- V(net)$color[edge.start]
> V(net)$size<-V(net)$audience*0.5
> plot(net,vertex.label.color = "black", vertex
-pi/2,edge.arrow.size = 0.3, edge.arrow.width =
> legend(x=-1.5, y=-1.1, c("Aichi Biodiversity
olrs, pt.cex=2, cex=.8, bty="n", ncol=1)
>
```



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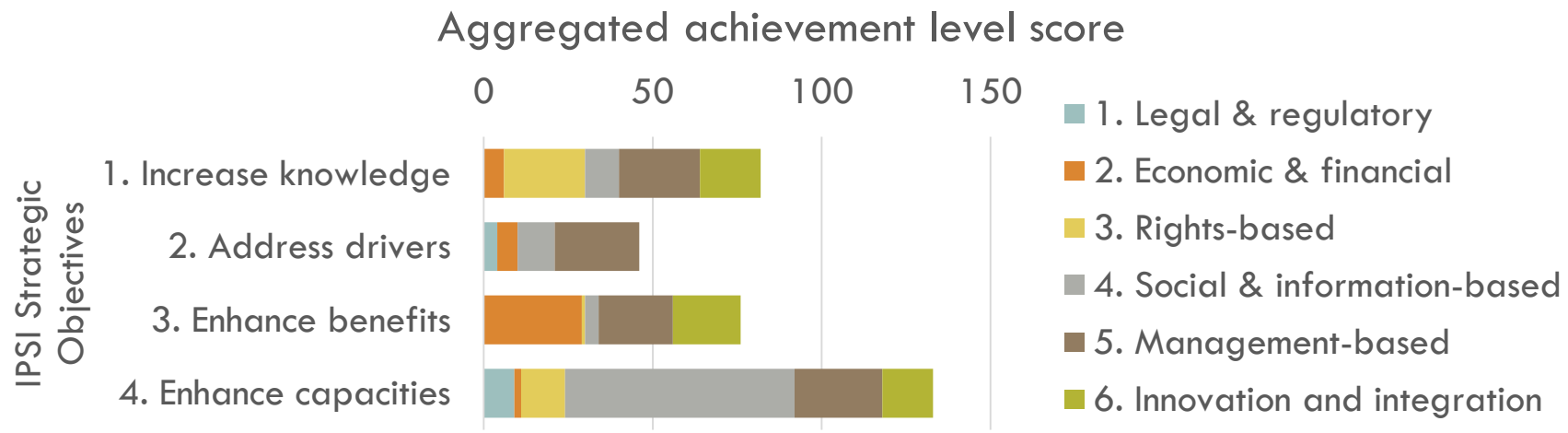


SOCIAL & INFORMATION-BASED INTERVENTION

E.g. Pj15-6 "*Cultural landscapes as vectors for local sustainable development*" (Environmental Education Centre Zapovedniks, Russia)

Strengthened the capacity of protected area managers and local communities to **manage cultural landscapes** in protected areas and **developed eco-cultural tourism** involving local communities

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]; 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[3]; 12 Responsible consumption & production –In12.b.1

RIGHTS-BASED INTERVENTION

E.g. Pj 13-1 "*Supporting and promoting the Karen indigenous socio-ecological production system in northern Thailand*" (IKAP, Thailand)

Mapped traditional rotational farming practices using GIS, **documented** knowledge on **local crop varieties and cultivation techniques**, and facilitated **knowledge exchange between elders and youths**

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[4]; 2 Zero hunger -In 2.3.2, 2.4.1, 2.5.1; 4 Quality education; 5 Gender equality

MANAGEMENT-BASED INTERVENTION

E.g. Pj15-4 "*Towards a strategy for mitigating climate change impacts in the coastal region of Peru, in the context of the El Nino event*" (APAIC, Peru)

Tested and documented *Tara* tree agroforestry for enhancing land resilience in a Peruvian degraded landscape, and **developed a roadmap** for the **restoration of 100,000 Ha degraded lands**. 40 small farmers started Tara plantation.

IPSI Strategic Objectives achieved:
1 Increase knowledge; **3** Enhance benefits; **4** Enhance capacities
Contributing to Aichi Biodiversity Targets:
1 Awareness of biodiversity increased –In1.1, 1.2; **2** Biodiversity values integrated –In2.1, 2.2, 2.3; **3** Incentives reformed –In3.2; **4** Sustainable production and consumption –In4.2, 4.3; **5** Habitat loss halved or reduced –In5.1, 5.4; **7** Sustainable agriculture, aquaculture and forestry –In7.1, 7.4; **14** Ecosystems and essential services safeguarded –In14.1, 14.2, 14.3, 14.4, 14.5; **15** Ecosystems restored and resilience enhanced –In15.1, 15.2; **19** Knowledge improved, shared and applied –In19.1
Contributing to SDGs:
13 Climate action –In13.2.1, 13.3.2; **15** Life on land –In 15.1.1, 15.2.1, 15.3.1

INNOVATION & INTEGRATION

E.g. Pj13-4 "*Converting pests as allies in tea farming - a potential case of Satoyama landscape in Hualien, Taiwan*" (SWAN International, Chinese Taipei)

Tea leaves damaged by green leafhopper, previously considered as pests, produced a specialty tea with unique honey flavour. The project demonstrated that **a chemical-free honey-flavoured black tea production enhance biodiversity, and increase 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

ECONOMIC & FINANCIAL INTERVENTION

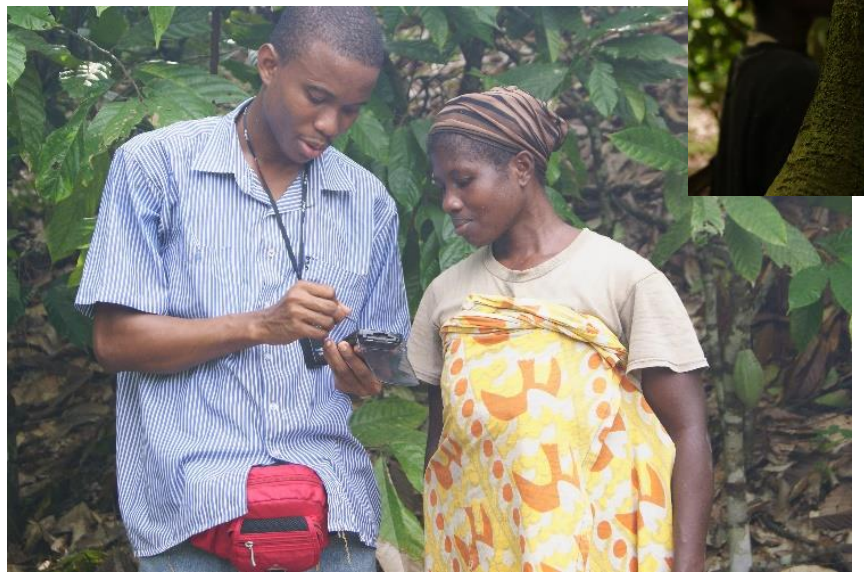
E.g. Pj 15-3 "*Enhancing cocoa agroforestry in Ghana through an integrated GIS-based monitoring system*" (Conservation Alliance International, Ghana)

Trained 40 lead farmers on **best agricultural practices**, e.g. IPM and record keeping, **who trained 246 farmers**, resulted **in increased yield and biodiversity awareness**: >80% ready for receiving Rainforest Alliance **Certification** audit.

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,



LEGISLATION & REGULATION

E.g. Pj16-2 "*Mangrove restoration to improve socioecological production landscapes and seascapes for fisheries recovery at the Muni Pomadze Ramsar Site*" (A Rocha Ghana, Ghana)

Demarcated community fisheries recovery zone, leading to **future marine protected area** designation. Also **rehabilitated** 5 ha **degraded mangrove** area.

IPSI Strategic Objectives achieved:

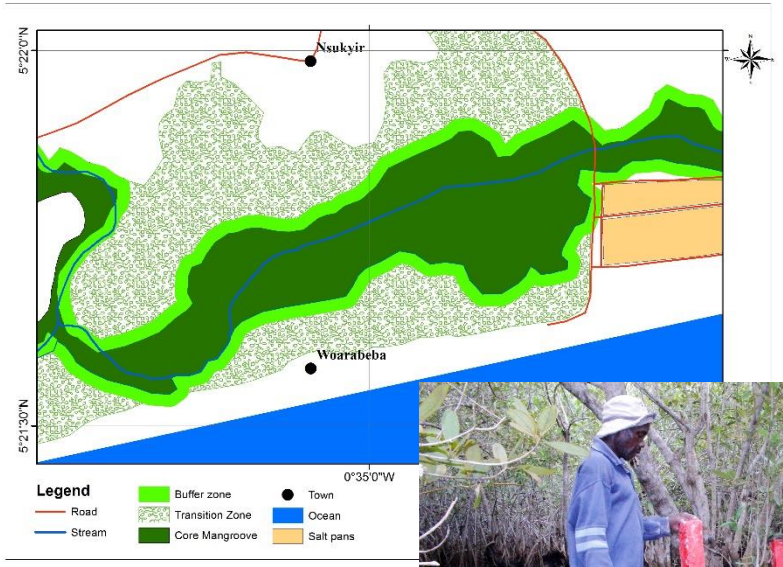
1 Increase knowledge; 2 Address drivers; 3 Enhance benefits; 4 Enhance capacities

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



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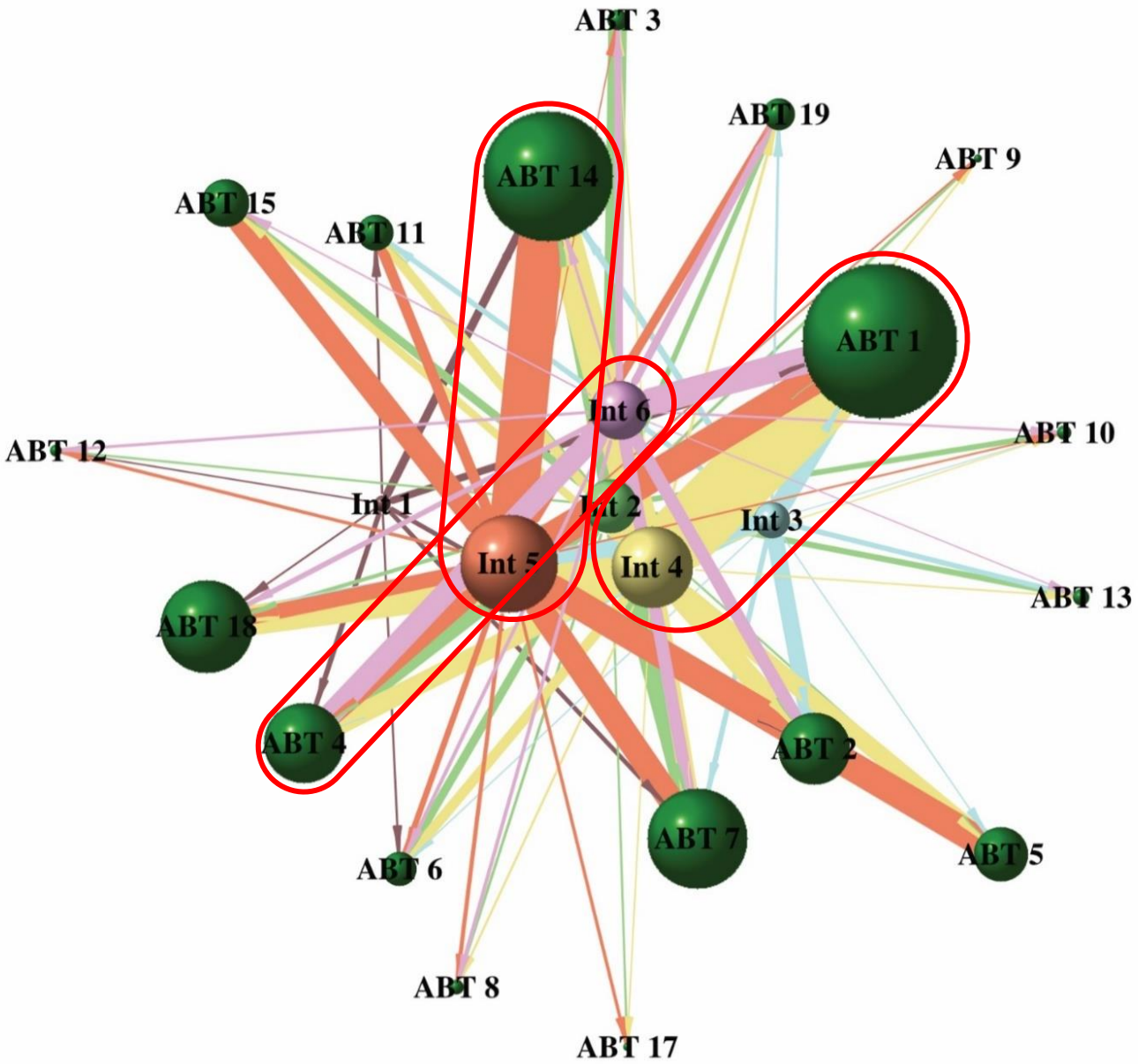
AICHI BIODIVERSITY TARGETS

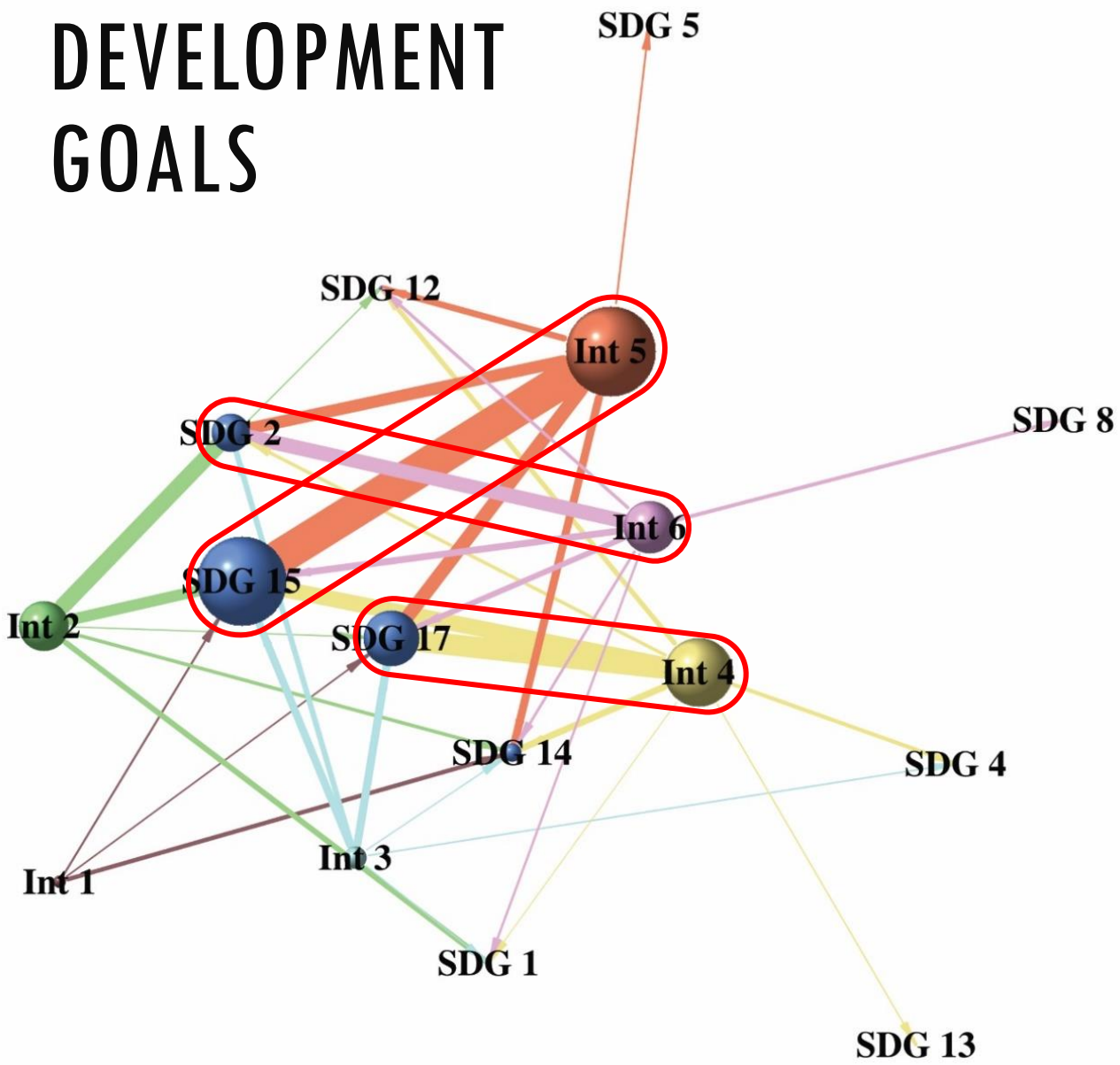


- Int1: Legislation & regulation
- Int2: Economic & financial
- Int3: Rights-based
- 2 → Int4: Social & cultural
- 1 → Int5: Management
- 3 → Int6: Innovation & integration

Aichi Biodiversity Targets (ABT)

- 1 → 1 Awareness of biodiversity increased
- 5 → 2 Biodiversity values integrated
- 3 Incentives reformed
- 3 → 4 Sustainable production and consumption
- 5 Habitat loss halved or reduced
- 6 Sustainable management of marine living resources
- 4 → 7 Sustainable agriculture, aquaculture and forestry
- 8 Pollution reduced
- 9 IAS prevented and controlled
- 10 Pressures on vulnerable ecosystems reduced
- 11 Protected areas increased and improved
- 12 Extinction prevented
- 13 Genetic diversity maintained
- 2 → 14 Ecosystems and essential services safeguarded
- 15 Ecosystems restored and resilience enhanced
- 16 Nagoya Protocol in force and operational
- 17 NBSAPs adopted as policy instruments
- 6 → 18 Traditional knowledge respected
- 19 Knowledge improved, shared and applied
- 20 Financial resources from all sources increased

SUSTAINABLE DEVELOPMENT GOALS



- Int1: Legislation & regulation
- Int2: Economic & financial
- Int3: Rights-based
- 2 → Int4: Social & cultural
- 1 → Int5: Management
- 3 → Int6: Innovation & integration

Sustainable Development Goal (SDG)

- 6 → 1 No poverty
- 2 → 2 Zero hunger
- 3 Good health and well-being
- 4 Quality education
- 5 Gender equality
- 6 Clean water and sanitation
- 7 Affordable and clean energy
- 8 Decent work and economic growth
- 9 Industry, innovation and infrastructure
- 10 Reduced inequalities
- 11 Sustainable cities and communities
- 5 → 12 Responsible consumption and production
- 13 Climate action
- 4 → 14 Life below water
- 1 → 15 Life on land
- 16 Peace, justice and strong institutions
- 3 → 17 Partnership for the goals

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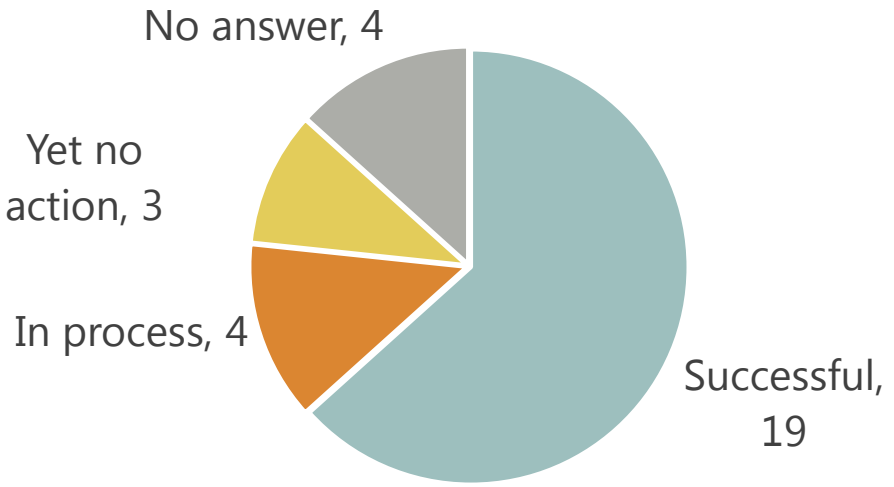
POLICY UPTAKE AND SUPPORT

19/30 grantees successful in policy uptake/support
at national and sub-national levels



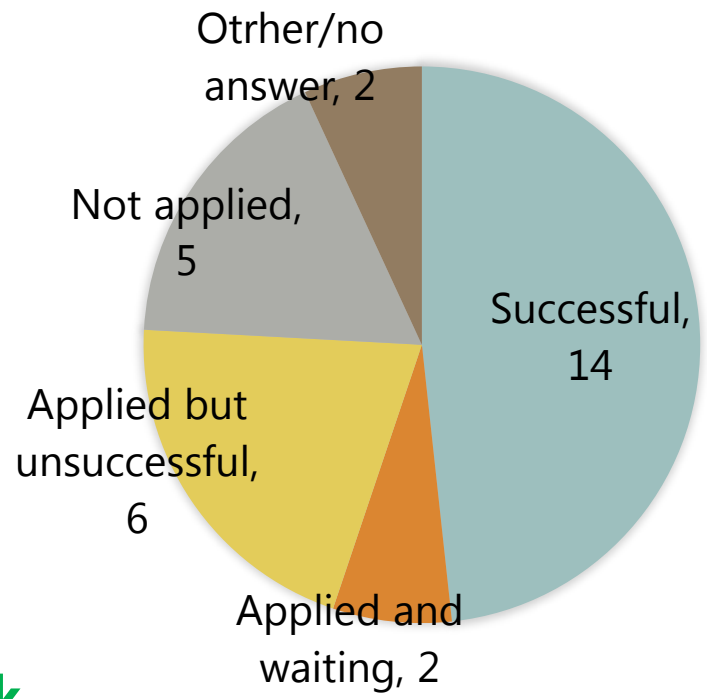
Level	Policy (gov. entity) that has reflected/supported the project results/initiatives
National	The revised Forest Law –an article on planting native trees (Vietnam) State Strategy for Tourism Development for the Protected Areas of Federal Significance (The Ministry of Natural Resources, Russian Federation) The 2020 Initiative for the Reforestation of Degraded Forest Landscapes (The National Forest Service, Peru) Grant provision (National Agricultural Research Organisation, Uganda)
Sub-national	The National Strategic Framework for Promoting Satoyama Initiative (The Forestry Bureau, Chinese Taipei) Rural Regeneration Policy (Soil and Water Conservation Bureau, Chinese Taipei) A four-year environmental action plan (San Antonio Forest, Colombia) A county environmental policy –a component on marine resource protection and use (Marereni, Kenya) Cihalaay Cultural Landscape Management Principle and Plan was developed (Hualien, Chinese Taipei) Allocation of 15% of agriculture, forestry and environment fund for the implementation of LBSAP in 2015. (Sypru village development committee, Nepal)

FINANCING

SDM **invested US$ 294k** in 30 projects since 2013

>> Mobilised **US$ 352k matching funds**;
>> 14/20 (70%) grantees still continuing the activities after the SDM project end; and
>> **14/20 (70%)** grantees successful in attracting **additional investments** from other sources **totaling US$ 696k**

Overall **457% return on investment**

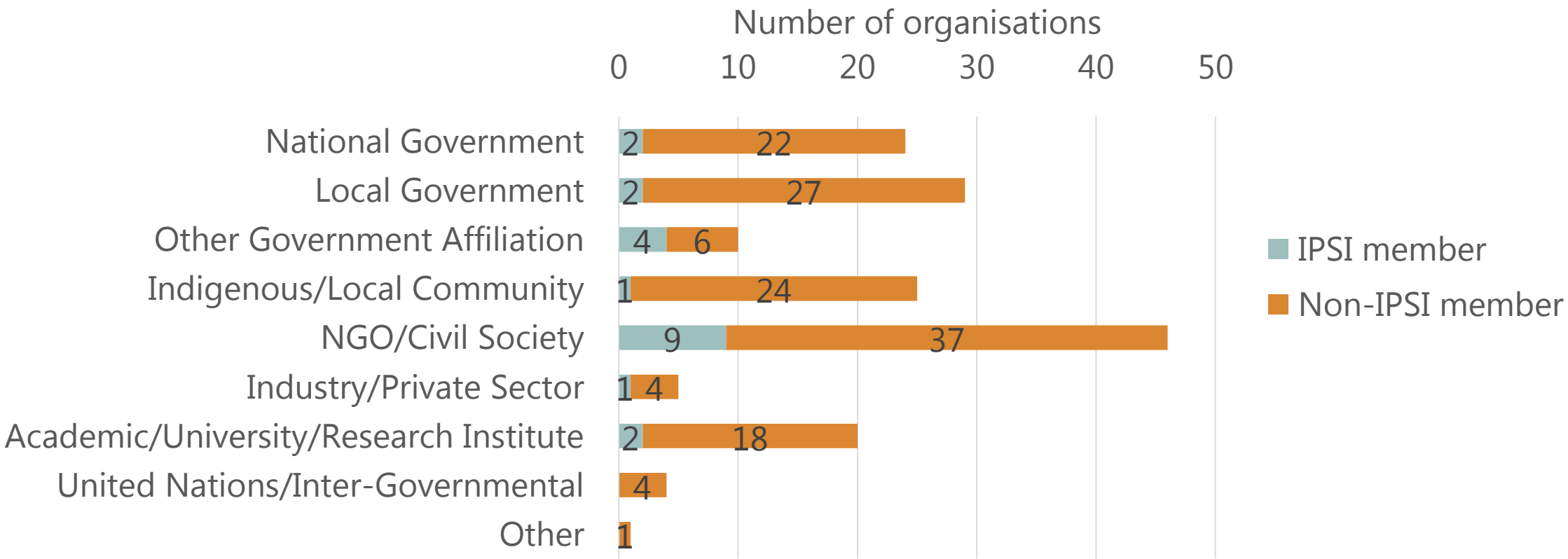


Type	Fund/donor name
International	GEF-Satoyama Project (GEF & CI) US Embassy Ghana Grant for 2015 World Environment Day (US Embassy in Ghana) Canada Fund for Local Initiatives (Canadian Embassy in Ghana)
Governments	National Agricultural Research Organisation of Uganda Taiwan Forestry Research Institute The Foundation of the Presidential Grants (Russian Federation) Mainstreaming Taiwan Partnership for Satoyama Initiative (Forestry Bureau, Chinese Taipei)

PARTNERSHIP

In sum **164 organisations** aside the grantees involved in 30 SDM projects, including **21 IPSI members**

On average **5.5 organisations**, under **3.3 sectors**, involved in each project

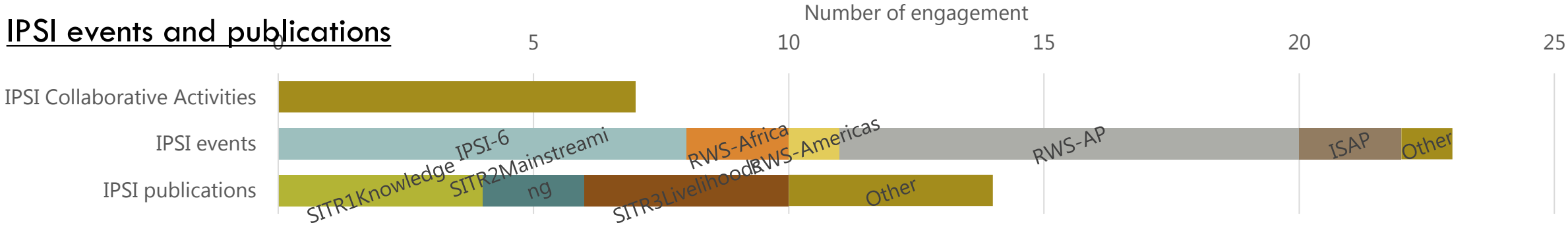


OUTREACH

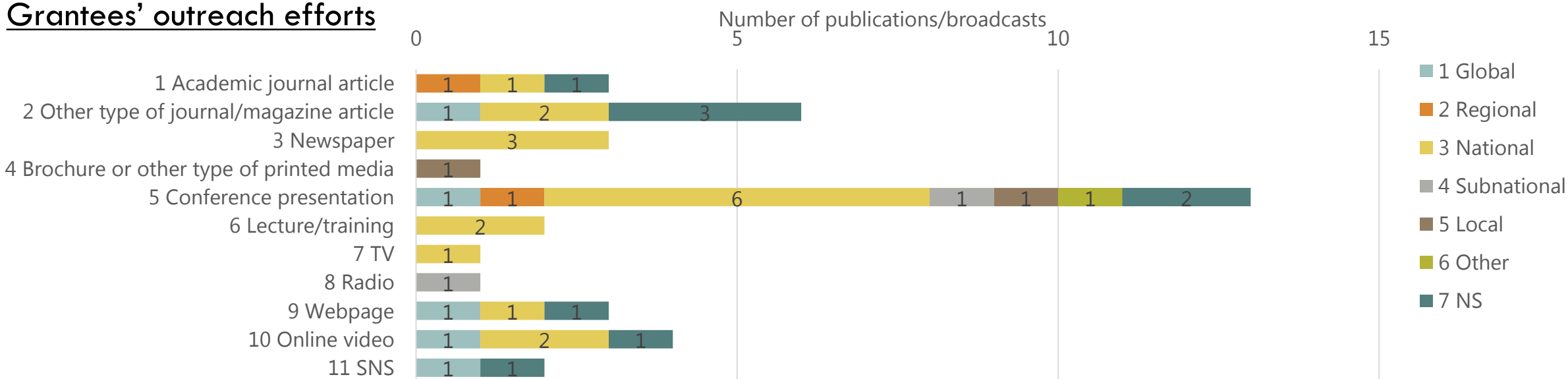
44 engagements in the IPSI-related events and publications by 22 grantees

39 publications, presentations or media broadcasts by 16 grantees

IPSI events and publications



Grantees' outreach efforts



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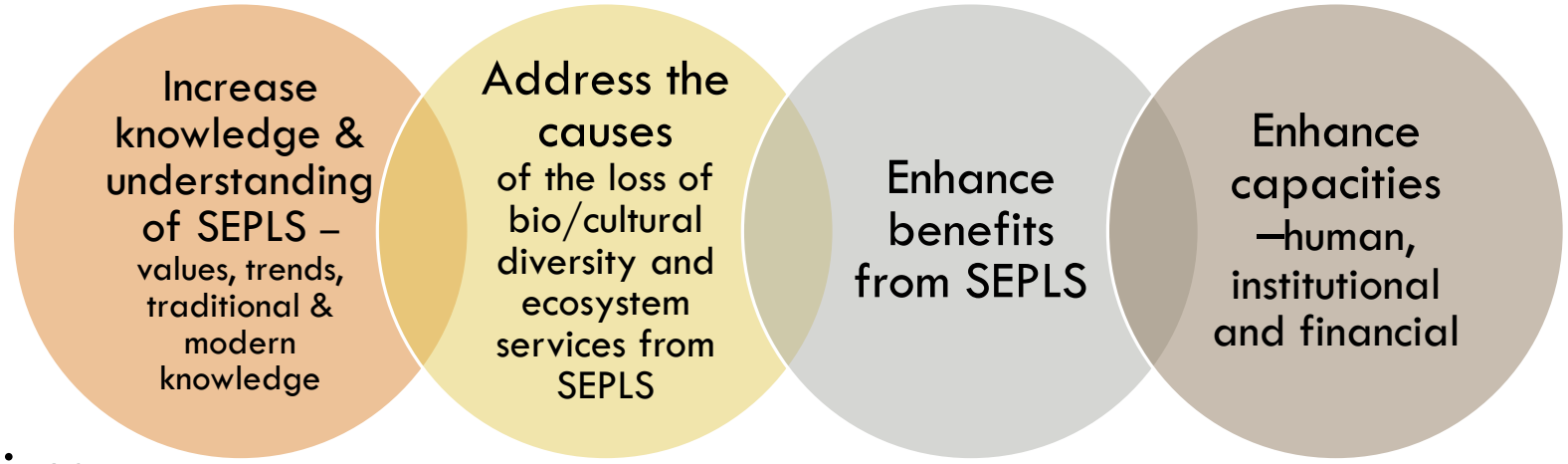

The four IPSI Strategic Objectives embodied in SDM Projects

They demonstrated the role of SEPLS to synergistically achieve multiple Aichi Biodiversity Targets and Sustainable Development Goals

- Highlighted targets/goals:

Aichi Biodiversity Targets

SUSTAINABLE DEVELOPMENT GOALS

Modest seed funding can stimulate innovation and incubate best practices that trigger larger-scale uptake towards the global sustainability goals

RECOMMENDATIONS

Better recognize **the role of SEPLS** in post-2020 global biodiversity framework **to enhance their synergies with the SDGs**

Identify **optimal intervention mixes to address interconnected biodiversity and socio-economic issues** in SEPLS reflecting local realities and towards global sustainability goals:

- knowledge generation and sharing; addressing the drivers of the loss of bio/cultural diversity and ecosystem services from SEPLS, enhancing benefits from SEPLS, and capacity building

Upscale local innovations and best practices towards the global goals **through policy integration, donor coordination, partnership building and strategic outreach**

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6. Additional food for thought ~synergies and trade-offs between ABTs and SDGs

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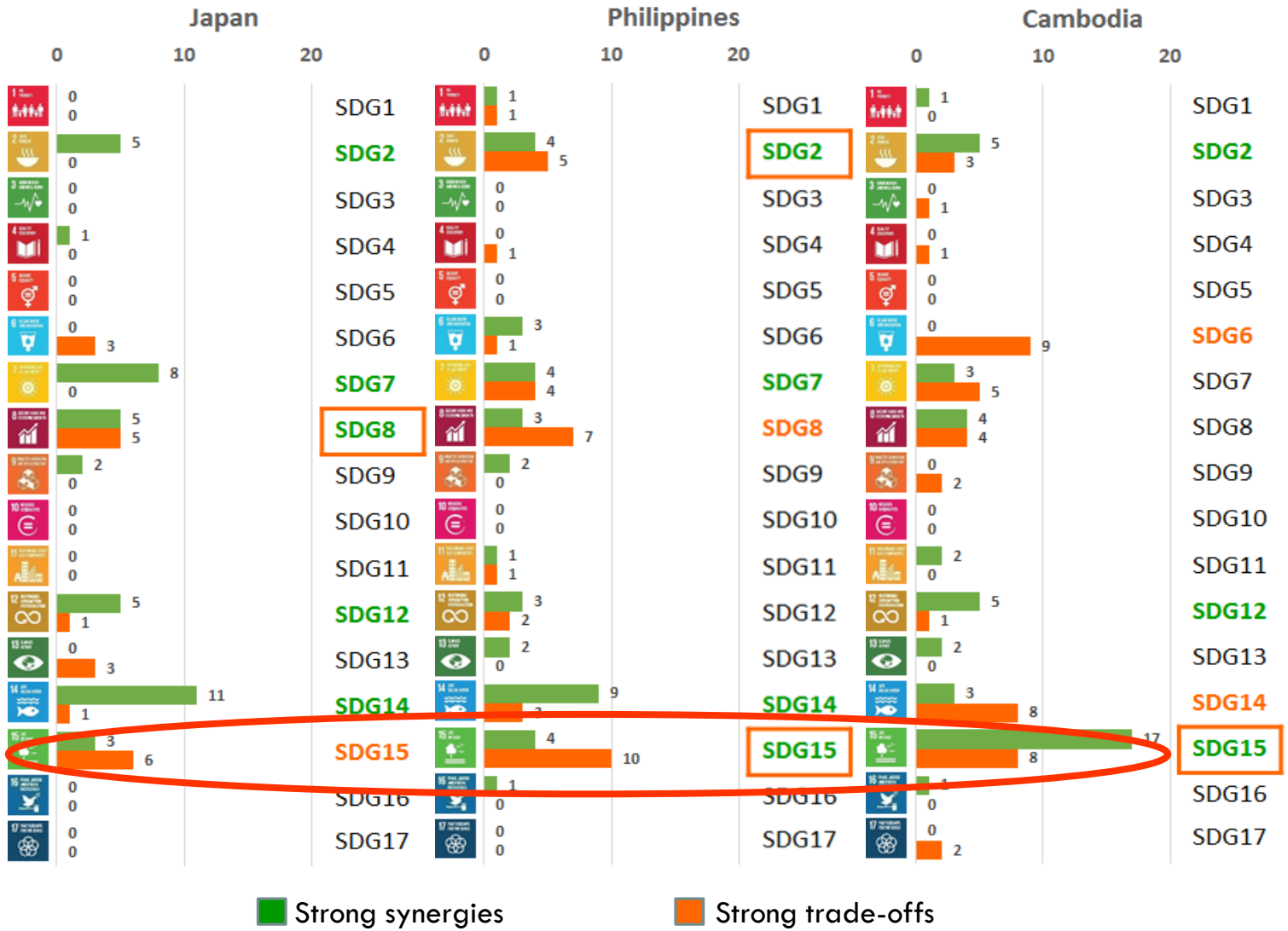
SYNERGIES & TRADE-OFFS ARE CONTEXT DEPENDENT

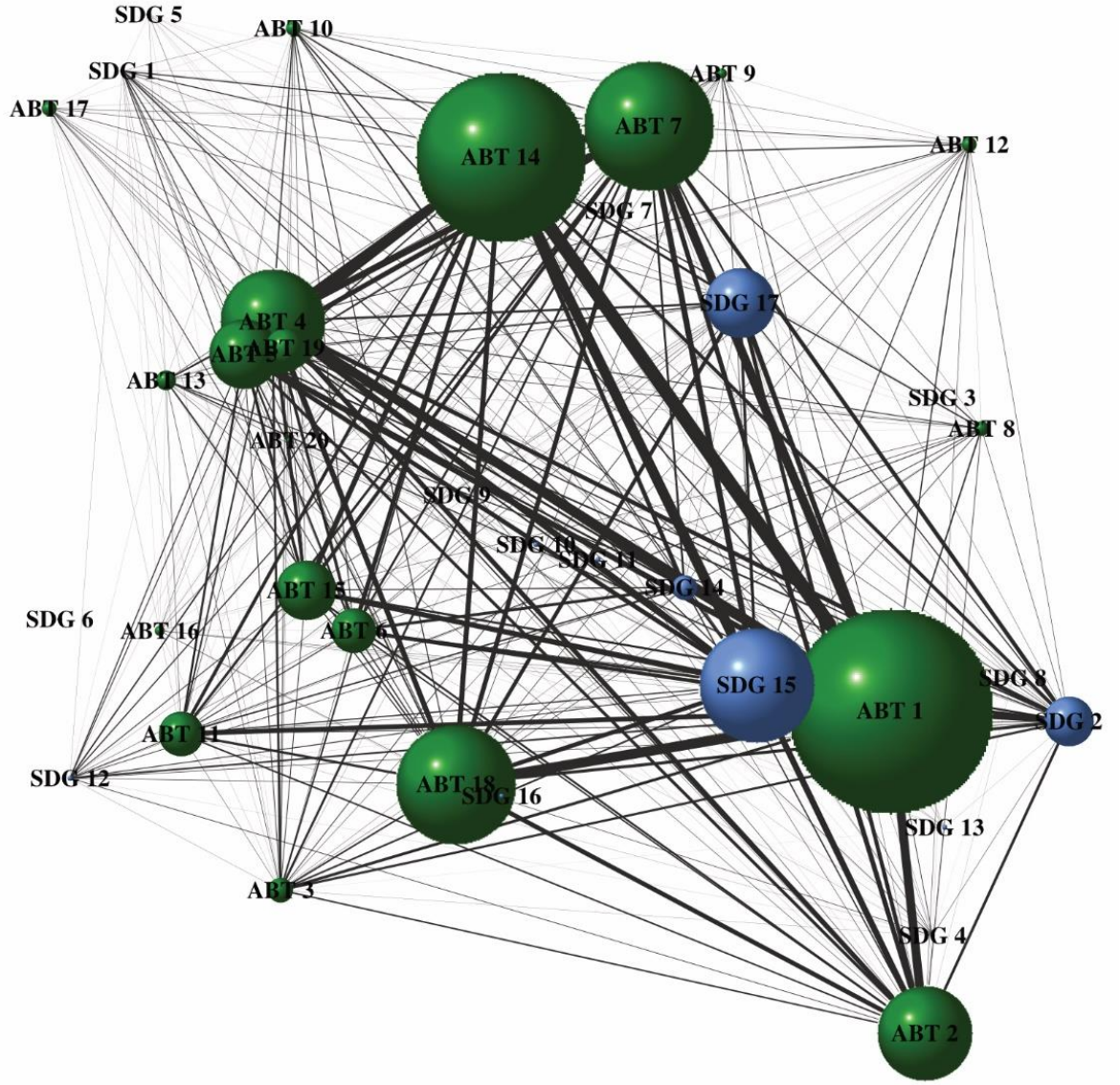


Source: Zhou, et al. Paper In submission.

Major **synergies and trade-offs between ABT14 and SDG15**:

- Japan
  Synergies: benefit sharing (15.6)
  Trade-off: forest and PA coverage (15.4); RLI (15.5)
- Philippines
  Synergies: RLI (15.5)
  Trade-off: Forest and PA coverage (15.1); sustainable forest management (15.2)
- Cambodia
  Synergies: almost all
  Trade-off: Conservation finance (15.a, b)
  .

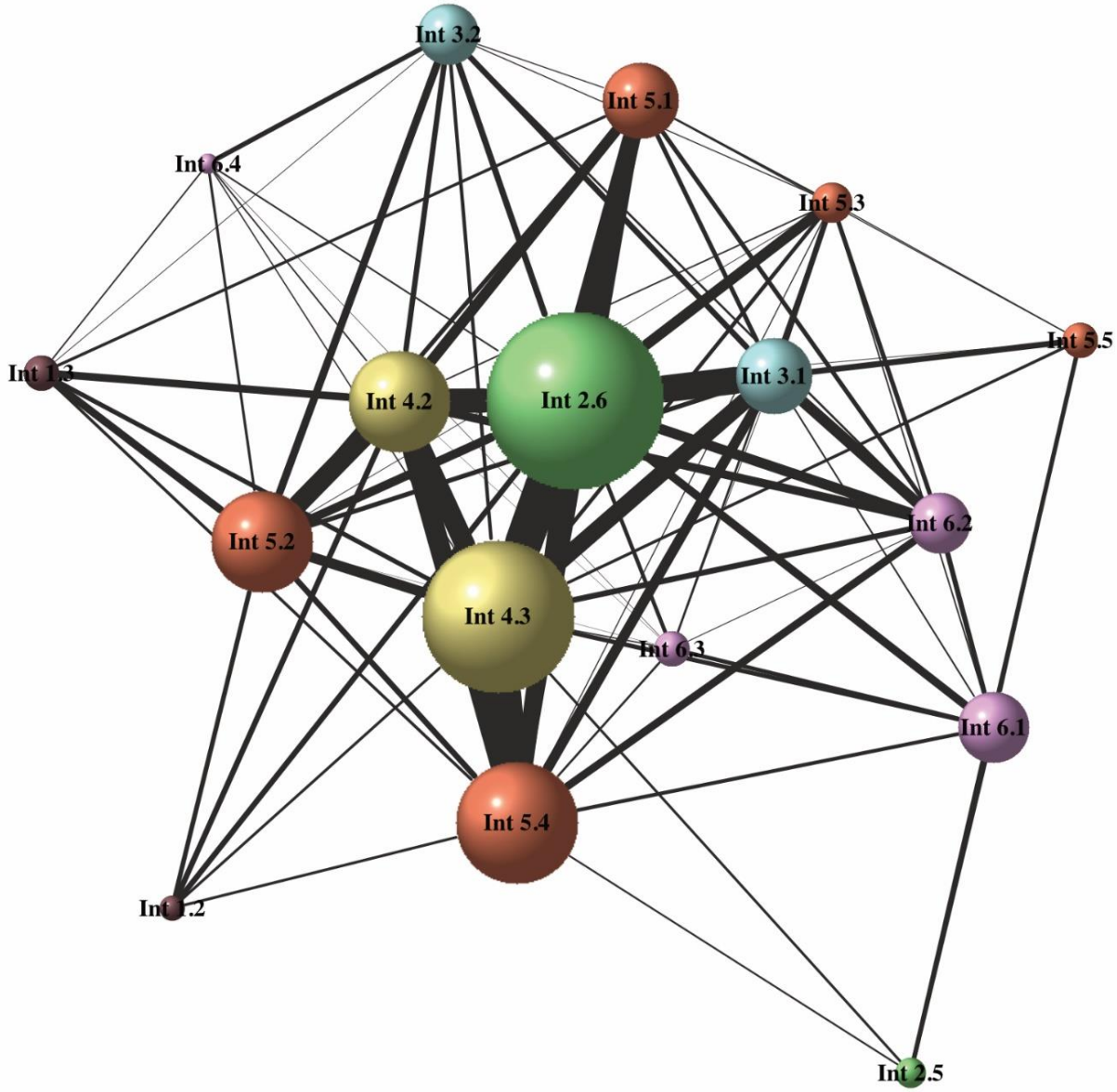
SYNERGIES WITHIN/BETWEEN ABTS & SDGS IN SEPLS



- Aichi Biodiversity Targets
  1. Values recognized
  2. Policy integration of values
  3. Harmful incentives phased out
  4. Sustainable production & consumption
  5. Natural habitats protected
  6. Aquatic life sustainably managed
  7. Sustainable agriculture, aquaculture & foresty
  8. Pollution reduced
  9. IAS controlled
  10. Protect coral reefs & vulnerable ecosystems
  11. Protected areas & other conservation measures
  12. Extinction prevented
  13. Genetic diversity conserved
  14. Ecosystem services safeguarded
  15. Ecosystem resilience & carbon stocks enhanced
  16. Nagoya Protocol in force
  17. NBSAPs
  18. Traditional knowledge
  19. Knowledge shared & improved
  20. Finance

- United Nations Sustainable Development Goals
  1. No poverty
  2. Zero hunger
  3. Good health and well-being
  4. Quality education
  5. Gender equality
  6. Clean water and sanitation
  7. Affordable and clean energy
  8. Decent work and economic growth
  9. Industry, innovation and infrastructure
  10. Reduced inequalities
  11. Sustainable cities and communities
  12. Responsible consumption and production
  13. Climate action
  14. Life below water
  15. Life on land
  16. Peace, justice and string institutions
  17. Partnerships for the goals

LANDSCAPE APPROACH?



- 1.2 Legal and regulatory standards
- 1.3 Protected areas
- 2.5 Ecological certification
- 2.6 Alternative sustainable livelihoods and income sources
- 3.1 Recognise and support indigenous and customary tenure, rights...
- 3.2 Recognise cultural properties and heritage...
- 4.2 Voluntary agreements, partnerships and participation
- 4.3 Promote social norms on sustainable lifestyles
- 5.1 Landscape/seascape management plan development...
- 5.2 Collobrative management
- 5.3 Biodiversity registers
- 5.4 Land restoration via nursery development and planting
- 5.5 Sustainable harvest
- 6.1 Innovative approaches to BES and socio-economic benefits
- 6.2 Ecological production
- 6.3 Generate, integrate, and exchange knowledge
- 6.4 Ecotourism

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Ministry of the Environment
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THANK YOU!