

IBN IPBES Capacity Building Workshop  
Chişinău, Moldova 16.-18.10.2018

## **IPBES Policy Support Tools & Instruments**

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University of Edinburgh & the Karlsruhe Institute of Technology

modified by Malte Timppte (ibn)



# **Policy Support**

## **Background and content of the IPBES Policy Support web portal**

Mark Rounsevell



[www.ipbes.net](http://www.ipbes.net)



Food and Agriculture  
Organization of the  
United Nations



Registered logo  
Member States





1.

# Introduction







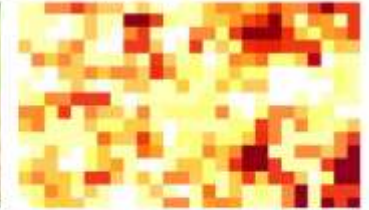
# Introduction

- IPBES has a mandate to support policy formulation and implementation.
- The IPBES Policy Support portal provides access to scientific information that is relevant for policy.
- It contains resources, training and an online community to support biodiversity and ecosystem-related decision-making.

Policy instruments



Policy support tools



Assessments



Training



Case studies



Community of practice







2.

## IPBES policy support function







## IPBES mandate on policy support

- One of IPBES four main functions:
  - to **support policy formulation and implementation** by identifying policy-relevant tools and methodologies and to enable decision makers to gain access to those tools and methodologies and, where necessary, to promote and catalyse their further development.



## Implementation of this function

- In 1<sup>st</sup> work programme:
  - **Methodological assessments and their follow-up**
    - **Scenarios and models (published 2016)**
    - **Diverse conceptualisation of values (in progress)**
  - **Policy support web portal (= catalogue of policy support tools and methodological guidance)**



## IPBES mandate on policy support

### ▪ Mandate from IPBES 4:

- encouraged **stronger integration** of the work regarding policy support tools and methodologies **across all relevant deliverables** of the work programme;
- invited the submission of relevant policy support tools and methodologies by experts, Governments and stakeholders for inclusion in the catalogue of policy support tools and methodologies; and
- [...] developing criteria and an open and transparent process for the inclusion of policy support tools and methodologies provided by experts, Governments and stakeholders.

> Prototype was launched in October 2017 and reviewed until IPBES 6



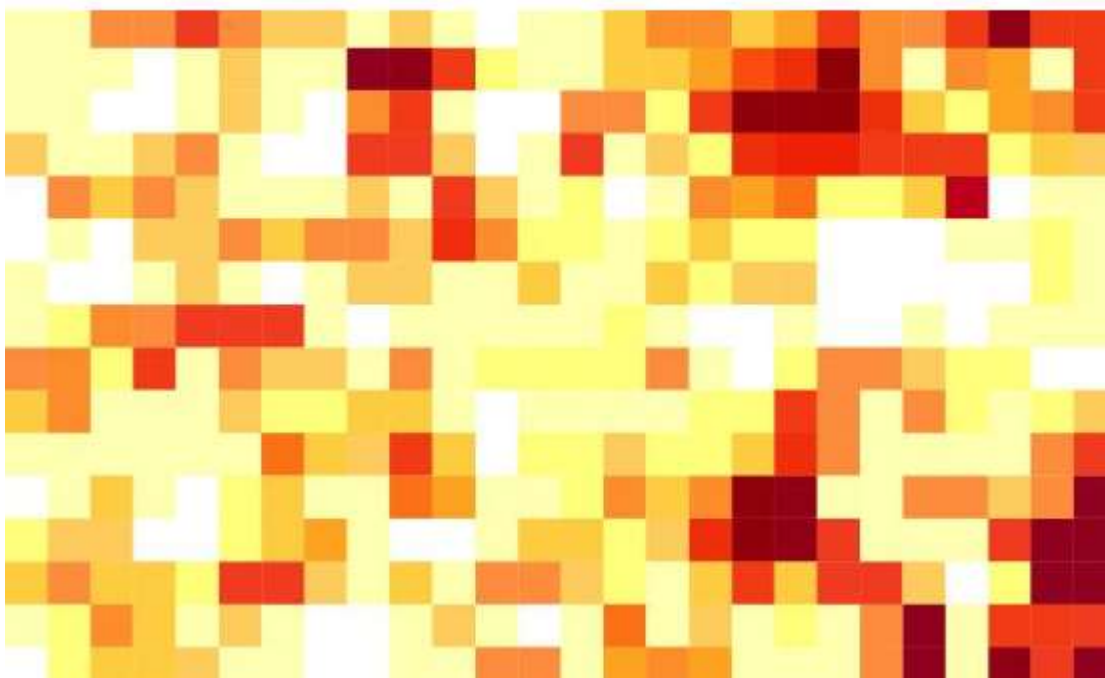


## IPBES mandate on policy support

### ▪ **Mandate from IPBES 6:**

- To **further develop the catalogue and the guidance** to Platform assessments by implementing activities to **further increase the uptake of those tools and methodologies by policymakers and practitioners**
- **to refine the structure and functionality of the catalogue, its visualization, access, and validation procedures**
- To **include relevant elements of the IPBES regional assessments and the assessment on land degradation**

## Policy support tools



**Policy support tools and methodologies refer to approaches based on science and other knowledge systems that can inform, assist and enhance development and implementation of policy instruments.**





## Tools and methodologies

Seven families of tools and methodologies, defined in terms of the broad challenges addressed and with examples of tools and methodologies for each, are used in the IPBES policy support catalogue:

- **Family 1. Assembling data and knowledge (including monitoring)**  
e.g. Human Development Index (HDI)
- **Family 2. Assessment and evaluation**  
e.g. Mapping and Assessment of Ecosystems and their Services (MAES) - Analytical framework, IPBES Assessments, Global Biodiversity Outlook...
- **Family 3. Public discussion, involvement and participatory process**  
e.g. Biocultural Community Protocols Toolkit
- **Family 4. Selection and design of policy instruments**
- **Family 5. Implementation, outreach and enforcement**
- **Family 6. Training and capacity building**
- **Family 7. Social learning, innovation and adaptive governance**

## Policy instruments

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**Policy instruments are means or techniques by which government/public authorities in local, national or international levels aim to achieve public policy objectives.**

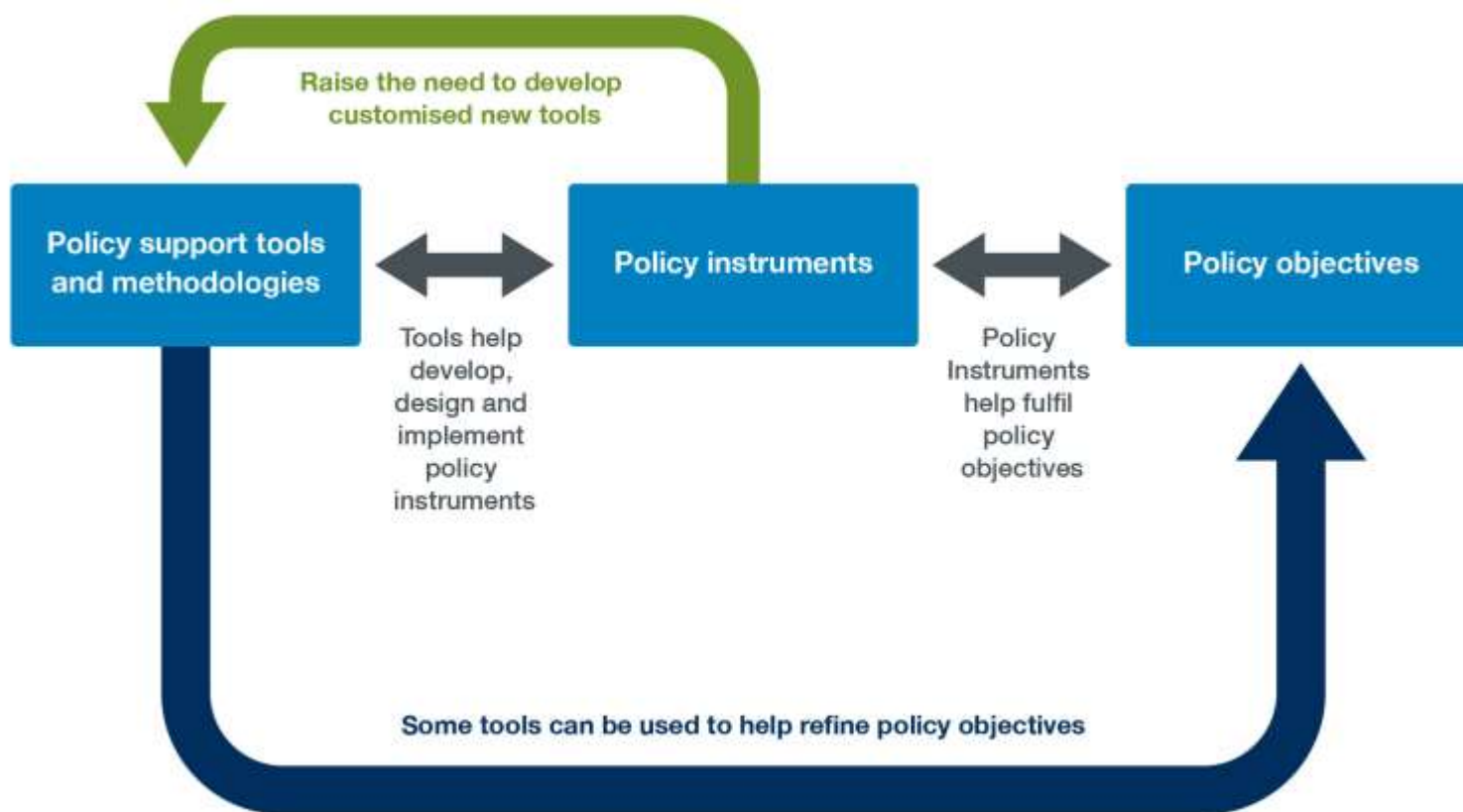




## Categories of Policy Instruments

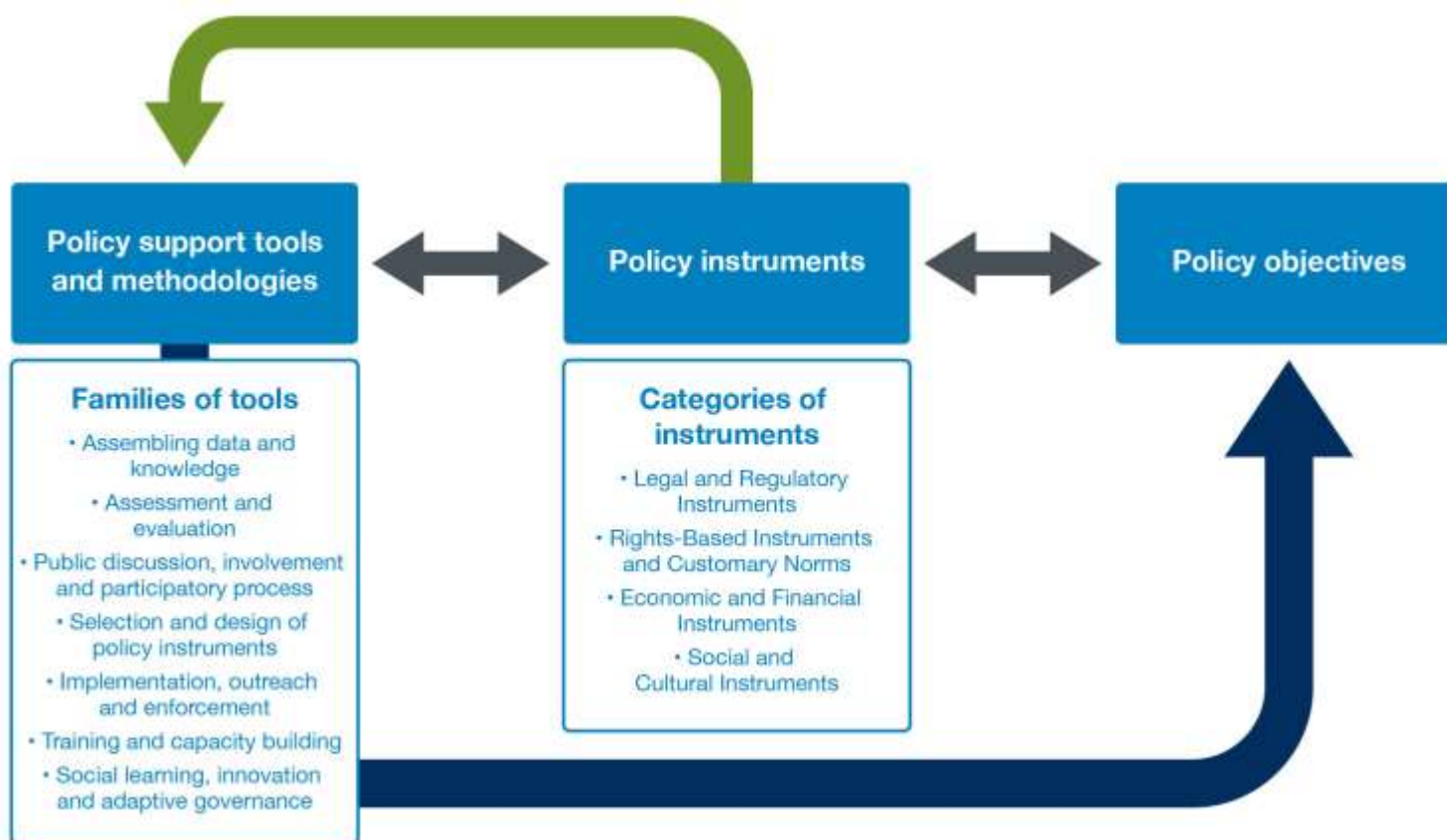
- Legal and regulatory instruments
  - e.g. laws and regulations developed by governments at different levels
- Rights-based instruments and customary norms
  - e.g. international and national human rights agreements
- Economic and financial instruments
  - e.g. tax, biodiversity offsets
- Social and cultural instruments.
  - e.g. certification standards and eco-labelling

# How do policy support tools and policy instruments relate to each other?





# Categories of instruments and families of tools







3.

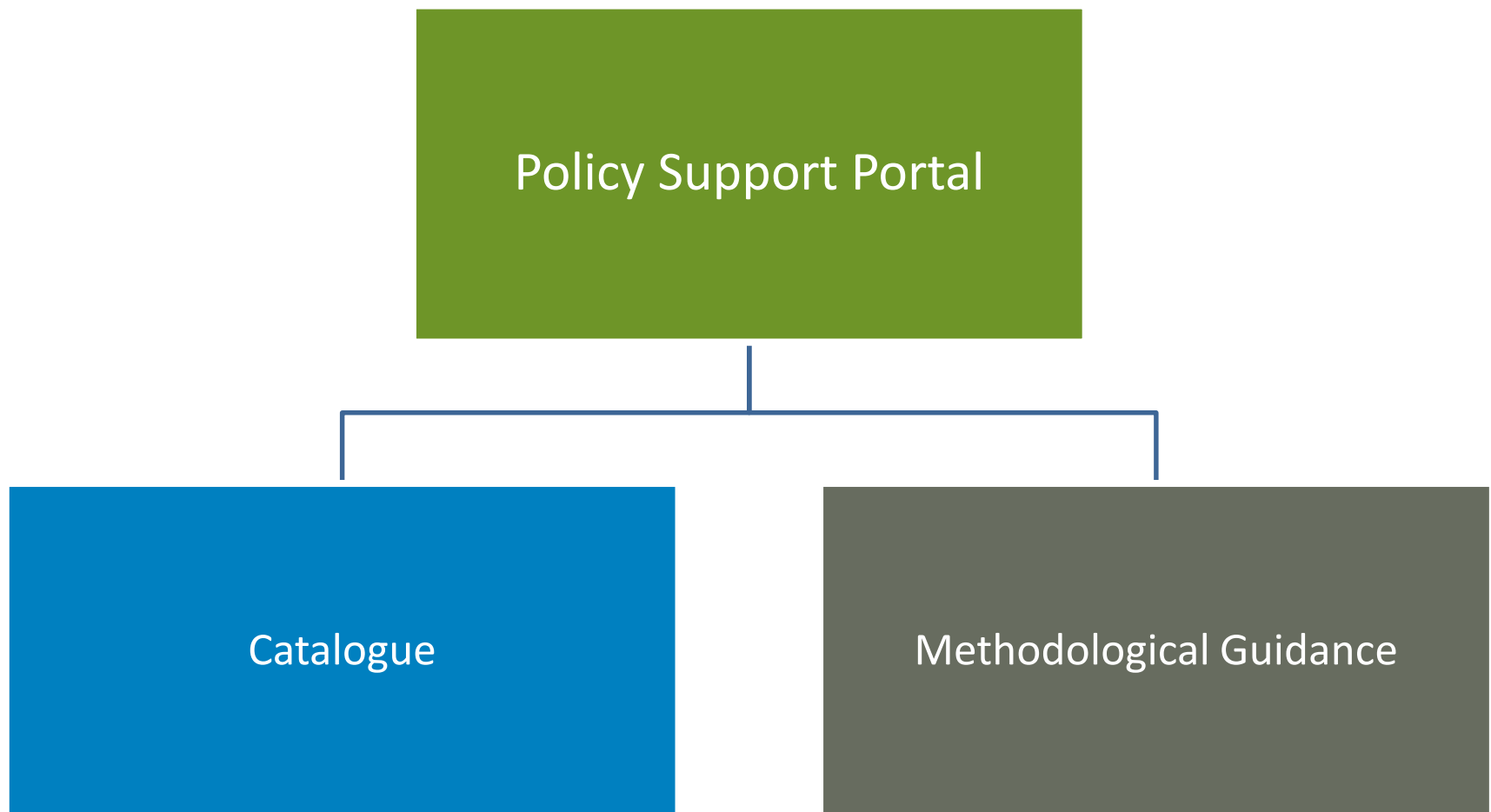
Policy support  
web portal







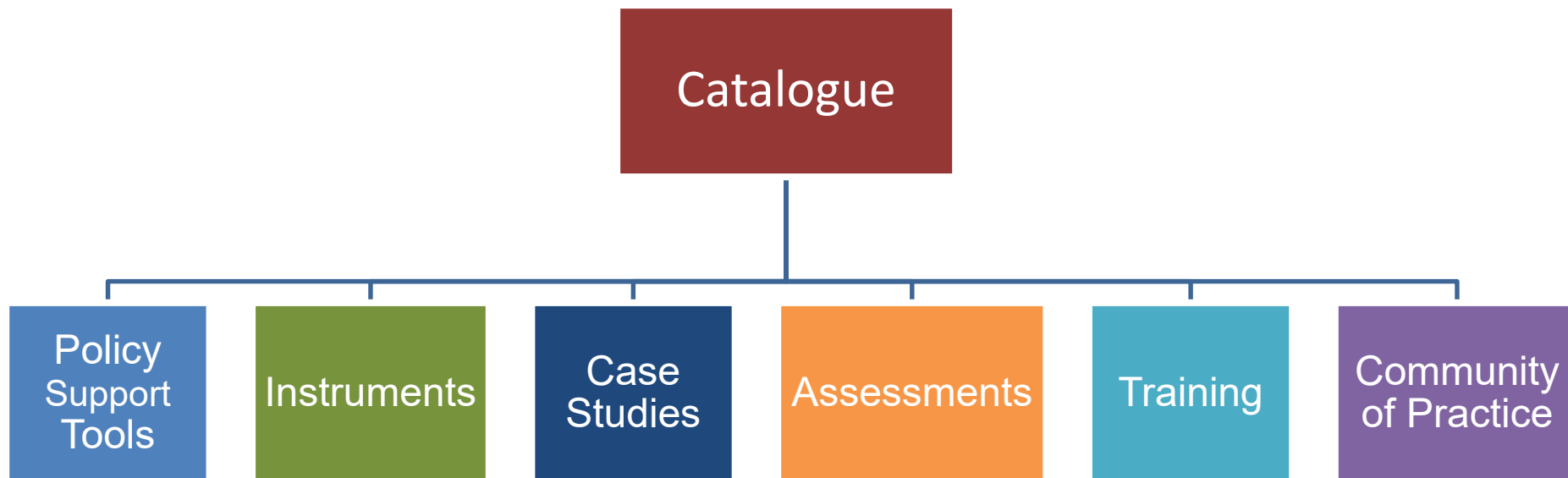
# Structure of the portal







# Contents of the Catalogue



# <https://www.ipbes.net/policy-support> (still a prototype)

[Home](#) / [Work programme](#) / [Policy support tools and methodologies](#) / [Policy support catalogue](#)

## Policy support catalogue

[Search](#) [Reset](#)

☐ Policy instrument ☐ Policy support tool ☐ Case study ☐ Learning opportunity ☐ Assessment

[+ Issues covered by global targets and IPBES deliverables](#)

[+ Related nature's contributions to people](#)

[+ Related terrestrial and aquatic units of analysis](#)

[+ Sub-region covered](#)

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## Case study finder



# https://www.ipbes.net/policy-support (still a prototype)

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## Policy support catalogue

☐ Policy instrument ☐ Policy support tool ☐ Case study ☐ Learning opportunity ☐ Assessment

+ Issues covered by global targets and IPBES deliverables

+ Related terrestrial and aquatic units of analysis

+ Related nature's contributions to people

+ Sub-region covered

x Policy instruments, x Policy support tool, x Case Study, x Subregion Eastern Europe

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### Climate change and land-use impacts on pollinators and pollination



<p>Climate changes may provide opportunities and threats for pollinators, and changes to the composition, extent, and configuration of habitat in the landscape are likely to pose a challenge to many pollinator species as climate change progresses. For instance, pollinator species currently at... [Read more](#)

Case study | Updated on 17

### Action Document on Pollinators, Food Security and Rural Development for Eastern Europe



<p>This document was produced as the main output of the [Biodiversity and Ecosystem Services Network](http://www.besnet.world/event/bes-net-trialogue-pollinators-food-security-and-rural-development) (BES-Net)&nbsp;&lt;a href="http://www.besnet...> [Read more](#)

Policy support tool | Updated on 02

Policy support tools and methodologies

Policy Support Catalogue ▾

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## Policy support search page

☒ **Policy instrument** ☐ Policy support tool ☐ Case study ☐ Learning opportunity ☐ Assessment

+ Issues covered by global targets and IPBES deliverables

+ Related nature's contributions to people

+ Related terrestrial and aquatic units of analysis

+ Sub-region covered

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### Biodiversity Offsets



<p>Biodiversity offsets are measurable conservation outcomes that result from actions designed to compensate for significant residual biodiversity loss that arise through development projects. They are intended to be implemented only after all reasonable steps have been taken to avoid and... [Read more](#)

Policy instrument | Updated on 02

### Biodiversity-relevant taxes, charges and fees



<p>Biodiversity-relevant taxes, charges and fees are types of policy instruments that can be used to promote the sustainable use of biodiversity. Examples include taxes and charges on pesticides, fertilisers and other sources of NOx and CO2 emissions, natural resource extraction, and entrance... [Read more](#)

Policy instrument | Updated on 02

### Ecological Fiscal Transfers



<p><em>Ecological Fiscal Transfers</em> (EFT) distribute a share of intergovernmental fiscal transfers and revenue sharing schemes according to ecological indicators such as protected areas or watershed management areas. These conservation areas thus become a source of income for... [Read more](#)

Policy instrument | Updated on 02

[Policy support tools and methodologies](#)

[Policy Support Catalogue](#) ▼

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# Policy support search page

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+ Related nature's contributions to people

+ Related terrestrial and aquatic units of analysis

+ Sub-region covered

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## A framework for integrating systematic stakeholder analysis in ecosystem services research



<p>This is a conceptual framework for the systematic application of stakeholder analysis in ecosystem services research. The comprehensive framework consists of a three-phase model entailing the planning phase, the execution of the actual stakeholder analysis phase, and, finally the... [Read more](#)

Policy support tool | Updated on 02

## Action Document on Pollinators, Food Security and Rural Development for Eastern Europe



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Policy support tool | Updated on 02

## Adaptive Capacity Wheel



<p>The paper presents six dimensions in which the inherent characteristics of institutions to stimulate the capacity of society to adapt to climate change from local through to national level can be assessed: Variety, learning capacity, room for autonomous change, leadership,... [Read more](#)

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# Integrated Valuation of Ecosystem Services and Tradeoffs (InVEST)

InVEST is a suite of free, open-source software models used to map and value the goods and services from nature that sustain and fulfill human life. The models are spatially-explicit, using maps as information sources and producing maps as outputs. They return results in either biophysical terms (e.g., tons of carbon sequestered) or economic terms (e.g., net present value of that sequestered carbon). InVEST models are based on production functions that define how changes in an ecosystem's structure and function are likely to affect the flows and values of ecosystem services across a land- or a seascape.



## Related Natures contributions to people:

- Energy
- Food and feed
- Formation, protection and decontamination of soils and sediments
- Habitat creation and maintenance
- Learning and inspiration
- Physical and psychological experiences
- Pollination and dispersal of seeds and other propagules
- Regulation of climate
- Regulation of freshwater quantity, location and timing
- Regulation of hazards and extreme events

## Case studies

- Assessing Conditions and Trends of Ecosystem Services of Thadee watershed, Nakhon Si Thammarat Province

## Search policy support portal





### Related Natures contributions to people:

Energy

Food and feed

Formation, protection and decontamination of soils and sediments

Habitat creation and maintenance

Learning and inspiration

Physical and psychological experiences

Pollination and dispersal of seeds and other propagules

Regulation of climate

Regulation of freshwater quantity, location and timing

Regulation of hazards and extreme events

### Related Terrestrial and aquatic units of analysis:

Coastal Habitats/Coastal and Near shore Marine/inshore ecosystems

Cultivated areas (incl. cropping, aquaculture, intensive livestock farming, etc.)

Marine/Deepwater/Offshore systems

#### ▾ Using the resource

##### Requirements:

- InVEST models can be run independently, or as script tools in the ArcGIS ArcToolBox environment.
- You will need a mapping software such as QGIS or ArcGIS to view your results.
- Running InVEST effectively does not require knowledge of Python programming, but it does require basic to intermediate skills in GIS software.

##### Advantages:

Any GIS software can be used

The Natural Capital Project (<http://www.naturalcapitalproject.org/index-2015.html>) provides a standalone version of the tool, so there is no need for ArcGIS

A complete set of tools is available, and a wide community of users is active around the world, all information is available here: <http://www.naturalcapitalproject.org/models/models.html>

The tool is modular in the sense that you do not have to model all the ecosystem services listed, but rather can select only those of interest.

The spatial resolution of analyses is also flexible, allowing users to address questions at local, regional, or global scales.

##### Constraints:

Previous versions of InVEST were provided as a toolbox to ArcInfo from ESRI but the latest version is a stand-alone version

Data preparation needs vary with the individual sub-models. Some such as climate regulation are not intensive in terms of data needs, however, data preparation for other ES can be quite long and demanding.

A good knowledge of spatial data formats is needed

The user can not verify and control the intermediate steps of the models

**Implementation time:** Less than one day

#### ▾ Practical information

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**Implementation time:** Less than one day

**▼ Practical information**

**Language:** EN

**Development stage:** Full, working product

**License:** Free, no licence

**▼ Contact details**

**Contact Name:** Dr Paula Harrison

**Email:** [paulaharrison@ceh.ac.uk](mailto:paulaharrison@ceh.ac.uk)

**▼ Resources**

**Author:** Natural Capital Project

 [methodfactsheetinvest.pdf](#)

**Links:**

[InVEST website](#)

[User forum](#)

# Assessments

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**Existing and ongoing assessments identify, and in some cases assess the effectiveness of, policy support tools and policy instruments.**



# Thematic assessment of pollinators, pollination and food production

This assessment covers changes in animal pollination as a regulating ecosystem service that underpins food production and its contribution to gene flows and restoration of ecosystems. It addresses the role of native and exotic pollinators, the status of and trends in pollinators and pollination networks and services, drivers of change, impacts on human well-being, food production of pollination declines and deficits and the effectiveness of responses to pollination declines and deficits. The assessment informs enhanced policy responses to declines and deficits in pollination by identify policy-relevant findings for decision-making in government, the private sector and civil society, as well as helping to demonstrate how an essential ecosystem service contributes to the 2030 Agenda for Sustainable Development.

## Search policy support portal



# Training



**As one of the key aspects to support policy development and implementation, in this section you can find a number of existing trainings referring to design and implementation of policy support tools and instruments.**

# Policy support search page

☐ Policy instrument ☐ Policy support tool ☐ Case study ☒ Learning opportunity ☐ Assessment

+ Issues covered by global targets and IPBES deliverables

+ Related terrestrial and aquatic units of analysis

+ Related nature's contributions to people

+ Sub-region covered

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## GIZ ValuES "Economic Valuation of Ecosystem Services" Training course



Measuring the economic linkages and values associated with biodiversity and ecosystem services is often regarded as a key argument to make the case for conservation investments. In reality, however, economic valuation studies often do not reach decisionmakers or influence real... [Read more](#)

Learning opportunity | Updated on 22

## GIZ ValuES "Integrating Ecosystem Services into Development Planning" Training course



This GIZ training advocates a stepwise approach for recognizing, demonstrating and capturing the value of biodiversity and ecosystem services for development planning. The training combines the theoretical and practical elements of the stepwise approach and guides participants through the... [Read more](#)

Learning opportunity | Updated on 22

## GIZ ValuES "Payments for Ecosystem Services" Training course



The course addresses Payments for Ecosystem Services (PES) schemes as projects or individual transactions, rather than national PES programs. The goal is to ensure that participants understand the mechanics and rationale of PES schemes. The cases introduced during the training... [Read more](#)

Learning opportunity | Updated on 22

Policy support tools and methodologies

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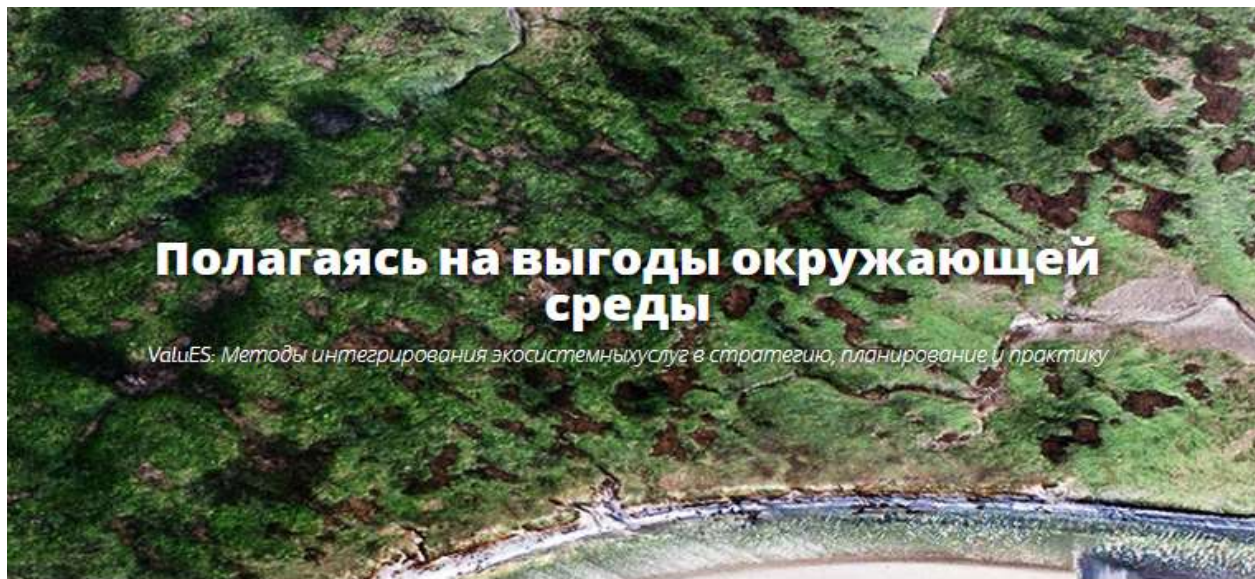
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# ValuES: Methods for integrating ecosystem services into policy, planning, and practice (material available in Russian)



## Для чего нужны экосистемные услуги?

Экосистемные услуги – это выгоды окружающей среды для людей. Они состоят из разных видов нашей зависимости от Природы. Идея об экосистемных услугах нравится многим лицам, принимающим решения, например, в региональном планировании, инфраструктуре, развитии сельской местности или градостроительном проектировании. Чтобы полагаться на выгоды Природы, мы должны узнать о них больше.

## Зачем нужно рассматривать эти методы?

Существует много способов, чтобы полагаться и знать об этих услугах. А также существует много методов проверки экосистемных услуг. Они отличаются по вопросам, которые задают, способом работы и результатами, которые могут показать. Подходит ли определенный метод или нет зависит от вашей ситуации и целей.



## Case studies

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**This component of the Catalogue provides access to a range of case studies involving the practical application of policy support tools and/or policy instruments.**

## Policy support catalogue

☐ Policy instrument ☐ Policy support tool ☐ Case study ☐ Learning opportunity ☐ Assessment

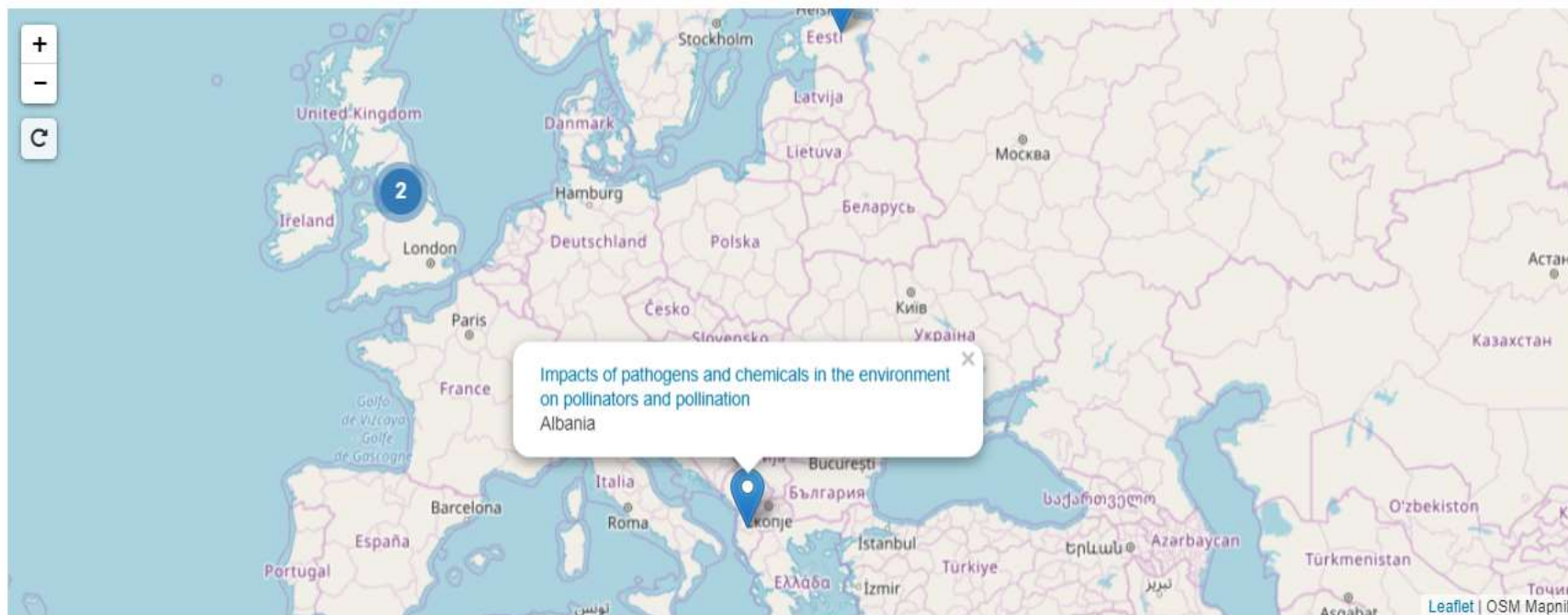
+ Issues covered by global targets and IPBES deliverables

+ Related terrestrial and aquatic units of analysis

+ Related nature's contributions to people

+ Sub-region covered

## Case study finder





## Community of practice

Tool/Instrument/Expert/Expert country (nationality)



Reset

### – Category of policy instruments

- ☐ Legal and regulatory instruments
- ☐ Rights-based instruments and customary norms
- ☐ Economic and financial instruments
- ☐ Social and cultural instruments

### – Family of policy support tools

- ☐ Assembling data and knowledge (including monitoring)
- ☐ Public discussion, involvement and participatory process
- ☐ Selection and design of policy instruments
- ☐ Implementation, outreach and enforcement
- ☐ Assessment and evaluation
- ☐ Training and capacity building
- ☐ Social learning, innovation and adaptive governance

### – Sub/region covered

- ☐ Antarctica
- ☐ Caribbean
- ☐ Central Africa
- ☐ Central and Western Europe
- ☐ Central Asia
- ☐ East Africa and adjacent islands
- ☐ Eastern Europe
- ☐ Mesoamerica
- ☐ North Africa
- ☐ North America
- ☐ North-East Asia
- ☐ Oceania
- ☐ South America
- ☐ South Asia
- ☐ South-East Asia
- ☐ Southern Africa
- ☐ West Africa
- ☐ Western Asia
- ☐ N/A

The experts in our community of practice are individuals who have been registered as experts and/or practitioners in a particular tool or instrument from the catalogue. Use the search bar above to search for experts in certain fields. See [FAQs](#) for search advice.

If you are an expert in any tool or instrument listed in this [policy support tools and instruments](#) portal please click on "I'm an expert in this tool/instrument" button located on the right-hand side of each of the tools or instruments pages.

## Community practice profiles

Displaying 1 - 12 of 183

Caroline Akachuku  
Nigeria



Anne Gaele  
Ausseil  
France



David N. Barton  
Norway



Ruishan Chen  
China







# Thank you!