

Ecosystem Science for Policy & Practice

Making green economy happen:

Integrating ecosystem services and natural capital into sectoral policies

Guidance for policy- and decision-makers

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Building on the paper by: Kettunen, M., ten Brink, P., Mutafoglu, K., Schweitzer, J.-P. and Pantzar, M. Claret, C. & Metzger, M., Pavlova, D.

17 May 2017, Sofia, Bulgaria



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Presentation Structure

- The Guidance Tool overview
- Main steps in the Tool
- Next steps



Structure and content

- **Step 1**: Assessment of the current level of policy integration across sectors.
- **Step 2**: Identification of key policy and sectoral opportunities and needs for future integration.
- **Step 3**: Using the green economy framework as a strategic and holistic platform for planning take up and implementation.



Step 1: Assessing current policy integration

Level of integration	Conceptual integration Operational integration		Implementation integration							
		•								
Comprehensive and explicit	Explicit recognition of all ecosystem services, including the recognition of ecosystem services and natural capital as underpinning elements of human wellbeing	Dedicated instruments exist for addressing ecosystem services and natural capital in a comprehensive manner within a policy area.	The dedicated instruments and measures are implemented, with due procedures in place to support the implementation (e.g. funding), monitor their effectiveness (e.g. ex-post assessments) and adopt changes if needed (e.g. process for adaptive governance).							
Explicit but not comprehensive	Some explicit integration (e.g. some specific ecosystem services), including some recognition of ecosystem services and natural capital as underpinning elements of human wellbeing.	Some instruments exist that proactively address / build on the understanding of ecosystem services and natural capita within the policy area.	The existing instruments and measures are implemented, with some procedures in place to support and/or monitor the implementation (as per above).							
Implicit and incomprehensive	Implicit and indirect integration, generally focus on preventing negative impacts of a policy sector on ecosystem services and natural capital	No dedicated instruments exist for directly addressing ecosystem services and natural capital. Some aspects – mainly focusing on avoiding negative impacts on (some) ecosystem services - integrated into sectoral instruments.	The existing indirect instruments and measures are implemented, with procedures in place to support and/or monitor the implementation. The framework for implementation does not, however, explicitly or comprehensively cover ecosystem services or natural capital.							
No specific	No recognition (direct / indirect) of ecosystem services and natural capital	No instruments exist that would in any way address ecosystem services and	No implementation of any instruments or measures linked to							

natural capital.

integration

Step 1: Tools for integration

	Instrument category	Identified concrete instruments with relevance to ecosystem services and natural capital			
Information instruments	Data, indicators, monitoring, mapping, accounting, science-policy assessments	 Databases Indicators Monitoring and mapping frameworks Accounting frameworks Science-policy assessments and science policy interfaces supporting policy development 			
Decision- support instruments	Planning and targeting, supported by indicators, monitoring and mapping	 Regional management plans Programmes for targeting and implementing funding Other mechanisms supporting planning and targeting (e.g. restrictions in regulations affecting planning of infrastructure developments) 			
	Reporting, supported by indicators, monitoring and mapping	 Reporting and review frameworks for legislation Ex-post assessments of policy instruments and related programmes (e.g. mid-term evaluations of funds) 			
	Impact assessment procedures and risk assessment and analysis	 Impact assessments (IA) underpinning the development of policies and legislation (e.g. ex ante assessments) Strategic Environmental Assessment (SEA) and related guidance Environmental Impact Assessment (EIA) and related guidance Product life cycle assessments Project selection and evaluation criteria 			
	Dedicated legislative acts, regulations & standards	 National and regional legislation Criteria and standards for policy sectors 			
Implementation	Protected areas	National and regional protected area networks			
instruments	Public investment	 European Agricultural Fund for Rural Development (EAFRD) European Maritime and Fisheries Fund (EMFF) EU Structural and Cohesion Funds (ERDF, ESF, CP) EU Fund for the Environment – LIFE National and regional funds 			
	Market-based instruments and certification	 Payments for ecosystem services (PES) REDD+ Offsetting schemes Green public procurement (GPP) Certification schemes 			
	Other	Promoted / endorsed global, regional or nation-wide practices (e.g. soil conservation			

Step 2: Identification of key policy and sectoral opportunities and needs for future integration.

Prioritising policy action for integration of ecosystem services and natural capital in the context of different policies consist of the following:

- Identifying key win-wins for ecosystem services integration and delivery of sectoral objectives within sectors
- Identifying key win-wins for ecosystem services integration and delivery of sectoral objectives <u>between</u> sectors
- Identifying key trade-offs between policy sectors required to be addressed
- Identifying key bottlenecks for development within or across policy sector
- Identifying windows of opportunity (e.g. upcoming policy reforms) and linking these to possible sources to finance uptake.



Step 2: Criteria for Assessing Opportunities

- ✓ **Impact**: which win-wins (within or between policy sectors) are likely to provide the largest positive impact, both in terms of conservation and socio-economic benefits?
- ✓ Urgency: which trade-offs are causing or will cause the considerable impact?
- ✓ Feasibility: which win-wins or trade-off are likely to be feasible to address (political and stakeholder support)?
- ✓ Opportunity: which policy sectors have clear windows of opportunity for change?
- ✓ Engagement: which policy sectors include stakeholders that have good capacity to support a change?
- ✓ Assets: which policy sectors have the most concrete opportunities for benefiting from the existing and/or improved natural capital assets (e.g. networks of protected areas)?
- ✓ Knowledge: which policy sectors and/or instruments have the level of knowledge available for robust policies and instruments?



POLICY TRIGGER

TOP-DOWN

Policy- and decision-makers' objectives and targets



POLICY AREAS

Environment (water, air) Agriculture Forestry Fisheries Regional development Health ...

INSTRUMENTS: Implementation

INSTRUMENTS:
Policy / decision
support

INSTRUMENTS: Information

Regulation Protected areas Public funding Private investment Certification PES Offsetting ...

Planning & targeting Reporting Impact assessments Cost-benefit assessments ...



Indicators Monitoring & mapping Surveys Natural capital accounting Science-policy assessments ...



POLICY TRIGGER

BOTTOM-UP

Stakeholders' problems and opportunities

Step 3: Using the green economy framework as a strategic and holistic platform for planning take up and implementation.

Mapping 'green' transition paths for key policy sectors

The development of these pathways involves establishment of the following:

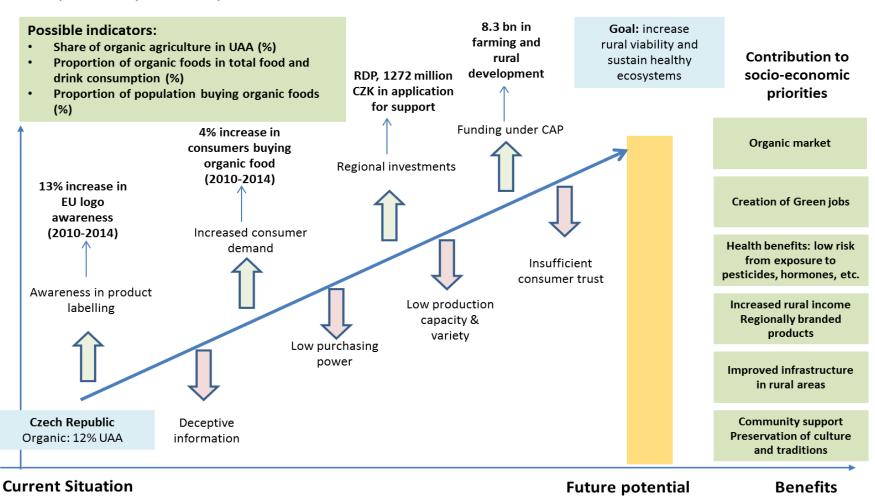
State-of-play: sectors current level of sustainability (e.g. contribution to the conservation of ecosystems) and key identified assets supporting transition

- ✓ **Future goal:** objective for the greening of the sector or the new green sector
- ✓ **Future benefits**: foreseen contributions to different socio-economic priorities identified at national, regional and/or local scale (e.g. sectoral growth objectives, job creation, avoided risks and cost) and what is known about the scale of these benefits
- ✓ **Drivers for change**: which drivers can be identified that now or in the future can support a shift towards green economy within the sector?
- ✓ Barriers to progress: which barriers can be identified hindering the change (e.g. lack of funding, lack of capacity, social barriers / norms)
- ✓ Indicators of change: indicators for assessing the progress toward greening within the sector

Illustrative pathways for different sectors: Agro-Ecology

Policy sector: agriculture → towards agro-ecology based agriculture

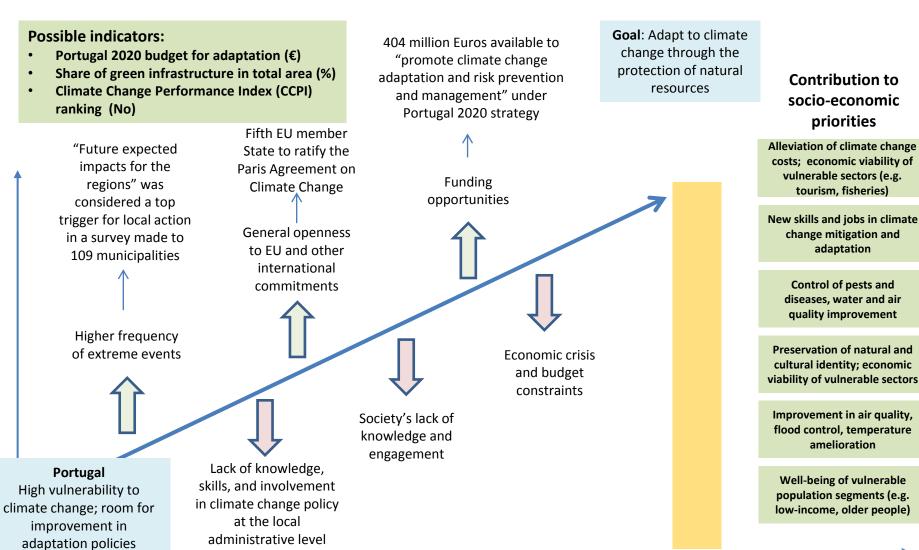
Example country: Czech Republic





Policy sector: climate → towards nature-based climate adaptation

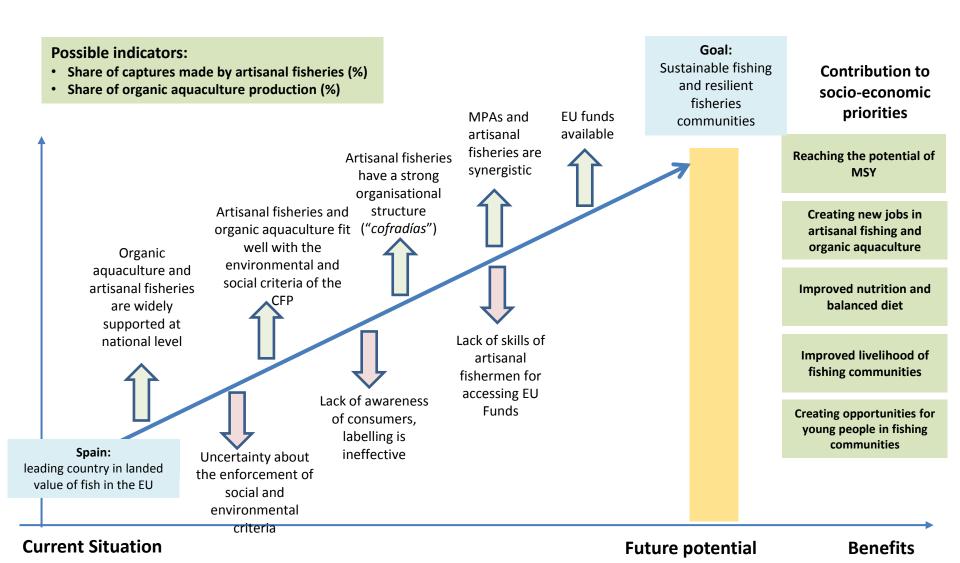
Example country: Portugal



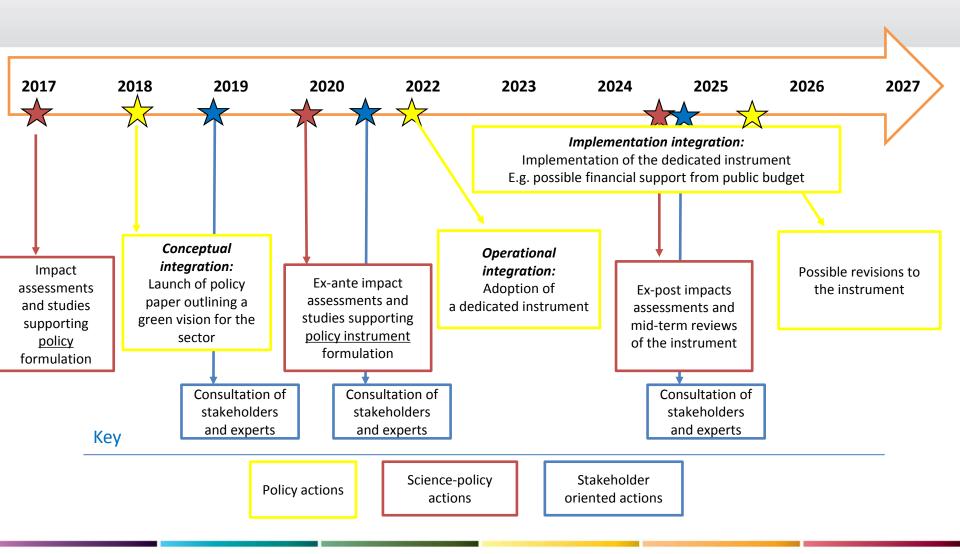
Current Situation Future potential Benefits

Policy sector: fisheries → *towards sustainable fisheries*

Example country: Spain

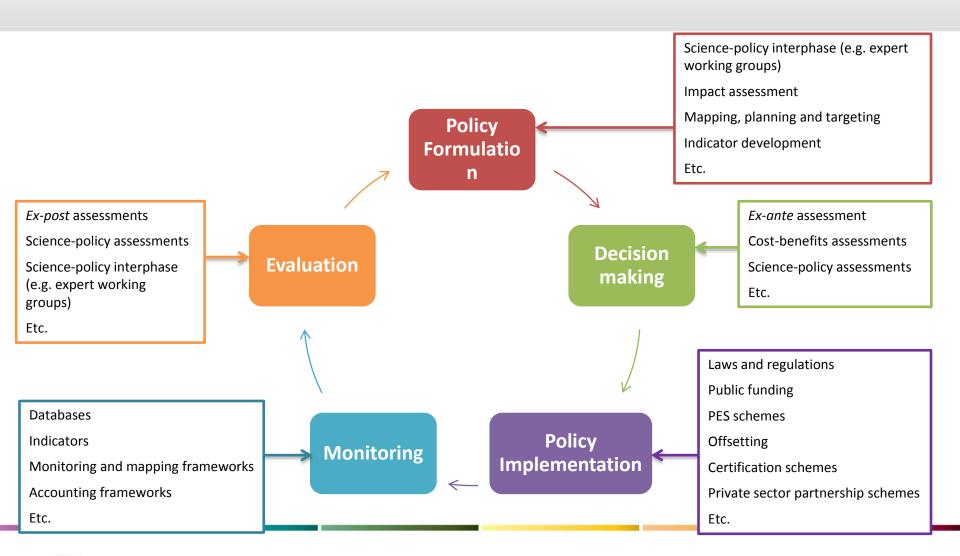


Developing sector-specific plans for 'green' transition





Integration instruments in the context of sectoral policy cycle





Developing a strategic plan for a shift towards green economy

Current Situation

Declining Sustainability in a Brown Economy

Resource over-exploitation & pollution pressures

Climate Change

Biodiversity and natural capital loss

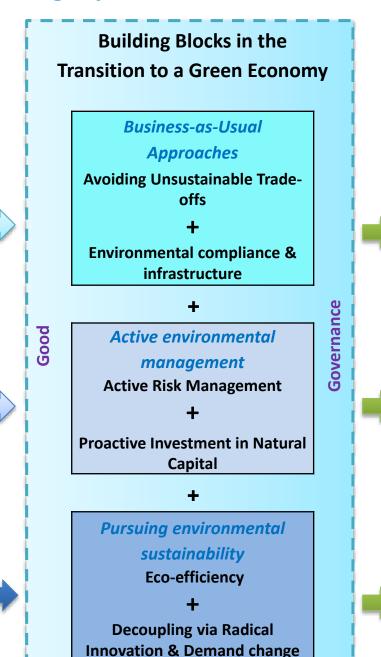
Critical ecological and resource thresholds passed or at risk

Resource scarcity and limited access to a clean environment

Health impacts and manmade natural disasters

An economy that is not resource efficient, low carbon and socially inclusive

Source: Patrick ten Brink & Leonardo Mazza, own representation



Ambitions for the Future

A Green Economy

Improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities

Staying within a 'safe operating space': using resources within the planet's regenerative capacities & avoiding critical ecological thresholds

No net loss of biodiversity and climate change within 'acceptable' limits

Sustainability for future generations and business: available natural capital and a clean environment

Health and livelihoods for citizens and communities

An economy decoupled from environmental impacts and resource use

Assessment of current level of integration in Scotland

	Environment: Air	Envrionment: Soil	Envrionment: Water	Agriculture & Rural Dvpt	Forest	Marine/coastal environment, fisheries	Climate	Bioenergy
Conceptual integration	+		-	II	=	=	-	-
Operationnal integration	+	+	=	+	+	+	+	+

Explicit and comprehensive Explicit but incomprehensive Implicit and incomprehensive Policy sector in transition Policy area with subsectors displaying uneven levels of ES/NC integration

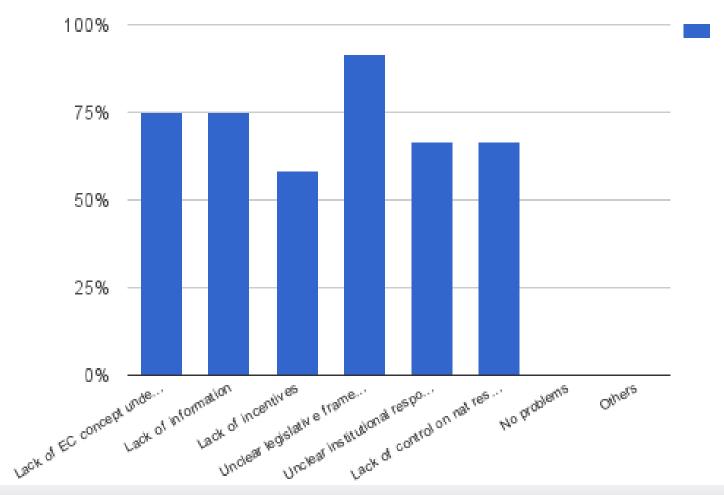
Comparison with EU policy

- Integration in Scottish policy superior to what has been observed for the EU
- Integration in Scottish policy roughly equivalent to what has been observed for the EU
- Integration in Scottish policy
 inferior to what has been observed
 for the EU



Assessment of the current level of integration in the Lower Danube Basin

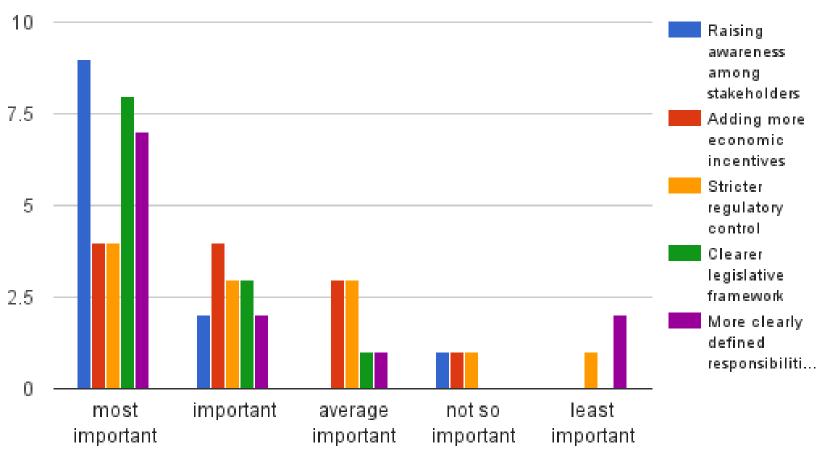
What are the major problems for the integration and application of ES?





Assessment of the current level of integration in the Lower Danube Basin

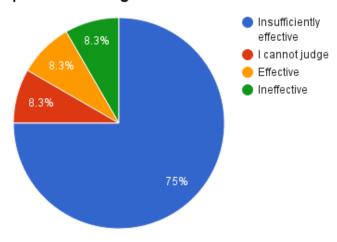
Measures for successful integration of ES



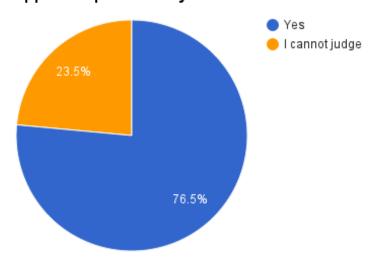


Assessment of the current level of integration in the Lower Danube Basin

Count of How do you judge the effectiveness of policies for integration of water ES?



Do you think the knowledge of ES can be applied in practice in your work?





Way Forward

Within OPERAs

Deliverable delivered! - D4.2 Lessons learned and recommendations for integrating ecosystem services into policy instruments - Kettunen, M., ten Brink, P., Mutafoglu, K., Schweitzer, J.-P. and Pantzar, M. Claret, C. & Metzger, M. Pavlova, D. May 2017 Link to OPPLA!

Beyond OPERAs

- Disseminate
- Use in integration work!
- See if countries and regions start to apply too, to support 2020 target date!



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This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement number 308393.



