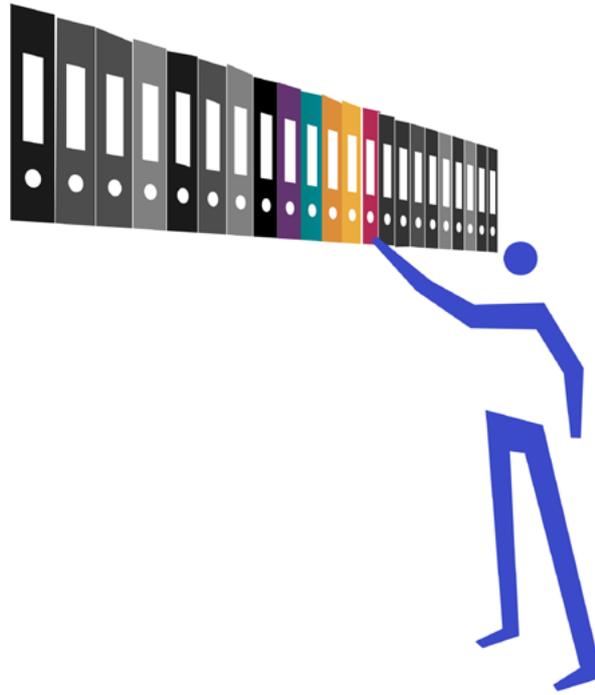


# How is ecosystem services included in policy?



## Summary

**Ecosystem services (ES) need to be included in policy to minimise damage to ecosystems and to ensure sustainable supply of these essential services for human well-being.**

To achieve this, integration of ES is required at all levels of governance and across multiple policy sectors. This brief presents a framework that has been developed to assess the current level of ES integration in policy, and which identifies the most suitable approach to improve this. Furthermore, it demonstrates how the application of different policy instruments are needed for concrete integration and how the Green Economy concept, is one of several ways, that can facilitate effective integration of ES into sectoral policies.

## Key messages

- ▶ Effective integration of ES across policy sectors is needed to minimise the damage to ecosystems and to ensure human well-being
- ▶ Integration of ES into sectoral policies should occur at three levels: conceptual, operational and implementation
- ▶ Three types of policy instruments (information, decision-support and implementation) are needed to achieve effective integration
- ▶ Identification and engagement with relevant stakeholders is required for effective integration
- ▶ Integration of ES can be driven both top-down or bottom-up, i.e. from the perspective of setting policy goals and targets or from the perspective of stakeholders' needs and opportunities on the ground

## Knowledge

### Including ES in sectoral policies is essential for the concept to be meaningful and provide actual protection of ecosystems.

Current level of integration of ES varies across policy areas and governance levels. However, generally the existing policy frameworks for ES remains far from optimal. Further knowledge and guidance on how to integrate ES in policies has thus been developed (see Kettunen et al. 2014, 2015 and 2017).

A newly developed framework (Kettunen et al. 2017) describes how to assess current level of ES policy integration and identifies the most suitable approach to improve this. **The framework identifies that integration needs to take place at three levels:**

**Conceptual integration;** where documents underpinning sectoral policies (e.g. strategies and roadmaps) explicitly or implicitly take ES into account.

**Operational integration;** where specific measures or instruments are identified and committed to address ES related objectives within policy sectors.

**Implementation integration;** where concrete measures achieve integration on the ground in actual policy- and decision-making situations.

When applying the framework and reviewing policies, a *traffic light* evaluation system (see Table 1) is used to indicate how well ES are currently integrated in the policy sectors for each of the three integration levels. This knowledge provides a baseline and identifies windows of opportunities for how to improve the integration of ES.

Kettunen et al. (2014) identified several high level policy initiatives that provide opportunities for the integration of ES, such as green economy, resource efficiency, green infrastructure and the reform of environmentally harmful subsidies.

## Instruments

### To achieve successful integration of ES into policy, the best opportunities for further integration need to be identified based on the information on current level of integration (as described above).

In this context, concrete policy instruments are essential to support the integration of ES in practice. Different types of policy instruments exist that either already support or, as in most cases, have the potential to support the integration of ES. **These instruments can be classified into three different types:**

**Information instruments** – include indicators for assessing the implementation of policies; databases and frameworks for monitoring, mapping and accounting; and a range of science-policy assessments supporting policy development.

**Decision-support instruments** – include instruments for planning and targeting, reporting, and impact and risk assessment/procedures.

**Implementation instruments** – include legislative instruments, instruments for public financing, designations of protected areas, and market-based policy instrument.

These three types of policy instruments can be organised hierarchically, where 'Information instruments' constitutes the first level of integration, followed by 'Decision-support instruments' and 'Implementation instruments' as the top and third level of integration (Kettunen et al. 2017). But the integration of the ES concept can be driven both top-down or bottom-up, i.e. from the perspective of setting policy goals and targets or from the perspective of stakeholders' needs and opportunities on the ground.

## Practice

### For effective integration of ES in policy more targeted actions and application at all three instrument levels and at all levels of governance is necessary.

In, Kettunen et al. (2017), a three step approach has been developed based on using the green economy framework as a premise and strategic platform to assess level of integration and improve the integration and implementation of ES in sectoral policies:

**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:** Provides advice on how to use the assessment of sectoral integration of ES as concrete means for developing 'green' transition plans for different economic sectors.

The applications of this assessment approach in practice show varying levels of integration across different policy sectors, with the level of operational integration generally lacking behind conceptual integration. For example, none of the EU policy sectors currently provides a comprehensive framework for the implementation and uptake of ES (Kettunen et al. 2014).

## Assessment of current level of ecosystem services integration in Scotland's policy framework

**Aim:** To explore how explicit and comprehensive the Scottish policy framework was in integrating ES.

**Result:** Operational integration of ES is often significantly more limited than conceptual uptake. In comparison to the overarching EU framework, Scotland does as well as the EU if not better (Table 1) in most of the sectors assessed.

**Table 1: Current level of the integration of ES into sectoral policies in Scotland, using a traffic light evaluation system and a comparison with EU policy** (+ integration in Scottish policy superior to assessed EU level; = integration in Scottish policy roughly equivalent to assessed EU level; - integration in Scottish policy inferior to assessed EU level (Claret 2017).

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

## The Dublin Exemplar

### Integration of the practice of Socio-cultural Valuation (SCV) of ecosystem services in land use planning

This study found, the new Socio-Cultural Valuation method for ES they tested served as a favourable approach for public consultation and provided useful data on ES that can inform land use planning (Joyce et al. (2017) forthcoming). This led to the Council committing to utilise the ES approach for public consultation within the new Fingal County Development Plan (2017–2023).



## The Future

### More concerted and targeted actions are needed to improve the level of integration of ES.

Thus, further assessments at national and sub-national levels are necessary to establish both the current level of integration and to identify opportunities for improvement in the level of integration. For the future, more progress is foreseen to be particularly required at the operational and implementation integration levels,

which are essential to achieve true on the ground improvement of ecosystems. For this more actions need to be focused on the local level of governance actors and the use of policy instruments that support the integration of ES at a local authority level.

“All sectors of the economy benefit directly or indirectly from nature and their engagement is required for the transition to the green economy in the context of sustainable development and poverty eradication. This is both in their self-interest, given their reliance on inputs from nature, and reflects their responsibilities in terms of impacts, risks and liabilities.”

**Kettunen et al. 2017**

“You’d love to think that the Council Officials would take account of this sort of stuff.”

**Workshop participant, Fingal, Ireland**

“Greening the ‘brown’ economy is as important as developing green sectors or green niches.”

**Kettunen et al. 2017**

“Other consultation processes are always adversarial – consultation experts have a pre-conceived agenda – which has a plan and never from an environmental perspective. (In this workshop) Everybody coming from a completely different perspective at workshop – came from a protective perspective.”

**Workshop participant, Fingal, Ireland**



Find further details about this theme on Oppla:  
[oppla.eu/operas/policy](https://oppla.eu/operas/policy)

[www.operas-project.eu](http://www.operas-project.eu)  
[info@operas-project.eu](mailto:info@operas-project.eu)

    OPERAsProject

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

