

# How to assess sustainability: examples and challenges from the EU cohesion policies

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## *Abstract:*

*Evaluation of public policies is an old field of research and practices at least since the end of the second world war. It is common sense that EU policies at various level of governance need to be evaluated and periodically re-examined considering their efficiency, effectiveness and impacts. Article 54 of the Common Provisions Regulation (Reg. 1303/2013) illustrated such a requirement for the ESIF on the current programming period 2014-20. But what about sustainability? In the European background sustainability is a “principal”, as stated in the Treaty on the Functioning of the European Union (TFEU). In the 2014 evaluation guidelines of the European Regional Development Funds (ERDF) the evaluation of sustainability is only mentioned in general terms. The paper addresses the issue of evaluation considering sustainable development policies as a specific field of public policy. A specific focus is given on EU cohesion policies (Article 174 of the EU Treaty) and how evaluations concretely addressed the sustainability dimension. Main approaches and tools of ex-ante evaluation, usually used in this context (i.e. survey, desk and indicators analysis, focus-group, interviews and consistency analysis), including the Strategic Environmental Assessment, are illustrated and discussed, considering their capacity to address the issue of sustainability.*

*Keywords: indicators, sustainable development, European cohesion policy, Strategic Environmental Assessment, SDGs*

*JEL Classification: Q01, Q58*

## 1. Introduction

European Union policies at various levels of governance must be monitored, evaluated and periodically re-examined for their efficiency, effectiveness and impacts at local and global levels according to the Better Regulation Guidelines<sup>1</sup>. Public policy evaluation has been around since at least the end of the second world war and methodologies for evaluation have been discussed in EU institutions for decades but debate on the ‘sustainable’ dimension of development is more recent.

In 2013, the EU regional development unit published an update of the *Evalsed* guide illustrating approaches for evaluating EU cohesion policy fields from innovation to competitiveness and from employment to social inclusion. This guidance is a key reference for evaluators of

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<sup>1</sup> According to the Better Regulation Guidelines, all evaluations [...] should assess the performance of an existing intervention against [...] effectiveness, efficiency, [...] and EU added value. Better Regulation Guidelines are presented in European Commission Staff Working Document (SWD) 2017, n.350. The Toolbox of the Better Regulation Guidelines is available here [https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how\\_en](https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how_en)

operational programmes supported by European and Strategic Investments Funds (ESIF) <sup>2</sup> under the cohesion policy objective (art. 174 of the Treaty), but this only touches on sustainability<sup>3</sup>. For the practitioner there is clear methodological support for evaluating the efficiency, effectiveness and impacts of socio-economic territorial policies, but not for addressing sustainable development in a complex and integrated policy context.

This situation is partly due to different definitions used for ‘sustainable development’, ‘sustainable’ and ‘sustainability’ in the EU policy framework. In the Treaty on the Functioning of the European Union (TFEU), sustainable development is considered as a ‘principal’, guiding EU policies in various internal and external fields of intervention. In the Draft Declaration on Guiding Principles for Sustainable Development, the European Commission mentioned promotion and protection of fundamental rights, intra-and intergenerational equity, open and democratic society, involvement of citizens, involvement of businesses and social partners, policy coherence and governance, policy integration, use of best available knowledge, precautionary principle and make polluters pay. Together with smart and inclusive growth, sustainable growth is one of the three overarching objectives of the EU Strategy 2020, covering mainly energy and climate issues. Moreover, in a recent review of EU policies, the European Commission highlighted that almost all policies implemented under the Multi-annual Financial Framework 2014-20, including cohesion funds, are consistent with the United Nation Agenda 2030 objectives. These cover 17 Sustainable Development Goals (SDGs) and 169 associated targets.

Similarly, the ESIF regulations mentioned sustainable development several times, giving different meanings to the term. In Common Provisions Regulation (1303/2013), covering the five European and Strategic Investment Funds 2014-2020, sustainable development is explicitly mentioned in article 8. This refers to the principle of sustainable development<sup>4</sup>. In addition, article 10 referring to SD notes the common strategic framework which provides ‘strategic guiding principles to facilitate the programming process and the sectoral and territorial coordination [...]’.<sup>5</sup> In the European Regional Development Fund (ERDF) regulation (1301/2013) more focus is given to sustainable tourism (with a dedicated indicator) and sustainable systems for urban mobility. Articles 3 and 5 relate to the scopes and priorities of the Fund and through urban sustainable development (mentioned in articles 7, 8 and 9), to providing support for actions and strategic plans in the field. Finally, in the European Agricultural Fund for Rural Development (EAFRD) regulation (1305/2013), ‘sustainable’ is mentioned several times, referring to the management, supply and use of natural resources such as water, land, forests, biomass and genetic resources.

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<sup>2</sup> According to EU Regulation 1303/2013 (Common Provisions Regulation), ESIF include (1) Cohesion Policy funds which are the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund, (2) other funds as the Fund for rural development, namely the European Agricultural Fund for Rural Development (EAFRD), and for the maritime and fisheries sector, namely measures financed under shared management in the European Maritime and Fisheries Fund (EMFF).

<sup>3</sup> Sustainability is referred to the sustainable cash flow of an investment over its lifespan.

<sup>4</sup> Article 8: ‘*The objectives of the ESI Funds shall be pursued in line with the principle of sustainable development and with the Union’s promotion of the aim of preserving, protecting and improving the quality of the environment, as set out in Article 11 and Article 191(1) TFEU, taking into account the polluter pays principle [...]*’

<sup>5</sup> Section 5.2: ‘*Member States and managing authorities shall, in all phases of implementation, ensure the full mainstreaming of sustainable development into the ESI Funds, respecting the principle of sustainable development as laid down in Article 3(3) TEU, as well as complying with the obligation to integrate environmental protection requirements pursuant to Article 11 TFEU and the polluter pays principle as set out in Article 191(2) TFE.*’

This paper illustrates briefly how sustainable development is assessed in the ex-ante evaluation of ERDF regional programmes, giving practical examples. In the second part we show three examples of how Strategic Environmental Assessments (SEA) of cohesion policy programmes 2014-20 address sustainable development issues, taking into account key principles related to sustainable development as stressed in the EU policy framework..

## 2. Evaluation of sustainable development in Cohesion policy programmes, an overview

Article 54 of the Common Provisions Regulation (1303/2013) covers the evaluation of programmes, including horizontal aspects such as partnerships, equality between men and women and sustainable development. Evaluation should be carried out in the main programme implementation phases; ex-ante (programming), on-going (during implementation) and ex-post (once the programme is closed and projects are finalised).

For sustainable development, evaluation objectives, scope and instruments differ during the programming cycle and with the evaluation tools used. For example, impacts are evaluated mainly ex-post in reference to EU Strategy 2020 objectives, including the sustainable growth package which refers to climate change and energy issues. Article 55(m) relating to ex-ante evaluations requests evaluating ‘the adequacy of planned measures to promote sustainable development’ in more general terms. Moreover, an SEA is required to support the programme setting. SEAs address sustainable development under a multi-dimensional approach and consider some of the guiding principles including citizen participation in the decision-making process. Specific orientations on how to apply SEA to cohesion policy programmes was published in 2013 together with separate ex-ante evaluation guides for ERDF/CF and RDP programmes. Other guidance was published later for ERDF and EAFRD programmes, with more information on indicators required for monitoring and evaluation<sup>6</sup>.

In the ex-ante guidance on evaluating programmes for ERDF, CF and ESF, evaluation tasks related to sustainable development are mentioned only in section 1.1.4, ‘the evaluator should verify that the programme considers its integration in the preparation, implementation and monitoring, including the selection of operations (i.e. projects, contracts, actions or groups of projects,...)[...]’.

In the programme preparation phase, ex-ante evaluators examine sustainable development from different angles: (i) programme consistency, (ii) external coherence, (iii) consistency of financial allocation and internal coherence, and (iv) links between actions, outputs and results.

For *programme consistency*, ex-ante evaluation examines the relation of the programme development challenges with Europe 2020 objectives, Council recommendations and National Reform

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<sup>6</sup> Guidance are published on the rural network website and the DG Regio website; DG Regio stands for the Commission's Directorate-General for Regional and Urban Policy

Programmes and focuses on how they have been included and translated in the programme intervention logic.

The evaluation of *external coherence* examines the programme complementarity with other instruments at regional, national and EU level. For instance, it shows the expected added value to other policy tools (e.g. Smart Specialisation Strategies, sustainable tourism strategy) in promoting sustainable development. Moreover, in case of cooperation programmes, the ex-ante evaluation examines the specific role of the programme vis-à-vis other strategies as the EU Blue Growth, Sea-basin strategies and macro-regional strategies whenever relevant. This analysis usually builds on document review as well as on stakeholders' consultation. Stakeholders' consultation could be necessary and organised through interviews, surveys and Delphi Analysis to collect inputs on the expected contribution of the programme, provided that some policy tools could be still under discussion.

The ex-ante evaluation also assesses the *internal coherence and consistence of the financial allocation*, by, for instance, showing the thematic concentration of resources compared with the regulatory requirements as well as with the relative intensity of needs. In other terms, a relative ranking (prioritisation) of needs helps assess the appropriateness of the resource distribution and propose possible revisions.

Moreover, the ex-ante evaluation *reconstructs the intervention logic* illustrating the links between objectives, actions, outputs and results, with a thorough examination of the expected type of activities and operations for each specific objective and the related indicators system. This illustrates to what extent the programme integrates sustainable development. At least, several approaches for the inclusion of sustainable development in the programme can be identified and can be alternative and / or combined.

1. *Specific type of action.* Programmes include specific types of action which are expected to promote sustainable development by supporting resource efficiency, climate mitigation and adaptation, disaster resilience and risk prevention and management.
2. *Budget allocation.* A relative portion of the budget is allotted to sustainable development beyond the minimum regulatory requirements.
3. *Ad hoc selection criteria.* Selection procedures use criteria assessing project contribution to sustainable development.
4. *Indicators.* The programme monitoring system includes output and result indicators measuring the realisation and the benefits for local communities in terms of promotion of sustainable development.

Finally, it is clear that the ex-ante evaluation examines the programme design and assesses its potential contribution to sustainable development. Ongoing and ex-post evaluation are necessary to:

- Verify the actual capacity of the programme to address the relevant needs;
- Conduct a more accurate analysis of the project's selection criteria showing to what extent the score for sustainable development makes the difference for project approval;
- Show the figures from the monitoring system in terms of outputs and results;

- Assess the programme impact and added value (through case studies, counterfactual approach, surveys) to understand to what extent sustainable development has been taken on board by projects and have changed the living conditions of local communities.

### 3. SEA as a relevant approach to address sustainable issues in cohesion policy.

ERDF and RDP programme SEAs must comply with Directive 42/2001/EC (the ‘SEA Directive’). As stated in article 1 ‘The objective of this Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations in the preparation and adoption of plans and programmes with a view to promoting sustainable development [...]’. SEA is focused on sustainable development by definition, delivering sustainable development at a strategic level (Lobos & Partidaro, 2014). SEA helps to take on board sustainable principles covering intra-and intergenerational equity, open and democratic society, involvement of citizens, involvement of businesses and social partners, policy coherence and governance, policy integration, the use of best available knowledge and the precautionary principle. Even if SEA was initially interpreted as largely environmental impact assessment based and responsive, recent studies recognise it has evolved ‘to a far more proactive process of developing sustainable solutions as an integral part of strategic planning activities’ (Tetlow and Hanusch, 2012). One of the main strengths of SEA is that it acts proactively in planning environmentally sustainable strategies (Cape et al., 2018). Anticipation at an early stage of programming to identifying and evaluating strategic objectives, enables the selection of alternatives. Although SEA only stresses environmental sustainability, the public process throughout the programme is important in at least partially introducing other pillars of sustainability, also by integrating new values and attitudes into the planning process (Cape et al., 2018).

From a procedural point of view, the strategic assessment on environmental effects starts at a very early stage of the programming process, when the authorities with specific environmental responsibilities – i.e. environmental agencies, public and private environmental organisations - are consulted ‘on the scope and level of detail of the information which must be included in the environmental report’ (Dir. 42/2001/EU, art. 5, c. 4). The environmental report is the main outcome of the assessment. This document contains analysis and assessment of potential environmental effects of the plan and programme, evaluation of the alternatives, identification of mitigation actions and the design of a monitoring system for following up on the programme over its life. Based on the environmental report there follows consultation with environmental authorities and general public. At the conclusion of the SEA procedure, and after approval of the programme the responsible authority publishes ‘a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report [...], the opinions expressed [...] and the results of consultations [...] have been taken

into account [...] and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with' (art. 9 of Dir. 42/2001/EU). It also publishes the measures concerning monitoring. The SEA supports setting up the programme with constant feedback. The final programme considers conclusions from the SEA.

#### 4. SEA under cohesion policy, three case studies.

This section illustrates how the SEAs of three Cohesion policy programmes address the sustainable dimension in various territorial contexts, namely: ERDF Italy – Croatia Operational Programme, at cross border level; RDP Rural Development Programme of Romania, at national level and ERDF Marche Region Operational Programme, at regional level.

##### *The Italy – Croatia Operational Programme (IT-HR OP)*

IT-HR OP is a cross border cooperation programme between Italy and Croatia, co-financed by ERDF. The programme focuses on exchanging knowledge and experiences, developing and implementing pilot actions, testing the feasibility of new policies, products and services and supporting investments. The programme strategy addresses the following thematic objectives (TOs):

- TO 1 - Strengthening research, technological development and innovation,
- TO 5 - Promoting climate change adaptation, risk prevention and management,
- TO 6 – Preserving and protecting the environment and promoting resource efficiency,
- TO 7 – Promoting sustainable transport and removing bottlenecks in key network infrastructure.

Important elements of sustainable development are directly mentioned in the programme strategy. These include actions to improve the quality, safety and environmental sustainability of marine and coastal transport services (Strategic Objective 4.1) and to improve environmental quality in the Adriatic Basin by using sustainable and innovative technologies and approaches (Strategic Objective 3.2).

A specific section in the environmental report was devoted to horizontal and vertical integration of the environment with sustainable development. Cross border (national and supra-national) sustainability strategies were analysed to identify environmental objectives shared by the cooperation partners (i.e. Member States, regional authorities and the European Commission). These objectives were the basis for further analysing potential programme effects (positive and negative) on the environment. This analysis follows a qualitative structural approach ranking the environmental effects based on different weights for individual environmental effects identified as relevant (Galassi & Levarlet 2017). A territorial analysis on the main environmental and economic issues, including on energy, waste, and cultural heritage followed. Specificities of the territories were considered in the analysis, at the relevant scale including cross-border. The simulation model CO2MPARE (Hekkenberg et al., 2013) was used to compare sustainability in terms of climate change emissions under the programme alternatives.

The assessment results showed that cooperation could improve sustainability in the cross-border area, taking advantage of existing opportunities. Mitigation and orientation measures were proposed mainly relating to:

- Mitigation of negative effects, including implementing additional activities or actions to avoid, remove, or offset adverse effects; e.g. actions limiting tourism in areas with a protected habitat status.
- Orientation of Specific Objectives or actions by proposing alternative instruments or tools to be promoted by the programme; e.g. actions to increase resilience of the area, through habitat conservation;
- Green selection criteria, to improve the sustainability of projects co-financed by the programme; e.g. by assigning a higher weight to projects promoting eco-efficiency and a low-carbon footprint;
- Provisions for implementation, including guidelines for applicants in preparing and managing projects or defining specific environmental monitoring measures. These provisions refer mainly to the designation of roles and responsibilities for the monitoring system.

Analysis and consultations with public and environmental authorities under the SEA have stimulated further efforts to improve sustainability of the programme.

The main added value of the SEA is in identifying measures to not only avoid negative effects but also, explicitly, to improve the sustainability of the programme during implementation. SEA conclusions relate to the different phases of the programme life cycle and were included in different parts of the programme documents (i.e. guidance). These conclusions included introducing changes in the programme initial drafting, suggesting specific implementation mechanisms (as criteria for selecting operations), as well as designing monitoring and indicator systems capturing the potential negative effects over the programme lifespan.

#### *The RDP Rural Development Programme of Romania*

The Rural Development Programme of Romania (RDP) supports rural development in Romania from 2014 to 2020. The RDP addresses the following objectives:

1. Increase farm sustainability, modernisation and restructuring, especially small and medium-sized farms, generational renewal, developing processing and strengthening the market position of farmers;
2. Sustainable management of natural resources and climate change;
3. Diversifying economic activities, creating jobs, as well as improving infrastructure and services to improve the quality of life in rural areas.

Sustainability is at the heart of the programming strategy and environmental sustainability is the most relevant dimension mentioned several times in the document. All the programme priorities directly or indirectly address one or more dimensions of sustainability, in particular:

- Priority 2: Enhancing farm viability and competitiveness of all types of agriculture in all regions, as well as promoting innovative farm technologies and sustainable forest management. This refers to the economic and environmental dimensions, and indirectly to the social dimension.

- Priority 3: Promoting food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture. This refers to the economic dimension.
- Priority 4: Restoring, preserving and enhancing ecosystems related to agriculture and forestry, which refers to the environmental dimension.
- Priority 5: Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry, which refers to both economic and environmental dimensions.
- Priority 6: Promoting social inclusion, poverty reduction and economic development in rural areas, which refers to the social dimension.

In the SEA procedure, external coherence with the normative framework was analysed in respect to European and National Sustainable Development Strategies and to sectoral strategies related to sustainable growth. Examples include the National strategic framework for sustainable development of agri-food sector and rural areas in the period 2014-2020-2030, or Europe 2020, the European strategy for smart, sustainable and inclusive growth.

Analysis of environmental effects covered the environmental sustainability of supported actions. Assessment results point out that most RDP measures contribute to environmentally sustainable development. Indications to reduce negative environmental effects and to enhance positive ones are given for the implementation phases. These consist mainly of recommendations for consistent implementation of EIA provisions at individual project level, especially when related to infrastructure, as well as provisions on the use of pesticides to prevent negative impacts on ecosystems. Other recommendations are to support projects which show the best financial, economic and environmental return on investment.

#### *The ERDF Marche Region Operational Programme 2014-2020 (OP-M)*

The OP-M covers six TOs contributing to the EU 2020 Strategy objectives of smart and sustainable growth:

- for the economic dimension:
  - TO1 to enforce technological development and innovation;
  - TO2 to improve the access, utilisation and quality of ITC;
  - TO3 to enhance competitiveness of small and medium enterprises
- For the environmental dimension:
  - TO4 to sustain a transition to a low carbon emission economy in all sectors;
  - TO5 to promote adaptation to climate change, risks prevention and management
  - TO6 to preserve and protect the environment and to promote efficiency in the use of resources

The external coherence analysis was carried out mainly referring to the Regional Strategy of Sustainable Development, as well as sectoral plans and strategies. So, the Regional Environmental Landscape Plan and the Regional Energetic Environmental Plan were included in the analysis (13 sectoral regional plans were analysed). A description of the current environmental state and its evolution included a detailed analysis of territorial characteristics. These include biodiversity, water, soil and natural risks, climate and energy, waste, population and human health, cultural heritage and landscape. As with the other SEAs, both quantitative and qualitative methods were used to assess potential environmental effects. Selecting the best



possible alternative involved the CO2MPARE method which included all the socio-economic and environmental components of the programme.

The findings from the SEA covered socio-economic and environmental recommendations. These included using criteria for selecting interventions to finance, promoting innovative projects and good practices - conditions for implementing interventions, as measures to put in place to reduce potential negative impacts. There were also additional measures not directly addressed to realising the project, such as educating and training beneficiaries. A specific focus is given to tourism and the analysis identified this as being both an opportunity and a threat for the territories involved. Consequently, the recommendations focused specifically on the:

- request to promote only eco-tourism, through hiking and cycle-tourism;
- need to support training activities of operators and beneficiaries in order to increase their awareness of sustainable development issues;
- use of selection criteria that promote less impacting projects, in terms of soil consumption and use of natural resources.

Similarly, for industry the SEA recommended including measures related to eco-innovation, as well as the use of biomass such as residuals from wood industry or agriculture as energy source.

Section of the report in which SD is mentioned	Evaluation tools used	Dimensional issues addressed	Territorial analysis	Type of conclusions	How conclusions were embedded in the programme strategy
<b>IT-HR OP</b>					
<ul style="list-style-type: none"> <li>- Scoping</li> <li>- Coherence analysis</li> <li>- Identification of environmental objectives</li> <li>- Evaluation</li> <li>- Definition of mitigation</li> </ul>	<ul style="list-style-type: none"> <li>- Indicators analysis</li> <li>- Qualitative structural approach</li> <li>- Simulation model</li> </ul>	Environmental	<p>All the major environmental issues (biodiversity, flora and fauna, water, soil air) plus Energy, Waste, Cultural heritage.</p> <p>Territorial characteristic of specific area has been considered</p>	<ul style="list-style-type: none"> <li>- Mitigation of negative effects</li> <li>- Orientation of Specific Objectives</li> <li>- Green selection criteria</li> <li>- Provisions for the implementation phases</li> </ul>	<ul style="list-style-type: none"> <li>- In the programme strategy</li> <li>- In designing the programme mechanisms of implementation</li> <li>- In the monitoring systems (indicators)</li> </ul>
<b>RDP</b>					
<ul style="list-style-type: none"> <li>- Coherence analysis</li> <li>- Identification of environmental objectives</li> <li>- Evaluation</li> <li>- Definition of mitigation</li> </ul>	<ul style="list-style-type: none"> <li>- Qualitative approach</li> </ul>	Environmental Economic Social	<p>All the major environmental issues (biodiversity, flora and fauna, water, soil air) plus climate factors, population and human health, material assets (waste and natural resources), cultural heritage and landscape (including land use planning).</p> <p>Territorial characteristic of specific area has not been considered</p>	<ul style="list-style-type: none"> <li>- General contribution of the RDP to sustainable development, mainly for environmental dimension</li> </ul>	<ul style="list-style-type: none"> <li>- General indication for the implementation phase</li> </ul>
<b>OP-M</b>					

<ul style="list-style-type: none"> <li>- Coherence analysis</li> <li>- Identification of environmental objectives</li> <li>- Evaluation</li> <li>- Definition of mitigation</li> </ul>	<ul style="list-style-type: none"> <li>- Indicators analysis</li> <li>- Qualitative structural approach</li> <li>- Simulation model</li> </ul>	<p>Environmental Economic (only indirectly)</p>	<p>All the major environmental issues (biodiversity, water, soil and natural risks) plus climate and energy, waste, population and human health, cultural heritage and landscape</p>	<ul style="list-style-type: none"> <li>- Promotion of intervention</li> <li>- Reduction of impact in the implementation of projects</li> <li>- Additional measure for the promotion of SD</li> </ul>	<ul style="list-style-type: none"> <li>- In the programme strategy</li> <li>- In designing the programme mechanisms of implementation</li> </ul>
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## Conclusions

- Evaluation is requested by the Common Provision Regulation 2014-20 for all programmes under cohesion policy; including evaluation of the ‘sustainable development’ dimension. In the ESIF Regulations the term covers different meanings, focusing at the same time on the objective (i.e. ‘sustainable growth’ of the EU 2020 strategy), the sectors addressed (tourism, urban or natural resource management) or identifying ‘principles’ to be integrated during project selection, as well as during monitoring and evaluation of the programme.
- However, how and to what extent this ‘principle’ should be evaluated is not clearly established in the guidance. In practice, the evaluated programmes do not provide any substantial definition of sustainable development, except by referring to the broad EU 2020 Strategy with some references to physical targets, specific integrated issues and target groups. Qualitative analyses prevailed in the programme evaluation reports, i.e. verifying the presence or not of specific pre-conditions (e.g. the identifying sustainable criteria for project selection). The personal opinions of beneficiaries and stakeholders on integrating sustainable principles in implementing procedures and the results of interventions is usually reported.
- SEA is an approach which directly addresses the sustainable dimension of a programme, providing a cross-sector analysis. It considers the full environmental dimension, as well as taking on board guiding principles mentioned in the EU normative framework such as public participation, policy integration and the precautionary principle. Indeed, SEA includes recommendations for mitigation actions (to prevent potential negative effects in the future), criteria to be used in the project selection process and the design of a monitoring system. In addition, the quantification of CO<sub>2</sub> emissions in some evaluations enables a clear view of the ‘scale’ of potential impacts of the programme alternatives.
- SEA also has weaknesses. All the analysis is focused on the environmental dimension of sustainability, but economic and social dimensions are considered only where they are relevant for the programme strategy. A common weakness in the SEA case studies is the absence of integration of monitoring system indicators at regional level. A clear link between sustainable indicators at European or National level (e.g. Eurostat indicators) and SEA monitoring systems would concretely help to assess, monitoring and evaluating the programme contribution to the broader SD objectives.
- Recent discussions at EU level on a new European agenda for sustainable development based on the UN Agenda 2030 renew the approach and make the monitoring and evaluation activities of EU policies more effective. The UN system of indicators addresses the three dimensions of sustainable development – social, economic and environmental -, defining targets and indicators, as well as cross-connection between SDGs and rules for a regular (annual) monitoring. Eurostat already has reported on SDGs at EU level, providing indications on the EU sustainable development pathway over the last years. At local level, there are some experiences in reporting SDGs (e.g. Basque country or in Lombardy regions). Next step should be to bridge Cohesion policy indicators and SDGs in order to make it consistent with the Agenda 2030 and experiences gained at local, regional and national levels.
- What seems necessary for the future programming period is an effort on SD monitoring and evaluation. For monitoring, ESIF programmes could adopt a list of output and result indicators covering the topics of sustainable development and allowing for comparable

data collection on programme implementation. In this regard, the ongoing discussion on the 2021-2027 regulatory proposal shows a new set of indicators which could improve data provision on programme implementation. For evaluation, the assessment of the programme contribution to the change could further combine qualitative and quantitative approaches. The theory-based approach could help identify assumptions and linkages within programme intervention logic showing how sustainable development benefits are created. Quantification of net effects and estimates of environmental benefits could be considered also by using methodological toolbox from counterfactual evaluation and cost-benefit analysis.

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