

Building a governance for Sustainable Development in Italy: means (indicators), mechanisms and the role of territories

Construir una gobernanza para el Desarrollo Sostenible en Italia: medios (indicadores), mecanismos y papel de los territorios

Maria Coronato

coronato.maria@mase.gov.it  0000-0001-7683-1052

Mara Cossu

cossu.mara@mase.gov.it  0009-0000-9744-4529

Tiziana Occhino

tocchino@eutalia.eu  0009-0001-1965-4595

Italy's Ministry of Environment and Energy Security. 00147 Rome, Italy.

INFO ARTÍCULO

Received: 10/11/2023

Revised: 12/07/2024

Accepted: 13/09/2024

KEYWORDS

Sustainable Development

Agenda 2030

Localizing the SDGs

SDGs measures

PALABRAS CLAVE

Desarrollo Sostenible

Agenda 2030

Localización de los ODS

Medidas de los ODS para Italia

ABSTRACT

The article aims to critically analyze the process followed by the Ministry of Environment and Energy Security (MASE) – national authority for sustainable development in Italy – to define the National Strategy for Sustainable Development (NSDS). To this aim, the paper: i) explain the complex mechanism of public sustainability policies in Italy, focusing on the thematic competencies of all the actors involved (public/non-public, institutional/non-institutional from the local to the national level); and ii) identify the Italian national approach and the tools provided by MASE for the periodic review of NSDS, highlighting the integrated and participatory approach to public policies capable of capturing the economic, social and environmental dimensions of sustainability. To this end, and from a qualitative approach, the political and strategic documents that inspired the NSDS and that respond to the challenge of the 2030 Agenda at the national level in Italy are presented. The results show the process to achieve at the localization of the SDGs in Italy in a coherent way both with national laws and lower in the strategic framework, taking in mind territorial capital and geographical diversity in a multilevel approach. They also demonstrate the capacity, at the national level, to produce a set of indicators for the preparation of reports on sustainable development capable of covering the territorial diversity of the Italian regions.

RESUMEN

El artículo tiene por objetivo analizar críticamente el proceso seguido por el Ministerio de Medio Ambiente y Seguridad Energética (MASE) – autoridad nacional para el desarrollo sostenible en Italia – para definir la Estrategia nacional para el desarrollo sostenible (ENDE). Para ello, pretende: i) explicar el complejo mecanismo de las políticas públicas de sostenibilidad en Italia focalizándose en las competencias temáticas de todos los actores implicados (públicos/no públicos, institucionales/no institucionales desde el nivel local al nacional); y ii) identificar el enfoque nacional italiano y las herramientas proporcionadas por MASE para la revisión periódica de las ENDE, poniendo en valor el enfoque integrado y participativo de las políticas públicas capaces de capturar las dimensiones económicas, sociales y ambientales de sostenibilidad. Para ello y, desde un enfoque cualitativo, se presentan los documentos políticos y estratégicos que inspiraron la ENDE y que responden al desafío de la Agenda 2030 a nivel nacional en Italia. Los resultados muestran la localización de los ODS en Italia de manera coherente tanto con las leyes nacionales como en el marco estratégico, el capital territorial y la diversidad geográfica en un enfoque multinivel. También ponen de manifiesto la capacidad, a nivel nacional, de producir un conjunto de indicadores desde donde empezar para la elaboración de informes sobre el desarrollo sostenible capaces de cubrir la diversidad territorial de las regiones italianas.



1. INTRODUCTION

The adoption of the 2030 Agenda for Sustainable Development has provided Member States with a bold, ambitious and comprehensive strategic action plan for People, Planet, Prosperity, Peace and Partnership. It is inspired by the principles of universality and integration and balanced among the three dimensions of sustainability: environmental, social and economic. The 2030 Agenda encourages Member States to “conduct regular and inclusive reviews of progress at national and subnational levels”, also drawing on contributions from “civil society, the private sector and other stakeholders, in line with national circumstances, policies and priorities”.

In order to coordinate the implementation of the 2030 Agenda at national and local level, in 2017 Italy adopted a National Strategy for Sustainable Development (NSDS) that fully reflects and integrates its strategic framework and principles with integrated national choices and objectives, meaning that each of them is based upon SDGs interlinkages. The NSDS, in accordance with provisions of art. 34 of Legislative Decree 152/2006 and subsequent amendments is the national framework for environmental and territorial planning, programming and assessment.

The NSDS was approved in 2017 by the Interministerial Committee on Economic Programming (Delibera CIPE 108/2017) and published in the official Journal (Gazzetta Ufficiale) on May 15th, 2018. The NSDS has been defined as an update of the former Environmental Action Strategy for Sustainable Development (2002-2010), adopting a wider, sustainability-based, setting up a common vision and shared evaluation tools. Within this holistic framework, *ecological transition* and *just transition* are conceived in a wider integrated process, with the aim of transforming decision-making and affecting individual and social behaviours.

The NSDS was developed through a wide consultation process. All line Ministries, agencies, academic institutions and 4 public research institutes as well as more than 200 NGOs were consulted to provide their factual and prospective inputs. This process helped to ensure an approach based on scientifically founded information and build a common understanding of national strategic priorities for sustainable development.

The MASE has therefore taken action to facilitate interaction between institutional actors (national, regional, local) and civil society through the National Forum for Sustainable Development (FORUM SD) by identifying the “functional interests” of all the actors involved (Eising & Kohler-Koch 2000); leading to the construction of a common language and common mechanisms able to catch the “multidimensionality” of sustainability aims (Boas *et al.*, 2016]. An agreement has been activated with the Italian Regions (NUTS 3) for the definition of Regional Strategies for Sustainable Development that work coherently with the NSDS. Co-planning opportunities were therefore created between departments of different regions around integrated actions with respect to natural risks and ecological network (i.e. Abruzzo, Marche and Umbria). In other cases, the agreement has been used as an opportunity to consolidate pilots already undertaken (a way to systematize and institutionalize results developed by other Programme – as LIFE in Sardinia Region and INTERREG Programmes in the Metropolitan city of Turin). An agreement was also activated with each of the Italian Metropolitan Cities for the definition of a Metropolitan Agenda for Sustainable Development which was thought to integrate 2030 Agenda and NSDS perspective and methods within metropolitan strategic planning, piloting integrated actions to train public officers’ potential in collaborating and crossing own policy areas and competences.

The adopted approach is based on the creation of *collaborative networks* and the construction of inclusive, proactive and relevant participatory tools. The “NSDS System”, namely the combination of actors, means and spaces for interaction created by the NSDS can be intended as a learning community, a network of activators who - at a national, regional and sub-regional level and in collaboration with civil society - discuss, explore common problems, share possible solutions and bring together different resources, in the common objective of responding to the global challenges summarized in the 17 SDGs. The process of territorialisation and involvement of civil society is “incremental” and there are still numerous needs emerging from the territories, including:



- to support the internal capacity building processes of each administration to manage complexity which inherits SD;
- to strengthen collaborative, interinstitutional environments for producing common understanding of shared problems and potential solutions;
- to encourage the coherence of policies, plans and programs among sectors and territories, adopting a multilevel and multisectoral approach based on SD;
- to share approaches and methodologies to reinforce the local capacity to unexpected events;

To face these challenges, Italy recognizes Policy Coherence for Sustainable Development (PCSD) as a fundamental tool for achieving the principles of integration and transversality of the SDGs through an institutional and multi-actor cooperation mechanism. In this framework the National Action Programme for Policy Coherence for Sustainable Development (NAP PCSD)¹ has been defined and approved as Annex of the revisited NSDS 2022 approved in September 2023 after a two-year-long revision process.

In 2021, MASE started the triennial revision process of the NSDS. Like the 2030 Agenda, the NSDS22 is divided into two sections that define the overall strategic framework, one dedicated to the five areas, the “5 Ps” of the 2030 Agenda, namely People, Planet, Prosperity, Peace and Partnership, the other, a sixth area, dedicated to three “vectors for sustainability” seen as enabling conditions for the SD: *Policy coherence for sustainable development, culture for sustainability, collaborative institution and innovative partnership*. The Vectors for Sustainability are transversal elements that intercept the aspects of interconnection and indivisibility of the SDGs and are configured as “enabling” factors indispensable for activating that generative energy capable of triggering authentic transformative paths within the Administrations.

The paper intends to critically analyse the mechanisms for addressing the sustainability of public policies, all along the policy cycle, in a whole of government and whole of society approach. In particular, the paper focusses on the approach and on tools developed by MASE for the periodical review of NSDS in order to highlight the added value of the integrated and participative approach of public policies able to properly consider and address at the same time the economic, social and environmental dimensions of sustainability. To this aim, the paper will adopt a qualitative approach, introducing political and strategical documents that inspired the NSDS, in order to frame the main challenges in implementing 2030 Agenda: its localisation, to create a multi level system able to promote institutional collaboration and policy coherence at different scales; the capability of local institutions to produce data and indicators in a multilevel data governance which can guarantee comparability and integrated monitoring of the level of achievement of SD objectives and the SDGs, foreseen by Italian law. The critical overview of the Italian process for sustainable development highlights the work carried out while highlighting the need to find further indicators for tracking and assessing the enacted transformational process (qualitative-and quantitative indicators and measures) as well as soft- mechanism based on voluntary compliance, incorporating measures such as regulatory guidelines, recommendations, objectives, targets and diffusion of information in order to apply the sustainable development at local level.

This article is motivated by the need to know in depth and critically the implementation process of sustainable development in Italy starting from the process activated with the signing of the commitments of the 2030 agenda. It is known that actions towards sustainability produce economic, social and environmental effects that influence the state of development of a country. These effects were considered by MASE through the coherence of the various national and regional strategies, and through the definition of common indicators for measuring sustainable development. The presentation of the approach followed and the difficulties encountered in the process of territorialization of sustainability objectives in Italy can be an example for other countries in the construction of sustainability strategies.

1. The NAP PCSD is the main result of the project “Policy Coherence for Sustainable Development: mainstreaming SDGs in the Italian Decision Making” proposed by MASE in 2019. The project has been carried out with the scientific support of the OECD – Directorate for Public Governance - and within the Structural Reform Support Program (now called Technical Support Initiative) of the European Commission - DG Reform.



The paper is structured as follows: an overview of the policy cycle on sustainable development in terms of principles and processes developed by international, European and national institutions; explains the objectives and methodological approach, the main results institutional instruments (agreement, expression of interest, etc.) developed by MASE in order to achieve a wide participation among several actors (economic and not, private and public, civil society) for a coherent, shared and participate NSDS; highlights the contribute of each policy to the sustainable development - realised by a coherence matrix - tracking the relationship among NSDS and strategic documents and national and regional programmes. At the end the paper concludes on main results, problems and next steps. The paper offers a technical contribution to the European regions in terms of policy coherence, participative approach and data gaps.

2. THE STATE OF THE ART: ANTECEDENTS AND INITIATIVES FOR THE INTRODUCTION OF SDG AT TERRITORIAL LEVEL

Across Europe, several initiatives are being promoted by public authorities at national, regional and local level to introduce the Agenda 2030 principles into policy-making. Steiner (2017) elaborates five drivers to achieve sustainable development through the localisation of the SDGs: 1) knowledge about the SDGs and engagement among local actors leading to good governance and active participation; 2) commitment on each governance level through accountability; 3) integrate inclusion of local actors since it is key to planning and monitoring on a local level and leads to motivated participation; 4) increase of local economic development to fulfil the goals and reflect improvement to communities; 5) creation of partnerships on various levels and with various stakeholders (Steiner, 2017). To improve the engagement with local communities and stakeholders is required to remove bottlenecks that impede implementation of sustainable aims. These drivers are the main evolution from Millennium Development goal.

The main challenge appears to be linked on the one hand to the coherence of international, national and regional strategies and on the other the selection of sustainability indicators capable of measuring territorial differences. Finally, it is important to remember that sustainability actions require dedicated economic resources.

These challenges were partly addressed through the construction of policy coherence matrices (OECD 2021a) built using “open” participatory institutional paths in which economic actors, public and private, and civil society (OECD, 2021a), could bring their requests and needs so that “no one was left behind”. On the other hand, however, the main difficulties are encountered and persist in the selection of territorial indicators for sustainable development capable of translating the SDG indicators of Agenda 2030 into indicators capable of describing territorial specificities.

Many Authors (Biggeri, 2021; Ciambra, 2023) underlined the need to translate the integrated, multi-sectoral and inter-sectoral vision of sustainable development into supranational, national and local political strategies and initiatives. This appears even more evident in sectors such as public health, education, the fight against inequalities where the international objectives of Agenda 2030 must fit into complex territorial contest, different from each other in terms of implementation skills for which an innovative multilevel approach is necessary which goes further goes beyond the traditional scope of the national State in favor of a vertical alignment between the various levels of governance (international, national, regional and local) and horizontal commitment between public, private and social actors, with the aim of guiding the policy coherence towards a common vision (Smoke *et al.*, 2016).

On the other hand, however, there is a problem of measuring actions towards sustainable development. SDG monitoring is based on concepts and parameters designed for the global level and not always adaptable to the local level. The lack of adequate local data or the technical and human resources to manage and use it for coherent and replicable policy monitoring has long been reported as a key obstacle for local governments in contributing to the localization of the SDGs (Klopp *et al.*, 2017; UCLG & GTF, 2020). Several international institutions have increasingly supported the localization of the Sustainable Development Goals and have collaborated with local authorities at the local level in their efforts to monitor implementation from a local



perspective which, however, requires ever-increasing statistical capacity. This is particularly true both in terms of integrating the SDGs into local policies and in terms of the ability of local authorities to provide reliable and shared data and indicators for monitoring and reporting.

In order to implement actions towards sustainable development is necessary to define dedicate economic resources. Several European Member States have already integrated implementation of the Agenda 2030 principles in their national budgeting, in particular the SDGs (McGuinn *et al.*, 2020). However, there are numerous differences between states. Austria, for example, has not associated economic resources with sustainability objectives, choosing to evaluate the sustainability of expenses in the long term; in Germany there is a strong push towards the adoption of sustainability budgets that are able to measure the long-term economic, environmental and social impact of the various planned investments; in Greece, resources for sustainability are associated with transversal policies with the aim of generating a multiplier effect on investments. Italy has, however, already adopted concrete reform measures in its annual document on economics and finance to explicitly integrate sustainable development objectives into its budget. The National Reform Programme, which includes the government programme, is not limited to economic measures but define a general guidelines for environmental, social and economic policies aimed at achieving the SDGs. The objectives are periodically monitored through project-based indicators to measure equitable and sustainable well-being (BES), in addition to economic conditions.

3. OBJECTIVE AND METHODOLOGICAL APPROACH

The article aims to analyze critically the process followed by the MASE – national authority for sustainable development in Italy - to define the NSDS. To this aim, this article intends to:

1. explain the complete mechanism of public sustainability policies in Italy by focusing on the thematic competences of all the actors involved (public/non-public, institutional/non-institutional from the local to the national level);
2. identify the Italian national focus and the initiatives proposed by MASE for the periodic review of the ENDE, placing value on the integrated and participatory focus of public policies capable of capturing the economic, social and environmental dimensions of sustainability.

Following a qualitative approach, the Authors, who participated in the revision process of the NSDS followed: una ricostruzione critica dei documenti di riferimento of the objectives the Authors, who participated in the revision process of the NSDS, achieved:

- a critical review of the NSDS documents in particular relating to multilevel governance, to the selection process of national indicators for sustainable development and to policy coherence approach;
- the several steps to achieve at NSDS and the administrative and territorial governance tools adopted at national level were presented and each actions/implementation tools promoted by MASE to the regions and metropolitan cities are linked to a steps of a generic policy cycle;
- A critical reconstruction of the selection process of national indicators for sustainable development is presented also by the support of the results of two Italian regions, Piedmont and Puglia, in the framework of a JRC project;
- A critical reconstruction of the policy coherence matrix as an inclusive and participatory soft governance tool for the systematization of the NSDS coherently to the main policy and programming documents.
- Finally, the conclusions looking the future work perspective regarding the process of territorialization of sustainability actions.



4. ANALYSIS OF THE RESULTS

4.1. Multilevel governance and localizing the SDGs. From a general approach to a practical application of multilevel governance

Adapting global and aspirational strategies to local conditions and priorities – that are inevitably heterogeneous – requires a territorial approach to the implementation of the SDGs. For this reason, 2030 Agenda and the SDGs require governments to work across policy domains and governance levels, and to cooperate with a wide variety of stakeholders within the Policy coherence for sustainable development (PCSD) approach (SDG Indicators 17.14.1).

Policy coherence for sustainable development means (OCSE, 2016): i) to ensure a common vision and balanced approach to the environmental, social, and economic dimensions of sustainable development; ii) to identify synergies and trade-off between different SDGs and respective targets; iii) to aggregate action at the local, national, regional, and global levels; iv) to analyse causes of common problems and challenges. To this aim a ‘policy integration’ approach is needed to make the three dimensions of sustainability coexist in the framework of territorial governance rules. In Italy, this is to be done through policy processes which are able to identify and enable linkages across scales, tiers, sectors, and between different stakeholders, while designing the contexts-based criteria for their implementation.

SDG localization is defined by UN-Habitat (2022) as the process of transforming the SDGs into reality at the local level, in coherence with the national frameworks and in line with communities’ priorities. Therefore, a bottom-up approach to the implementation of the SDGs requires the adoption of integrated multilevel governance mechanisms, dimensions and drivers, which has been well defined by UN-HABITAT (2022) distinguishing:

- **Vertical integration:** Structured mechanisms and arrangements for alignment and coordination of sustainable development strategies and policies across government levels;
- **Horizontal integration:** Structured mechanisms to enable inter-linkages across policy sectors and domains;
- **Stakeholder engagement:** Structured mechanisms to enable the full participation and cooperation among societal stakeholders in decision-making for SDG implementation at all levels.

These aspects need to be included all along the policy cycle (UN Habitat, 2022):

- **Political commitment and institutional arrangements:** It refers to the existence of a clearly defined political leadership and consensus on the adoption of the SDGs as overarching framework for orienting the development policies, strategies and plans of a country / place. It includes mechanisms in place to: - institutionalize the commitment towards policy coherence for sustainable development at the highest political level (Step 1);
- **Planning:** It refers to the processes associated with the incorporation of the SDGs into national and subnational strategies and plans – ranging from medium-long term sustainable development strategies (and related implementation and investment plans) at national, regional, provincial and local level, to sectoral policies and their sub-national declination (Step 2).
- **Implementation:** It refers to mechanisms aimed at ensuring consistent and effective implementation of adopted strategies, plans, and policies, with particular attention to capacity-building at local level, including specific capacity-building tools as guidelines, training and peer-to-peer exchange;- mechanisms for coordinating the implementation of policies and/or programmes and projects through complementary functions, assignments, and resources from different actors at different levels;- mechanisms in place to promote the vertical and horizontal integration of SDG financing (Step 3).
- **Monitoring and reporting:** It refers to the crucial process of collecting and systematizing information and data for monitoring and reporting purposes on the implementation of policies, strategies and plans for SDGs at different levels. It includes mechanisms in place to systematically monitor and



evaluate the effects of policies, strategies and plans on the various dimensions of sustainable development as well as cross-sectoral impacts, and to inform adaptive action (Step 4).

A multilevel governance system that follows the whole policy cycle seems to be the way to localizing the SDGs in a PCSD perspective. A nexus among global, national and local strategic frameworks operationalised through PCSD including shared tools and collaborative spaces is the key through which Italian experience was designed for achieving the SDGs and implementing 2030 Agenda at different territorial level. It is evident how the approach followed by MASE in the planning of policy cycle on sustainable development follows the UN Habitat approach. In fact:

- In 2017 the National Government approve the first National Strategy for Sustainable Development, while clear institutional arrangements were still to be defined **(Step 1: Political commitment and institutional arrangements);**
- In 2018 an “Expression of interest” has been launched targeting Regions and Autonomous Provinces to define a Regional Strategy for Sustainable development. In 2019 an “Expression of Interest” has been launched for Metropolitan cities to define a Metropolitan Agendas for sustainable development while the civil society was invited to enter the National Forum for Sustainable Development. IN this last case, the Expression of interest intends to activate a cooperation path among several territorial actors (institutions and civil society) to ease the implementation of the 2030 Agenda with reference to social, environmental and economic dimensions of sustainability **(Step 2: Planning);**
- In 2020 the project “Policy Coherence for Sustainable Development: mainstreaming SDGs in the Italian Decision Making” was developed by MASE in close collaboration with the OECD and funded by the Technical Support Instrument (TSI) of the European Commission. It delivered the Italy’s National Action Plan for Policy Coherence for Sustainable Development, which is annexed to NSDS22. In 2019 research institutes have been asked to support regions and autonomous provinces to deliver their own Sustainable Development (SD) strategies, through a dedicated NSDS tender. A resource allocation programme was defined in 2023 in order to fund the “Vectors for sustainability” included in the NSDS22 **(Step 3: Implementation)**
- Since 2018, an annual report is delivered to track the implementation of the NSDS, qualifying and describing the process and the “NSDS system”. In 2022, Italy, by MASE and Ministry of Foreign Affairs, presented a second Voluntary National Review at the High-Level Political Forum of the United Nations. Italy’s VNR² includes voluntary local reviews prepared by local authorities cooperating with the MASE in the NSDS implementation as well as a position paper drafted by the National Forum for Sustainable Development in collaboration with the National Council for Development Cooperation. The integrated VNR exercise reflects and valorises effective multilevel governance enacted by Regions, Autonomous Provinces and Metropolitan Cities in declining national sustainability objectives at local level for a deeper integration of the SDGs in national and local planning processes. In the same year the first Integrated Monitoring Report of the NSDS was published, also including a Regional and Metropolitan monitoring section. It tested for the first time the use of the NSDS indicators to track progresses at both national and territorial level towards the SDGs and the national strategic choices **(Step 4: monitoring and reporting).**

In order to realise Step 3 – Implementation and Step 4 – Monitoring and reporting, the MASE’s flair to realise an institutional “space” of work has been crucial. Thanks to its flair, day by day, Ministries, Regions, civil society take part to the meetings and interact in virtual and physical spaces for discussion a structured NSDS system.

2. <https://hlpf.un.org/countries/italy/voluntary-national-review-2022>



4.2. The national process for Sustainable Development: The NSDS system

To ensure a wide participation, a huge effort in establishing a formal and institutional “space”, a new way of working, is needed. Innovative partnerships are required to mobilize and share different knowledge, skills, technologies and financial resources, at all levels and with all parties’ stakeholders, including civil society, the private sector, academia and young people.

Since the approval of its NSDS in 2017, Italy, by MASE, has constantly supported the regional and provincial entities for transposing the NSDS into their own SD Strategies, following Article 34 of Legislative Decree 152 of 3 April 2006 (and subsequent amendments and integrations). As per the aforementioned Article, a Regional Strategy for Sustainable Development (RSDS) shall indicate: Region’s contribution to NSDS objectives; priorities; instruments to be activated; actions to be undertaken. Furthermore, Regions and Autonomous Provinces are required to ensure joint planning and to support local administrations – also through 21 Agenda processes - that must provide themselves with coherent strategic instruments to contribute to achieving the objectives pursued by the regional strategies.

To this end, following legal requirements, MASE published and Expressions of Interest (EoI) (Cfr. Step 2) addressed to Regions and Autonomous Provinces in 2018 and 2019, which led to signing collaborative agreements with all Italian Regions and the Autonomous Province of Trento to:

- creating and institutionalising SD strategies governance spaces and mechanisms;
- Involving local institutions, in synergy with Metropolitan Cities, and engaging non-state actors;
- defining priority areas for integrated action at regional level to concretely implement SD strategies;

The main aim was easing the creation of integrated systems for monitoring and evaluating policies, plans, programmes and projects. These systems can provide the reference framework for analysis and assessment of the overall effects of the whole decision-making process on the National Strategic Objectives making it possible to understand whether and how the dynamics at work in the territories are consistent with pursued objectives taking in mind the territorial diversity and the European Principle of subsidiarity requiring a national, regional and local coherence between strategies and plan. In 2019 MASE published an Expression of Interest for Metropolitan Cities to define coherent strategic tools contributing to the objectives pursued by the regional strategies for sustainable development, currently being defined by Regions and Autonomous Provinces. In particular, signed collaborative agreements aimed to activate a cooperation path to define Metropolitan Agendas for Sustainable Development, oriented towards the implementation of the 2030 Agenda and national and regional sustainable development strategies with reference to social, environmental and economic dimensions of sustainability. Raising awareness and fostering social and entrepreneurial activation on sustainability issues, also through a wider involvement of citizens and civil society was also addressed by National Forum for Sustainable Development. The Forum SD, inspired by the model of the multi-stakeholder platform of the European Commission (2011)³, has the aim of guaranteeing the involvement of civil society and non-state actors in the implementation of the NSDS and to participate at the periodical revision of NSDS (referred to in art.3 of Legislative Decree 221/2015). In terms of “functionality”, the Forum DS works for:

- Civil society participation and consultation on sustainable development;
- Development of a culture of sustainability capable of generating the conditions enabling the achievement of the sustainable development goals and promoting strengthened networking towards sustainability;
- Fostering of a Multi-actor dialogue – also with and between institutions – aimed at achieving public policy coherence on sustainable development.

3. <https://digital-strategy.ec.europa.eu/en/policies/multi-stakeholder-platform-ict-standardisation>



Subnational institutions, central administrations, non-state actors participating to the National Forum for Sustainable Development, together with beneficiaries from tenders and SD initiatives supporting territorial SD processes represent the so-called “NSDS System”. The NSDS system is therefore a set of actors, places (physical and virtual) and tools that in a multilevel governance approach systematize economic resources, collaboration agreements, define pilot actions (figure 1).

Italy’s National Action Plan for Policy Coherence for Sustainable Development (NAP PCSD) brings together the institutional mechanisms, evaluation frameworks and coherence tools needed to integrate sustainable development into government policy making. This Action Plan shows how to streamline existing mechanisms to improve policy coherence across levels of government and to involve civil society more closely in policy formulation. It also suggests how to make the most of complementarities across existing data collection efforts. The Action Plan includes suggestions for better linking mandates across departments and levels of government to avoid overlap and make greater progress in achieving the Sustainable Development Goals (SDGs). Finally, it provides targets and measurable processes for each action to help track progress.

The NSDS Areas of People, Planet, Prosperity, Peace has composed by National Strategic Choices and National Strategic Objectives reformulated in order to integrate the different contributions received from listening and participation process, aimed mainly at strengthening issues related to: inequalities and discrimination, the role of young generations in society, the impact and potential of businesses on human rights and the environment and the promotion of the institution of guarantee participation of institutions. Furthermore, the relationships between strategic choices and objectives with the SDGs system and the targets of the 2030 Agenda were made more evident. In the Partnership area, the NSDS22 strengthens the relationship with the Three-Year Document for Development Cooperation, structuring a reflection on the external dimension of each of the identified areas.

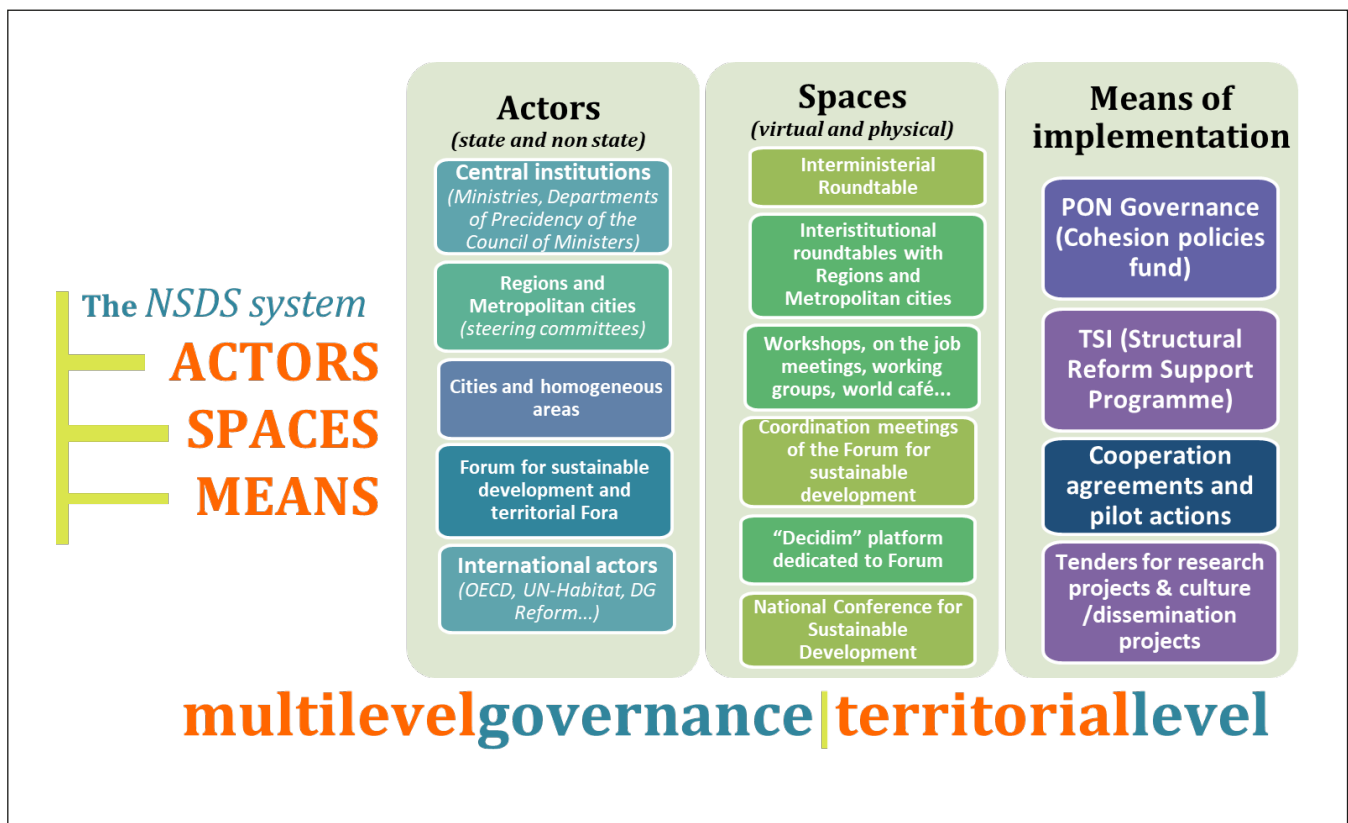


Figure 1. The NSDS system. Source: own elaboration based on Italian Voluntary National Review, 2022.



On the other hand, the revision process delivered the Vectors representing the enabling conditions to trigger and support the sustainable relaunch of the country and the transformation strongly called for by the 2030 Agenda. The vectors “Policy Coherence for sustainable development” and “Participation for sustainable development” have been identified as fundamental areas for achieving the objectives of the 2030 Agenda in Italy, because they have a direct impact on the setting of the national framework of governance for sustainability, on the ability to plan and measure the impacts of public policies with a view to their coherence, and finally on the involvement of all stakeholders in participatory processes, as an intrinsic governance practice. On the other hand, the “Culture for sustainability” vector, in its components linked to education, training and information, constitutes the founding element of all the transformative hypotheses underlying the sustainability of development in each of its dimensions. The importance of all vectors is intended to be displayed all along the multilevel governance characterising the NSDS. For this reason a fourth priority area dealing with SDGs localisation is nurturing the whole process, particularly focussing on: creating the conditions to design and manage an internal governance in all administrations able to face the SDGs implementation complexity challenge (territorial governance); developing, monitoring and reviewing territorial strategic frameworks based on 2030 Agenda, NSDS and NAP PCSD; promoting pilot integrated actions to put a concrete sustainability approach in place and root it as a business as usual attitude within all administrations (figure 2).

The Three Vectors find their implementation in the NAP PCSD and as such it is an annex and integrated part of the NSDS22 as well as included in Italian VNR2022 and presented at the HLPF 2022.

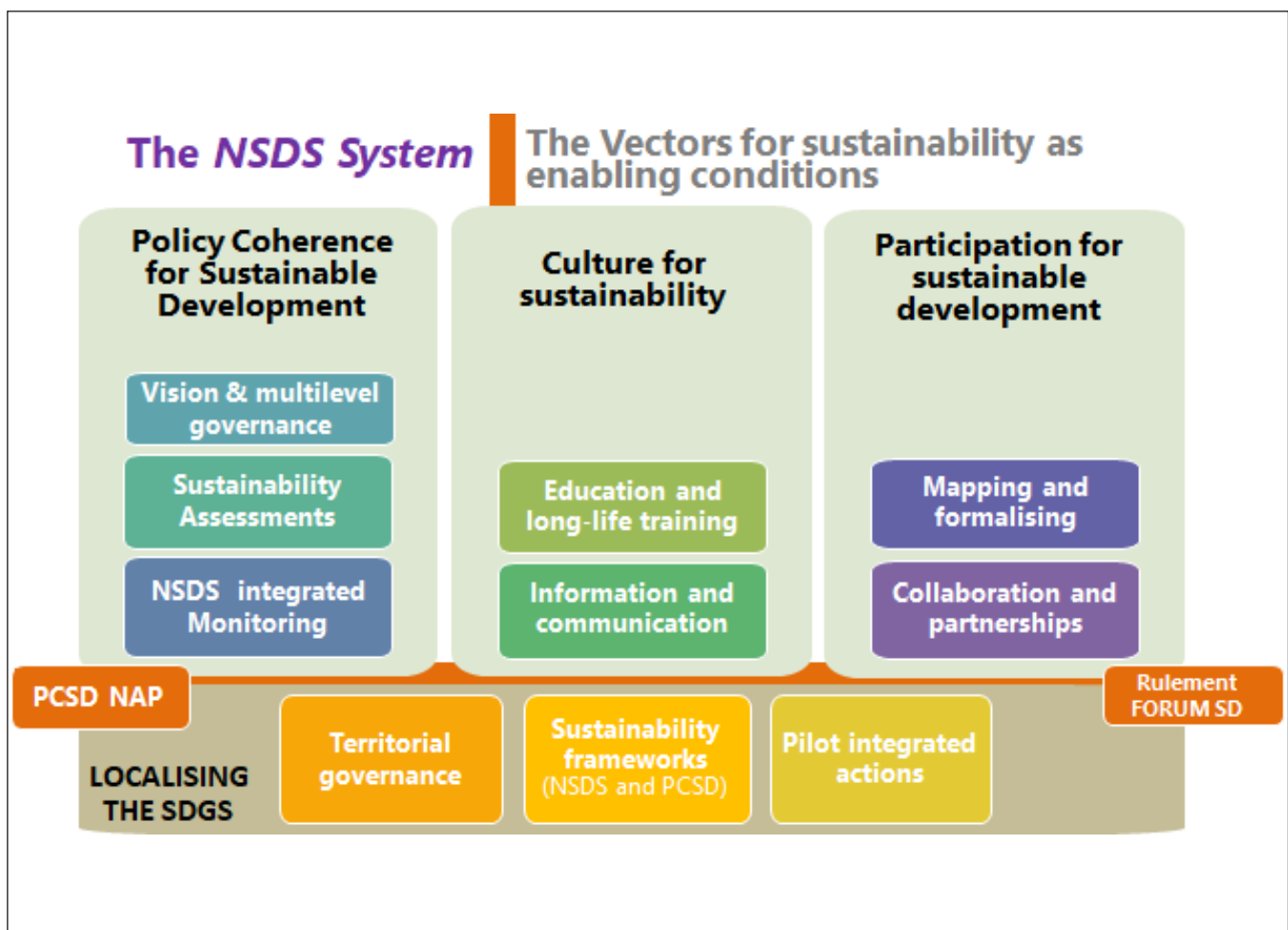


Figure 2. The Vectors for sustainability. Source: own elaboration based on Italian Voluntary National Review, 2022.



The path taken by Italy since the approval of the 2017 Strategy tells of an epochal transition, of administrations and private operators, from sectoral and silos reasoning to a collaborative practice based on a transversal knowledge base and which dialogues with a common language. From closed decision-making processes focused on formal skills to paths of active participation and openness to social dialogue with civil society organizations for the identification of shared priorities and mutual assumption of responsibility in achieving the objectives and desired transformations.

The establishment and subsequent consolidation of collaborative networks, between the administrations of the different territorial levels and between them and the representatives of civil society, has made it possible to create solid foundations for the construction of a continuous process of peer-to-peer learning, reducing the distance between the proposing administration and the recipients, ensuring that the exchange of methods, practices and contributions becomes the prerequisite for the development of shared reflections at a national level and for the continuous renewal of interests.

Territorial contexts in transition towards more sustainable forms of development have become continuous laboratories in which reflections, innovative solutions and new paths to accompany the transformation required by the 2030 Agenda are developed, which ranges from administrative practices to the involvement of local actors up to the change in the behaviour of individual citizens (behavioural change), in an organic plan for the creation of a real educating community. This has in fact given rise to an effective rescaling process (Brenner, 1999) which, starting from supra-national and national scale inputs, has activated multiple, widespread and interconnected processes at sub-national scales, which have now become strategic spaces for local development sustainable.

However, it is not just about accelerating and scaling up sustainable solutions, but also about building bridges and increasing coherence between different policy agendas at all levels in line with the EC reflection paper (2019) according to which policy coherence is an essential condition for ensuring our ability to achieve the sustainable development goals and long-term green and inclusive growth for the EU and, further down the scale, at national and sub-national levels.

Internationally agreed environmental goals and science-based targets will require an integrated approach that considers linkages across different environmental and non-environmental components, building upon disaggregated data generation and incorporating traditional knowledge and citizen science.

4.3. The methodological approach to measure national aims for sustainable development

The Inter Agency and Expert Group on SDGs (UN-IAEG-SDGs) has defined over the years a shared framework for statistical information, as a tool for monitoring and analysing sustainability. The current version of March 2023 proposed by UN-IAEG-SDGs presents 231 indicators, although the total number considered is 248, because some are repeated in multiple targets. Four specific working groups are currently dedicated to: Statistical Data and Metadata Exchange (SDMX)⁴, Geospatial information⁵, Measurement of development support⁶, Sustainable tourism indicators⁷. Great attention is paid to the use of administrative data and further activities on the possible disaggregation of the indicators⁸, especially with reference to the territory, in compliance with the No one left behind principle. The IAEG-SDGs Working Group on Geospatial Information has prepared the Geo White Paper on disaggregation by geographic location and the Statistical Commission has adopted the SDGs Geospatial Roadmap. Both documents reiterate that territorial disaggregation, alone or together with other possible disaggregation of indicators, allows social inequalities to be highlighted and analyses relating to segments of vulnerable populations and areas that present situations of marginality to

4. <https://unstats.un.org/sdgs/indicators/indicators-list/>.

5. <https://unstats.un.org/sdgs/iaeg-sdgs/sdmx-working-group/>

6. <https://ggim.un.org/UNGIM-wg6/>.

7. <https://unstats.un.org/sdgs/iaeg-sdgs/working-group-on-measurement-of-development-support/>.

8. Cfr. <https://www.adb.org/publications/guidebook-data-disaggregation-sdgs>



be carried out. The geostatistical approach is, therefore, one of the essential keys, useful for guaranteeing the harmonization of information, promoting comparisons and analysis of trends that cannot be developed by considering aggregate data, allowing statistical information to be considered also for variable and modifiable geographical areas, essential for monitoring actions (ISTAT SDG, 2023).

The concreteness of the SDGs therefore depends not only on the statistical data system, but also on the availability of *adequate geographical disaggregation* and it is strictly recommended that statistical data are referred to the most detailed possible geographical scale. The UN-IAEG-SDGs program of activities envisages, in addition to the implementation of indicators based on current methodologies and traditional data sources (including administrative archives), the development of innovative elements that include non-traditional data sources (i.e. citizen-generated data) to try to remedy some of the information gaps.

Advances in collecting official statistics and other evidence that feed into geographic information systems for environmental monitoring and accounting have expanded knowledge, while highlighting data gaps in every environmental domain (well established). More data will assist in linking people with the environment. Time series data is vitally important in this regard, as it forms the basis for monitoring change and reliability. Disaggregated data that capture information by gender, ethnicity, race, income, age and geographic region identify critical differences and promote effective policy design.

In addition to filling knowledge gaps with new data, enormous gains can be made from consolidating, curating, harmonizing and increasing open access to existing data which are widely dispersed and cannot be easily combined or compared. Common frameworks, initiatives and political will are needed to merge data sources and make better use of what is available. Rationalizing both existing and newly collected data is essential for the development of indicators.

Since 2018 MASE established a Working Group on Indicators - with MAECI, MEF, National Government, ISTAT and Italian Institute for Environmental Protection and Research (ISPRA)- for the implementation of the NSDS with the aim of defining a narrow and representative core of monitoring indicators, building on statistical measures available in the ISTAT-SISTAN Platform, preferably identical to UN-IAEG-SDGs indicators and coherent with the Equitable and Sustainable Well-being indicators (BES), so as to ensure that measures also respect the requirements of statistical admissibility. BES have been populated since 2013 through "an inter-institutional initiative of great scientific importance, which places Italy at the forefront in the international panorama in terms of developing indicators on the state of health of a country that go "beyond the GDP"" (ISTAT, 2013). Therefore, the MASE working group adopted criteria of parsimony, feasibility, timeliness, extension and frequency of the time series, sensitivity to public policies, territorial dimension, focusing on statistical measures that had the best available territorial disaggregation, in order to identify a first experimental subset of statistical measures referable to the National Strategy (Figure 3). It consisted of 43 SDGs statistical measures, many of which are also included into BES. The indicators have been shared with the Italian Regions, Metropolitan cities and civil society in order to verify the representativeness and the availability of data also with regard to the territorial strategies and agendas.

As part of the revision process of the NSDS, an update of the 43 indicators identified in 2019 was also activated, in order to rationalize them. The activity could benefit from the discussion with the institutional actors - national and sub - and with non-state actors to guarantee coherence and comparability of information both vertically (central/territorial level) and horizontal (between territories).

The revisited NSDS22 worked to:

- build a database and a set of indicators capable of guaranteeing significance with respect to environmental and territorial phenomena and comparability with the international monitoring system
- develop indicators capable of responding to the "BES requirements" by adequately taking into consideration the peculiarities of environmental phenomena compared to economic ones
- check availability of indicators at different territorial levels, to ensure the evaluation of the contribution of national, regional and local strategies to the achievement of NSDS and objectives and the SDGs.

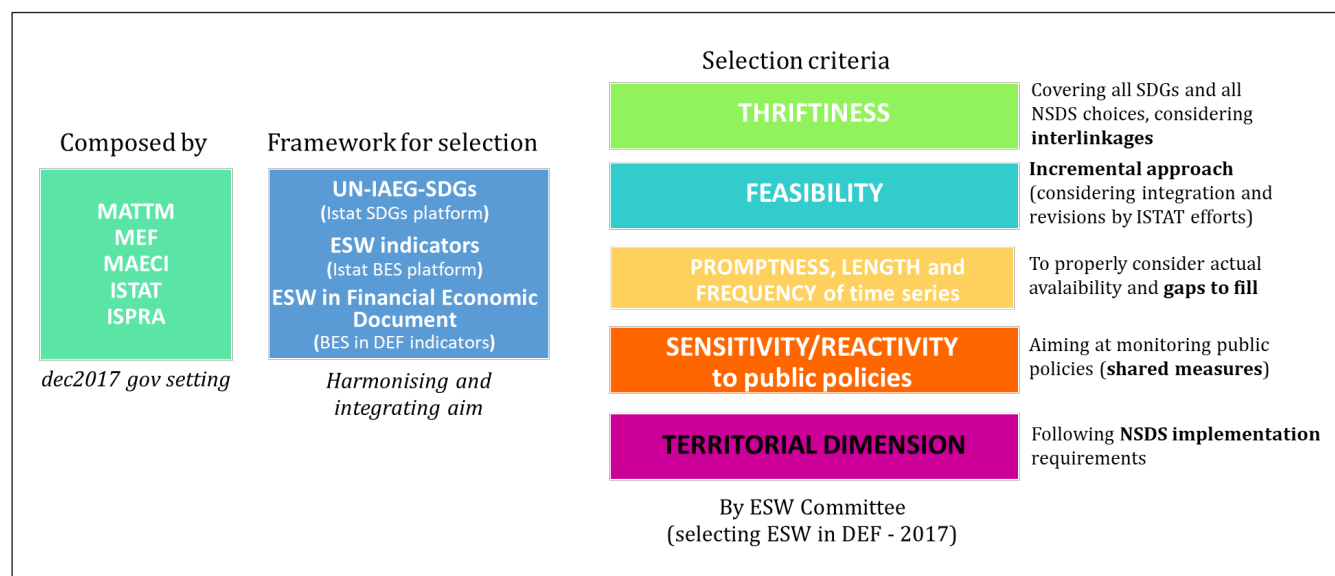


Figure 3. Criteria to select national indicators for sustainable development (2018). Source: National Strategy for Sustainable development, Ministry of Environmental and Energy Security, 2022.

The initial set of 43 indicators has been sent to the Regions, Autonomous Provinces and Metropolitan Cities, asking to verify the availability of indicators at local level and/or to suggest other indicators not included in ISTAT/SISTAN System, but still useful for measuring changes linked to the phenomenon being monitored in the context of the National Strategy.

In order to fully implement the mandate of the Art. 34 of the Legislative Decree. 152/2006 in the framework of policy coherence and to assess the contribute of policy to the sustainable development, has been developed a coherence matrix among NSDS and strategic documents and programmers, including Recovery and Resilience Plan, Cohesion Policies 21-27, National Gender Strategy, National Biodiversity Strategies, Green New deal, etc. maximizing coherence and supporting the actors of the NSDS System in making sustainability decisions simplifying at one time the evaluation processes.

The NSDS22 has thus defined a shared core of context indicators divided into primary indicators - 55 indicators associated with the National Strategic Choices and secondary indicators - 190 indicators for monitoring the National Strategic Objectives. The primary indicators are those to be shared with territories and to allow the integrated monitoring of the NSDS; secondary indicators are needed in order to provide in depth reporting and specific insights.

Primary indicators have been selected by developing a coherence matrix which, starting from the NSDS, systematizes indicators, sources, targets (where available) with strategic documents and programmes, including National Recovery and Resilience Plan (NRRP), Ecological Transition Plan (PTE), Cohesion Policies and Sustainability and wellbeing indicators framework in order to simplify assessment and reporting while making it more efficient. In integrating well-being and sustainability indicators (ISTAT - BES) into its economic and budgetary planning, Italy has become the first country to consider non-financial indicators in the implementation and monitoring of public policy-making (McGuinn *et al.*, 2020).

The 55 NSDS indicators also include 33 of the 43 initial indicators. The remaining 10 have been attributed to National Strategic Objectives (secondary indicators). Where available, a target value (national and/or European) has been linked to choices and objectives, as well as to context indicators, both primary and secondary.

The indicators are correlated to all the strategic choices of the NSDS and cover all the Goals of the 2030 Agenda, to guarantee maximum significance at a national level and allow comparability with the European and international level. With reference to the Partnership Area, it was chosen to identify a single indicator, linked to Development Aid.



In the following the 55 indicators of NSDS2022 are listed, in association to Sustainable Development Areas and National Strategic Choices (table 1).

Table 1. Indicators of NSDS2022 are listed, in association to Sustainable Development Areas and National Strategic Choices.

PEOPLE DOMAIN

I. Fight poverty and social exclusion, eliminating territorial gaps

1.2.1 Absolute poverty (incidence) (ISTAT)

1.2.2 Severe material deprivation rate (ISTAT)

10.2.1 People at risk of poverty (ISTAT)

II. Guarantee the conditions for human potential development

4.1.2 Early leavers from education and training (ISTAT)

4.6.1 People having completed tertiary education (30-34 years) (ISTAT)

8.3.1 Share of employed persons not in regular occupation (ISTAT)

8.5.2 Unemployment rate, by sex, age and persons with disabilities (ISTAT)

III. Promote health and wellbeing

2.2.2 Overweight or obesity among minors from 3 to 17 years of age (ISTAT)

11.5.1 – 13.1.1 Population at risk of flood (ISPRA)

11.5.1 – 13.1.1 Population at risk of landslides (ISPRA)

3.4.1 Healthy life expectancy at birth (ISTAT)

PLANET DOMAIN

I. Halt the loss of biodiversity

Percentage of species and habitats of Community interest in a favourable state of conservation

15.1.2 Protected natural areas (ISTAT)

14.5.1 Marine areas included in the Natura 2000 Network (MASE)

II. Ensure sustainable management of natural resources

6.4.1 Urban water supply network efficiency (ISTAT)

15.3.1 Soil sealing from artificial land cover (ISPRA)

11.6.1 Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities (ISTAT)

11.6.2 Emissions SO₂, NO_x, COVNM, NH₃, PM_{2.5} (ISPRA)

III. Create resilient communities and territories, protect landscapes and cultural heritage

11.7.1 Incidence of urban green areas on urbanised area of cities (ISTAT)

15.3.1 Fragmentation of natural and agricultural land (ISPRA)

11.3.1 Illegal building rate (ISTAT)

Primary expenditure for environmental protection, use and management of natural resources related to biodiversity (ISPRA)

PROSPERITY DOMAIN

I. Promote sustainable economic well-being

10.1.1 Disposable income inequality (ISTAT)

10.1.1 Adjusted disposable income per capita (ISTAT)

8.1.1 Annual growth rate of real GDP per capita (ISTAT)

II Fund and promote sustainable research and innovation

9.5.1 R&D intensity (ISTAT)

9.4.1 CO₂ emission per unit of value added (ISTAT)

9.5.2 - Researchers (in full-time equivalent) (ISTAT)

III. Ensure full employment and high-quality training

8.6.1 People not in education, employment, or training NEET (ISTAT)

8.5.2 Employment rate (20-64) (ISTAT)

9.5.2 - Researchers (in full-time equivalent) (ISTAT)

IV. Ensure sustainable production and consumption patterns

12.2.2 Domestic material consumption per GDP (ISTAT)

**Table 1.** Indicators of NSDS2022 are listed, in association to Sustainable Development Areas and National Strategic Choices.

12.2.2 Domestic material consumption per capita (ISTAT)
12.5.1 Circular material use rate (Eurostat)
12.5.1 Separate collection of municipal waste (ISPRA)
2.4.1 Share of utilized agricultural land under organic farming (Ministry of Agricultural, Food and Forestry Policies)
V. Promote mobility and transport sustainability and security
9.1.2 Passenger volumes, by mode of transport (ISTAT)
9.1.2 Freight volumes, by mode of transport (ISTAT)
7.1.2 Share of newly registered electric or hybrid cars (ACI-ISTAT)
V. Reduce greenhouse gas emissions and decarbonize the economy
7.2.1 Renewable energy share in the gross final energy consumption (GSE SpA)
7.2.1: Electricity from renewable sources in the gross electricity consumption (TERNA SpA)
7.3.1 Energy intensity (ENEA)
13.2.2 Total greenhouse gas emissions per year (ISTAT-ISPRA)
PEACE DOMAIN
I. Promote a non-violent and inclusive society respectful of human rights
16.1.1 Intentional homicide rate (Ministry of the Interior)
5.2.2 Proportion of women aged 16-70 subjected to physical or sexual violence by a man other than intimate partner in the previous 5 years (ISTAT)
4.1.1 Inadequate level of literacy and numeracy (students in grade 10) (Invalsi)
8.5.2 Employment rate (20-64) for citizenship (ISTAT)
II End discrimination in all its forms
5.4.1 Ratio of employment rate for women aged 25-49 with at least one child aged 0-5 to the employment rate of women 25-49 years without children (ISTAT)
5.5.1 Women and political representation at regional level (Individual regional councils)
4.a.1 Physically accessible schools (ISTAT)
III. Ensure legality and justice
16.3.2 Unsented detainees as a proportion of overall prison population (Ministry of Justice – Department of Prison administration)
16.3.2 Prison density (ISTAT, processing of data from Ministry of Justice- Department of Prison administration)
16.6.2 Length of civil proceedings (Ministry of Justice - Judicial organization department)
Predatory crime rate (per thousand inhabitants) (ISTAT)
PARTNERSHIP DOMAIN
17.2.1 Aiuto Pubblico allo Sviluppo come quota del reddito nazionale lordo

Source: National Strategy for Sustainable development, Ministry of Environmental and Energy Security, 2022.

Further SDGs localisation initiatives are expected to primarily target the local scale, promoting further collaboration and widening the NSDS system to local entities. However, SD indicators are not generally available at local level, or can only cover few items. Following the EC 2021, the SDGs localization is the process of translating the 2030 Agenda for Sustainable Development within the local context and challenges, defining, implementing and monitoring local actions and strategies that contribute to the global achievement of the SDGs. The lack of local data for producing SD indicators is therefore the main problem Italy has to face for further territorialising the 2030 Agenda and the NSDS.

The need is also urgent at European level. The European Commission's Joint Research Centre (JRC) is developing the REGIONS2030 project with the support of the European Parliament, building on existing work done in the framework of the cooperation with relevant Commission services on the localisation of the SDGs and their local monitoring (URBAN2030 project).

At the end of 2022 the JRC proposed an indicator set (Annex 1- table 244) that includes 83 indicators, covering the entirety of the 17 SDGs and 52 (out of 169) SDG targets of the 2030 Agenda to be applied in 10



pilot regions⁹ to redefine the method and the set of relevant indicators at the NUTS2 level for monitoring the SDGs in Europe, trying to cover, as much as possible, most of the SDG targets. It aims at providing support to local administrators for localize the Sustainable Development Goals at the subnational scale (regional and urban).

This initial set of indicators has been tested in Italy in Piemonte and Puglia regions, verifying the quality, availability and accuracy of data, and suggesting the inclusion of additional indicators and, potentially, the replacement of existing ones.

- 50 can be found from European sources and are available for all European regions, including Piemonte; but some of these are not measurable or useful for Piemonte
- 30 are available from national/regional sources of other European countries (e.g., Spain, Portugal, etc.) or are an elaboration of the JRC;
- 3 are only available at NUTS1 level.

Piemonte and Puglia demonstrated how the Italian approach to an integrated monitoring for the SDGs and the sustainable development strategies can be key to the European process (table 2 and 3).

Table 2. Puglia Regional Sustainable Development Strategy.

Following the Italian legal framework (Legislative Decree 152/2006; art. 34), the Puglia Region has started its own process for delivering a Regional Sustainable Development Strategy (RSDS) in April 2019, thanks to two Collaborative agreements signed with MASE in 2018 and 2019.

The system of Regional Sustainable Development Goals (RSDGs) of Puglia moves within the framework defined by the Regional Government Program, adopted on November 2020, with which the Regional Council outlined the strategies and policies to be implemented over the legislature, aimed to combine competitiveness, attractiveness and solidarity as expressed by the 2030 Agenda and the Italian National Strategy for Sustainable Development (NSDS).

The Regional Sustainable Development Strategy is the framework for regional planning considering policy coherence as a tool for assessing the contribution of regional policies to the achievement of multilevel sustainability goals. It is conceived as a long-term vision document that projects the Puglia government towards achieving the horizons of the UN 2030 Agenda.

A coherence analysis (internal and external) has been made by the Regional Environmental Department also considering the current regional sectoral programming documents and the related strategic objectives.

Whereas the internal coherence analysis considered all regional policies connected to the three dimensions of sustainability (social, economic, environmental), the external one took into consideration:

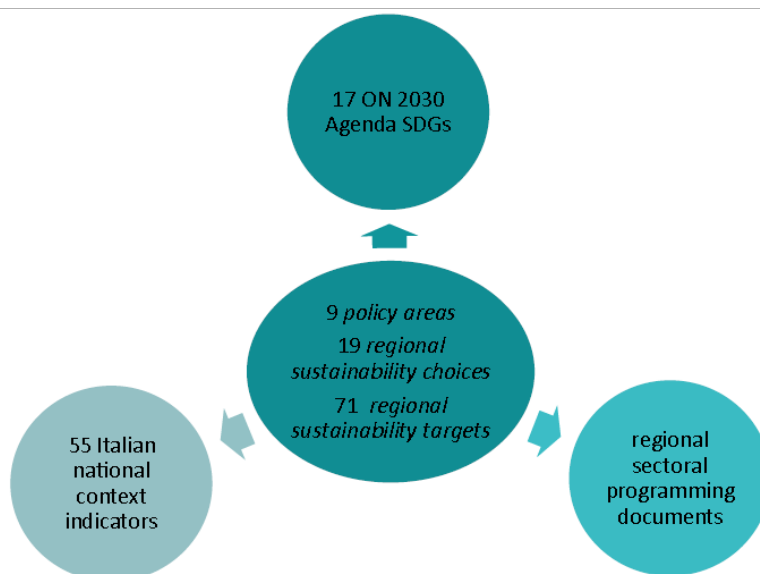
the 17 2030 Agenda SDGs;

the 55 context indicators selected in the SNSvS.

The list of the Regional Sustainable Development Goals was then defined in a preliminary guidance document approved in April 2021. At the beginning, the RSDGs have been divided into 10 policy areas, variously related to the 17 SDGs. Each policy area was then broken down into several regional sustainability choices and regional sustainability targets.

These have then been associated with context indicators. In its first release, this indicators-based monitoring plan already included up to 12 of the indicators proposed by REGIONS2030 project. Further efforts have been done to associate all the indicators (81 out of 83 indicators proposed by JRC) with at least one regional sustainability choice.

9. TR-33 (Turchia), North Aegean region (Greece), Western Macedonia region (Greece), North-West Romania region (Romania), Navarre region (Spain), Andalusia region (Spain), Puglia region (Italy), Piedmont region (Italy), Centro region (Portugal), Pomorskie region (Poland).

**Table 2.** Puglia Regional Sustainable Development Strategy.

A particular attention has been devoted to the participatory process, providing a high involvement and engagement of all Regional Department responsible for regional sectoral programmes. In order to achieve a Regional Strategy truly capable of triggering transformative actions, it is necessary for the Puglia Region to build a shared strategic path that sees the active participation of all internal organisational structures.

Source: Monitoring the SDG in Puglia Region, p. 89-91. <https://publications.jrc.ec.europa.eu/repository/handle/JRC134403>

Table 3. The governance e the relations with other institutional levels.

Piemonte Region is working for the territorialization of the RSDS and for the monitoring of the SDGs, as well as for improving governance mechanism within and outside the Region. Besides supporting internal relations between its Directorates, the Region has also started several activities also strengthening institutional collaboration:

- International level: Piemonte's contribution to the Voluntary Local Review (VLR) in synergy with the National Voluntary Review; Participation to Regions2030 and piloting further activities with the JRC; PCSD regional governance as a case study for OECD Network on PCSD;
- National level: integrated NSDS monitoring;
- Regional level: territorialization of RSDS, and the indicators for the monitoring, in the Piemonte Mountain Strategy;
- Metropolitan level: territorialization of RSDS indicators for Metropolitan Agenda for Sustainable Development of Turin;

As part of the RSDS elaboration activities, the Piemonte Region has started a path to identify, select and analyse indicators useful for monitoring its own sustainability goals, concerning the characteristics of the regional territory (problems/strengths) and in coherence with the 17 Goals of the 2030 Agenda, the European targets identified in the EU Strategies (e.g. Green Deal, etc.) and the NSDS.

The 43 IAEG-SDGs indicators from ISTAT-SISTAN selected by the National the Working group on NSDS indicators in 2019 were adopted as a reference for declining Regions2030 indicators proposal from JRC for measuring the Positioning of Regions regarding the Goals of 2030 the Agenda.

After the NSDS revision and the adoption of the 55 primary indicators, , the Piemonte Region complemented the RSDS dashboard by identifying indicators targeting the regional and sub-regional levels.

It also made it possible to devise a vertical, integrated monitoring framework going from local to national, up to the 2030 Agenda and vice-versa.

The Regions2030 project implementation in Piemonte provided a relevant chance for combining the different fields of work on the selection of indicators for the localisation of 2030 Agenda in place at national, international and regional level. In particular, it allowed the verification of the JRC proposed indicators and the analysis of data at the regional level in order to identify additional or alternative indicators to the preliminary set coming from the JRC, also providing further suggestions for the development of the regional contribution to the REGIONS2030 project. The project activities and the results have been shared with the MASE and will be further shared with the National Panel with Regions and Metropolitan Cities.

Source: Monitoring the SDG in Piemonte Region, p. 291-292 <https://publications.jrc.ec.europa.eu/repository/handle/JRC134399>



Through their participation to Regions2030, Puglia and Piemonte widened their capacity in fully measuring and reporting SDGs implementation, valorising the joint work in place with MASE and with all the other regions. Through the Working table on the implementation of the NSDS, they could benefit from the sharing of Piemonte and Puglia experience and get prepared to a further application of Regions 2030 to all European regions.

4.4. Policy coherence: an inclusive and participative “soft-instrument”

Moving from the work carried out on measures for the NSDS and the huge effort of improving the ability of Italian statistical system to measure, report and assess the contribution of public policies on the three domains of sustainability, in 2021 CIPE Resolution no. 79¹⁰ confirmed Italy's desire to proceed in the direction of planning and evaluation tools based on sustainability. In particular, the Resolution refers to a further deliberative act that contains a set of indicators for the evaluation of public investments and identifies an evaluation tool around the sustainable development objectives of the 2030 Agenda and the NSDS. Building on the Resolution, each investment has to be accompanied by a summary evaluation sheet also taking into account: a) the economic/social objectives pursued with possible assessment of the expected impact in terms of economic growth, employment, sustainable development, territorial and social cohesion, protection of rights, implementation of legal obligations; b) the reasons for the intervention in relation to possible alternative options; c) the contribution to the pursuit of sustainable development objectives. Building on the Strategic Environmental Assessment approach, directly linked to NSDS in Italian legislation, the aim is to lead comprehensive sustainability assessment, embodying socio-economic and environmental assessment procedures. The following scheme shows the direction Italy is moving towards in implementing the sustainability strategies at different territorial level and the PCSD NAP to ease monitoring and assessments towards sustainability and rooting into policy cycles (figure 4).

In this perspective, a coherence matrix has been created which, starting from the NSDS, systematized indicators, sources, objective values (where available) with strategic documents and programmers, including PNRR, PTE, Cohesion Policies maximizing coherence and supporting the actors of the NSDS System in making sustainability decisions while simplifying the evaluation processes.

Representatives of the Cohesion Policies Department and the Recovery and Resilience Plan Mission Unit were actively involved in the work of verifying and aligning the indicators with the aim of bringing the monitoring processes of the different instruments together as much as possible strategic and programmatic strategies in force on Italian territory and to avoid the duplication of indicators among National Sustainable Areas of NSDS2022. With the National Department of Cohesion Policy, MASE has also gone down to a further level of detail by correlating the National Strategic Objectives with the fields of intervention indicated by the ERDF and ESF+ regulations and the related output and result indicators of cohesion policy. This exercise led to the creation of a correlation matrix useful at different territorial levels to monitor/measure the contribution of investments financed by cohesion policy to the achievement of the NSDS objectives¹¹.

At the same time, working on completing the territorial frames for sustainable development, PCSD has been at the core of governance design and coherence tools elaboration. More than a half of Italy's Regions and Autonomous Provinces identified their Regional or Provincial Sustainable Development Strategy as the unitary reference framework for policy coherence. Others are working on the integration of strategic sustainability objectives into existing pathways and instruments. In several cases, a correlation already exists between sustainability objectives and economic and financial documents issued by Regions and Autonomous Provinces, supported by coherence analyses and integrated monitoring systems.

10. <https://ricerca-delibere.programmazioneeconomica.gov.it/media/docs/2021/E210079.pdf>

11. <https://app.powerbi.com/view?r=eyJrIjoiMDIiMWZzOGQyYmViMC00ZTY4LWJhZGYtZDNIbDQxOWI1MmFkIiwidCI6ImE0MDZkY2ZmLTAwNTktNDIzYi1iOWE1LTlkYTQyNDNkN2VkMyIsImMiOiJ9>

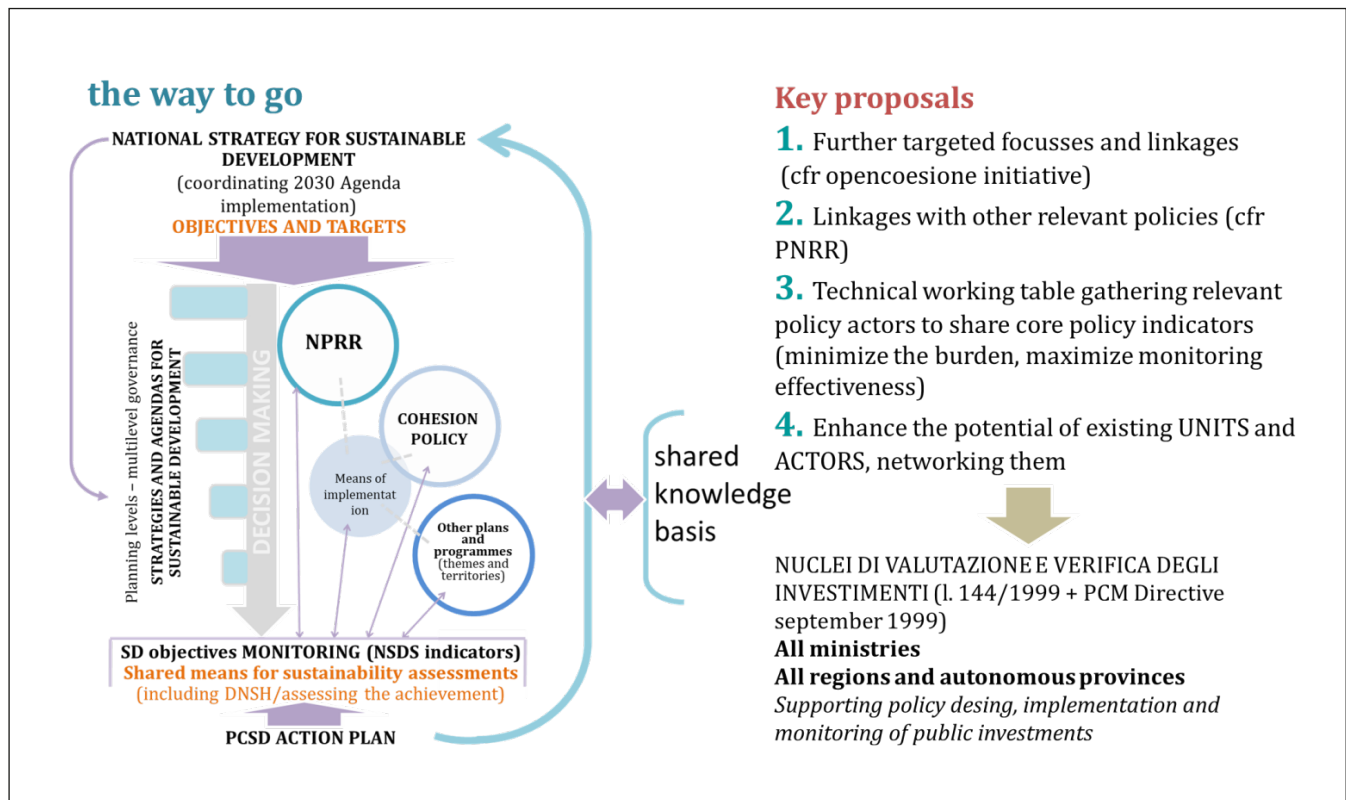


Figure 4. NSDS system towards sustainability assessment. Source: own elaboration based on Italian Voluntary National Review, 2022.

Analysing the regional and provincial documents on sustainable development, four main **functions** can be identified:

- **To Orient** environmental and territorial planning, programming and evaluation processes to address regional policies in line with sustainable development objectives: Cohesion policy, National Recovery and Resilience Plan, Sectoral policies (i.e. energy, transport, mobility, etc), Green new deal, etc;
- **To Observe and assess** how strategic choices and sustainable development addresses are connected with economical regional programmes (Economic and financial regional document), European Regional Development Fund and Integrated plan of activities and organization: strategic environmental assessment monitoring (SEA), regional economy and finance document (DEFER);
- **To Connect** multi-sectoral and cross-regional actions (Internal areas plan, green communities, river contracts; Unions of municipalities, regional park, Environmental education centre network (CEAS and InFEAS, etc.)
- **To Engage** civil society in the sustainable development choices for a participative regional strategy for sustainable development (Regional forum for sustainable development, open governmental mechanism;

19 regional committees for sustainable development have been created out of 21. All 14 metropolitan cities created their own SD committee boosting the integration between strategic planning foreseen by law and metropolitan agendas for sustainable development. Furthermore, MASE carried out in 2023 a survey to investigate detailed advancements on the field. Contributions gathered brought to evidence how 35% of regions have already institutionalised the integration among strategies for SD and DEFER, based on NSDS primary measures and completed by further regional context-based indicators. 28% of regions use their SD strategy to ease Strategic Environmental Assessment and make more efficient, while providing valuable chances for monitoring cumulative impacts through shared NSDS indicators linked to sustainability



objectives. 23% of regions are working on integrated strategic documents, directly linking SD strategies to adaptation, circularity and green public procurement documents. Some of them are also starting working on the integration between SD strategies and performance assessment measured on how administration units are able to ease the achievement of sustainability objectives.

5. DISCUSSION AND CONCLUSION

The paper discusses on the territorialised approach to implement national strategies for sustainable development focusing on Italian experiences. The Italian approach has been presented as an exemplificative application of the evolution from the Millennium Development Goal to the SDG Agenda that reflects the process of territorialisation of the sustainability objectives. The critical analysis of the NSDS revision process shows the long path taken by Italy in defining sustainability objectives achievable at the different levels of territorial government (national, regional and metropolitan/local level) taking into account territorial specificities.

The paper presents how Italian experiences has been token in charge main institutional and scientific recommendation (OCSE, 2021a; Steiner, 2017; Biggeri, 2021; Ciambra *et al.*, 2023; Smoke *et al.*, 2016; McGuinn *et al.*, 2020) in the developing of NSDS. The results is a critical analysis of the process of transforming the SDGs into reality at the local level by multilevel governance mechanism, policy coherence, participative approach. The paper undelights that the main limits in the territorialised SDG is represented to the selection of commune indicators, data availability at local level and to assess the best administrative issue able to implement sustainability choices to achieve sustainability aims.

To the numerous and different objectives correspond several and different needs which are expressions of specific sensitivity in order to achieve the main principle of Agenda 2030 “leaving anyone behind”. This aspect, in Italy, has been implemented through the mechanism of civil society participation in the NSDS by National Forum for Sustainable Development (FORUM SD) able to identify in principle what that Eising and Kohler-Koch (1999) called as “functional interests” of all the actors involved.

The needs expressed by the various actors has been collected by a complex mechanism of participation and listening that has given the dimension to sustainability showing what Boas, Biermann and Kanie (2016) have defined as the “multidimensionality” of sustainability aims.

What emerged from the various studies, research and scientific evidence has also been reflected in European Community regulations. Following the Regulation (EU) 2021/1060 the member states have to include the “horizontal measure” in own policy actions focusing on inclusion and participation mechanism in order to pass the territorial gaps with a fixed focus on measuring the social component of sustainability.

The comparison work by McGuinn *et al.*, 2019 of the different European experiences relating to the definition of a national strategy for sustainable development shows how Italy has considered one time the economic, social and environmental dimensions of sustainable development according to an inclusive and participatory approach that, in agree with Steiner, puts in coherence local strategies with national objectives to implement by multilevel governance mechanism. Finally, coherently with OCSE suggestions, NSDS should be act by an open partnership mechanism for a large participation of territorial stakeholders.

This effectively means abandoning the measurement of the objective target measured with respect to progress towards an objective settled at international level. In fact, Italy worked to translate the international objective of sustainable development to the most appropriate territorial scale. To this aim, it was a priority to consider the several national strategies, highlighting the contribution of each of these to the sustainability objectives; the indicators selected are those most frequently found in the various national policy documents, leaving it up to the regions and metropolitan cities to implement detailed indicators suitable for measuring their own economic, social and environmental specificities. The economic resources assigned to sustainability are included directly in the economic and financial document, effectively becoming an essential condition for spending and investments.

For further NSDS localisation the Governments have to recognize differences in each context and work on complementarities while respecting diversities and context-based adaptation. Territorial diversity mirrors



into strategic documents both with respect to the choice of indicators, directly linked to the expression of regional priorities and peculiarities, and to the identification of implementation areas and means, to be also seen as an expression of the physical and morphological aspects of the territory. To this scope, in agreement with Klopp & Petretta (2017), the capacity of local authorities to provide reliable and shared data and indicators for monitoring and reporting must be strengthened. The issue of the target values set by national and regional strategies is also necessary, and not yet adequately stressed. It is important to remember that each country contributes to the sustainability objectives through the national political and strategic choices to be implemented at different levels. However, regional strategic documents often refer to the objective values defined in the national strategies without setting their own, thus making it difficult to contribute to the sustainability objectives of the various territories. However, the numerous existing territorial typologies (mountain areas, urban suburbs, internal areas, islands, etc.) and the different administrative issue (i.e. internal areas, green communities, etc.) require adapting the reference framework for the implementation of sustainability actions.

Italian experience, although relevant efforts have been spent in engaging regions and metropolitan cities, shows how the main challenges in implementing the 2030 Agenda remain at local level. As pointed out by several UN Agencies, this is particularly true both in terms of mainstreaming the SDGs into local policy making, and in terms of capability of local entities in providing reliable and shared data and indicators for monitoring and reporting. To be truly considered as vertically integrated, the NSDS monitoring system must be intended to be flexible/dynamic, adapting over time to the evolution of the sustainability strategies at the different territorial levels, which are updated over time in relation to the three-yearly update of the NSDS. The SD governance will then have to design all spaces and rules for data gathering and processing. It will be necessary to complete the mapping of the subjects who contribute to the implementation of the NSDS and to involve in the monitoring exercise within the NSDS System, besides those already mapped and engaged. The sharing of common methods and time-frames for data transfer to MASE will be crucial for allowing the annual monitoring, as well as proper measures for actively engage non state actors at all levels in the exercise.

Further working issues could be focus on the measure of sustainable actions looking the better administrative issue for a specific territory (i.e. Internal areas, Green communities, Unions of municipalities, River Contracts).

Further agreements will have to focus on local territories engagement, experimenting new forms of collaborative governance and considering the reporting exercise at the High Level Political Forum of the United Nations as a driver for boosting community engagement and SDGs rooting into institutional attitudes and behaviours.

Collaborative spaces defined within the NSDS system will have to undergo a proof of continuity. Despite the efforts provided by MASE in building relationships and shaping spaces for collaboration, the institutional geography is quite unstable, often providing changes in administrative units' composition, definition and competences. To be a "collective journey" a continuous engagement effort has to be provided with all actors, calling for enhanced collaboration and proposing the NSDS system at different levels as a driver for simplification of existing institutional duties and burdens through sharing of knowledge, means and solutions.

Acknowledgements

The authors sincerely thank all the members of the NSDS working group at the Ministry for the Environment and Energy security for the huge work carried out together and the continuous chances provided for critically discussing and reflecting on the effectiveness and limits of our work.

We would also acknowledge the wide NSDS Community: officers and experts from national administrations, regions, the autonomous provinces, the metropolitan cities, the academy and the civil society who daily cooperate to build and practice a real multilevel governance system for sustainable development in Italy.

Finally, we would like to acknowledge the collaboration with colleagues from the National Statistical Institute (ISTAT), the National Research Institute for Environment (ISPRA), the Department for Cohesion



Policy at the Presidency of the Council as well as the General Accounting Office of Italy for being pivotal in delivering shared measures for sustainable development and building the integrated monitoring framework for the NSDS.

Responsibilities and conflicts of interests

All authors undertake to disclose any existing or potential conflict of interest in relation to the publication of their article¹². All authors undertake to disclose any existing or potential conflict of interest in relation to the publication of their article. All authors contributed to the study and approved the final manuscript.

- Maria Coronato: Introduction, Reading the NSDS process along the policy cycle.
- Mara Cossu: The NSDS System; Measuring the SDGs: the Italian way for defining a multilevel monitoring system
- Tiziana Occhino: State of art.

All authors contribute to develop main results, discussion and conclusions of the manuscript.

REFERENCES

- Asian Development Bank (2021). *Practical guidebook on data disaggregation for the sustainable development goals*. <https://www.adb.org/sites/default/files/publication/698116/guidebook-data-disaggregation-sdgs.pdf>
- Biggeri, M. (2021). Editoriale: Un “Decennio d’Azione” sulla localizzazione degli SDG. *Giornale dello sviluppo umano e delle capacità*, 22(4), 706–712. <https://doi.org/10.1080/19452829.2021.1986809>
- Boas, I., Biermann, F., & Kanie, N. (2016). Cross-sectoral strategies in global sustainability governance: towards a nexus approach. *Int Environ Agreements*, 16, 449–464. <https://doi.org/10.1007/s10784-016-9321-1>
- Brenner, N. (1999). Globalisation as Reterritorialisation: The Re-scaling of Urban Governance in the European Union. *Urban Studies*, 36(3), 431–451. <https://doi.org/10.1080/0042098993466>
- Ciambra, A., Siragusa, A., Proietti, P., & Stamos, I. (2023). Monitoring SDG localisation: an evidence-based approach to standardised monitoring frameworks. *Journal of Urban Ecology*, 9(1) <https://doi.org/10.1093/jue/juad013>
- Eising, R., & Kohler-Koch, B. (1999). Introduction: Network Governance in the European Union. In R. Eising & B. Kohler-Koch (Eds.) *The Transformation of Governance in the European Union* (pp. 3–13). Routledge.
- Decision 2011/C 349/04 of European Commission, 28 November 2011, on setting up the European multi-stakeholder platform on ICT standardisation. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2011:349:0004:0006:EN:PDF>
- Joint Research Center (2023). *Monitoring the SDG in Puglia Region* (89–91). Region2030 project. <https://publications.jrc.ec.europa.eu/repository/handle/JRC134403>
- Joint Research Center (2023). *Monitoring the SDG in Piemonte Region* (291–292). Region2030 Project, <https://publications.jrc.ec.europa.eu/repository/handle/JRC134399>
- Interministerial Committee on Economic Programming (2017). CIPE Resolutions CIPE 108/2017. <https://ricerca-delibere.programmazioneeconomica.gov.it/108-22-dicembre-2017/>
- ISTAT (2013). *Rapporto BES 2013: il benessere equo e sostenibile in Italia*. <https://www.istat.it/files//2013/03/Bes-Sintesi.pdf>
- ISTAT (2023). *Rapporto SDG 2023. Informazioni statistiche per l'agenda 2030 in Italia*. <https://www.istat.it/it/archivio/285778>
- Legislative Decree 152/2006 art. 34. Italian government <https://www.gazzettaufficiale.it/dettaglio/codici/materiaAmbientale>
- Klopp, J.M., & Petretta, D.L. (2017). The Urban Sustainable Development Goal: Indicators, Complexity and the Politics of Measuring. *Cities*, 63, 92–97. <https://www.columbia.edu/~jk2002/publications/Klopp17.pdf>

12. Likewise, for articles with more than one author, the tasks carried out by each of them must be indicated.



- McGuinn, J., Gancheva, M., Castro, R., Jones, M., O'Brien, S., & Markowska, M. (2019). *ESI Funds for Health, Investing for a healthy & inclusive EU*. Milieu report for the European Commission, Consumers, Health, Agriculture & Food. Executive Agency & Directorate-General for Health & Food Safety. https://eurohealthnet.eu/wp-content/uploads/documents/2019/19_Projects_ESIFFundsForHealth_FinalReport.pdf
- Ministry of the Environment and Energy Security (MASE) (2017). *National Strategy for Sustainable Development*. https://www.mase.gov.it/sites/default/files/archivio_immagini/Galletti/Comunicati/snsvs_ottobre2017.pdf
- Ministry of the Environment and Energy Security (MASE) (2022). *National Strategy for Sustainable Development – update*. <https://www.mase.gov.it/pagina/pubblicato-il-documento-di-snsvs-2022>
- Ministry of the Environment and Energy Security (MASE) (2023). *Annual Report on the Implementation of the NSDS 2021/2022*. https://www.mase.gov.it/sites/default/files/archivio/allegati/sviluppo_sostenibile/SNSvS_eventi/relazione_annuale_stato_attuazione_Strategia_Nazionale_Sviluppo_Sostenibile-2021-22.pdf
- OECD (2021a). *Policy coherence for sustainable development: Mainstreaming the SDGs in Italian decision making*. OECD Publishing, Paris, <https://web-archive.oecd.org/2021-11-03/614046-italy-governance-scan-pcsd.pdf>
- OECD (2021). *Implementing the OECD Recommendation on Policy Coherence for Sustainable Development - Guidance Note*. COM/DAC/DAC/GOV/PGC(2021)1, <https://web-archive.oecd.org/2021-11-24/617484-pcsd-guidance-note-publication.pdf>
- OECD (2016). *Better Policies for Sustainable Development 2016: A New Framework for Policy Coherence*. OECD Publishing, Paris, <https://doi.org/10.1787/9789264256996-en>
- Reflection Paper of European Commission (2019). *Towards a Sustainable Europe by 2030, on the follow-up to the UN Sustainable Development Goals, including on the Paris Agreement on Climate Change*. <https://commission.europa.eu/select-language?destination=/media/23163>
- Smoke, P., & Nixon, H. (2016). *Sharing Responsibilities & Resources among Levels of Governments*. New York. UN Department of Economic & Social Affairs, Division for Public Administration & Development Management. <https://www.local2030.org/library/353/Sharing-responsibilities-and-resources-among-levels-of-governments-Localizing-the-SDGs.pdf>
- Steiner, A. (2017). *Localizing the Implementation of the SDGs*. UNDP. October 12, 2017, <https://reliefweb.int/report/world/achim-steiner-undp-administrator-remarks-un-high-level-political-forum-side-event-2017>
- UCLG & GTF (2017). *National & Sub-National Governments on the Way towards the Localization of the SDGs. LRGs' Report to the HLPF*. Barcelona: United Cities & Local Governments. <https://is.gd/TNWgxX>
- UN-HABITATA (2022). *Multilevel governance for SDG localisation*. UN-Habitat Publishing, New York. https://uploads-ssl.webflow.com/624c56b35ab98eb3101d5995/63986d986ba64f50831593f2_MLG%20for%20SDG%20localization_Final%20report_06122022_small.pdf
- United Nation (2022). *High Level Political Forum - Voluntary National Review of Italy*. <https://hlpf.un.org/countries/italy/voluntary-national-review-2022>
- Voluntary National Review of Italy (2022) <https://hlpf.un.org/sites/default/files/vnrs/2022/VNR%202022%20Italy%20Report.pdf>