



## Think globally, act locally: Implementing the sustainable development goals in Montenegro



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### ABSTRACT

Following the UN adoption of the 2030 Agenda for Sustainable Development in September 2015, the Government of Montenegro entered in the final phase of revising of National Strategy for Sustainable Development (NSSD 2030). Under the supervision of the National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management, an NSSD team of national and international experts was assembled under the coordination of the Ministry of Sustainable Development and Tourism. To demonstrate commitment to the UN 2030 Agenda, Montenegro decided to center the NSSD 2030 on the Sustainable Development Goals (SDGs), targets and indicators. One of the first UN member countries to implement the UN 2030 Agenda within the national policy context, Montenegro adopted its NSSD 2030 on July 7, 2016. As members of the NSSD team, here we 1) describe how the UN 2030 Agenda has been implemented within the policy context of Montenegro's NSSD 2030, and 2) focus on the identification of the NSSD 2030 monitoring and reporting framework. Our key finding is that 26 institutions will be handling data for assessing 137 out of the 241 (56.8%) SDG indicators in the first reporting period scheduled for 2019. Although the paper deals with the implementation of the SDGs in Montenegro and its implications, we believe it will be useful in informing other countries in their process of national transposition and operationalization of the UN 2030 Agenda.

### 1. Introduction

The Government of Montenegro adopted its first National Strategy for Sustainable Development (NSSD) in April 2007, together with an Action Plan for the period 2007–2012 (Ministry of Tourism and Environmental Protection, 2007). This national strategy was designed based on the guidelines and goals of then-current national strategic documents, the Mediterranean Strategy for Sustainable Development (MSSD) (UNEP, 2005), Agenda 21 recommendations (UN, 1992), the Johannesburg Plan for Implementation (UN WSSD, 2001), the Millennium Declaration (UN, 2000), and the conclusions and recommendations of the UN Commission for Sustainable Development (CSD) (UN CSD, 2001).

Since then, many changes have taken place in Montenegro, particularly in terms of reforms related to EU accession (Đurović, 2017a,b) and harmonization of national legislation with the EU Acquis on environment and climate change (Government of Montenegro, 2016). Moreover, new sustainable development initiatives have been launched regionally (e.g., the revision of the Mediterranean Strategy for

Sustainable Development (UNEP, 2016)) and globally (Sachs, 2012), prompting the need for a thorough revision of the NSSD.

In September 2015, world leaders adopted the 2030 Agenda for Sustainable Development (hereafter UN 2030 Agenda) – including 17 Sustainable Development Goals (SDGs) and 169 targets – to end poverty, fight inequality and injustice, and tackle climate change (UN, 2015). This Agenda, built upon the Millennium Development Goals (MDGs), was developed through a participatory process over a three-year period (Sachs, 2013).

Although not legally binding, the UN 2030 Agenda is intended as the reference point for international development, calling on governments to translate the global SDGs into national targets and policies, to formulate a clear, long-term vision of national development (Lucas et al., 2016) and to set country-specific goals, targets and priorities depending on national conditions and capabilities (Weitz et al., 2015).

In March 2016, a global indicator framework for the Sustainable Development Goals – identified and proposed by the Inter-Agency Expert Group on SDG indicators (IEAG-SDGs) – was agreed by the 47th Session of the UN Statistical Commission (UN Statistical Commission,

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**Table 1**

Overview of the thematic areas and the strategic goals of the *NSSD 2030*. Further details on the *NSSD*'s measures and sub-measures to be achieved by 2030 are provided in the *NSSD 2030* (MSDT, 2016b) as well as in Table S1 of the Supplementary online material.

Thematic Areas	NSSD Goals
Human Resources (improvement of the state of human resources and strengthening of social inclusion)	1. Improve demographic trends and reduce demographic deficit
Social Resources (support values, norms and behavioral patterns of importance for society's sustainability)	2. Improve health of citizens of all ages and reduce inequalities in health status 3. Ensure inclusive and quality education and promote lifelong learning opportunities for all 4. Stimulate active relationship between key actors and development sustainability
Natural Resources (Conservation of Natural Capital)	5. Develop a system of values in accordance with the community sustainable development goals 6. Develop the state as an efficient rule of law 7. Overcome the managerial deficit problems and strengthen socially responsible business 8. Stimulate employability and social inclusion 9. Improve the importance of culture as a fundamental value of spiritual, social and economic development which significantly improve citizens' life quality 10. Establish an efficient and modern system of integrated protection, management and sustainable use of cultural heritage and landscape 11. Achieve equal socio-economic development in all local self-government units and regions based on competitiveness, innovations and employment, with specific emphasis on the Northern region 12. Stop degradation of values of renewable energy sources: biodiversity, water, sea, air, soil 13. Improve the efficiency of renewable natural resource management 14. Enable symbiosis of effects of environmental performance improvement and protection of human health 15. Solve problems of unsustainable capacitating of space generated by unrealistic demand in terms of quantity and low quality of built-up areas 16. Enable resource-efficient use of metallic and non-metallic resources 17. Mitigate natural and anthropogenic hazard impacts
Economic Resources (Introduction of Green Economy)	18. Reduce level of greenhouse gasses emissions by 2030 by 30% compared to baseline 1990 19. Improve resource efficiency in key economic sectors 20. Improve waste management through circular economy approaches 21. Enable sustainable management of the coastal regional resources and encourage the blue economy 22. Support greening of economy through the development and implementation of operational instruments of sustainable consumption and production 23. Implement social responsibility in practice of all sectors in accordance with positive European and international experiences 24. Increase Montenegrin economy competitiveness level for sustainable development & green jobs
Governance for Sustainable Development (Improvement of the sustainable development governance system)	25. Strengthen governance system for sustainable development 26. Strengthen environmental management by improving 19. implementation of environmental protection instruments 27. Implement reform for institutional organization of governance system for sustainable development 28. Establish a system for monitoring of national sustainable development, including monitoring of sustainable development goals implementation
Financing for Sustainable Development (Establish a long-term financial system for sustainable development)	29. Establish the system for sustainable environmental financing and preservation of natural capital as a component of financing for sustainable development 30. Enable introduction of green economy by mobilizing funds for sustainable development financing

2016). This framework constitutes a key component of the implementing architecture of the UN 2030 Agenda and consists of 241 indicators for monitoring global progress towards the SDGs. To assess the framework's applicability at country level, voluntary national reviews were conducted by 22 pilot countries including Montenegro and presented at the High-Level Political Forum (HLPF) 2016 meeting (MSDT, 2016a). As the SDG indicators are intended for global follow-up and review of the UN 2030 Agenda, the national reviews necessarily consider different national realities, capacities and levels of development to ensure national ownership in achieving sustainable development (Sachs, 2013). The use of nationally-developed indicators was also envisioned to ease national monitoring (UN, 2016).

As such, transposing the global SDGs into national policy is a fundamental step to ensure national-level monitoring of countries' progress towards sustainable development. According to Allen et al., (2016), "Integrated, nationally-owned SDG strategies will be at the centre of national efforts to implement the new sustainable development agenda". Given the importance of country-level engagement and ownership in tracking SDG indicators, national review processes are a crucial step in validating and refining the global indicator framework.

The aims of this paper are to 1) provide an overview of the process of transposing the UN 2030 Agenda within the policy context of Montenegro, which is described in further details in the National Strategy for Sustainable Development (*NSSD 2030*) (MSDT, 2016b), 2) extensively describe the work conducted to set-up the suggested *NSSD 2030* monitoring and reporting framework, and 3) assess Montenegro's

capacity to measure SDG indicators, now and in the coming years, for tracking success in delivering on the SDGs by 2030. The paper concludes by recommending and discussing necessary steps for effective implementation of the *NSSD 2030* in Montenegro.

The research is presented in four segments: a) Montenegro's *NSSD* revision through the prism of setting-up an integrated monitoring system; b) results of mapping and content analysis for multiple indicators (SDG, national, international and proposed composite indicators); c) analysis of needs, importance, and main challenges of an integrated monitoring framework; and d) conclusions.

To our knowledge, this paper represents one of the first studies dealing with the national-level transposition of the global UN 2030 Agenda.

## 2. Methodology: Montenegro's *NSSD* revision

### 2.1. Setting the stage: steps, targets and timeline of the *NSSD* revision

The Government of Montenegro first initiated the revision of its *NSSD* after the Rio + 20 Conference. The process involved several steps: expert baseline assessments, literature review, analysis of related studies and best practices, secondary data collection, analysis and integration of national sectorial documents including the 2015 national document "Platform for Development of the *NSSD 2014–2020*" (CEED, 2015), and the development of the *NSSD* structure and compilation methodology.

The revision of the *NSSD 2030* was a participatory process conducted by staff at the Ministry of Sustainable Development and Tourism (MSDT) in close collaboration with both national and international experts - including the authors of this paper - (the NSSD team), and under the supervision of the National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management (NC SDCCICZM). Such revision was aimed at updating the previous *NSSD 2007*, setting new goals and targets consistent with the UN 2030 Agenda, and equipping the new strategy with a monitoring and reporting system.

Translating the global SDGs into a national context requires a clear, long-term vision supported by new and updated national policy targets for 2030. Successful SDG implementation requires close coordination of policy efforts and responsibilities between various ministries and local authorities, ensuring policy coherence. Furthermore, active participation of various groups within society (e.g. citizens, businesses, NGOs) is required in defining and implementing the national vision and policy targets (Lucas et al., 2016).

After an initial planning period, the first step of the process – drafting the *NSSD 2030* – was completed in 2015 and led to the identification of priority thematic areas with “nationally-customized” goals, sub-goals, measures, sub-measures, indicators and targets to be achieved by 2030 (see Table 1). Conceived as an umbrella, horizontal and long-term strategy, the basic principle of the *NSSD 2030* is that the provision of goods and services that are key for the material, mental and spiritual wellbeing of each generation, require four basic resources – human, social, natural and economic – and proper financing and governance mechanisms. As such, the NSSD team identified six priority thematic areas intended to comprehensively represent the wide range of issues involved in monitoring Montenegro’s path towards sustainable development: 1) Human Resources; 2) Social Resources; 3) Natural Resources; 4) Economic Resources; 5) Governance for Sustainable Development, and 6) Financing for Sustainable Development.

A core element of this step was the creation of the NSSD Action Plan as well as its SDG-centered monitoring and reporting framework. The process followed to set this framework up is described in detail in the remainder of the paper. It used, inter alia, a systemic approach, historical method, secondary data collection, comparative analysis, and content analysis (Adams et al., 2007).

In line with Articles 7 and 9 of the *Decree on the procedure and manner of conducting public debate in preparing laws* (OGM, 2012), public consultations on the draft *NSSD 2030* were held, including 1) technical consultations with all the relevant ministries in the Government of Montenegro, state administration bodies, local governments and local administrative bodies (1 February–30 March 2016), and 2) public consultations with stakeholders from the civil society (28 February–22 April 2016), which were initiated through public notices and publication of the draft *NSSD 2030* on the MSDT website and e-government portal.

The feedback obtained during the consultation period was compiled by the NSSD team, guiding amendments to the *NSSD 2030* prior to its review by the permanent working groups (WGs) of the NC SDCCICZM. After review and approval by the WGs, the National Council reviewed the *NSSD 2030* on 6 June 2016 and submitted it to Montenegro’s Central Government with recommendation for final adoption (Đurović, 2017a,b). Finally, the *NSSD 2030* was submitted to all relevant ministries for validation and, after minor amendments, the Government of Montenegro adopted the *NSSD 2030* the following month on 7 July 2016.

## 2.2. Setting-up an integrated monitoring and reporting framework for the *NSSD 2030*

Periodic national monitoring is needed to track progress and – depending on the political ambition – to promote accountability and evaluate policy performance (Lucas et al., 2016). Montenegro’s institutional structure was comprehensively analyzed to enable the introduction of a functional monitoring and reporting system for

sustainable development policies (Fig. 1). The NSSD team conducted technical consultations with 36 Montenegrin data-reporting institutions within the MSDT premises in Podgorica in February 2016 to assess Montenegro’s current and near-term (2019) capacity to measure SDG indicators. Prior to the consultations, each institution was provided with the full list of SDG targets and indicators and a pre-evaluation of SDGs relevant to them. Moreover, the 169 SDG targets were grouped into the six thematic areas around which the *NSSD 2030* has been structured to link progress in implementation of the national strategy with the UN 2030 Agenda.

Such *NSSD 2030-UN 2030 Agenda* pairing (see Table 2) was conducted by the NSSD team in close cooperation with official and administrative statistical data producers in Montenegro and considered targets that were either fully or partially<sup>1</sup> relevant for Montenegro. This analysis concluded that only two targets (9.a and 9.c) out of 169 were not relevant for the country (as specifically related to either least developed countries, landlocked developing countries or Small Island developing states) and made it possible for the global SDG targets to be 1) transposed within the Montenegrin policy context and 2) recognized as Montenegro’s own policy targets in each thematic area.

This *NSSD 2030-UN 2030 Agenda* pairing analysis set the stage for identifying SDG indicators relevant for the *NSSD 2030*.

According to Lehtonen et al. (2016), SDG indicators can be classified as *performance indicators* as they allow measurement of progress towards a specific issue or norm. However, here we refer to them as *issue-specific indicators* to better distinguish them from *composite indicators*, which assess a wider spectrum of issues at once, thus providing an overall, cross-cutting indication of progress, i.e., the ‘big picture’ (Galli, 2015; Jacobs and Goddard, 2007).

During the consultations, and for each relevant SDG indicator, institutions were asked to identify whether they were 1) currently tracking that indicator fully (as defined by the IEAG-SDGs) or partially (through a similar indicator, which can be used as proxy for the SDG indicator); or 2) planning to track it by 2019 or after (Table 3 in the results section). Additionally, we investigated the availability of data for SDG indicators for Montenegro from international databases to fill eventual gaps in local statistics (Table S4 in the Supplementary online material). This comprehensive process included assessments of international organizations (e.g., Eurostat, European Environment Agency, World Bank, OECD, FAO, and World Economic Forum), NGOs and research centers, and other MEAs (Multilateral Environmental Agreements) such as the Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC) and the Millennium Development Goals (MDGs). This group represents indicators that, in the first reporting phase, could be used as proxy for those SDG indicators not yet tracked within Montenegro to ensure more comprehensive national reporting. When both national and international data was available for a given SDG indicator, priority was given to the national data source.

Findings from the above two steps generated a list of indicators available both nationally and internationally to monitor the 17 SDGs in Montenegro. This list was used to conduct a second round of consultations with the 36 institutions and a first round of consultations with the three working groups of the NC SDCCICZM to verify and validate the NSSD team’s assessment of Montenegro’s ability to track SDG indicators. For SDG indicators not currently tracked nor scheduled for calculation by 2019, the NSSD team suggested an action plan for gradual introduction over the course of the *NSSD 2030* implementation (see Section 3.1).

To complement the SDG indicators in monitoring national sustainable development priorities, national issue-specific indicators were also

<sup>1</sup> For instance, we integrate target 5.3 “Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation” despite the fact that last part of the target “female genital mutilation” is not relevant for Montenegro.

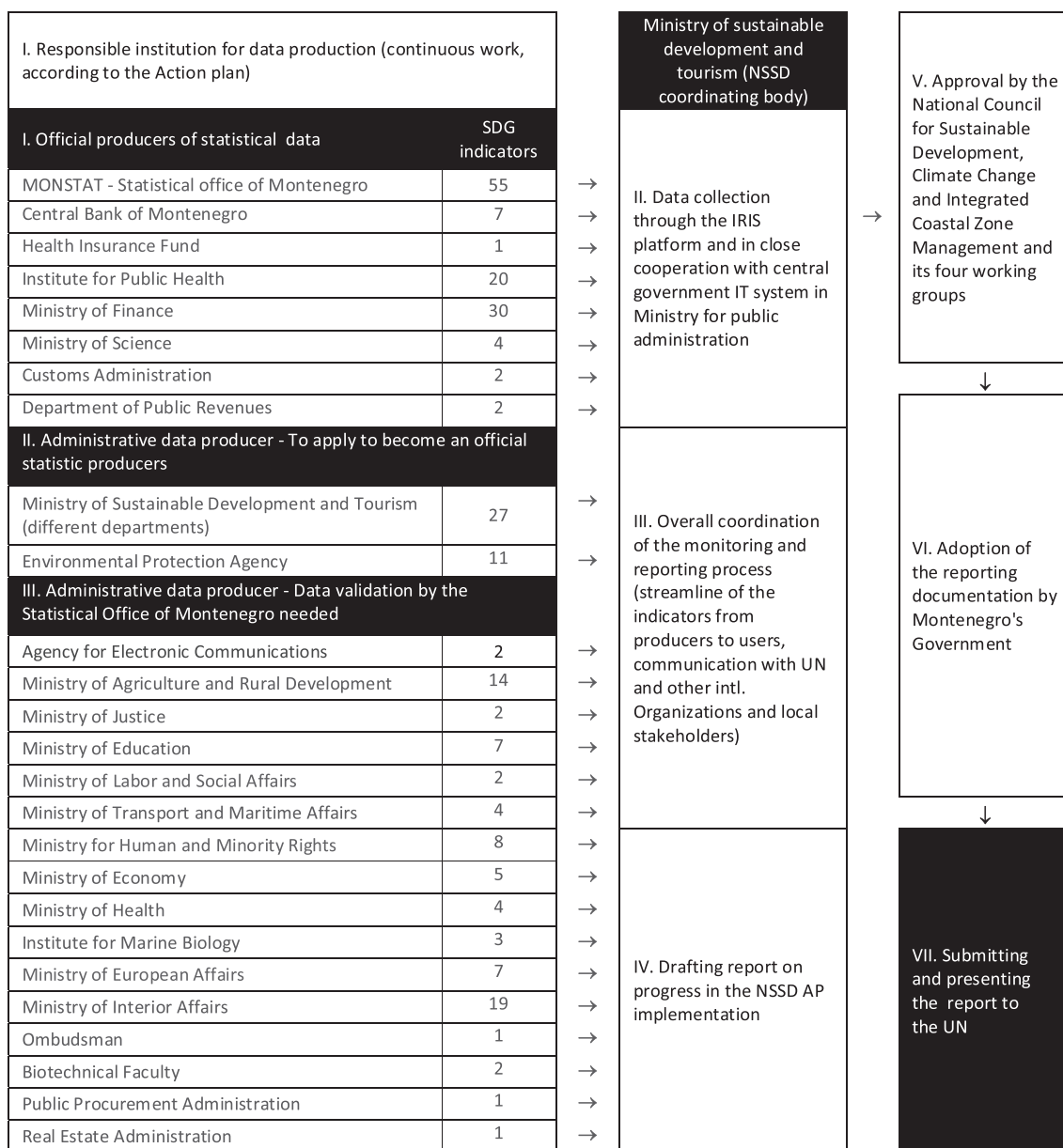


Fig. 1. Seven phases of the envisaged coordination structure for the NSSD Action Plan monitoring and reporting process.

considered, according to their relevance to the six thematic areas of the NSSD 2030 (see Section 3.2).

Different indicators can play different roles in either guiding policy decisions and/or communicating the attainment of sustainable development in Montenegro. While *issue-specific* indicators inform the development of specific policies, they run the risk of overcomplicating communication efforts given their considerable number. As such, consistent with relevant indicator works available in the scientific literature (e.g., Böhringer and Jochem, 2007; Singh et al., 2012), a comprehensive mapping of composite sustainability indicators was also performed by the NSSD team (see Section 3.3). The identification of a restricted set of composite indicators was aimed at communicating Montenegro's progress towards sustainable development to both high-level decision makers and the general public.

### 3. Results

Based on the results of our analysis, a plan for developing and monitoring SDGs indicators in Montenegro through 2024 was proposed.

We found that Montenegro will be able to track 137 SDG indicators, 20 indicators selected from international databases (Table S4 in the Supplementary online material), 252 national issue-specific indicators and 10 cross-cutting composite indicators at the time of its first official NSSD reporting in 2019. Each indicator proposed for use in this integrated monitoring framework is mapped against an NSSD thematic area to ensure policy relevance. Detailed results for each of these indicator categories are presented below.

#### 3.1. SDG indicators

Numerous meetings and consultations were organized between the expert team and Montenegro's official and administrative data producers. Of the 36 Montenegrin institutions consulted, 26 were handling data for at least one SDG indicator (see Table 2 and Fig. 1), confirming the cross-ministerial nature of the NSSD process. Of these, only 8 institutions are recognized as official producers of statistics by the Montenegrin legislation, with MONSTAT (Statistical Office of Montenegro) leading the way by providing 55 SDG indicators, followed by the

**Table 2**

Overview of the SDG targets of the UN Agenda for Sustainable Development recognized as relevant for the six priority areas of Montenegro's *NSSD 2030*. Numbers and letters in each column refer to the targets, within each goal, that are relevant to the *NSSD* thematic area that the column refers to.

SDG #	Human Resources	Social resources	Natural resources	Economic resources	Governance for SD	Financing for SD	Not relevant
SDG 1	–	1,2,3,4,5,a,b	5	–	–	–	–
SDG 2	–	1,2	4	3,4,5,a,b,c	–	–	–
SDG 3	1,2,4,5,6,7,8,a,b,c	1,2,3,7,8	9,d	–	–	–	–
SDG 4	1,2,3,4,5,6,7,a,b,c	4,7	–	–	–	–	–
SDG 5	–	1,2,3,4,5,6,a,b,c	–	–	–	–	–
SDG 6	–	–	1,2,3,4,5,6,a,b	3,b	a,b	–	–
SDG 7	–	–	2,3,a	1,2,3,a,b	–	–	–
SDG 8	3	1,2,3,5,6,7,8,9,b	3, 4	1,2,3,4,5,a	–	2,3,a	–
SDG 9	–	1	4,5	1,2,3,4,5	–	b	a,c
SDG 10	7	1,2,3,4,c	–	2,7,b	–	1,2,3,4,5,6,a,b	–
SDG 11	–	1,2,4	1,2,3,4,5,6,7,a,b,c	6,b	–	–	–
SDG 12	–	–	1,2,4,8	1,2,3,4,5,6,7,8,a,b,c	–	2,a,b	–
SDG 13	–	–	1,2,3,a,b	1,2,3	–	2,3,a	–
SDG 14	–	–	1,2,3,5,7,a,b,c	1,2,4,5,6,c	–	–	–
SDG 15	–	–	1,2,3,4,5,7,8,9,a,b,c	2, 5, 6,b	–	2,a,b	–
SDG 16	–	1,2,3,4,5,6,7,9, 10,a,b	6	–	6,7,8,10,a,b	6	–
SDG 17	4	–	4,15,17	1,2,3,4,6,7,9,13,14,16,17,18,19	1,3,6,7,8,9, 13,14,15,16,17,18,19	1,2,3,4,5,6,7,9,10,11, 12,13,14, 16,17,18, 19	–

Ministry of Finance (30 indicators) and the Institute for Public Health (20 SDG indicators). The other 18 institutions, being administrative producers of statistics, require revision of the statistical legislation system to enable them to officially report on the SDG indicators attributed to them (see section 5). Data for four indicators (6.6.1, 6.b.1, 12.a.1 and 17.16.1) was found to fall within the remit of multiple institutions; as their implementation is anticipated post-2019, institutions in charge of their development will be appointed during the implementation period.

We found Montenegro is currently capable of fully monitoring 49 indicators (20.3% of the whole set of 241 SDG indicators), primarily in the thematic areas “Governance for Sustainable Development”, “Human” and “Economic” resources (Table 4) but with no indicator fully tracked in the area of “Natural Resources.” Moreover, 34 SDG indicators (14.1% of the total) are currently partially tracked by statistical producers in the country (primarily in “Economic Resources” and “Financing for Sustainable Development”) and 54 SDG indicators (22.4%) will be available by 2019 (mainly for “Human Resources”, “Natural Resources” and “Governance”). Two indicators (2.3.1. and 5.b.1) partially tracked by MONSTAT currently will be fully tracked by 2019 (see Table S2 in the Supplementary online material).

Overall, 137 SDG indicators will be monitored in Montenegro by 2019 (56.8% of the total) and presented in the first national reporting. This value is comparable to the findings of a recent study by DANE (Colombia's National Administrative Department of Statistics), which found 91 out of 169 of the global SDG targets (54%) to be currently measurable through the almost 200 indicators existing in the National Development Plan of Colombia (Lucci et al., 2015).

### 3.2. Mapping national indicators

In mapping national indicators, 252 were selected, spanning 5 of the 6 *NSSD* thematic areas (see the Supplementary online material): “Economic” and “Social” resources have the highest coverage, with 68 and 65 national indicators, respectively; “Human” and “Natural” resources are tracked by 58 and 52 national indicators, respectively; only 9 indicators were selected for “Governance for Sustainable Development,” and no indicator was identified for “Financing for Sustainable Development” (Table 4).

These national indicators are important in relation to specific national needs and were selected as being either already used by other national processes or easily implementable within the Montenegrin monitoring system in the short run, according to experts' opinions.

These indicators do not represent an alternative to the SDG indicators, but rather complement them and are intended to report progress on 2030 national goals and targets (Table 1) not already monitored by SDG indicators. As not all the institutions in charge of these national indicators have been identified during the *NSSD 2030* drafting process, competent institutions responsible for their monitoring shall be defined by 2019. Additional details on national indicators are included in Chapter 7 and Annex 5 of the *NSSD 2030* (MSDT, 2016b), and in Table S3 of the Supplementary online material.

### 3.3. Mapping composite indicators

To compile the list of composite indicators for monitoring the *NSSD 2030*, we first conducted a comprehensive mapping of existing composite sustainability indicators available in the literature (e.g., Böhringer and Jochem, 2007; Galli et al., 2016; Singh et al., 2012). In alignment with selection criteria used in other academic studies (e.g., Hak et al., 2015; Moldan et al., 2012; OECD and JRC, 2008; Tittensor et al., 2014), the identified composite indicators were shortlisted according to the following: 1) scientific or institutional credibility; 2) sound and clear research question; 3) global relevance of the indicator's research question; 4) relevance to thematic areas of the *NSSD 2030*; 5) availability of results over time and for the most recent years; 6) availability of regular updates; 7) comparability of indicators among countries; and 8) ease in communication. To ensure adequate coverage of all six *NSSD* thematic areas while avoiding overloading the monitoring framework (see also Dahl, 2012), only the 1–2 indicators deemed most relevant by the *NSSD* team were included in the *NSSD* monitoring framework (see Table S5 in the Supplementary online material for further details).

A set of 10 potentially useful composite indicators was identified for monitoring progress toward 5 out of 6 themes of the *NSSD 2030* (no suitable indicator was identified for “Financing for Sustainable Development”). Building on recommendations from Hak et al., (2015), a factsheet was developed for each indicator to summarize the indicator's research question, methodology, and scope (see Table S6 in the Supplementary online material). 6 of these indicators already underwent national scrutiny, as their policy usefulness was assessed by national or international experts under the remit of the MSDT (see Table 5). The remaining 4 indicators not yet scrutinized will be subject to assessment – to ensure their applicability and policy relevance to the Montenegrin context – before official inclusion within the *NSSD* monitoring framework. To this end, national piloting of each of these

**Table 3**  
SDG indicator coverage by Montenegrin data producers: current, by 2019, and planned for introduction in the period.2019–2024.

Name of the Institution	Official (O) or Admin. (A) Data Producer	Number of SDG Indicators the Institution is in charge	SDG Indicators currently available (fully tracked)	SDG Indicators currently available (partially tracked)	SDG Indicators planned for introduction by 2019	SDG Indicators planned for introduction in 2019–2024
Statistical Office of Montenegro (MONSTAT)	O	55	3.2.1; 3.2.2; 4.4.1; 7.1.1; 8.1.1; 8.5.2; 8.6.1; 9.2.1; 9.2.2; 9.5.1; 12.5.1; 17.8.1; 17.18.2; 17.9.2; 17.18.3; 17.19.1	2.3.1; 4.3.1; 4.5.1; 5.a.1(a); 5.b.1; 7.2.1; 8.2.1; 9.1.2; 9.3.1; 9.a.1; 9.b.1; 10.4.1; 12.4.2	1.1.1; 2.1.1; 2.1.2; 2.2.1; 2.2.2; 2.3.1; 2.4.1; 3.7.1; 3.7.2; 4.2.1; 5.3.1; 8.4.1; 8.4.2; 8.5.1; 8.7.1; 10.2.1; 12.2.1; 12.2.2;	1.2.1; 1.2.2; 1.3.1; 1.4.1; 2.3.2; 2.c.1; 8.3.1; 11.1.1; 17.11.1
Ministry of Finance	O	30	2.a.1; 11.4.1; 14.a.1; 16.6.1; 17.1.1; 17.1.2; 17.9.1; 17.17.1	1.a.1; 1.a.2; 2.b.1; 2.b.2; 8.b.1; 17.3.2	3.b.2; 4.b.1; 6.a.1; 8.9.1; 15.a.1; 15.b.1; 17.13.1	1.5.2; 1.b.1; 2.a.2; 10.5.1; 12.6.1; 17.7.1; 17.10.1; 17.12.1; 17.16.1
Institute for Public Health	O	20	3.1.2; 3.3.2; 3.3.3; 3.3.4; 3.c.1	3.3.1; 3.3.5; 3.a.1	3.1.1; 3.4.1; 3.4.2; 3.5.1; 3.5.2; 3.6.1; 3.9.1; 3.9.3	3.8.1; 3.9.1; 3.b.1; 3.d.1
Central Bank of Montenegro (CBCG)	O	7	8.10.1	17.3.2	-	8.10.2; 10.b.1; 10.c.1; 17.3.1; 17.4.1
Ministry of Science	O	4	9.5.2; 14.a.1; 17.6.1	-	12.a.1	-
Customs Administration	O	2	-	-	-	15.7.1; 15.c.1
Tax Administration	O	2	-	-	-	17.10.1; 17.12.1
National Health Insurance Fund	O	1	3.8.2	-	-	-
Ministry for Sustainable Development and Tourism	A	27	11.4.1; 11.6.1; 12.4.1; 12.b.1; 17.14.1; 17.19.1	-	8.9.1; 8.9.2; 11.7.1; 11.a.1; 12.1.1; 12.a.1; 13.2.1; 13.3.2; 17.18.1;	6.1.1; 6.3.1; 6.6.1; 6.b.1; 9.1.1; 11.3.1; 11.3.2; 13.3.1; 15.3.1; 15.8.1; 15.9.1; 17.16.1
Environmental Protection Agency	A	11	-	6.2.1; 11.6.2; 15.1.2	15.4.1	9.4.1; 14.1.1; 4.3.1; 14.5.1; 15.5.1; 15.7.1; 15.c.1
Real Properties Agency	A	1	-	-	-	1.4.2
Public Procurement Administration	A	1	-	-	-	12.7.1
Ministry of Economy	A	5	-	7.3.1; 7.b.1; 12.c.1	-	9.3.2; 7.1.2
Marine Biology Institute	A	3	14.b.1	-	14.4.1	14.7.1
Agency for Electronic Communication	A	2	-	-	17.6.2	9.c.1
Ministry of Agriculture	A	14	14.6.1; 14.b.1	15.1.1	6.4.1; 6.4.2; 6.5.2; 15.2.1	6.3.2; 6.5.1; 6.6.1; 6.b.1; 15.3.1; 15.4.2; 15.6.1
Ministry of Justice	A	2	16.a.1	-	-	16.3.2
Ministry of Education	A	7	4.1.1; 4.c.1	4.2.2; 4.7.1; 4.a.1	-	4.6.1; 12.8.1
Ministry of Labor and Social Affairs	A	2	-	-	-	5.4.1; 8.8.2
Ministry of Transport and Maritime Affairs	A	4	14.2.1; 14.a.1; 14.c.1;	-	-	11.2.1
Ministry for Human and Minority Rights	A	8	-	5.5.2	-	5.1.1; 5.2.1; 5.2.2; 5.5.1; 5.a.2; 5.c.1; 10.3.1; 11.7.2
Ministry of Health	A	4	-	-	-	5.6.1; 5.6.2; 6.b.1; 8.8.1
Ministry of Foreign Affairs	A	7	10.6.1; 16.4.2; 16.8.1; 16.a.1; 17.9.1	-	17.2.1	17.16.1
Ministry of Interior	A	19	16.4.2; 16.9.1; 16.10.2; 17.9.2; 17.17.1	13.1.2	1.5.3; 10.7.2; 11.b.1; 11.b.2; 13.1.1	1.5.1; 16.1.1; 6.1.3; 16.2.2; 16.2.3; 16.3.1; 11.5.1; 11.5.2; 16.10.1
Ombudsman	A	1	-	-	-	16.b.1
Institute of Biotechnology	A	2	-	-	-	2.5.1; 2.5.2
Total	26	241 (100%)	49 (20.3%)	+34 (34.4%)	+54 (Σ 137 – 56.8%)	+ 83 (Σ 220 – 90%)

**Table 4**

Integrated NSSD Monitoring Framework for Montenegro. However, since nine indicators repeat under two (7.a.1 = 13.a.1; 8.4.1 = 12.2.1; 8.4.2 = 12.2.2; 10.3.1 = 16.b.1; 10.6.1 = 16.8.1; 15.7.1 = 15.c.1; 15.a.1 = 15.b.1) or three different targets (1.5.1 = 11.5.1 = 13.1.2; 1.5.3 = 11.b.1 = 13.1.1), the actual total number of individual indicators in the list is 230.

	Human Resources	Social resources	Natural resources	Economic resources	Governance for SD	Financing for SD
SDGs indicators allocated (241)	43 (18%)	60 (25%)	29 (12%)	35 (15%)	43 (18%)	31 (13%)
SDG indicators fully tracked by National Institutions in 2017 (49 – 20.3%)	11 (25.6%)	8 (13.3%)	0 (0%)	9 (25.7%)	15 (34.9%)	6 SDG (19.4%)
SDG indicators partially tracked by National Institutions (similar, alternative indicators) in 2017 (34 – 14.1%)	7 (16.3%)	7 (11.7%)	4 (13.8%)	9 (25.7%)	0 (0%)	7 (22.6%)
SDG indicators to be additionally tracked by 2019 (54 – 22.4%)	15 (34.9%)	9 (15.0%)	7 (24.1%)	6 (17.1%)	12 (27.9%)	5 (16.1%)
Total # of SDG indicators to be tracked by 2018 (137 – 56.8%)	33 (76.7%)	24 (55.8%)	11 (25.6%)	24 (55.8%)	27 (62.8%)	18 (41.9%)
Sustainable Development indicators tracked through International databases (20)	7	6	4	1	1	1
National Indicators (252)	58	65	52	68	9	0
Composite Indicators (10)	1 piloted Indicator	1 piloted indicator; 1 indicator to be piloted	3 piloted Indicators	1 piloted Indicator; 1 indicator to be piloted	2 Indicators to be piloted	No Indicator

indicators – planned to be completed by 2018 – was recommended by the *NSSD 2030*, alongside capacity building for Montenegrin institutions.

For all composite indicators, additional research will be needed during the NSSD implementation to assess the possibility of officially introduction into the statistics system of Montenegro; this is a key prerequisite for their institutionalization, monitoring and updating every 2–3 years.

#### 4. Discussion

##### 4.1. Montenegro's integrated NSSD monitoring framework and its implications

The work performed in mapping SDG, national and composite indicators resulted in the *Integrated NSSD Monitoring Framework*, reported in Table 4. The highest indicator monitoring capability was found for the thematic areas “Human”, “Social” and “Economic” resources while

the lowest was found for “Financing for Sustainable Development”. While this result was expected given this topic has only recently started to receive global attention, it also highlights that “Financing for Sustainable Development” is the thematic area in which most of the efforts shall be made in the near future.

Moreover, the finding that 137 SDG indicators will be monitored at the time of the first NSSD reporting in 2019 indicates that Montenegro shall invest adequate resources in realizing its ambitious plan to gradually increase its capacity to deliver on the UN 2030 Agenda and the *NSSD 2030* by introducing 83 additional SDG indicators by 2024 (32, 24 and 27 by 2020, 2022 and 2024 respectively) and culminating in 220 SDG indicators (approximately 90% of the total SDG indicators) by the end of 2024. These ambitious steps have been developed based on the medium-term plan for strengthening the capacity of Montenegro's statistical data producers and the budget expected for these activities. Decision about prioritization of indicators' introduction has been left with each statistical institution, provided they respect the overall introduction plan and timing.

**Table 5**

Selected composite indicators for use in Montenegro: short description, and their status in the *NSSD 2030*. Further details on each indicator are available in the Supplementary online material.

NSSD Theme	Composite Indicator(s)	Description	Status in NSSD
Human Resources	Human Development Index (HDI)	Provides an alternative to national income as a standard metrics of development as it measures well-being as function of three different components: longevity, education, and income.	Included (see UNDP, 2014, 2016)
Social Resources	Social Progress Index (SPI)	Assesses the three major dimensions of social progress (Basic Human Needs, Foundations of Wellbeing, and Opportunity) by including parameters highly aligned with several SDGs	Pilot recommended
Natural Resources	Gender Inequality Index (GII)	Monitors the gender equality aspect of social development, complementing the SPI	Included (see UNDP, 2016)
	Ecological Footprint	Measures human demand for renewable sources and ecosystem services against the supply of such resources and services from natural ecosystems at the global, national, and individual level	Included (see GFN, 2015; UNDP, 2014)
	Domestic Material Consumption (DMC) Land Consumption	Measures the consumption (total mass) of physical goods (Biomass, Metals and ores, Non-metals and Fossil fuels) by an individual, a country or the world A GIS-based approach to monitor the spatial status of land and land use changes	Included (see MONSTAT, 2014; UNDP, 2014) Included (see MSDT and PAP/RAC, 2015)
Economic Resources	Resource Productivity	Calculated as GDP divided by DMC, it measures the efficiency of countries in generating economic value added per unit of material used (decoupling)	Included (see UNDP, 2014)
	Genuine Progress Indicator (GPI)	Measures the net income of a country, including non-market benefits, and accounts for the negative effects that current income and production generation has on the assets underpinning income generation	Pilot recommended
Governance for SD	Environmental Democracy Index (EDI)	Measures environmental governance effectiveness, especially regarding legally binding rules that provide for environmental information collection and disclosure, public participation, and access to justice	Pilot recommended
	Environmental Performance Index (EPI)	Measures countries' performance in implementing environmental policies in nine issue categories by looking at how close each country is to absolute policy targets established by international agreements, national standards, or scientific consensus	Pilot recommended

Of the remaining 21 SDG indicators (10% of the total) not introduced by 2024, 9 indicators (SDGs 5.3.2, 7.a.1, 8.a.1, 10.a.1, 11.c.1, 13.a.1, 13.b.1, 17.5.1, 17.15.1) were deemed not relevant for Montenegro by the NSSD team and will not be implemented in the *NSSD 2030*; further identification of policy usefulness and appropriate reporting bodies will be needed for the other 12 indicators (SDGs 10.1.1, 10.7.1, 12.3.1, 16.1.2, 16.1.4, 16.2.1, 16.4.1, 16.5.1, 16.5.2, 16.6.2, 16.7.1, 16.7.2) during the implementation of the *NSSD 2030* in the post-2024 period. Most of these SDG indicators, however, fit within the thematic area “*Social Resources*” (see chapter 7 of the *NSSD 2030* for further details (MSDT, 2016b)) and the monitoring of Montenegro’s own strategic goals in this thematic area will require support by national indicators (Section 3.2) to ensure proper tracking of the country’s progress towards the *NSSD 2030*.

Moreover, with 26 national institutions handling data for at least one SDG indicator, monitoring Montenegro’s NSSD is a cross-ministerial, government-wide effort, whose implementation and operationalization should not be delegated to a sole Ministry; it rather requires a few institutional changes, as indicated in section 5, for a successful national transition towards sustainable development.

#### 4.2. The need for an integrated monitoring framework

Identifying a framework to monitor Montenegro’s progress against the *NSSD 2030* led us to reflect on the role of indicators in supporting sustainable development policies and providing solid bases for horizontal, systemic decision making.

Since the 1992 Rio Summit – calling for “indicators that show us if we are creating a more sustainable world” in chapter 40 of Agenda 21 (UN, 1992) – many indicators, indices, and dashboards have been produced (e.g., Hak et al., 2016; Pulselli et al., 2016; Singh et al., 2012), stimulating political, academic, scientific, and community debates on the best way to assess and operationalize sustainable development at various territorial scales (Hezri and Dovers, 2006; Galli, 2015; Moreno Pires, 2014). Despite a ‘spreading indicator culture’ (see Pulselli et al., 2016; Riley, 2001), consensus on how to measure sustainable development has yet to be achieved (e.g. UNECE et al., 2008; Lawn, 2006; Stiglitz et al., 2009), and the debate on appropriate sustainable development metrics has been recently re-ignited by the IEAG-SDGs identification of a global SDG indicator framework (Sachs, 2012; SDSN, 2015; Wackernagel et al., 2017) and by the introduction of the planetary boundaries framework (Steffen et al., 2015).

Despite the SDG effort, the lack of systems thinking in most societal attempts to articulate and measure sustainable development has been increasingly highlighted in recent years (e.g., Broman et al., 2017; Costanza et al., 2014a,b; Fiksel, 2012; Galli, 2015; Pulselli et al., 2016; Quandt, 2016; Steffen et al., 2015). This is likely because although systemic knowledge of the functioning of Earth’s physical systems is needed from a scientific viewpoint (Steffen et al., 2015), policy decisions are ultimately taken and implemented at national and local levels (with the exception of a few international agreements) (see Dahl, 2012; Fidélis and Moreno Pires, 2009; Pulselli et al., 2016) and usually structured around society’s sectors. In addition, bridging across scales (from global to national levels) needs to address distinct biophysical, socioeconomic, and ethical dimensions. In translating the planetary boundaries into national level policy targets, for instance, the above three dimensions should be explicitly considered and the links among the boundaries better addressed. Achieving sustainable development means staying within global boundaries while simultaneously ensuring adequate resources for all (O’Neill et al., 2018). The SDGs could be used as a basis for reframing the Planetary Boundaries concept towards a safe operating space agenda (Häyhää et al., 2016; Magalhães et al., 2016; Raworth, 2012).

Equally important is the analysis of interactions, trade-offs, and synergies among SDGs goals and their targets in the implementation of Montenegro’s NSSD. Policymakers usually lack tools to identify which

interactions are the most important to tackle, and evidence to show how particular interventions and policies help or hinder progress towards the goals. If countries ignore such synergies (or conflicts) and start trying to tick off targets one by one, they will likely risk divergent outcomes. Many preconceptions that influence decisions are outdated or wrong, for example the belief that mitigating climate change negatively affects a country’s long term economic productivity and growth (Nilsson et al., 2016). To identify relationships among SDGs and support decision makers in setting national priorities, Nilsson et al., (2016) have proposed a seven-point scale of SDG interactions, which can be applied at any level, among goals and targets, to individual policies or to actions. Such scale has not yet been applied in Montenegro and could represent a useful analysis in the first phase of NSSD implementation, before the first reporting in 2019.

Meanwhile, reporting and communicating NSSD progress necessitates introducing composite indicators as they can assist in monitoring changes and society trends, and assess the overall effectiveness of the *NSSD 2030* implementation (MSDT, 2016b). This recognition prompted us to develop, for the monitoring needs of Montenegro, an integrated monitoring framework, which employs both *issue-specific* (SDG-related and national) and *cross-cutting composite* indicators to fulfill the following goals:

- Transfer SDGs to the national policy context of the *NSSD 2030*, allowing incorporation of the global 2030 Agenda for Sustainable Development in national development plans, strategies and policies;
- Include and monitor priority issues for Montenegro – not tracked by the SDGs – in the NSSD through national indicators (plus selected sustainable development indicators from key international databases);
- Monitor Montenegro’s overall progress in key thematic areas via composite indicators, to evaluate whether development in Montenegro is on a sustainable trajectory and improve communication of the country’s progress towards sustainability to decision makers and the general public (serving as headline indicators).

While the identification of the specific set of indicators will vary country-by-country depending on the national priorities, we believe the joint use of SDGs, nationally-specific, and composite sustainability indicators is key in developing an effective and efficient integrated monitoring, reporting and communication system. Moreover, each indicator group has a role in supporting different stages of the policy cycle (Galli, 2015; Hak et al., 2016). By jointly using SDG, national, and cumulative indicators, we believe this *Integrated Monitoring Framework* will facilitate the development of specific policies without losing track of the country’s overall sustainability trajectory.

#### 4.3. The importance of a cross-sectorial approach for effective and efficient sustainable development governance

According to Lehtonen et al., (2016) “...research and practical work on indicators has thus far excessively focused on the instrumental functions of indicators as malleable governance ‘tools’, without due attention to the politico-institutional context...” within which indicators operate. The role of indicators, in fact, is not just that of providing numbers as they also influence the approach of their users and the broader political context (i.e., the structural conditions that regulate sustainability governance).

As such, a few reflections emerged from the governance structure in Montenegro. A key characteristic of their system is, in our view, the presence of a centralized, cross-ministerial body such as the National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management (NC SDCCICZM), which – despite being an advisory body – 1) involves a range of ministries acknowledging the cross-cutting, horizontal nature of the UN 2030 Agenda and the NSSD 2030, 2) involves representatives of NGOs and local communities, 3) involves data producers, and 4) ensures inter-sectorial coordination



necessary for the transition towards sustainability, both nationally and globally.

A National Council for Sustainable Development was first established by the Government of Montenegro in the aftermath of the Sustainable Development Summit in Johannesburg in 2002 as a cross-sectorial advisory body for strengthening national capacity to implement sustainable development policies. Since its establishment, the National Council has undergone several reforms and was finally renamed as National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management (NC SDCCICZM). The NC SDCCICZM is chaired by the President of the Republic of Montenegro and comprised of 26 members from different stakeholder groups (national and local government authorities, the business sector, public institutions, civil society and independent experts) and 4 working groups (WGs): 1) WG for the revision and monitoring of the NSSD implementation; 2) WG on the Sustainable Management of Resources; 3) WG on mitigation and adaptation to Climate Change; and 4) WG on integrated coastal zone management in 2015 (OGM, 2013b).

Starting in 2017, the NC SDCCICZM has been providing recommendations to the central government on the following: 1) implementation of sustainable development policies; 2) harmonization of sectorial policies under the principles and objectives of sustainable development, climate change and integrated coastal zone management; 3) amendments to existing regulations; and 4) adoption of new national regulations. It is also an integral part of the governance structure for monitoring the *NSSD 2030* implementation (see Fig. 1). The presence of such transversal bodies is of paramount importance for the effective implementation of sustainability in Montenegro—and in any other country—as they prevent sustainability from being housed solely within the remit of environmental ministries, detached from key economic planning and decision making.

This governance set-up is not completely unique, as its structure and functioning is similar to that of the *Inter-Agency Commission for the Preparation and Effective Implementation of the Post-2015 Development Agenda and the SDGs*, established in February 2015 by President Juan Manuel Santos in Colombia (Lucci et al., 2015). Likewise, the *Grenelle de l'environnement* multi-stakeholder public policy process promoted in France by President Sarkozy during the period 2007–2011 (Paul, 2011; Zbinden et al., 2011) and to the Steering Committee of UAE National Ecological Footprint Initiative (Abdullatif and Alam, 2011) share similar structures.

#### 4.4. Institutional challenges to address: methodology of reporting, IT support and coordination mechanism

A key part of the NSSD is the Action Plan (AP), an ambitious 15-year development plan divided in 6 thematic areas with 30 strategic goals of sustainable development and their 102 measures and 601 sub-measures (see Table 1). The NSSD AP will serve as the main mechanism for collecting data from involved institutions and data producers. It will be evaluated through regular progress reports every two years starting in 2019. The initial information about implementation of the NSSD AP was prepared by the Ministry for Sustainable Development and Tourism (MSDT) in December 2017 and submitted to the National Council for Sustainable Development (MSDT, 2017). The envisaged coordination mechanism for monitoring and reporting is presented in Fig. 1.

As the coordinating body, Montenegro's Ministry for Sustainable Development and Tourism will be responsible for developing a procedure and compiling the first progress report. Scheduled to be published in 2019, this progress report shall contain four key elements: a) detailed methodologies for reporting on all indicators, b) reporting forms on each individual indicator being monitored, c) reporting methodology on the dynamics of the implementation of measures envisaged by the NSSD AP, and d) forms for reporting on individual measures and shares from the NSSD AP.

The establishment of a functional information system and database

is the basis for successfully measuring progress toward NSSD 2030 implementation. The established system should be concise, efficient and user-friendly as its primary purpose is to facilitate the monitoring of NSSD implementation without introducing a bureaucratic and/or IT burden. Such an organized functional information system should enable not only simultaneous collection of data by the various data-handling institutions involved in monitoring the NSSD, but also data archiving and further processing towards efficient national and international reporting. After consultation with both national and international stakeholders, the NSSD team identified an online national reporting system named IRIS – Indicator Reporting Information System – co-developed by UNEP and AGEDI (Abu Dhabi Global Environmental Data Initiative) as a suitable tool to serve this function and be used to facilitate reporting at all levels (nationally, regionally and internationally). As of early 2018, collaboration has been established between the Ministry of Sustainable Development and Tourism of Montenegro and UNEP to run a pilot test of the IRIS tool, including an assessment of its interoperability/compatibility with the government IT system (MSSD, 2017).

#### 5. Next steps and recommendations

With the official adoption of Montenegro's *NSSD 2030* on July 7, 2016, the Government of Montenegro has gradually begun its implementation into policies and actions, which will create the required conditions for the first national reporting in 2019.

Montenegro has already established national policy targets in all six thematic areas and the NSSD will serve as an umbrella, horizontal and long-term development strategy dealing not only with environment and economic issues, but also with human resources, valuable social capital as well as necessary mechanisms for the governance and financing of sustainable development.

Although ambitious, the NSSD AP is achievable provided that further strengthening of administrative capacities and necessary investment are realized to address existing administrative, technical and governance gaps. To fully operationalize the *NSSD 2030*, Montenegro's authorities should focus on the following:

- *Strengthening the role of the Parliament of Montenegro in the implementation of the NSSD*: this will be likely achieved by reforming the NC SDCCICZM from being an advisory body of the Government of Montenegro to becoming a State Council, and by relocating the NSSD coordinating unit from the MSDT to the Prime Minister Cabinet;
- *Facilitating the transposition of the NSSD to the sub-national level*: this will be likely achieved by establishing local sustainable development councils, and creating local action plans; such local plans shall build on the *NSSD 2030* Action Plan and guide the transposition of the NSSD in all local authorities. As a first step in this direction, a Sustainable Development Action Plan for the Capital City of Podgorica was completed in the fall of 2017;
- *Strengthening the role of statistical data producers*: this will be achieved by revising the statistical legislation system which currently requires – according to Article 4, 7 and 9 of the Montenegrin law of statistics (OGM, 2013a) – administrative producers of statistics (see Table 3) to either undergo a process of validation of their data by MONSTAT or apply to obtain the status of official statistical data producers. We recommended that, at least, the Environmental Protection Agency and the Ministry of Sustainable Development and Tourism should apply to obtain the status of official data producer. They have been defined this way in the NSSD given their important role in providing Montenegro with SDGs-relevant data.
- *Strengthening and streamlining indicator data collection and reporting—develop methodology for the first report to be published in 2019*: this will be achieved through the creation of a centralized NSSD database and information reporting system, which will be used by the 26 institutions handling NSSD-related data, and from which the

unit responsible for *NSSD 2030* implementation will draw for national and international reporting. The NSSD team found the Indicator Reporting Information System (IRIS) co-developed by UNEP and AGEDI to be an adequate tool to serve this function and its piloting at the national level has started in early 2018. In the long run, this system should be part of the unique information system of the Montenegrin government, managed by the Ministry for Public Administration, General Directorate for e-Government and Information Security.

- *Ensuring consistency with the global SDGs process in the long run:* the global Agenda 2030 – and associated SDG indicators – is a living document, for which revisions are already scheduled in 2020 and 2025 by the UN Statistical Commission. As such, outcomes of these reviews will need to be taken into account during the NSSD implementation and revision in the coming years. To avoid potential inconsistencies between the work of UN agencies (which are responsible for the global SDG monitoring) and that of individual countries (which are responsible for national-level SDGs implementation), coordination among National Statistical Institutes and between them and the UN agencies shall be ensured and enhanced.
- *Piloting of Composite Indicators and their introduction within the statistics system of Montenegro:* pilot projects shall be conducted to test the applicability and usefulness to Montenegro of the selected composite indicators, and capacity on these indicators shall be built in national institutions by 2019. Such pilots shall also assess the feasibility of introducing these indicators within the national statistical system of Montenegro (or any other country as in most cases these indicators are yet to be implemented within official statistical systems);
- *Ensuring adequate financing for sustainable development:* budget reallocation is likely needed to ensure the effective implementation of the *NSSD 2030* and the country-level transposition of the SDGs. Moreover, at least one employee in the Ministry of Finance should be entrusted with the issues of sustainable development funding and for the mobilization of funds in accordance with the Addis Ababa Action Agenda.

Successful implementation of the *NSSD 2030* as a strategic framework for translating the UN 2030 Agenda into the national context will depend, to a considerable degree, on the efficiency of securing strong and integrated support from the UN system, especially in the context of creating conditions for the implementation of the targets relevant for SDG 17 “*Enhance the means for implementation and renew Global Partnership for Sustainable Development*”. Also, success will depend on the compatibility of the NSSD implementation process with the priorities of Montenegrin EU integration and harmonization with relevant regional processes like the Mediterranean Sustainable Development Strategy.

To conclude, we believe that the process followed by the Government of Montenegro could be a useful reference in guiding other countries embarking themselves in the transposition of the UN 2030 Agenda and the SDGs within their national policy context.

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## Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.envsci.2018.03.012>.

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