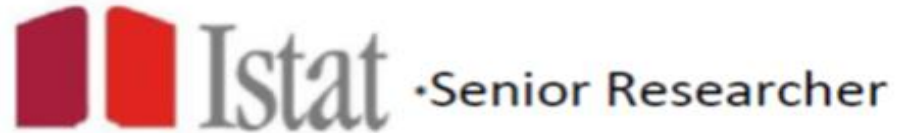


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Eco-budget limitations in Italy: introducing a new policy indicator - General Government Expenditure Impact for Six Environmental Objectives as a Percentage of GDP


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Structure: Enhancing Environmental Budgeting in Italy


- Environmental Protection Expenditure
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Environmental Protection Expenditure

 Environmental protection expenditure, in line with the concepts and principles of the European System of Accounts (ESA), provides information on the economic resources allocated to environmental protection by resident units.

 Environmental protection includes all activities and measures whose main objective is to prevent, reduce, and eliminate pollution and any other form of environmental degradation. These activities and actions also include measures taken to restore the environment after it has been degraded.

- Excluded are activities that, while having a positive impact on the environment, primarily respond to technical needs or internal hygiene and safety requirements of a company or other institution.
- Also excluded are the prevention of natural hazards (landslides, floods, etc.) and activities such as the conservation of energy or raw materials, which are part of the management of natural resources.

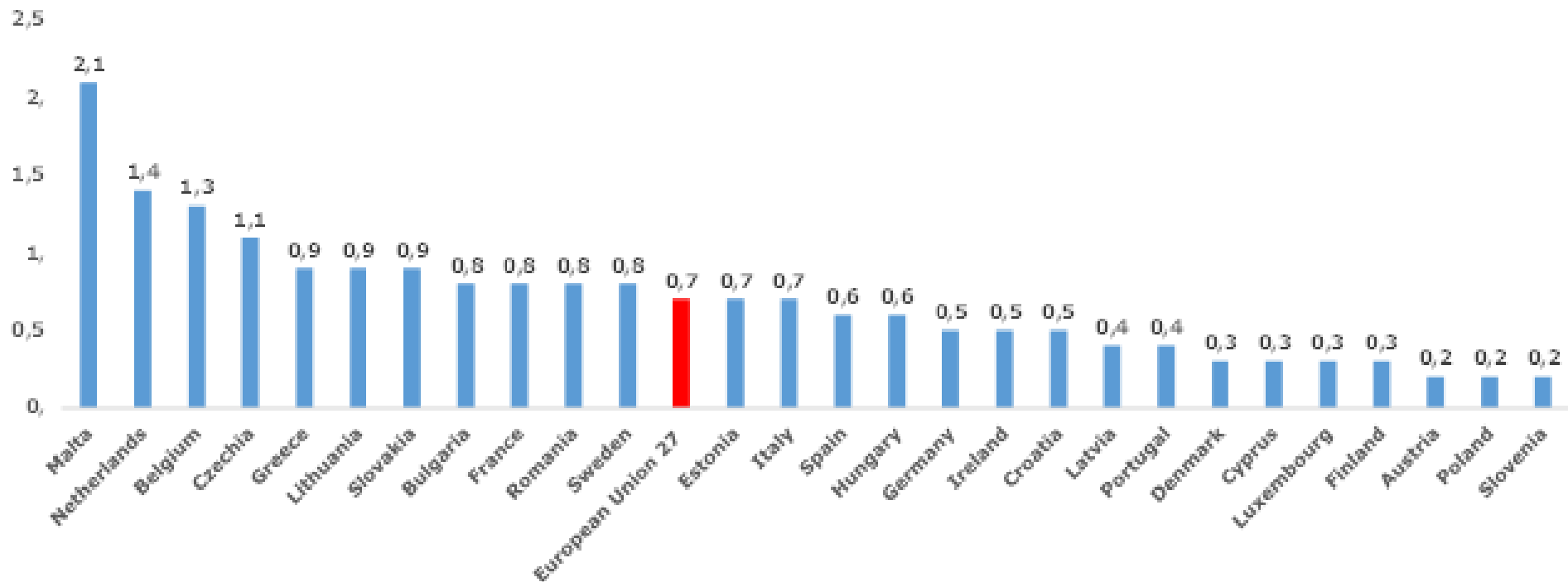
 Since 2011, the eco-budget is constructed using definitions and classifications adopted for the European System for the Collection of Economic Information on the Environment (SERIEE), which identifies two complementary types of environmental expenditure:

- Expenses for '*environmental protection*,' classified according to the Cempa classification (Classification of Environmental Protection Activities and Expenditure);
- Expenses for the '*use and management of natural resources*,' are classified according to the Cruma classification (Classification of Resource Use and Management Activities and Expenditures).

Exploring Environmental Protection Expenditure Across Member Countries

According to Eurostat's environmental accounts for 2020, the national expenditure of public administrations and non-profit institutions serving households (NPIH) in Europe is 0.7 percent of GDP, and Italy's figure is close to the European average.

However, there are significant differences between European countries in terms of their financial commitment to environmental protection. Austria, Poland, and Slovenia, for example, report relatively low levels of spending, with only 0.2% of GDP allocated to environmental protection. These figures underline the importance of continued efforts to promote environmental sustainability and address pressing challenges across the European continent.



Climate-friendly actions


↪ This stems from challenges in precisely identifying the final destination of expenditures and the exact amounts allocated for environmental purposes.


↪ Notably, the analysis of Italian state expenditure lacks information on funding for crucial areas such as *sustainable and smart mobility, electromagnetic field pollution, energy-efficient public housing projects, combatting land consumption, carbon capture and utilization technologies, ecosystem preservation and restoration, achieving zero pollution goals, and constructing or renovating energy-efficient buildings.*


↪ These climate-friendly actions are often not captured in the Environmental protection expenditure, as its classification primarily focuses on measuring expenditure on environmental protection by the general government.


↪ An opportunity for improvement emerges from the milestone outlined in the **'Reform of the Public Spending Review Framework'** included in the Italian Recovery and Resilience Plan (PNRR). The ultimate goal of this reform, besides reclassifying environmental expenditure, is to provide specific guidelines to ministries for formulating and monitoring spending review plans. This reform aims to enhance 'green budgeting' to obtain a more comprehensive set of information regarding environmental dimensions, including financial aspects.


Old Italian Green budget (Eco-budget)

 To meet the EU targets, set out in the Paris Agreement, public administrations must have a monitoring tool to track the expenditure on climate-related activities financed by public funds.

 In Italy, since 2011, although not explicitly required by law, the presentation of environmental expenditure, the so-called eco-budget of the State, is included as an annex to the explanatory report of the Budget Law.

 In addition, the General Statement of the Italian State, as part of the Annual Financial Report, highlights expenditures related to programmers and actions with an environmental nature or content.

 These are defined as "resources used for environmental protection purposes, including activities for the protection, conservation, restoration and sustainable use of natural resources and heritage" (Law No. 196 of 31 December 2009, Article 36, and paragraph 6).

 The eco-budget is a useful tool for measuring the environmental impact of public spending, but it is important to note that it may have limitations and gaps, particularly in addressing the complexity of the current climate crisis.

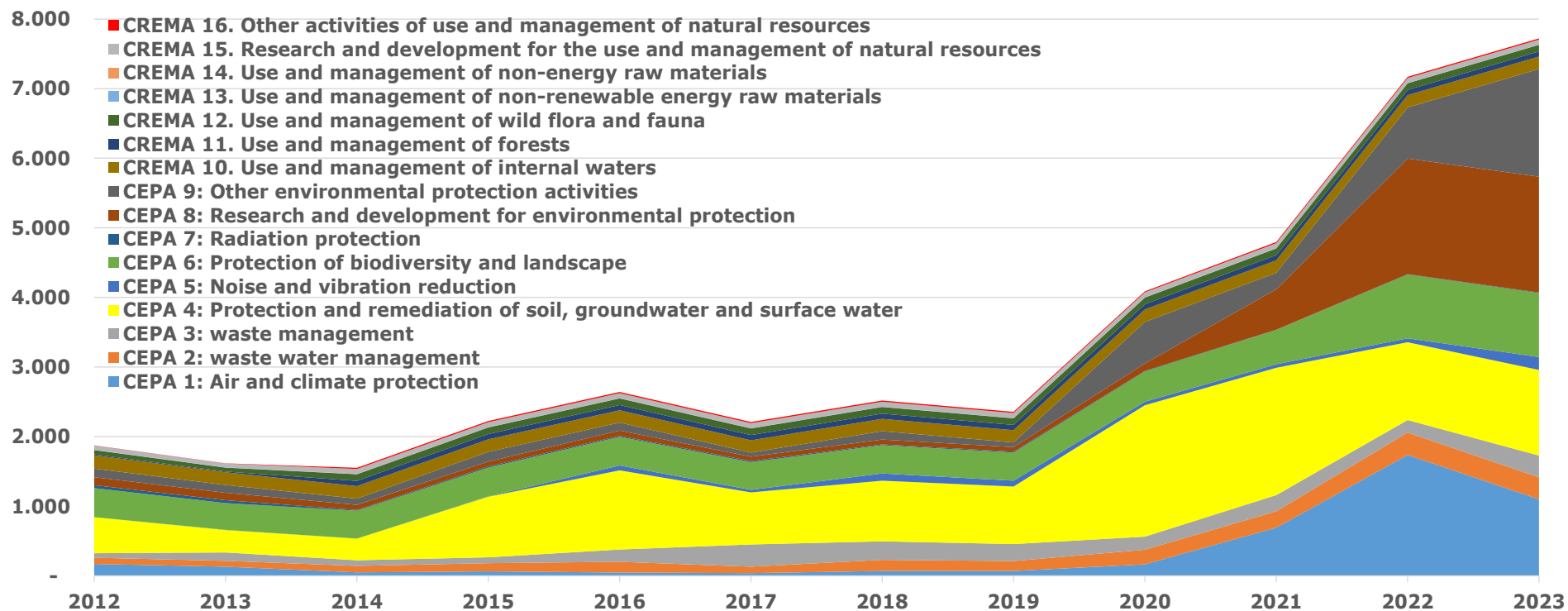
Exploring Italy's Green Budget (Eco-Budget)



In Italy, since 2012, the year in which the eco-budget for the environment sector was published for the first time, the information identified by the definitions and classifications of environmental expenditure adopted for the SERIE and published by the MEF provides an overview of the budget allocations for environmental expenditure for the period 2012-2023. In particular, in the period 2019-2023, primary environmental expenditure increased by 300%, with the growth mainly concentrated on the implementation of the European Green Deal (COM 2019, 640 final).



In 2023, expenditure projections amount to €7.1 billion, 0.3% of GDP. However, it is important to note that the difficulty in precisely identifying the final destination of expenditure and the exact amount allocated to environmental purposes may lead to an underestimation of actual spending.



The six environmental objectives of the Taxonomy

The taxonomy is a classification system that defines criteria for economic activities that are aligned with a net zero trajectory by 2050.

The six environmental objectives, namely:

- 1. the mitigation of climate change (starting from 1 January 2022);**
- 2. the adaptation to climate change (starting from 1 January 2022);**
- 3. sustainable use and protection of water and marine resources (starting from 1 January 2023);**
- 4. the transition to a circular economy (starting from 1 January 2023);**
- 5. the prevention and reduction of pollution (starting from 1 January 2023);**
- 6. the protection and restoration of biodiversity and ecosystems (starting from 1 January 2023).**







New Italian Eco-Budget Approach

The next table highlights the Italian Eco-Budget approach. It is constructed according to the structure of the French budget, which already uses a classification with the six environmental objectives, corresponding to the six axes of the European taxonomy.

- ✓ In this work, the French balls, present in the table, have been combined with the Italian classification currently used by the Ministry of Economy (environmental protection activities CEPA, CREMA).
- ✓ The initial allocations in 2022 by the Italian central government for environmental protection expenditure amount to EUR 7 billion, according to the Eco-budget according to SERIEE classification.
- ✓ However, the data could be underestimated, as reported in the document released by the Ministry of Economy itself (greenhouse gas emission reduction report MEF, 2023).
- ✓ Using the French scheme results 20 balls were distributed among the six environmental targets.


Environmental Protection Expenditure within the Structure of the French Budget


Table 1 illustrates the Italian eco-budget approach. It is constructed according to the structure of the French budget, which already uses a classification with the six environmental objectives corresponding to the six axes of the European taxonomy.


Table 1 Environmental protection expenditure by sector	Italy Eco-Budgets FORECAST 2022 (millions of euros)	 1 Fighting climate change "Climate Change Mitigation"	 2 Adapting to climate change and preventing natural risks "Climate Change Adaptation"	 3 Managing water resources	 4 Circular economy, waste; preventing technological risks	 5 Fighting pollution	 6 Conserving biodiversity and protecting natural areas, farmland and forests	TOTAL BALLS
CEPA 1: air and climate protection	1.735	●						1
CEPA 2: waste water management	322			●				1
CEPA 3: waste management	180				●			1
CEPA 4: protection and remediation of soil, groundwater and surface water	1.117						●	1
CEPA 5: Noise and vibration reduction	58						●	1
CEPA 6: protection of biodiversity and landscape	917						●	1
CEPA 7: Radiation protection	5					●		1
CEPA 8: Research and development for environmental protection	1.661						●	1
CEPA 9: Other environmental protection activities	735	●	●					2
CREMA 10: water management	178			●				1
CREMA 11: management of forest resources	75	●	●				●	3
CREMA 12: Use and management of wild flora and fauna	95						●	1
CREMA 13: Use and management of non-renewable energy raw materials	3	●			●			2
CREMA 14: management of minerals	0				●			1
CREMA 15: Research and development for the use and management of natural resources	73			●				1
CREMA 16: Other activities of use and management of natural resources	16			●				1
TOT CEPA-CREMA: Environmental protection expenditure	7.170	4	2	4	3	1	6	20

● environmentally targeted expenditures or expenditures contributing

The Reform of the Public Spending Review Framework according to the National Recovery and Resilience Plan (PNRR): reclassifying expenditure from an environmentally sustainable perspective.

 Starting from expenditure data related to programs and actions and analyzing the nature of spending with environmental content, these expenditures can be reclassified according to the code of sustainable economic activity ECO-VAS and linked to the Cepa classification.

 A key proposal for policymakers is the introduction of a new indicator: **the impact of government spending for six environmental objectives on GDP**. In addition, given the focus on the debt ratio and the importance of the "net expenditure" indicator for debt reduction, it is crucial to revise the Stability Pact with this indicator in mind.

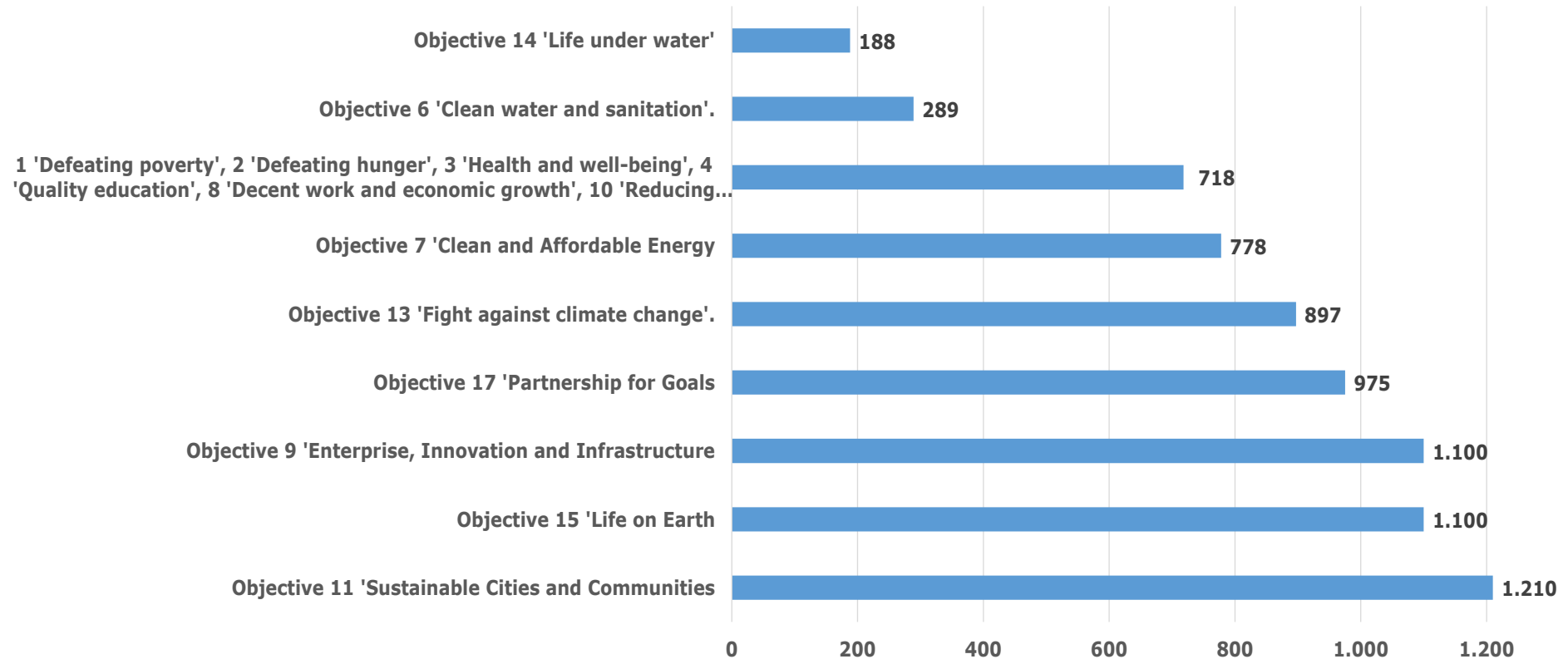
 Adjusting the budget balance for spending on the six environmental objectives could be an important step in this direction.

Experimental implementation of eco-budgeting based on the SDGs of the 2030 Agenda

➡ The report accompanying the budget bill represented an initial experimental implementation of these provisions.

➡ The objective, set for the fourth quarter of 2023, aimed at reclassifying the general state budget to demonstrate the alignment of primary environmental expenditure with the goals and targets of the 2030 Agenda.

➡ However, it's important to note that this initial accounting balance, reclassified according to the objectives of the 2030 Agenda, only covers a small portion of the 2024 government budget allocations, totaling over 7 billion euros, representing just 0.3% of GDP.



An innovative approach to reclassifying Eco-Budget

- ✓ This is the first processing of new data and there is not much literature available on the method of classifying this type of expenditure.
- ✓ In the next table 2, the balls become 33 for all actions that do not find a place in the Eco-budget.
- ✓ Next Table proposes a new approach to reclassify the NRP's "Eco Budgeting" target (Milestone M1C1-110 to be achieved by the fourth quarter of 2023).
- ✓ The starting point is data on environmental expenditure by programs and actions, contained in the Budget 2022 of the Ministry of Economy.
- ✓ The date is selected according to the criterion of uniformity to avoid significant harm to any of the environmental objectives (EU Regulation 2020/852).
- ✓ The classification according to the coding of the Management Plan of the General State Budget about environmental expenditure is reclassified with that of environmentally sustainable economic activities (see [WP Montella, 2023](#)) and linked to the CEPA and CREMA classification used by environmental accounting.

The impact of public expenditure for the six environmental objectives on GDP

Table 2 ECO - codifies six environmental objectives of sustainable economic activity (Montella 2023)

Environmental sector	1. Climate change mitigation	2. Climate change adaptation	3. The sustainable use and protection of water and marine resources	4. The transition to a circular economy	5. The prevention and reduction of pollution	6. The protection and restoration of biodiversity and ecosystems	Number BALLS CEPA-CREMA	Italy Eco-Budgets-Environmental Expenditure 2022 (millions of euros)	GDP Year2022 (millions of euros)	The impact of six environmental objectives public spending on the GDP
CEPA 1: air and climate protection	●						1	3.012		
CEPA 2: waste water management			●				1	621		
CEPA 3: waste management				●			1	472		
CEPA 4: protection and remediation of soil, groundwater and surface water						● ●	2	2.241		
CEPA 5: Noise and vibration reduction					● ●		2	4		
CEPA 6: protection of biodiversity and landscape						●	1	1.160		
CEPA 7: Radiation protection					●		1	8		
CEPA 8: Research and development for environmental protection						●	1	1.964		
CEPA 9: Other environmental protection activities	●	●					2	18.240		
CREMA 10: water management			● ● ● ●				4	1.022		
CREMA 11: management of forest resources	●	●				●	3	134		
CREMA 12. Use and management of wild flora and fauna						●	1	131		
CREMA 13. Use and management of non-renewable energy raw materials	● ● ● ●						4	1.395		
CREMA 14: management of minerals				●			1	3		
CREMA 15. Research and development for the use and management of natural resources			●				1	1.051		
CREMA 16. Other activities of use and management of natural resources			●				1	2.418		
<i>Protection and defense of the soil, protection of the hydrogeological structure, Prevention and reduction of electromagnetic pollution</i>					● ● ●		3			
<i>Sustainable and smart mobility</i>	● ●						2			
<i>Measuring spending on interventions aimed at building energy efficiency</i>	●						1			
Number Balls six environmental objectives	10	2	7	2	6	6	33			
Committed competence 2022 (millions of euros) Source MEF	14.684	11.913	3.314	308	8	3.651		33.879	2.688.994	1,3

In Italy, for the fiscal year 2022, 33.8 billion euros were spent, with 78.5% allocated to climate mitigation and adaptation. This amount represents 1.3% of GDP and highlights a significant financial commitment by the Italian government to address the climate crisis. In Table 2, policymakers are provided with a new synthetic monitoring indicator of public policies favoring climate action.

Conclusions and Outlook

- ❖ This paper discusses the issue of eco-budgeting in Italy and highlights some limitations in the monitoring of environmental expenditure according to CEPA and CREMA.
- ❖ The current eco-budget, which is attached to the budget law, may underestimate environmental spending because it does not accurately track the final destination of financial resources.
- ❖ In particular, important initiatives such as sustainable mobility, biodiversity conservation, the construction of highly energy-efficient buildings, and other measures related to climate change mitigation and adaptation are missing from the assessment.
- ❖ The Italian Plan for Recovery and Resilience (PNRR) offered a unique opportunity to reform the public expenditure review framework by proposing a reclassification of environmental expenditure and providing specific guidance to ministries. The aim is to improve "green budgeting" and obtain a wider range of information on environmental spending.
- ❖ The amount is equivalent to 1.3% of GDP, an important figure also to justify spending on the revision of the Stability and Growth Pact.
- ❖ The problem today is that we do not know how much the government is spending on climate change mitigation and adaptation to the current climate crisis.
- ❖ During the discussion among ministers for the stability program, the indicator presented here for the six environmental goals could be incorporated to decide what level of investment we need to achieve the climate targets of the "fit for 55" package, and how to allocate the available financial resources.

Thanks for your attention

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