Tatjana Stanimirović¹, Lenart Milan Lah², Žiga Kotnik³, Maja Klun⁴

GREEN BUDGETING IMPLEMENTATION IN FINANCING OF SUSTAINABLE SOCIETY - EXPERIENCE OF SLOVENIA

Received: 19.5.2023. Accepted: 31.10.2023.

DOI https://doi.org/10.30924/mjcmi.28.si.6

Original scientific paper UDC 336.14-022.316 502.131.1:336.14

RSTRAC

Sustainable societies of the future should be designed on the basis of a green public budgeting, as green public spending and investment are the key drivers of sustainable development. Studies on green budgeting have so far tended to focus on green taxes and favourable regulatory regimes for specific sectors, although 14 out of 38 OECD countries have introduced these in some form. Based on secondary research of Slovenian budget documentation for the period from 2018 to 2022, our research findings show that green and sustainable content is weak, both in terms of content and scope. Only 11 out of 24 policies and only 23 out of over 3000 projects have included some ideas of the green and sustainable concept. Due to the evolving methodology and framework of green budgeting, the research challenge could be identified in a repeated and deeper analysis, including the targets and indicators in the coming years.

KEYWORDS: Green budget, Sustainable society, Budget, Budget documentation

1. INTRODUCTION

In 2015, the United Nations (UN) adopted 17 Sustainable Development Goals (SDGs) aimed at reducing poverty and inequality, securing peace, and addressing pressing environmental issues. The document, entitled the United Nations Agenda 2030, contains 169 goals that are measured using 200 indicators (United Nations, 2015). Although companies and non-governmental organisations are held responsible for implementation, the role of national governments as key political and budgetary actors is crucial. The budget process is the strategic entry point for integrating the SDGs into national policy planning (Hege et al., 2019).

Even before the 2030 Agenda, several governments of advanced economies have prioritised environmental programmes as a spending priority, even though this may lead to budgetary constraints (Unit-

ed Nations Environment Programme -UNEP, 2009). The integration of environmental concerns into the government budget cycle, known as green budgeting (Wilkinson & Benson, 2008), has been under development since the 2008 financial crisis. Green budgeting uses budgetary policy instruments to achieve environmental and climate goals. This includes assessing the environmental impact of budgetary and fiscal policies and evaluating their consistency in meeting national and international commitments. Green budgeting can also contribute to an informed, evidence-based debate and discussion on sustainable growth (Blazey & Lelong, 2022). To support governments' efforts to implement green fiscal policies and integrate environmental commitments into budgets and policy frameworks, the Organisation for Economic Co-operation and Development (OECD) has launched the international Paris Collaborative on

¹ University of Ljubljana, Faculty of Public Administration, Ljubljana, tatjana.stanimirovic@fu.uni-lj.si

² University of Ljubljana, Faculty of Public Administration, Ljubljana, lenart-milan.lah@fu.uni-lj.si

³ University of Ljubljana, Faculty of Public Administration, Ljubljana, ziga.kotnik@fu.uni-lj.si

⁴ University of Ljubljana, Faculty of Public Administration, Ljubljana, maja.klun@fu.uni-lj.si

Green Budgeting initiative (OECD, 2017). The initiative aims to share best practises for using the budget process to achieve environmental goals and a sustainable society, as green budgeting enables greater awareness of the importance of sustainable development as it is based on facts and tangible data (Bova, 2021).

The aim of this paper is to evaluate the green budgeting initiative in Slovenia over the last five years. The Government of the Republic of Slovenia set the green budget reform as one of ten strategic projects in the Coalition Agreement of September 2014, although the first results of the strategy were implemented in the operational documents only in 2018. The objective of our paper is a systematic review of the policies, programmes, subprogrammes, and projects included in the budget documents for the period 2018-2022. In this way, the following research questions will be examined:

- Which budget policies and programmes received the largest investments in the budget documentation in terms of sustainable and green projects in the period 2018-2022?
- What financial resources were allocated to sustainable and green projects in the budget process in the period 2018-2022?

After the introduction, the paper consists of a literature review, an explanatory chapter on green budgeting in the EU and Slovenia, a chapter on the methodology used, the results and the discussion.

2. LITERATURE REVIEW

The concept of sustainable development promotes meeting the needs of the present without compromising the opportunities of future generations. Since the economy is a component of society and society is the framework within which the economy functions, the market is a result of the way we design state institutions and business organisations. In this context, governments are the key actors in creating markets that incentivize businesses to align with sustainable goals (Mazzucato, 2023). As companies hardly accept sustainable action for altruistic reasons (Cimpoeru, 2012), governments have a great responsibility in steering sustainable development by offering various financial, fiscal and other incentives or instruments. Government budgets play a central role in financing public policies that can have a significant impact on the environment and society as a whole. For this reason, governments have started to integrate environmental concerns into the budget cycle through green budgeting, while companies tend to be sustainable and socially responsible by developing green marketing strategies to show consumers their good corporate image and social responsibility, often referred to as greenwashing (i.e. poor environmental performance and positive communication about environmental performance) (de Freitas Netto et al., 2020).

Green budgeting draws on recent research that green investments are one of the key drivers that form the financial basis for sustainable development (Dabyltayeva & Rakhymzhan, 2019; Dalevska et al., 2019; Raszkowski & Bartniczak, 2018). Green growth includes various investments in infrastructure, renewable energy, and energy efficiency (OECD, 2015). Various financial and non-financial instruments are required for the implementation of green growth, e.g. incentives and facilitation for companies, activities focusing on environmentally friendly business practices, and the conservation of natural resources can be used. The results of studies (Ocal & Aslan, 2013; Sadorsky, 2009) show that green investments reduce greenhouse gas emissions and mitigate the effects of global warming by increasing the share of GDP spent on research and development. Such investments also have a positive impact on the sustainable economy, business productivity, and emissions reduction. On the other hand, government infrastructure investment can effectively reduce pollutant emissions and promote quality economic development (Moreno at al., 2002), although investment in different industries has different impacts. Investment in primary industries can significantly improve coordination, but it reduces innovation, environmental friendliness, openness and sharing, which also has a negative impact on overall high-quality economic development (Wang & Liu, 2023).

Little has been reported in the literature on the impact of green budgeting, as efforts have focused much more on green taxes or favourable regulatory regimes for sectors such as renewable energy or the allocation of funds for environmental investments (Fernandez, 2018). Although there are several works that address the factors that determine the allocation of public funds, the allocation of environmental spending is neglected and limited to a few case studies (Soukopova & Bakos, 2013, Mandl et al., 2008). Nonetheless, studies report that governments have implemented environmental policies in budgetary processes, both by adopting softer methods (as opposed to traditional regulation) and by promoting green budgetary norms through international initiatives such as the United Nations 2030 Agenda and the Global Green New Deal (Russel & Benson, 2014). The OECD (2021) reports that 14 out of 38 OECD countries have adopted some form of green budget implementation. Practices differ in terms of institutional arrangements, instruments, accountability mechanisms, and enabling environments. Despite the

differences in country-specific green budgeting practices, the results are quite similar.

3. GREEN BUDGETING IN EU AND SLOVENIA

In recent years, the EU has made enormous efforts to promote green budgeting with several initiatives to integrate environmental aspects into budgetary and fiscal decision-making processes. The European Green Deal (2019) takes into account the environmental aspect of national budgets and indicates that green budgetary instruments will help to shift public investment, consumption, and taxation towards green priority areas and eliminate harmful subsidies. To achieve the objectives of the Green Deal, the EU Taxonomy Regulation (2020/852) was adopted in 2020, which introduces a single classification system for "green" or sustainable economic activities so that companies, investors and financial market participants can direct their investments towards more sustainable technologies. In addition, the EU Commission has developed Delegated Regulation (EU) 2021/2139 as technical criteria to determine what contributes to the achievement of each environmental objective within each activity. According to the EU Taxonomy Regulation, there are six environmental objectives that must be achieved: a) mitigation of climate change; b) adaptation to climate change; c) sustainable use and protection of water and marine resources; d) transition to a circular economy; e) pollution prevention and control; f) protection and restoration of

The analysis of the EU budget from the "green" perspective has shown that 20.1% (216 billion euros) was spent on climate action in 2021, although the plan for the period 2014-2020 was 20%. As a result, the EU budget, which is mainly earmarked for investment, has a target of 30% for climate action for the period 2021-2027. The European Green Deal Investment Plan (EGDIP), the investment pillar of the Green Deal, aims to mobilise €1 trillion for sustainable investment over the next ten years, with a focus on the green transition under the Just Transition Mechanism, which is part of the EGDIP. This "transition into green" should mobilise €100 billion to support workers and citizens in the regions most affected by this transition. In addition to these direct financial investment, the Green Deal should also help create the framework for private investors and the public sector to facilitate sustainable investments and support public administrations and project promoters in identifying, structuring, and implementing sustainable projects (EU, 2020).

biodiversity and ecosystems.

Collaboration between the EU Commission and national governments should generate possible future

actions, including how to address green investments under EU tax rules while maintaining safeguards against risks to debt sustainability. Well-designed tax reforms can strengthen economic growth and resilience to climate shocks and contribute to a more equitable society and a just transition. Environmental Action Program (Decision EU 2022/591 of the European Parliament and of the Council of 6 April 2022 on a General Environmental Action Program of the European Union to 2030) has supported green budgeting through the long-term EU Sustainable Development Strategy and the EU budget.

In Slovenia, the Green Budget Reform document was published (Umanotera, 2013) and later adopted as a strategic project of the government entitled Green Budget Reform - Environmental and Public Financial Aspects of Incentives in Slovenia (2018). Slovenia has adopted a comprehensive strategic development project that combines environmental improvements with economic incentives and fiscal consolidation opportunities to (a) improve the efficiency and transparency of the use of public financial resources for environmental protection and (b) support the creation of incentives that contribute to achieving positive environmental impacts. In addition, there is the Strategic Framework for Adaptation to Climate Change (2016), the Development Strategy Slovenia 2030 (2017), the Comprehensive National Energy and Climate Plan of the Republic of Slovenia (2020), and finally the Plan for Recovery and Resilience in Slovenia (2022).

Unfortunately, there is no document defining the operational part of green budgeting, but the strategic expert group has just been set up with the aim of elaborating the methodology of green budgeting. Such an operational document should be based on the OECD framework (2018), which defines four main building blocks for green budgeting that complement each other:

- strategic framework that clearly defines the government's strategic priorities and objectives in the area of climate and environmental protection.
- tools to assess the contribution to climate or environmental goals and to evaluate the consistency of budgetary and fiscal policies with strategic priorities (e.g., green budget labelling, cost-benefit analysis, green public procurement, etc.);
- reporting that enables accountability and transparency; and
- a stimulating framework for budget management (close cooperation and coordination of the ministry responsible for finance with other departments).
 - Based on the presented facts about the current

state of green budgeting in Slovenia, the paper focuses on the practice and experience of the last five years.

4. RESEARCH METHODOLOGY

The Slovenian state budget consists of three important parts: a) the general part, b) the special part and c) the plan of development programmes. The general part of the budget contains information on how the government collects revenue and how it spends it according to the economic (accounting) classification. The classification of budget revenue and expenditure according to the institution responsible for the use of funds is presented in the special section, while the development programme plan, as the third section of the budget, shows the financing for a fiveyear period. In the second, special part of the budget, the institutional and programmatic classification is used to present the expenditure of budget funds by each (separate) budget user of the budget according to administrative responsibility or according to the budget users as executors of administrative tasks, investors and (co-)financiers. Finally, the plan of development programmes (as the third part of the budget) presents individual projects of the budget users for the entire period of their duration. In addition, future government spending is explained in the justification of policies as separate documents that show the use of funds through 24 policies, programmes and sub-programmes as well as projects, measures, etc.

The paper is based on the methodology of secondary research, in which the government's budget documents were systematically reviewed. The systematic approach is reflected in a three-stage process that was undertaken with the aim of obtaining the data for the analysis. As our goal was to isolate programmes (and sub-programmes) and projects with sustainable and green content, the policy justifications for each year were used. The first research step resulted in a table listing the policies, programmes

and sub-programmes for 2018-2022 that contain "sustainable" or "green" content. The justifications of budgetary spending by policy and institution were used to drill down into the projects within the sub-programmes. In the second step, the Development Programmes Plan was used to link the projects to the planned funds for the project for 2018-2022. In the third step, the data was systematised by policy and year. As the funding allocated to a particular project is determined in each budget year, the funding amounts were isolated and presented by plan year. Table 1 shows the data collection process.

As the Ministry of Finance is currently preparing the operational framework for green budgeting, our analysis is based on the available data on green and sustainable budget topics within the budgetary documentation, which may not be sufficiently substantiated.

5. RESULTS

Corporate social responsibility for the environment has become a global management paradigm because future economic prosperity depends on green technological growth, also known as ecological modernisation. In this context, governments, whose strongest instrument is the budget, are forced to align their budgets with a green strategy. Therefore, our first research question focused on the budgetary policies and programmes that were most intensively addressed in the Slovenian government budgets 2018-2022. In other words, the research motivation focussed on the green and sustainable content in the budget process.

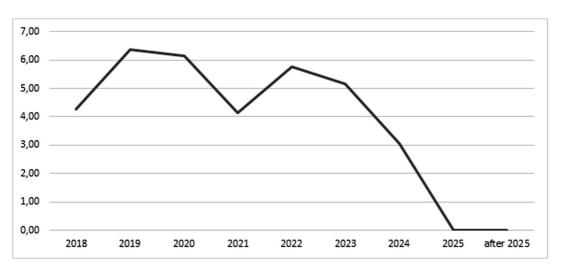
The results (Appendix 1) show that 23 projects were planned in the Slovenian government budget in the period from 2018 to 2022. Of these 23 projects, 7 were planned in the areas of science and information technology and 4 in the areas of environmental protection and environmental infrastructure. It should be

TABLE 1: The procedure of data collection and presentation

	Documents Data	
1. step	24 Justifications of policies for years 2018-2022	Programmes, sub-programmes and projects
2. step	5 Plans (2018-2022) of Development Programmes	Amounts of funding
3. step	Revision and systematic presentation of data	Projects and amount of funding

SOURCE: own, 2023

GRAPH 1: The share (in %) of green policies in the overall government budget in the period 2018-2023



source: Ministry of finance of the Republic of Slovenia, 2023

noted that the average budget in the observed years comprises more than 3,000 projects (and more than 10,000 measures). Another very interesting research finding is that 11 out of 24 budget policies contain some green and sustainable content, most of these 11 with only one relevant green project. Notwithstanding the fact that the Ministry of Agriculture, Forestry and Food promotes local food consumption ("Eat local, think global"), there was not a single project from this ministry or the Agriculture, Forestry, Fisheries and Food policy that contained green or sustainable content (Institute for Sustainable Development, 2017).

With regard to the funds allocated under policies/sub-programmes and projects for green and sustainable issues, it should be highlighted that the total amount of funds per year ranged from 408 million euros or 4.23% of total government spending (9,625 million euros) in 2018 to 725 million euros or 5.75% of

total government spending (12,600 million euros) in 2022. Contrary to the government budgets for years from 2018 till 2022, the budgets for 2024 and subsequent years have not yet been specified in terms of content and politically approved, as can be seen from the detailed data (Appendix 1), but also from Graph 1, in which the declining trend in the share of green policies in the government's overall budget after 2023 is the result of a lack of data on specific green and sustainable policies.

In terms of green and sustainable government budgetary funding over the 5-year period observed, the largest share of funding was allocated to environmental protection and infrastructure policy (€3,631 billion or 72.49%), education and sports policy (€920 billion or 18.37%) and transport and transport infrastructure policy (€330 billion or 6.59%). Other 8 policy areas (out of 11) have achieved a share of less than 1%.

0,96

GRAPH 2: The share (%) of different areas in the green budgeting in the period 2018-2023

06 Local government

- 13 Transport and transport infrastructure
- 15_Environmental protection and environmental infrastructure
- 16 Spatial planning and housing activity
- 19 Education and sport

source: Ministry of finance of the Republic of Slovenia, 2023

TABLE 2: Selected projects' description

PROJECTS	THE CONTENT OF THE PROJECT
Ecological Safe Car for green mobility	The idea is to bring a concrete development plan for 22 new products. The areas of product development are chosen in a way as to support the directions of the global automotive industry, the EU strategy and also national development programmes. With the development of products, they should contribute to the achievement of significant advances in the field of reducing energy consumption and emissions resulting from internal combustion engines, electrification of vehicles, and safety and comfort in cars.
Sustainable and innovative construction	Sustainable construction contributes to reducing the negative impact of buildings on the environment during the entire life cycle while simultaneously optimizing economy, comfort and safety. It is the co-financing of TIGR institute projects.
ERA NET Sustainable animal husbandry	It is the co-financing of EU projects from several sources, which in sustainable livestock farming focuses on better food and its economically, environmentally and socially acceptable acquisition.
Sustainable integration of young people into the labor market	These are measures aimed at reducing youth unemployment; from the point of gaining practical work experience and on-the-job training, enabling an induction period (when work experience is mandatory for obtaining a professional qualification) and promoting and developing active citizenship of young people through the implementation of innovative projects that they enable greater employability and the development of appropriate competences.
Promotion of low- carbon strategies - sustainable mobility	It is the co-financing of a series of measures that would enable EU to establish a society with zero net emissions by 2050. The measures thus encourage green mobility (e.g. arrangement of cycle paths, replacement of public transport vehicles with electric ones, etc.).
Soft measures of sustainable mobility	The purpose of the project, which is part of the Operational Program for the implementation of the European Cohesion Policy in the period 2014-2020, is the implementation of the integrated promotion of sustainable forms of mobility, which will include encouraging and educational activities at the national level, as well as the preparation of professional guidelines for companies, institutions and local communities.
Sustainable tourism	Sustainable tourism is the fundamental direction of Slovenian tourism. The principles of sustainability refer to environmental, economic and socio-cultural aspects of tourism development. To ensure long-term sustainable development, the appropriate balance between the impacts of tourism on the environment, tourism employees, local communities and tourism providers should be established.
Climate Change Compliance Projects	The projects that are co-financed from the budget in nature conservation areas, investments in greater energy efficiency of buildings, landscaping of areas for cyclists, purchase of more environmentally friendly municipal vehicles, reduction of energy poverty, promotion of sustainable wooden construction.
Water supply networks	Mostly, it concerns the arrangement of the water supply network, but there are no concrete projects with the title of sustainability.
Scholarship and awards	Prizes in the amount of EUR 500 to EUR 5,000 for the students' contributions to the sustainable development of society in the economic, social or environmental fields. On average, they award around 100 prizes.

SOURCE: own, 2023

If we focus on the content (not the financial aspect) of the isolated projects in Table 2, we find some explanations of the content of the green and sustainable projects in Graph 2. The analysis shows that the explanations are very general, although a systematic and thorough documentation (re)search and personal contacts with the Ministry of Finance were carried out. The fact that a certain part of the state budget consists of financial plans of institutions (mostly ministries) means that each ministry prepares more or less detailed explanations of its projects. In terms of the share of the planned budget, environmental protection and related infrastructure have been the most important policy area in the last five years. However, the explanations in the budget documents are very modest and allow for a wide range of interpretations.

6. DISSCUSSION

The broader, voluntary and fashionable concept of corporate social responsibility began decades ago. Following several global social movements (Fridays for Future, the Paris Agreement, etc.), the concept of sustainable development, accelerated by the SDGs, has become a very important issue. According to Mariana Mazzucato (2023), "the real challenges we have today are not technological but societal underlying the Sustainable Development Goals (SDGs). These are serious challenges or problems that require not only technological change, but also social change, regulatory change, etc.". At EU level, several regulations (Commission Delegated Regulation (EU) 2022/1288, Financial Services Sustainability Disclosure Regulation (SFRD), Non-Financial Reporting Directive (CSRD), Taxonomy Directive, etc.) have been implemented for both companies and governments. It became clear that the business community itself was not sufficiently motivated to achieve sustainable goals, so decision-makers at EU level rethought the sustainability strategy. The Taxonomy Regulation, for example, stipulates that capital flows in the EU must be channelled into sustainable investments, i.e., economic activities that contribute to at least one environmental objective while not causing significant harm to others.

As in our paper, the broader sustainable content is linked to green (environmental) content. SDG 13 on climate change establishes a link to the Paris Agreement by pointing out that the UN Framework Convention on Climate Change "is the primary international, intergovernmental forum for negotiating the global response to climate change". The outcomes of the SDGs are interdependent, with a complex link between human, technical and natural systems.

Governments have also addressed environmental issues in their budget strategies. Some have started investing in green budgets due to sluggish growth after the financial crisis (UNEP, 2009), while others have followed the incentives initiated by the UN or the EU, although studies (Jordan and Lenschow, 2008, Russel & Benson, 2014, Fernandez, 2018) show that the impact has been very limited, even in countries such as the UK, Sweden, or Germany. In this context, our work has confirmed the trend of modest representation of green and sustainable issues in the Slovenian budget. Considering the fact that green budgeting practises have not yet been developed within public financial management to support fiscal policy, the results of our research are not surprising. In contrast to the sustainable (green) budgeting system, in the administrative traditions (as in Slovenia) the amounts (and projects) are calculated on the basis of previous budgets, without reference to a plan or a modified design (Cimpoeru, 2012). Not only the lack of operational instruments that take into account green (sustainable) issues, but also the lack of strategic goals in public policy could not lead to a greater awareness of sustainability. As mentioned above, Slovenia has taken some steps towards a sustainable economy in the EU by publishing the Slovenian Green Budget Reform Initiative (2012), the Strategic Framework for Climate Change Adaptation (2016), the Strategies for the Development of Slovenia in 2030, the Comprehensive National Energy and Climate Plan of the Republic of Slovenia (2017), the Climate Plan of the Republic of Slovenia (2020) and the recent Economic Recovery and Resilience Plan (2021), but the impact of all these measures is difficult to assess due to the short implementation period. "The SDGs could function as public policy instruments, which may consist of legal regulations, technical standards, and accounting tools that are typically used to freeze administrative practises and avoid political debates by routinizing public actors" (Hage et al., 2019, p., 425), which allows for implicit political theorising in technical devices. As green budgeting is a set of policies that aim to change the environmentally damaging behaviour of companies and individuals by increasing the financial burden of activities and products, the effective implementation of environmental and other sustainability elements into public financial management frameworks and procedures should be addressed. This implementation should encompass all policy areas and sectors and take into account all aspects that are directly or indirectly harmful to the environment based on indicators (Runhaar, 2015).

Such effective implementation should build on the normative framework, the criteria, the indicators, and the proposed concrete approaches in the form of building blocks of green budgeting (OECD, 2018), even if the aforementioned starting points cannot provide solutions for the new global economic model that seems to be the basis of the sustainable idea. It is clear that due to the different orientations of world economies, the extreme heterogeneity in the development of countries, global political and other crises, individual countries alone cannot achieve a major breakthrough in this area, as the issue requires a global approach (if at all). Small countries like Slovenia can be a good practise (case study), although sustainable solutions should be sought at international (global) level. As sustainability is the global challenge,

the global international institutions should take steps towards the SDGs by clearly supporting and promoting green initiatives in the form of green projects on favourable financial terms. A global compromise on the concept of sustainability could also be achieved in the form of international assistance (in the form of financial and human resources and incentives) for countries that do not achieve the goals within the expected timeframe.

Due to the evolving methodology and framework of green budgeting, the challenge for research could be recognised in a repeated and deeper analysis, including targets and indicators in the coming years.

REFERENCES

- Blazey, A., & Lelong, M. (2022). Green budgeting: A way forward. OECD Journal on Budgeting, 22(2), 1-18. https://doi.org/10.1787/dc7ac5a7-en
- 2. Bova, E. (2021), Green Budgeting Practices in the EU: A First Review. Discussion paper 140.
- 3. Cimpoeru, V. M. (2012). An empirical study on key indicators of environmental quality: green budgeting-a catalyst for sustainable economy and a factor for institutional change. *Amfiteatru Economic*, 14(32), 485.
- Commission Delegated Regulation EU, 2022/1288 of 6 April 2022, Official Journal of the European Union L 196/1, 25.7.2022. https://eur-ex.europa.eu/eli/reg_del/2022/1288/oj
- Dabyltayeva, N., & Rakhymzhan, G. (2019). The green economy development path: Overview of economic policy priorities. *Journal of Security & Sustainability Issues*, 8(4).
- 6. Dalevska, N., Khobta, V., Kwilinski, A., & Kravchenko, S. (2019). A model for estimating social and economic indicators of sustainable development. *Entrepreneurship and Sustainability Issues.* 6(4), 1839. https://doi.org/10.9770/jesi.2019.6.4(21)
- de Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., & Soares, G. R. D. L. (2020). Concepts and forms of greenwashing: A systematic review. *Environmental Sciences Europe*. 32(1), 1-12. https://doi.org/10.1186/s12302-020-0300-3
- Delegated Regulation (EU) 2021/2139, Official Journal of the European Union L 442/1, 9.1.2021 https://eur-lex.europa.eu/legal-content/EN/TX-T/?uri=celex%3A32021R2139
- Directive (EU) 2022/2464 of the European parliament and of the council of 14 December 2022, CSRD, Official Journal of the European Union L 322/15, 16.12.2022 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX-32022L2464&from=EN
- EU Taxonomy Regulation (2020/852) of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, Official Journal of the European Union L 198/13, 22.6.2020 https://eurlex.europa.eu/legal-content/EN/TXT/?uri=celex-%3A32020R0852
- 11. European Green Deal (2019). Brussels, 11.12.2019 COM(2019) 640 https://eur-lex.europa.eu/resource.html?uri=-cellar:b828d165-1c22-11ea-8c1f-01aa75e-d71a1.0002.02/DOC_1&format=PDF
- 12. Europen Union (2020). The European Green Deal Investment Plan and Just Transition Mechanism explained- questions and answers. file:///C:/

- Users/Tatjanad/Downloads/The_European_ Green_Deal_Investment_Plan_and_Just_Transition_Mechanism_explained.pdf
- 13. Fernandez, R. M. (2018). Interactions of regional and national environmental policies: The case of Spain. Cogent Economics & Finance, 6(1), 1442092, 1-15. https://doi.org/10.1080/23322039.2018.144
- Government of Republic of Slovenia (2016). Strategic Framework for Climate Change. https://www.gov.si/teme/prilagajanje-podnebnim-spremembam/
- 15. Government of Republic of Slovenia (2020). Comprehensive national energy and climate plan of the Republic of Slovenia. Number: 35400-18/2019/14, 27 February 2020 https://energy.ec.europa.eu/system/files/2020-06/si_final_necp_main_en_o.pdf
- 16. Government of the Republic of Slovenia (2018). Development strategy of Slovenia 2030. https://www.gov.si/assets/ministrstva/MKRR/Strategija-razvoja-Slovenije-2030/Strategija_razvoja_Slovenije_2030.pdf
- 17. Hege, E., Brimont, L., & Pagnon, F. (2019). Sustainable development goals and indicators: can they be tools to make national budgets more sustainable? *Public Sector* Economics, 43(4), 423-444. https://doi.org/10.3326/pse.43.4.5
- Institute for sustainable development (2017), Eat locally, think globally. Institute for sustainable development. https://eathink2015.org/sl/
- 19. Jordan, A. and Lenschow, A. (2008). *Innovation in environmental policy*. Cheltanham: Edward Elgar.
- Mandl, U., Dierx, A., & Ilzkovitz, F. (2008). The Effectiveness and efficiency of public spending. European Economy (Economic Papers 301). European Commission.
- 21. Mazzucato, M. (2023). Inclusive and sustainable growth. A mission-driven multi-stakeholder approach. CIRIEC-España, revista de economía pública, social y cooperative. 107, 27-35. https://doi.org/10.7203/CIRIEC-E.107.26371
- 22. Moreno R, Loʻpez-Bazo E, Artı's M. (2002). Public Infrastructure and the Performance of Manufacturing Industries: Short-and Long-Run Effects, Regional Science and Urban Economics. 32(1), 97-121. https://www.sciencedirect.com/science/article/abs/pii/So166046200000582.
- 23. Ocal, O., & Aslan, A. (2013). Renewable energy consumption—economic growth nexus in Turkey. Renewable and Sustainable Energy Reviews, 28, 494-499. https://doi.org/10.1016/j.rser.2013.08.036
- 24. OECD (2015). Policy Framework for Investment, 2015 Edition. OECD Publishing, Paris. https://doi.

- org/10.1787/9789264208667-en
- OECD (2017). Paris Collaborative on Green Budgeting. OECD. https://www.oecd.org/environment/green-budgeting/
- 26. OECD (2018). Green Budgeting Framework. https://www.oecd.org/environment/ green-budgeting/OECD-Green-Budgeting-Framework-Highlights.pdf
- 27. OECD (2021). Green budgeting. Government at a Glance 2021. OECD. https://www.oecd-ilibrary.org/sites/2f8ob7bo-en/index.html?itemId=/content/component/2f8ob7bo-en
- 28. Office of the Government of the Republic of Slovenia for Development and European Cohesion Policy (2022). Recovery and Resilience plan of Slovenia. https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility/slovenias-recovery-and-resilience-plan_en
- 29. Raszkowski, A., & Bartniczak, B. (2018). Towards sustainable regional development: Economy, society, environment, good governance based on the example of Polish regions. *Transformations in Business & Economics*, 17 (2), 225-245.
- 30. Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector (SFRD). Official Journal of the European Union L 317/1, 9.12.2019. https://eurlex.europa.eu/legal-content/EN/TXT/?uri=celex-%3A32019R2088
- 31. Runhaar, H. (2016). Tools for integrating environmental objectives into policy and practice: What works where? *Environmental Impact Assessment Review*, 59, 1-9. https://doi.org/10.1016/j.eiar.2016.03.003
- 32. Russel, D., & Benson, D. (2014). Green budgeting in an age of austerity: a transatlantic comparative perspective. *Environmental Politics*, 23(2), 243-262. https://doi.org/10.1080/09644016.201 3.775727
- 33. Sadorsky, P. (2009). Renewable energy consumption, CO2 emissions and oil prices in the G7 countries. *Energy Economics*, 31(3), 456-462. https://doi.org/10.1016/j.eneco.2008.12.010
- 34. Soukopova, J., & Bakos, E. (2013). Environmental protection expenditure: Ex-post evaluation, Working Paper WP KVE 08/2013. Masaryk University. Faculty of Economics and Administration. https://dx.doi.org/10.2139/ssrn.2274453
- 35. Umanotera (2013). Green budgetary reform in Slovenia: responding to the crisis with a sustainable vision. https://www.umanotera.org/publikacija/zelena-proracunska-reforma-odzivanje-na-krizo-s-trajnostno-vizijo/

- 36. United Nations Environmental Programme
 -UNEP (2009). Global Green New Deal:
 an update for the G20 Pittsburgh Summit. Nairobi: United Nations Environmental Programme. https://wedocs.unep.org/handle/20.500.11822/7736
- 37. United Nations (2015). Transforming our World: The 2030 Agenda for Sustainable Development, New York: United Nations. https://sdgs.un-.org/2030agenda
- 38. Wang, M., & Liu, W. (2023). An empirical analysis of the impact of Chinese government investment on high-quality economic development A study based on spatial Dubin model. *Plos one*, 18(3), e0283073. https://doi.org/10.1371/journal.pone.0283073
- 39. Wilkinson, D., & Benson, D. (2008). Green budgeting in AJ Jordan and A. Lenschow, ed.: Innovation in Environmental Policy? Integrating the Environment for Sustainability, Cheltenham: Edward Elgar.

APPENDIX 1: The results of budgetary documentation in the period 2018–2022 concerning the green and sustainable topics (in EUR)

POLITICS	SUBPROGRAMMES	PROJECTS	2018	2019	
02_ECONOMIC AND PUBLIC FINANCE POLITICS	020200 Foundations of economic and development policy and preparation of macroeconomic analyzes and forecasts	European green deal			
03_FOREIGN POLICY AND INTERNATIONAL DEVELOPMENT COOPERATION	030104 Presidency of the Council of the European Union	PSEU 2021-green events in the field of education			
	050201 Research programmes	Sustainable and innovative construction		2.779.675,00	
	and projects	Ecological Safe Car for green mobility	3.574.785,00	1.935.224,00	
	0504026: 25	ERA NET Sustainable animal husbandry	105.000,00	105.000,00	
05_SCIENCE AND INFORMATION	050402 Scientific research work in agriculture and forestry	Sustainable and local food production			
TECHNOLOGY	and to restry	Sustainable concepts for building barns			
	050202 Projects ERA_ biotechnology	Sustainable production of oleochemicals Sustainable replacement of raw materials			
06_Local government	0604 Koordinacija razvoja regij	Izvajanje FM NOR in EGP 2014-2021	2014-2021		
10_LABOUR MARKET AND WEORKING CONDITIONS	100401 Employment incentives	Sustainable integration of young people into the labor market	10.665.240,00	3.073.426,00	
11_AGRICULTURE, FORESTRY, FISHERIES AND FOOD	110401 Restoration, care, protection of forests	Sustainable construction with wood in the Alpine area		114.549,00	
13_TRANSPORT AND TRANSPORT	130601 Sustainable mobility	Promoting low-carbon strategies_ sustainable mobility	18.210.378,00	6.873.008,00	
INFRASTRUCTURE	,	Soft measures of sustainable mobility	31.378.257,00	24.778.989,00	
14_ENTREPRENEURSHIP AND	140501 Ensuring a favorable environment for the development of tourism	Sustainable tourism	49.000,00	105.000,00	
COMPETITIVENESS	MPETITIVENESS 140301 Incentives for start-ups and their growth accommodation			369.335,00	
	150102 Adapting to climate change	Climate Change Compliance Projects	12.338.448,00	112.656.108,00	
15_ENVIRONMENTAL PROTECTION AND	riacei management inceri		242.854.993,00	371.222.163,00	
ENVIRONMENTAL INFRASTRUCTURE	IVIRONMENTAL INFRASTRUCTURE 150103 Spremljanje stanja okolja in			47.830,00	
	hidrološka dejavnost	Green infrastructure - GREVISLIN		1.031.773,00	
16_SPATIAL PLANNING AND HOUSING ACTIVITY	160201 Space management	Green Slovenian location framework			
	190701 Scholarship and awards for sustainability	All sort of scholarships	89.270.022,00	91.218.521,00	
19_EDUCATION AND SPORT	190102 Comprehensive transformation of green and digital education	Carrying out professional, development and executive tasks in the field of research activity			
SUM PER YEAR			408.446.123,00	616.312.620,00	
TOTAL GOVERNEMENT BUDGETARY EXPENDITURES			9.572.593.927,00	9.696.999.323,00	

SOURCE: Ministry of finance of the Republic of Slovenia, 2023

SUM PER POLITIC	after 2025	2025	2024	2023	2022	2021	2020
125.376,00				46.181,00	79.195,00		
36.096,00					36.096,00		
2.779.675,00							
5.510.009,00							
274.532,00					4.000,00	13.732,00	46.800,00
68.912,00				29.126,00	39.786,00		
74.797,00					74.797,00		
827.250,00			275.750,00	275.750,00	275.750,00		
981.246,00			327.082,00	327.082,00	327.082,00		
38.777.986,00		2.558.524,00	11.899.947,00	17.335.335,00	6.984.180,00		
17.928.210,00				2,00	2,00	1.543.838,00	2.645.702,00
114.549,00							
270.311.233,00				94.968.275,00	86.940.312,00	23.960.892,00	39.358.368,00
59.992.013,00				1.367.842,00	447.215,00	1.156.715,00	862.995,00
11.457.494,00	30.000,00		780.962,00	895.924,00	8.986.608,00	105.000,00	505.000,00
369.335,00							
1.261.078.137,00	301.589.525,00	157.003.260,00	159.786.374,00	225.391.559,00	81.397.962,00	70.889.325,00	140.025.576,00
2.367.217.841,00	52.711.268,00	124.108.348,00	154.731.589,00	377.687.495,00	436.613.125,00	239.681.408,00	367.607.452,00
109.359,00						18.529,00	43.000,00
2.942.466,00					13.950,00	940.607,00	956.136,00
48.210.001,00	7.647.812,00	12.132.804,00	11.764.758,00	14.986.179,00	1.678.448,00		
910.016.526,00	76.000.000,00	109.974.185,00	134.974.185,00	128.974.185,00	101.374.185,00	93.635.698,00	84.595.545,00
10.017.859,00	598.614,00	2.281.533,00	2.623.467,00	2.779.290,00	1.734.955,00		
	437.978.605,00	405.779.146,00	474.542.671,00	862.286.958,00	725.274.715,00	431.947.765,00	636.648.594,00
	data not available	data not available	15.506.811.726,00	16.691.245.818,00	12.598.191.714,00	10.455.000.000,00	10.358.000.000,00

91

IMPLEMENTACIJA ZELENE PRORAČUNSKE POLITIKE U FINANCIRANJU ODRŽIVOG DRUŠTVA - ISKUSTVO SLOVENIJE

Održiva društva budućnosti trebala bi biti oblikovana na temelju zelene javne proračunske politike, budući da su zeleno javno trošenje i ulaganja ključni pokretači održivog razvoja. Dosadašnja istraživanja o zelenom proračunu često su bila usmjerena na zelene poreze i povoljne regulatorne okvire za određene sektore, iako je samo 14 od 38 zemalja OECD-a to uvelo u nekom obliku. Na temelju sekundarnih istraživanja slovenske proračunske dokumentacije za razdoblje od 2018. do 2022. godine, ovo istraživanje pokazuje da je zelena i održiva komponenta slaba, kako u smislu sadržaja, tako i opsega. Samo 11 od 24 politika i samo 23 od preko 3000 projekata uključili su neke ideje sa zelenim i održivim konceptom. S obzirom na razvijanje metodologije i okvira zelenog proračuna, izazov istraživanja se može prepoznati u ponovljenom i dubljem analiziranju, uključujući ciljeve i pokazatelje u idućim godinama.

KLJUČNE RIJEČI: zeleni proračun, održivo društvo, proračun, proračunska dokumentacija