
A PRIMER ON GREEN BUDGETING



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RESOURCES INSTITUTE
Creating Innovative Solutions for a Sustainable Future

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ENVIRONMENT AND CLIMATE



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[1] Introduction

The urgency for realizing sustainable development goals (SDGs), addressing anthropogenic climate change, biodiversity loss, and environmental degradation, requires coordinated efforts in terms of planning, coherent policy design, systematic approaches, strengthened institutions, and well-structured budgets. Since budget exercises are periodically undertaken by all ministries/ departments, annual government budgets that consider climate and environmental dimensions can be a potential driver to mainstream SDGs and climate actions into the development activities towards achieving environmental targets. Furthermore, government budgets can also be used as a tool for the assessment of governments' activities on various environmental commitments. Moreover, 'green budgeting' is a mechanism of budgetary policy making than can help in systematic mapping and tracking the sources of funds, outlays, expenditures and policies which, in turn, can support coordinated policy design and identification of periodic and continuous finance needs to achieve green objectives, that is, those relating to the climate and environmental dimensions.



[2] Rationale

While environmental regulation is the principal responsibility of environmental ministries/ departments, the mandate for implementation lies with the line ministries/ departments and hence it is essential that environmental sustainability initiatives are mainstreamed across ministries/ departments and sectors. Such a mainstreaming will help shape attitudes and commitments of various department officials and actors. Since the annual budget process involves ministries/ departments from various sectors, and are regularly undertaken, the finance ministry/ department can lead the process of green budgeting in coordination with the environment ministry/ department and seek inputs from various ministries/ departments in terms of identifying environmental sustainability component in existing schemes (and perhaps bring in further innovations in existing schemes). The exercise will result in reflections by various ministries/ departments, on where they stand and how much resource is allocated. The mapping of themes, activities and SDGs will enable to identify gaps in existing approaches wherein they can seek to identify other sources of funding from domestic, international as well as private sources. In the long-run, governments (national/ state) can also undertake impact evaluation in terms of implementation, if tagged with, for instance, SDG indicators. Green Budgeting can provide deeper insights and pointers to policymakers and other stakeholders for environmental sustainability initiatives, resources available, and delivery reforms.

[3] Principles

The broader approach for green budgeting is based on bottom-up scheme-based identification, accounting and planning on environmental sustainability components in various schemes. The policy innovation of green budgeting is based on the following four principles:

Principle 1: Green budgeting will follow a bottom-up process for identifying components of schemes that contribute to environmental sustainability.

Principle 2: Green budgeting exercise will align with public policy priorities of the government and to universal sustainable development goals related to environment in areas such as climate, water, energy, ecosystems, and responsible consumption and production.

Principle 3: Green budgeting exercise will seek to mainstream environmental sustainability by involving ministries/ departments and promotion of innovations within existing schemes/ budget-lines and existing fiscal space.

Principle 4: Green budgeting exercise will be mainstreamed through institutionalization of transparency and accountability of resource allocation for the environment.



[4] Definition

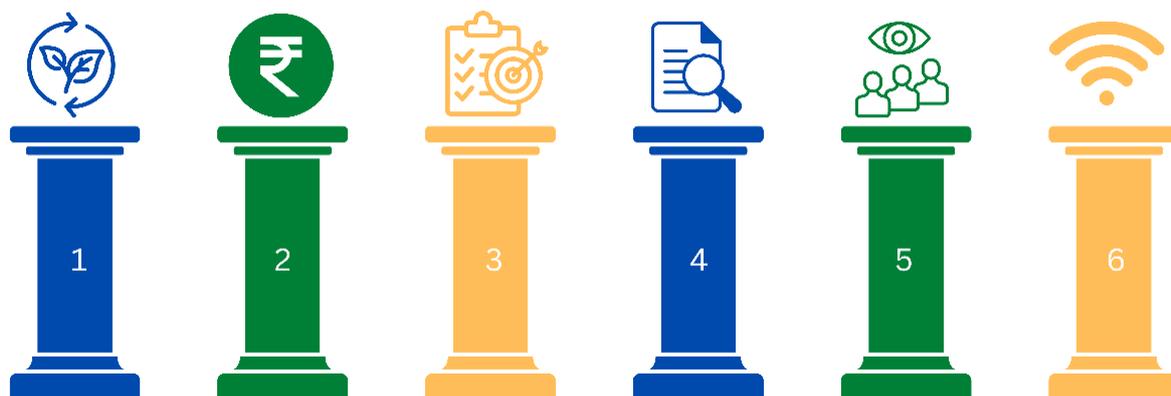
Green budgeting is a policy innovation that can serve as a tool to help in systematic mapping and tracking schemes, outlays, and expenditures which, in turn, can support innovations in existing schemes and identification of periodic and continuous finance needs to achieve green objectives, i.e., those relating to the climate and environmental dimensions. A working definition is given below:

Every year, key ministries/ departments contribute to preparing the Green Budget, to specify schemes involving environmental sustainability components, and estimate the quantity of public expenditure in the annual budget for these purposes.

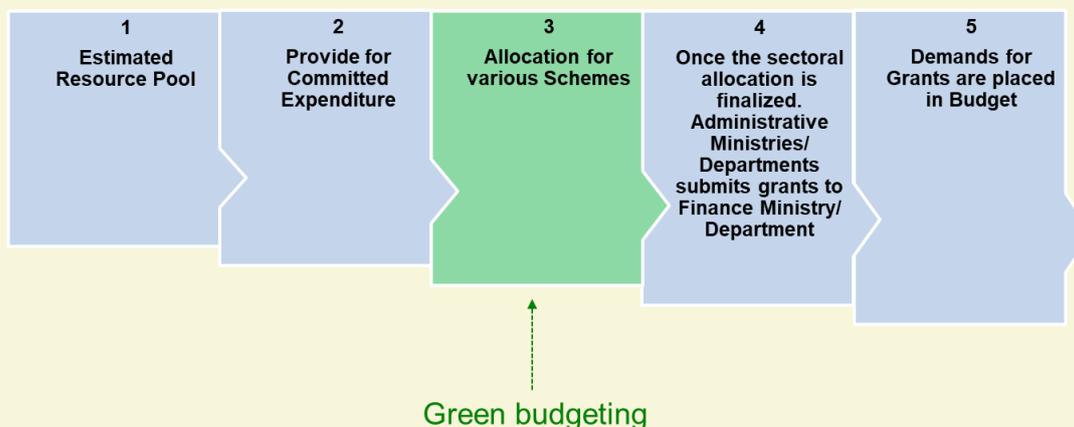
[5] Outcomes

Green budgeting is envisaged to have six pillars with corresponding outcomes as depicted in the table below.

| Pillar | Outcome |
|--|---|
| Pillar 1: Mainstreaming for environmental sustainability | Innovations within existing schemes within the existing space |
| Pillar 2: Resource allocation for environmental sustainability | Increase in resources allocated for environmental sustainability within the existing fiscal space |
| Pillar 3: Planning and coordination for environmental sustainability | Planning for and factoring environmental sustainability within existing schemes |
| Pillar 4: Evaluation and monitoring for environmental sustainability | Performance in SDG indicators (5-6 years) |
| Pillar 5: Transparency and accountability for environmental sustainability | Availability of information to public on various initiatives on environmental sustainability |
| Pillar 6: Policy signals for greening initiatives | Change in attitudes of other actors including civil society and business & industry (5-6 years) |



[6] Framework for Green Budgeting



Green budgeting can be **scheme-based**



- Quantification of resources allocated by various ministries/ departments for environmental sustainability in absolute terms and in terms of percentage of total scheme budgets
- Identification of components, themes and activities contributing to environmental sustainability within existing schemes



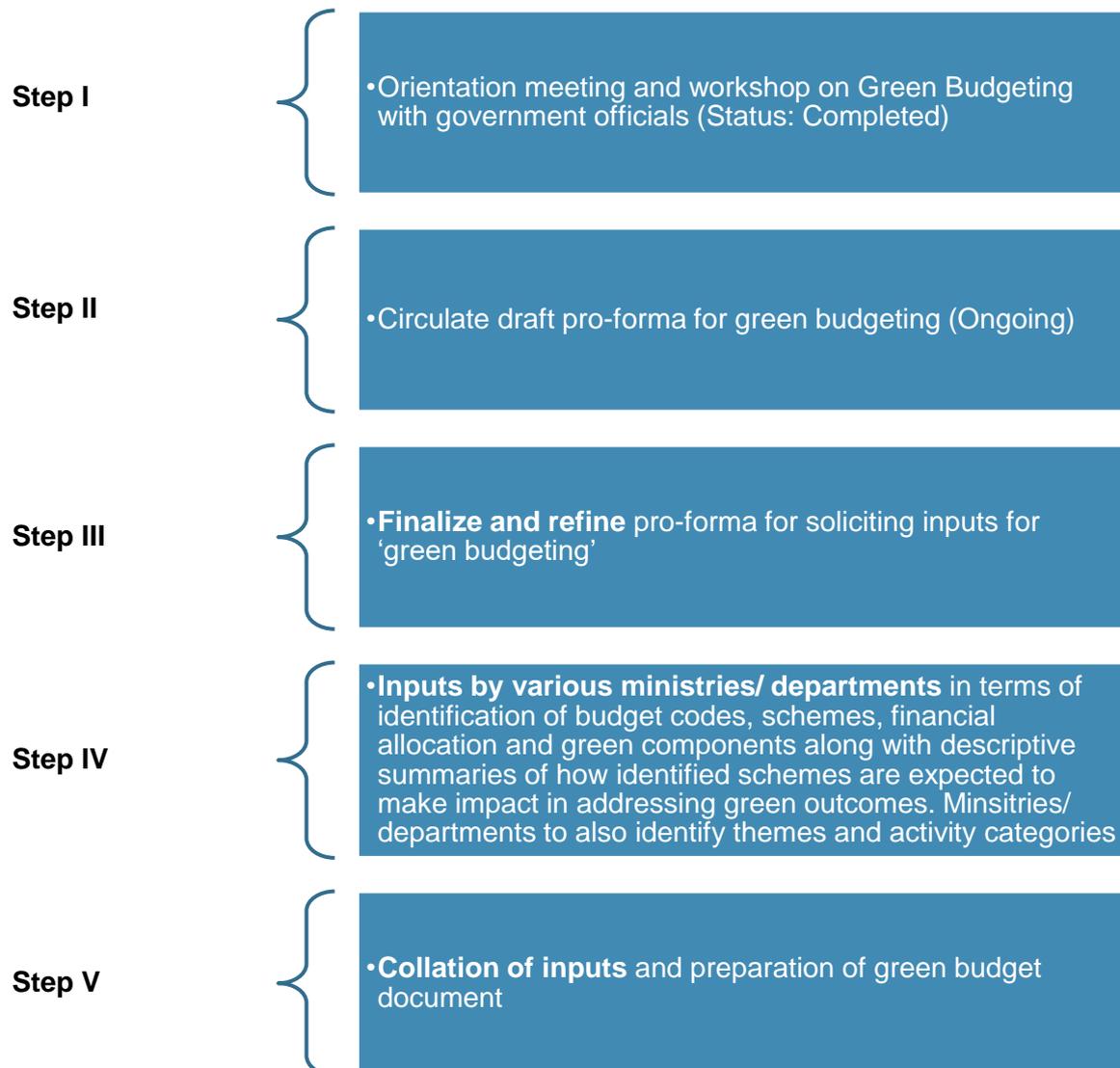
- Innovations within existing schemes to have a stronger component of environmental sustainability
- Identification of gaps and further innovations within departmental mandates



- Improved performance in environment-related SDG indicators in the long-run

[7] Process

Green budgeting would involve a simple five-step process as depicted in the figure below. The process can be facilitated by the Finance Ministry/ Department and the Ministry/ Department of Environment.



[8] Case of Bihar's Green Budgeting

For the last three years, the Finance Department, Government of Bihar has been presenting a green budget before the State's legislative assembly. The green budget document gives a comprehensive overview of scheme-specific, department-wise assessment of public expenditure for environment related sustainable development goals. The state government has evolved the methodology over the last three years. The table below presents a summary of last three years green budget and budget estimates. For Bihar, the number of schemes has increased from 103 (FY 2020-21) to 267 (FY 2021-22) and further increased to 316 (FY 2022-23). For the Green Budget Statement for FY 2022-23, the state also identified the SDG and activity profiles of various departments.

Green Budget Summary for FY 2020-21, FY 2021-22 and FY 2022-23 (INR Crore)

| # | Details | FY 2020-21 Budget Estimates | FY 2021-22 Budget Estimates | Current FY 2022- 23 Budget Estimates |
|---|--|-----------------------------------|-----------------------------------|--|
| 1 | Total state budget outlay | 211761.49 | 218302.70 | 237691.19 |
| 2 | Total scheme budget allocations of identified departments under green budget | 81176.46 | 79359.73 | 79255.54 |
| 3 | Total allocation of schemes/programmes budget identified by the department | 27162.85 | 29337.33 | 28380.42 |
| 4 | Total green budget components of identified schemes/programmes | 5693.88 | 7682.91 | 7710.25 |
| 5 | Percentage of green budget from the total allocation identified by the department | 7.01% | 9.68% | 9.73% |
| 6 | Percentage of green budget from the total scheme/programmes of the identified department | 21.00% | 26.19% | 27.17% |

Source: Government of Bihar (2022), Green Budget 2022-23, Finance Department, Government of Bihar. Accessed from <https://state.bihar.gov.in/cache/12/Budget/Budget/Green%20Budget%20Final%202022-23%20English%2006.12.pdf> (Accessed on 20th December 2022)

Annexures

Annexure 1: Examples of themes for green budgeting (illustrative only)

| # | Theme | Description | Example |
|-----|--|--|--|
| 1. | Pollution Abatement | The budgeted activity should be related to the regulation of pollution (such as air and water) and improvement of air and water quality. | Pollution control and monitoring practices, switching to cleaner transport |
| 2. | Waste Management | The budgeted activity should be related to effectively managing waste (such as municipal, industrial, agricultural or chemical) so that it leads to a cleaner environment. | Common effluent treatment plant, waste recycling facility, waste-water treatment |
| 3. | Biodiversity and Ecology | The budgeted activity should be related to preservation and conservation of forests, wildlife, land, natural resources, and propagation of indigenous activities. | Wildlife conservation, afforestation programmes |
| 4. | Climate Action | The budgeted activity should be related to either mitigating or adapting to the impacts of climate change. | climate change adaptation and mitigation |
| 5. | Sustainable Land Use | The budgeted activity should be related to sustainable and environment-friendly use of land, either in rural or urban context. | Planting trees along roadside, agroforestry |
| 6. | Sustainable Agriculture and Fisheries | The budgeted activity should be related to sustainable practices in traditional agricultural activities and the allied sectors such as fisheries or horticulture. | Organic farming, integrated farming system |
| 7. | Sustainable and Eco-Tourism | The budgeted activity should be related to sustainable and eco-friendly practices to promote tourism, as well as ensure sustainable tourist activities. | Establishing zoo safari, constructing toilets for tourists |
| 8. | Water Management | The budgeted activity should be related to the efficient and sustainable use of water, ensuring access to clean water for all purposes. | Renovation of wells, rainwater harvesting |
| 9. | Sustainable Energy | The budgeted activity should be related to the use and promotion of clean energy sources such as solar energy. | Installation of solar panels, renewable energy |
| 10. | Sustainable Consumption and Production | The budgeted activity should be related to responsible consumption and production practices based on reducing, reuse, and recycling to avoid wastage. | Construction of road using waste plastic |

Annexure 2: Example of activities for green budgeting (illustrative only)

| # | Activity Category | Description | Example |
|-----|---------------------------------|--|---|
| 1. | Programme implementation | Any budgeted activity which contributes directly to on-ground implementation which results in physical outcomes. | Asset creation through public works |
| 2. | Institutional capacity building | Any budgeted activity which contributes to enhancing the capacity of the institutional processes. | Training and capacity building of ministries/ departments to better carry out integration of environment in planning and implementation |
| 3. | Skilling | Any budgeted activity which contributes to increasing the capacities and expertise of human capital for better implementation. | Training and skilling of beneficiaries |
| 4. | Technology and infrastructure | Any budgeted activity which contributes to deployment of clean/ environmental technologies and sustainable infrastructure | Clean technology deployment (Common-effluent treatment plant, recycling unit, solar rooftop, green building) |
| 5. | Education and awareness | Any budgeted activity which contributes to increasing awareness and knowledge through formal education and other information/ communication channels | IEC and formal education curriculum |
| 6. | Regulation and enforcement | Any budgeted activity which contributes to regulating and enforcing various acts, rules, and policy notifications | Pollution control norms, waste management norms, bans |
| 7. | Subsidies | Any budgeted activity which contributes to incentivising environmentally sustainable activities | Subsidies for renewable energy technologies |
| 8. | Risk management | Any budgeted activity which contributes to mitigating of risks related to adoption of environmental/ clean energy initiatives or risks arising from environmental externalities including climate extremes | Crop insurance, partial risk guarantee |
| 9. | Information instruments | Any budgeted activity which contributes to informing decisions based on information about goods and services on environmental parameters | Eco-labels, standards |
| 10. | Research and development | Any budgeted activity which contributes to developing technologies, innovations, and knowledge in the domain of sciences, applied sciences, social sciences and interdisciplinary approaches | Support agricultural universities and KVKs |
| 11. | Sustainable public procurement | Any budgeted activity which contributes to purchasing of products and goods and for giving markets to promote environmentally sustainable goods and services | Bulk scheme for procuring LEDs and energy efficient appliances |
| 12. | Investment | Any budgeted activity which contributes to opportunities that has a potential to generate economic returns in terms of revenue or profits | Metro rail |

Annexure 3: Example of SDG mapping of green budget (illustrative only)

| # | Ministry/ Department | SDGs |
|-----|----------------------------------|--|
| 1. | Agriculture |    |
| 2. | Animal and Fisheries |      |
| 3. | Building/ Housing |        |
| 4. | Education |       |
| 5. | Energy |   |
| 6. | Environment |        |
| 7. | Health |  |
| 8. | Industries |    |
| 9. | Information and Public Relations |    |
| 10. | Water Resources |   |
| 11. | Public Health and Engineering |  |
| 12. | Road Construction |   |
| 13. | Rural Development |      |
| 14. | Rural Works |    |
| 15. | Tourism |     |
| 16. | Transport |   |
| 17. | Urban Development |        |

A Primer on Green Budgeting

While environmental regulation is the principal responsibility of environmental ministries/ departments, the mandate for implementation lies with the line ministries/ departments and hence it is essential that environmental sustainability initiatives are mainstreamed across the system. Such a mainstreaming will help shape attitudes and commitments of various department officials and actors.

Green budgeting can be seen as a tool that aids policymaking through systematic mapping and tracking schemes, outlays, and expenditures which, in turn, can support coordinated policy design and identification of periodic and continuous finance needs to achieve green objectives. Since the annual budget process involves ministries/ departments from various sectors, and are regularly undertaken, environmental sustainability consideration can help in bringing further innovations in existing schemes.

This resource provides guidance on green budgeting in terms of the concept, rationale and method. The primer can be used by government officials, including officials in charge of budget cells, research & academia, civil society, and any other stakeholders who wish to engage on this policy innovation.

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