



November 2025

Gaurav Upadhyay || Energy Finance Specialist, IEEFA

Soni Tiwari || Energy Finance Analyst, IEEFA

Analysing green budget frameworks: Lessons from global practices

- *Green budgeting promotes better policy coherence, helping governments prioritise low-carbon, climate-resilient investments while fulfilling national and international commitments like the Paris Agreement and Sustainable Development Goals (SDGs).*
- *France, Ireland, and Mexico have adopted green budgeting with strong commitment and measurable progress. France increased its green allocation from €38.1 billion (INR3.89 lakh crore) in 2021 to €42.6 billion (INR4.35 lakh crore) in 2025 as climate-positive expenditure. Ireland expanded its environmental spending from €2 billion (INR20,400 crore) in 2020 to €7 billion (INR71,400 crore) by 2025. Similarly, Mexico's climate budget grew sixfold, from MXN70 billion (INR34,300 crore) in 2021 to MXN466 billion (INR2.28 lakh crore) by 2025.*
- *Advanced economies, such as those in the EU and OECD, have progressively embedded climate performance criteria into their core budgetary and fiscal planning processes, leveraging mature institutions and data systems.*
- *For developing countries, capacity building, digital public financial management tools, and climate data infrastructure form the backbone of a successful framework.*

Introduction

Green budgeting is an emerging public finance approach that uses policy-mapping methods to integrate environmental sustainability and climate change considerations into the budgeting process. As climate and ecological challenges intensify, governments worldwide are increasingly recognising the need to align fiscal policies with environmental goals. Green budgeting goes beyond traditional economic planning by systematically evaluating how public revenues and expenditures impact the environment.

This approach enables policymakers to make informed decisions that promote low-carbon development, climate resilience, and the sustainable use of natural resources. Green budgeting also helps mobilise resources for green investments, improve accountability, and ensures that public finances contribute to national and global sustainability commitments, such as the Paris Agreement and Sustainable Development Goals (SDGs).

Benefits of green budgeting

Green budgeting allows governments to align their fiscal policies with environmental sustainability goals, in turn improving the efficiency of public spending, boosting climate resilience, and cutting environmentally harmful costs. It also increases transparency, and attracts green finance by signalling a strong dedication to sustainability. Ultimately, green budgeting promotes better policy coherence, helping governments prioritise low-carbon, climate-resilient investments while fulfilling national and international commitments like the Paris Agreement and Sustainable Development Goals (SDGs).

Countries like France, Ireland and Mexico have successfully implemented green budgeting and reaped significant benefits. Through its green budget tagging in 2021, [France identified over €38.1 billion](#) (INR3.89 lakh crore) as environmentally positive expenditure, which went towards enhancing clean transport, renewable energy, and energy efficiency. This allowed the government to shift subsidies away from polluting sectors and guide future fiscal planning. Meanwhile, Ireland's integration of climate budget tagging into its national budget has helped [elevate environmental spending](#) to €7 billion (INR71,400 crore) in 2025, up from €2 billion (INR20,400 crore) in 2020.

This note aims to assess the green budget frameworks (GBFs) of developed and developing countries, highlighting their benefits by examining implementation and learnings.

Analysing elements of green budget frameworks

As climate risks become a key factor in countries' fiscal sustainability, governments are increasingly adopting GBFs to ensure better synergy between public spending and their climate commitments. This section analyses the key elements of green budgeting approaches across selected regions, including Europe, Organisation for Economic Cooperation and Development (OECD), the Asia-Pacific, and Africa-Latin America, focusing on tools, institutional mechanisms, integration with national strategies, and emerging innovations.

The European Union and member states: Structuring green budgeting within fiscal norms

European Union (EU) member states, particularly France, Italy, and Ireland, have made significant strides in institutionalising green budgeting, [embedding environmental considerations](#) into their core fiscal frameworks. These countries align their budgets with overarching EU strategies, such as the European Green Deal and SDGs, using tools like climate budget tagging, environmental performance indicators, and impact classifications.

[France leads in transparency](#), publishing a detailed green budget annex that evaluates each expenditure and tax item across six environmental objectives using a six-point scale ranging from “very positive” to “very negative”. This system promotes democratic accountability by facilitating informed parliamentary debates and public scrutiny.

Italy has introduced [climate tagging across ministries](#), categorising expenditures under mitigation and adaptation. Its approach supports coordination and coherence with EU funding mechanisms, such as the Recovery and Resilience Facility, ensuring that public spending advances national climate targets.

Meanwhile, [Ireland combines green budgeting with gender-responsive budgeting and performance-based frameworks](#), reflecting a holistic view of sustainability that encompasses both environmental and social equity goals.

Table 1: Overview of green budgeting in European Union and member states

Country	Instruments	Climate integration	Innovation
France	Green classification annex to annual budget	Six-point scale categorises each revenue and expenditure line based on six environmental objectives (e.g., climate, biodiversity)	Transparent labelling of budget items based on their environmental impact, ranging from 'very positive' to 'very negative'
Italy	Climate budget tagging	Classifies central government expenditures under mitigation or adaptation	Enables cross-ministerial coordination and links climate action to public financial flows
Ireland	Green budgeting + performance indicators	Integrates environmental and gender dimensions in budget planning	Aligns national budgets with EU climate targets; strong emphasis on intersectional budgeting

Source: IEEFA analysis

Collectively, these EU models demonstrate that green budgeting, when backed by strong institutional frameworks, legal mandates, and inter-ministerial coordination, can enhance both climate accountability and the effectiveness of public finance systems. They offer valuable templates for other countries seeking to build or strengthen their own green budgeting architecture.

Case study 1: Evaluating the French green budgeting model and its impact

[France pioneered green budgeting](#) in 2019 to align its public finances with its climate commitments under the Paris Agreement, recognising that fiscal policies often supported environmentally harmful activities due to limited visibility of their impacts. Developed by the General Inspectorate of Finance and the General Commission for the Environment and Sustainable Development, the tool was officially launched in September 2020 as an annex to the 2021 Finance Bill, making France the first country to implement a comprehensive environmental budgeting process.

The methodology involves tagging expenditures and revenues according to their impact on six EU taxonomy objectives: Climate change mitigation; climate change adaptation and risk prevention; water management; transition to circular economy and waste management; pollution control; and biodiversity conservation. Each budget item is classified as 'positive', 'neutral', 'negative', or 'mixed', depending on whether its effects across these objectives are favourable, unfavourable, neutral, or a combination of these.

Impact of green budgeting

Particulars	Finance Bill 2021 (€ billion)	Finance Bill 2025 (€ billion)	As a % of total budget 2021	As a % of total budget 2025
Total budget	€574.2	€575.5	100%	100%
Positive expense	€38.1	€42.6	6.6%	7.4%
Negative expense	€4.7	€4.7	0.8%	0.8%
Neutral expense	€10.0	€8.1	1.7%	1.4%

Source: France's Green Budget (FY2021 and 2025)

Fiscal impact

- Since its inclusion, France has increased its positive expenses to €42.6 billion (INR4.35 lakh crore), up by 11.8% compared to €38.1 billion (INR3.89 lakh crore) in 2021.
- While the negative expenditure has remained constant in 2025 at €4.7 billion (INR47,940 crore) compared to 2021, the neutral expenses have reduced from €10 billion (INR1.02 lakh crore) in 2021 to €8.1 billion (INR82,620 crore) in 2025.
- Under the 2025 Finance Bill, 228 expenses are categorised as “positive/ favourable”, 17 as “neutral”, and 70 as “negative”.
- Expenditure corresponding to ecological planning (notably sum of green and mixed expenses) in 2025 stood at €47.2 billion (INR4.81 lakh crore), an increase of €2.8 billion (INR28,560 crore) compared to in 2024.

Environmental and social impact

- **Mobility sector:** The government has allocated €13.2 billion (INR1.35 lakh crore) for the mobility sector, wherein the focus of the expenditure is to provide support for rail transport, river transport, decarbonisation of road transport, and development of public transport.
- **Energy sector:** To protect consumers and businesses from energy price fluctuations, the French government has allocated €9.1 billion (INR92,820 crore), €3.6 billion (INR36,720 crore) more than in the 2024 budget, to support development of renewable energies and nuclear energy projects.
- **Buildings:** Covering private housing, public buildings, and social housing, buildings are another sector of focus for the government due to their reliance on fossil energy for heating and hot water production for domestic use. The government allocated €6.2 billion (INR63,240 crore) in favourable spending to support energy renovation in buildings, including reduced value-added tax (VAT) on energy improvement work, zero-rate eco-loan, and 35% interest exemption on sustainable development booklets.

The French green budgeting model demonstrates how transparent fiscal measure classification can improve alignment with environmental objectives. It provides a replicable approach using measurable indicators, tracks progress over time and informs policy decisions toward a sustainable transition.

OECD countries: Climate mainstreaming in fiscal decision-making

Countries in the Organisation for Economic Co-operation and Development (OECD), an intergovernmental organisation consisting of 38 member countries, have taken a lead in mainstreaming climate risk analysis into their public financial management systems. Rather than treating green budgeting as a standalone exercise, these countries integrate environmental considerations into core fiscal tools, such as cost-benefit analysis, infrastructure appraisal, and long-term investment planning. This reflects a shift from purely accounting-based climate tagging to embedding climate resilience and low-carbon goals in the very logic of fiscal decision-making.

We included EU member Germany and Norway, which closely align with EU’s policies, in this section because their practices are more consistent with OECD-led methodologies like

sustainability indicator integration, fiscal reforms, and climate impact assessments, rather than the EU-specific Green Budgeting Reference Framework in its current form.

Key elements and practices:

Table 2: Overview of green budgeting in OECD countries

Country	Instruments	Climate integration	Innovation
Canada	'Climate lens' for public infrastructure projects	Evaluates GHG emissions and resilience of projects	Also integrates GBA+ (Gender-Based Analysis Plus), making climate budgeting intersectional
Sweden & Norway	Sustainability indicators + carbon pricing	Uses taxes, subsidies, and fiscal signals to price environmental externalities	Strong focus on fiscal incentives and aligning public finance management system with low-carbon economic planning
Germany	Sustainable development strategy-linked budgeting	Environmental goals tied to national SDG implementation plans	Uses impact assessments and policy coherence tools for long-term investment planning

Source: IEEFA analysis

Canada, in particular, stands out for its use of a "[climate lens](#)" on major infrastructure projects, requiring an assessment of both greenhouse gas (GHG) emissions and climate resilience. This is complemented by its [Gender-Based Analysis Plus \(GBA+\)](#) tool, which adds a social equity dimension to budget decisions, making Canada's approach a model of integrated multi-risk analysis.

Meanwhile, Norway and Sweden apply [environmental indicators and green tax policies](#) to influence behaviour through fiscal instruments. Their use of sustainability metrics in national budgets and consistent application of environmental taxes illustrate how fiscal policy can drive systemic change.

Collectively, [OECD countries show that green budgeting](#) can be both a tool for climate alignment and a lever for broader social and economic transformation when rooted in institutional planning, investment frameworks, and regulatory systems.

Case study 2: Norway's climate budgeting model and its role in achieving emission targets

[Norway introduced its first climate budget](#) in 2022 to align public finance with its nationally determined contribution (NDC) target of reducing emissions by 55% from 1990 levels by 2030. Initially piloted in Oslo, the success of the model led to its integration into the national budget, evolving into the Green Book.

The process embeds climate goals directly into the annual budget, guided by the [Climate Change Act](#), which requires annual reporting to Parliament on emission targets and budget impacts. Using EU methodologies and indicators, Norway applies a carbon budget approach with five-year revisions under the Paris Agreement. Ministries and local authorities are assigned annual mitigation responsibilities, supported by public reporting, parliamentary review, and cooperation with the EU and other countries.

Impact of climate budget

Although detailed fiscal numbers are unavailable, below are some key insights from [Norway's 2025 budget](#).

- **Enova funding:** The government has proposed allocating NOK8.1 billion (INR7,111.8 crore) to Enova, a state enterprise under the Ministry of Climate and Environment that manages Norway's Climate and Energy Fund. This allocation includes an NOK1.7 billion (1,492.6 crore) increase for distribution efforts, with NOK1.2 billion (INR1,053.6 crore) specifically directed towards replacing heavy vehicles and supporting charging infrastructure. A new management agreement for Enova is proposed to be implemented from 2025.
- **Road transport:** Norway has increased its focus on heavy transport, with NOK1.2 billion (INR1,053.6 crore) from Enova's increased funding allocated to support zero-emission heavy vehicles and charging infrastructure.
- **Building and construction sites:** The government is exploring implementing a requirement for projects involving public procurement, wherein building and construction sites would need to have 5-10% emission-free energy consumption by 2026 and 30-40% by 2030.
- **Food waste:** The government intends to propose new food waste legislation by spring 2025, with related regulations to come into force in 2026. A revision of the industry agreement on food waste reduction will also be initiated.
- **Heating:** Norway is looking into banning fossil gas for permanent heating, which would be implemented in 2028.
- **Biofuels:** The 2025 Budget includes a faster phase-in of higher share of biofuels to reach 2030 levels sooner, while introducing measures to minimise deforestation risks and increasing domestic biofuel production.
- **CO2 compensation scheme:** The climate profile of the CO2 compensation scheme for energy-intensive industrial companies will be strengthened, with the amendments requiring that 40% of allocated funds be spent on climate and energy efficiency measures.
- **Ferries and fast boats:** From 2025, zero-emission requirements are proposed to be introduced for ferry procurement and services, with NOK50 million (INR43.9 crore) allocated for financial compensation to county municipalities. The fast boat programme will receive an additional NOK200 million (INR175.6 crore) in commitment authority to finance zero-emission solutions on county municipal fast boat connections.

Norway's climate budgeting strengthens transparency and accountability, integrates emissions goals into fiscal planning, and directs investments into zero-emission transport, energy efficiency, and sustainable infrastructure. This ensures steady progress toward its ambitious 2030 emission reduction target.

Asia-Pacific: Tagging and decentralisation in emerging economies

Green budgeting frameworks in the Asia-Pacific (APAC) region demonstrate how climate expenditure tagging can serve as a valuable entry point, especially for countries operating under resource constraints. By identifying and categorising climate-relevant spending, governments can begin to integrate environmental considerations into broader fiscal and development planning. This approach not only improves transparency but also helps align national budgets with climate commitments and unlock targeted financing opportunities.

Key elements and practices:

Table 3: Overview of green budgeting in Asia-Pacific

Country	Instruments	Climate integration	Innovation
Indonesia	Climate budget tagging + climate budget statement	Categorises expenditures under mitigation/adaptation	Budget tagging is linked with sovereign green sukuks (Islamic financial instruments similar to bonds), a first in the region
Philippines	Climate change expenditure tagging (CCET)	Covers national and local governments	Promotes decentralised budgeting and strengthens local government units' capacities in climate finance

Source: IEEFA analysis

Indonesia stands out for its advanced integration of climate budget tagging with [market-based instruments, notably through the issuance of sovereign green sukuks](#). This linkage between fiscal planning and climate finance mobilisation reflects a strategic effort to mainstream climate objectives across both expenditure and revenue policies.

In the Philippines, [the climate change expenditure tagging \(CCET\) system](#) strengthens local-level climate action by enabling national and sub-national governments to track and plan for climate-relevant spending. However, the success of this [decentralised model relies heavily on sustained capacity building and institutional support](#), particularly for local governments that may lack technical expertise.

These examples illustrate how emerging economies are adapting green budgeting to suit their administrative capacities and policy priorities, while progressively aligning with global climate finance mechanisms.

Case study 3: Climate budgeting and expenditure tracking in the Philippines

[The Philippines began integrating climate change into its budgeting process in 2013](#), with the Department of Budget and Management (DBM) mandated to prioritise funding for climate-related programmes. To systematise this, the [CCET methodology](#) was developed to code and prioritise climate programmes, activities, and projects within annual budgets. In FY2021, climate budget allocations under the General Appropriations Act (GAA) were significantly increased to address both the pandemic and climate challenges.

Impact of climate budgeting

To measure the impact on both fiscal as well as environmental and social aspects, we have taken 2021 as the base year for assessment as Philippines amended its GAA act to increase climate budget in that year.

Fiscal impact

- [The climate budget rose sharply by 261%](#), from PHP 282 billion (INR415 billion) in FY2021 to PHP 1,020 billion (INR1.5 trillion) in FY2025.
- Climate budget allocations in annual budgets have grown from 6% (FY2021) to 16% (FY2025).

- Of FY2025's climate budget, 92% focuses on sustainable energy, water sufficiency, and climate-smart industries and services.

Particulars (in PHP billion)	FY2021	FY2022	FY2023	FY2024	FY2025
Sustainable energy	7	60	NA	18	392
Water sufficiency	148	161	NA	373	313
Climate smart industries and services	83	22	NA	6	229
Food security	24	30	NA	37	62
Knowledge and capacity development	1	2	NA	13	12
Ecosystem and environmental stability	8	8	NA	6	6
Human security	11	1	NA	3	4
Cross-cutting	0	1	NA	1	1
Total climate budget	282	285	453	457	1,020
Total Philippines budget	4,506	5,024	5,268	5,768	6,352
Climate budget as a % of total budget	6%	6%	9%	8%	16%

Source: Philippines's Climate Budget (FY2021, 2022, 2024 and 2025)

Environmental and social impact

- **Water sufficiency:** This accounted for 52%, 57%, 82% and 31% of the climate budget for FY2021, FY2022, FY2024 & FY2025, respectively. The allocation is largely focused on the Philippines' Flood Management Programme to counter the impacts of the El Niño climate phenomenon, disrupting rainfall patterns that affect water availability, rainwater storage, and harvesting.
- **Sustainable energy:** The country has increased allocations for sustainable energy. In FY2025, around 38% of the climate budget spending was allocated for sustainable energy projects. This allocation is used to develop renewable energy projects and increase energy efficiency.
- **Climate smart industries and services:** This is another key area for the government. The climate budget allocation of PHP229 billion (INR336 billion) for FY2025 is for supporting micro, small, and medium enterprises (MSMEs) in adopting energy-efficient and climate-resilient practices, including the manufacturing and food processing sectors.
- **Food security:** Ensuring food security is another government priority. Allocations for this increased by 68%, from PHP37 billion (5,513 crore) in FY2024 to PHP62 billion (INR9,238 crore) in FY2025. These expenditures are focused on strengthening the agriculture and fisheries sector.

Through CCET, the Philippines has scaled climate finance, prioritised critical sectors, and ensured that fiscal planning aligns with national resilience and sustainability goals.

Africa and Latin America: Piloting efforts and capacity-building amid constraints

In Africa and Latin America, green budgeting efforts are emerging despite persistent institutional and data-related challenges. Countries such as Mexico and South Africa have demonstrated early political intent by piloting climate tagging and performance-based budgeting frameworks. While these systems are still evolving and are often constrained by limited technical capacity

or inconsistent data, their adoption signals a willingness to experiment and align public finance with climate priorities.

Key elements and practices:

Table 4: Overview of green budgeting in Africa and Latin America

Country	Instruments	Climate integration	Innovation
Mexico	Budget tagging + performance indicators	Climate relevance evaluated within sector budgets	Emphasis on results-based climate budgeting
South Africa	Climate-informed budgeting (nascent)	Focus on adaptation finance, especially for local governments	Recognises municipal-level climate vulnerabilities and fiscal risk planning
Morocco & Egypt	Pilot projects in green performance budgeting	Supported by the United Nations Development Programme (UNDP), the Organisation for Economic Co-operation and Development (OECD), and the World Bank (WB)	Initial integration of climate modules into public financial management reforms and training programmes

Source: IEEFA analysis

Mexico, for instance, has introduced [climate performance indicators within its budget system](#), aiming to assess the impact of fiscal allocations on national climate goals. Similarly, South Africa's National Treasury has initiated steps toward integrating [adaptation finance and climate considerations](#) in its budgeting processes, particularly to support vulnerable municipalities grappling with climate risks.

Initiatives in Morocco and Egypt, for example, have benefited from pilot projects and [technical assistance from multilateral institutions](#), which help strengthen the capacity of their respective finance ministries to track, report, and evaluate climate spending. These partnerships not only provide financial and technical support but also foster cross-country learning and knowledge exchange. As such, external collaboration remains a cornerstone in helping countries translate political ambition into operational green budgeting frameworks that are both credible and effective.

Case study 4: Mexico's SDG-linked climate budgeting model

[Mexico introduced climate budgeting](#) to align fiscal spending with its NDC under the Paris Agreement, and link climate goals with SDGs in its National Development Plan. The Ministry of Finance has issued guidelines to integrate climate priorities in budget planning, while local initiatives, like Mexico City's Climate Action Programme, demonstrate strategic integration with defined targets and financing mechanisms.

Developed in 2016 with UNDP, Mexico's methodology aligns budget programmes to the SDGs across planning, monitoring, and evaluation.

Key features include linking budget programmes to the National Development Plan, breaking down SDGs into sub-targets, identifying interlinkages across programmes, integrating the process with fiscal management information systems (FMIS), and applying a results-based management approach. All ministries participate by aligning their performance indicators with SDG indicators, ensuring comparability and filling gaps where needed.

Impact of climate budgeting

Particulars (in MXN billion)	FY2021	FY2024	FY2025
Eligible expenditure (social and green)	70	450	466
Total budget	6,257	9,066	9,070
Climate budget as a % of total budget	1.10%	4.96%	5.14%

Source: Mexico's Climate Budget (FY2021, 2024 and 2025)

Fiscal impact

- In 2021, Mexico allocated its largest-ever climate budget: [MXN70 billion](#) (INR34,300 crore) through Annex 16, accounting for 1.1% of the total national budget.
- Since 2021, Mexico's climate budget has increased to [MXN466 billion \(INR2.28 lakh crore\) in FY2025](#) (a 5.6-fold increase), representing around 5.1% of the total federal budget. The budget now covers 45 budgetary programmes.
- Mexico became the first country to issue SDG bonds by issuing bonds amounting to €750 million (INR7,700 crore) in 2020 and €1,250 million (INR12,800) in 2021 for climate action and development goals.

Environmental and social impact

- **Renewable energy:** As of 2024, Mexico's Federal Electricity Commission (CFE) has 95 sustainable projects focused on renewable energy, two green projects related to energy efficiency, and two social projects aimed at providing free internet access to underserved communities.
- **Youth building:** SDG 8 (decent work and economic growth) registered a significant increase of 715% from FY2024 to FY2025 due to the introduction of the "Youth Building the Future" programme focused on youth training and employability.
- **Agriculture and rural development:** The budget of [MXN70.4 billion \(INR34,900 crore\)](#) has been allocated to agriculture and rural development. This will support small producers by providing free fertilisers, cash support, guaranteed purchase prices, and access to basic staple foods for low-income populations.

Mexico's climate budgeting model effectively integrates SDGs into fiscal planning, significantly scales climate-related allocations, and links financing with social and economic priorities. This approach strengthens renewable energy, youth employment, and rural development while positioning Mexico as a global leader in SDG-based green financing.

Takeaways

Our analysis indicates that countries are navigating varied green budgeting pathways shaped by their institutional capacity, fiscal systems, and climate policy goals. Advanced economies such as those in the EU and OECD have progressively embedded climate performance criteria into their core budgetary and fiscal planning processes, leveraging mature institutions and data systems. In contrast, many emerging economies are adopting more foundational approaches such as climate budget tagging, with a strong emphasis on transparency, capacity building, and empowering subnational actors. These early efforts reflect both an adaptive strategy and a recognition of the importance of aligning fiscal policy with climate and development imperatives.

Table 5: Cross-sector analysis of green budget components

Framework element	EU	OECD	Asia-Pacific	Africa & Latin America
Climate budget tagging	Strong (Italy, France)	Moderate (Germany)	Strong (Indonesia)	Limited (Piloting), (Mexico, Morocco)
Green performance indicators	Moderate (Ireland, France)	Strong (Germany, Sweden)	Emerging (Philippines)	Emerging (Mexico, South Africa)
Climate lens/ impact assessments	Moderate (France, Ireland)	Strong (Canada, Germany)	Limited	Emerging (South Africa)
Subnational/ decentralisation	Limited	Moderate (Sweden–municipal taxes)	Strong (Philippines)	Emerging (South Africa–municipal budgeting)
Integration with green bonds	Moderate (France, Italy)	Moderate	Strong (Indonesia–green sukuk)	Limited
Intersectionality (gender, equity)	Emerging (Ireland)	Moderate (Canada-GBA+)	Limited (early stage)	Limited
External partnerships/ support	Strong (EU-OECD)	Domestic capacity	Strong (UNDP, WB)	Strong (UNDP, WB, OECD)

Strong indicates countries with well-established, institutionalised practices supported by legal mandates or systematic integration into fiscal processes. **Moderate** reflects countries with partial implementation or sector-specific application showing consistent progress but lacking full system-wide adoption. **Emerging** represents countries that have initiated structured efforts with growing institutional support but are still in the process of scaling or formalising these mechanisms. **Limited** denotes early-stage or pilot efforts where initiatives exist but are not yet embedded institutionally or applied consistently across government functions.

Several key takeaways emerge for effective policy design. Climate budget tagging serves as a pragmatic entry point but must evolve into performance-based budgeting frameworks and robust impact assessments to be truly transformative. Ultimately, green budgeting is not a siloed reform, it represents a systemic shift in how governments plan, prioritise, and evaluate public spending in an era defined by climate risk and sustainability imperatives.

The way forward

The experience of different regions shows that green budgeting must evolve in a phased yet ambitious manner, starting with accessible entry points such as climate budget tagging and gradually progressing toward performance-based budgeting and impact assessments. Developing economies, in particular, should focus on strengthening data systems, building institutional capacity, and embedding digital tools into public financial management to ensure that climate priorities are consistently tracked and evaluated. Institutional ownership by ministries of finance, backed by inter-ministerial coordination and strong links to national development plans, will be essential to sustain these efforts over time.

At the same time, countries should embrace a context-sensitive approach. While EU and OECD members can deepen their performance measurement systems, emerging economies may benefit more immediately from linking tagging exercises to transparency, subnational empowerment, and the mobilisation of international support. International financial institutions, development partners, and knowledge platforms will continue to play a catalytic role in

providing technical assistance, harmonising methodologies, and supporting peer learning across geographies.

Looking ahead, the integration of green budgeting with wider policy frameworks, such as SDGs, green bonds, Just Transition initiatives, and gender-responsive budgeting, offers a powerful means of aligning climate action with social and economic priorities. This system-wide transformation will help governments not only measure the climate relevance of their expenditures but also ensure that fiscal choices drive inclusive, resilient, and sustainable development in a climate-constrained world.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

About the Authors

Gaurav Upadhyay

Gaurav Upadhyay is IEEFA's Energy Finance Analyst, India Sustainable Finance, for South Asia. He has over 12 years of experience implementing large-scale developmental initiatives in diverse sectors, including climate finance, just transition and renewable energy. Before joining IEEFA, Gaurav worked as a Climate and Energy Consultant at the World Bank, where he played a pivotal role in orchestrating the implementation of multisectoral lending and technical assistance projects. gupadhyay@ieefa.org

Soni Tiwari

Soni Tiwari is an Energy Finance Analyst with IEEFA India, examining the energy sector with a particular focus on renewable energy transition and the opportunities and barriers for different states and companies. Before joining IEEFA, Soni was part of the portfolio management team at a venture capital fund, before which she was part of the investments team at an Impact-oriented private credit fund. She has worked on projects related to corporate strategy and financial modelling in the financial services industry and SMEs for more than 4 years. stiwari@ieefa.org

Disclaimer

This report is for information and educational purposes only. The Institute for Energy Economics and Financial Analysis ("IEEFA") does not provide tax, legal, investment, financial product or accounting advice. This report is not intended to provide, and should not be relied on for, tax, legal, investment, financial product or accounting advice. Nothing in this report is intended as investment or financial product advice, as an offer or solicitation of an offer to buy or sell, or as a recommendation, opinion, endorsement, or sponsorship of any financial product, class of financial products, security, company, or fund. IEEFA is not responsible for any investment or other decision made by you. You are responsible for your own investment research and investment decisions. This report is not meant as a general guide to investing, nor as a source of any specific or general recommendation or opinion in relation to any financial products. Unless attributed to others, any opinions expressed are our current opinions only. Certain information presented may have been provided by third parties. IEEFA believes that such third-party information is reliable, and has checked public records to verify it where possible, but does not guarantee its accuracy, timeliness or completeness; and it is subject to change without notice.