Proceedings

Discussion on Understanding Carbon Pricing Policy in the Context of Maharashtra

Prepared by: Centre for Budget and Governance Accountability

Proceedings from the Discussion on Understanding Carbon Pricing Policy in the Context of Maharashtra

(13th December 2023)

Welcome Note

The welcome note at the Gokhale Institute focused on the importance of green accounting and its integration into various accounting frameworks. It acknowledged the participation of delegates from prominent organisations involved in budget, governance, sustainability, and resource management. The discussion provided a historical context of global efforts in environmental accounting, referencing key international agreements like the Paris Agreement, the Montreal Protocol, and the Kyoto Protocol. Also, highlighted the complexities of the carbon credit market, particularly its volatility and the challenges in setting a credible carbon pricing framework. The note underscored the need for stakeholder buy-in and government intervention to effectively implement green accounting practices. It also touched upon the specific implications for the state of Maharashtra and the broader national context, expressing hope for productive outcomes from these discussions. Overall, it underscored the evolving nature of environmental accounting and its critical role in sustainable development.

Context Setting

It focussed on a collaborative approach involving various organisations to address complex environmental issues, particularly carbon pricing. It covered the nuances of global and national agreements, including India's participation and the challenges therein. The need for clear and effective mechanisms in carbon accounting and compensating strategies is a key focus, underscoring the absence of global consensus on these matters.

A multi-sectoral understanding is emphasised, involving a diverse array of stakeholders from economists to environmentalists, and including administrators, industries, and civil society, all working together to develop timely, relevant, and actionable solutions. It also delved into the challenges associated with carbon financing, such as potential malpractices and the implications of penalising mechanisms like the Loss and Damage Fund.

The significance of rethinking institutional frameworks, governance, and accountability in the context of implementing effective carbon pricing mechanisms is also pointed out. The sessions of the day are structured to focus on the specific needs, trade-offs, and requirements of carbon pricing in India, incorporating financial, environmental, managerial, and sectoral perspectives.

An understanding of subnational issues, particularly at the provincial or state level, is acknowledged as crucial for tailoring solutions to the diverse developmental needs of different regions. The speaker expressed the hope for insightful outcomes from the discussions and suggested future, more comprehensive collaborations for developing methodologies and frameworks suitable for provincial and state levels.

Session 1: Understanding the Need and Associated Trade-offs of Carbon Pricing in Maharashtra

Panellists: Aditya Chunekar, Ajay Phatak, Ashwini Keskar, Pravin Bhagwat, Saon Ray, Unmesh Patnaik, and Vivek Adhia
Chair: Nitant Mate

Context Setting Presentation - Key Takeaways

- The discussion covered the different ways carbon pricing is currently implemented and its potential impacts. This includes the voluntary nature of internal corporate carbon pricing, where companies adopt targets like science-based targets and engage in voluntary carbon markets. The presentation also touched on the mandatory aspects, such as the Indian government's development of a domestic carbon market with a cap and trade mechanism and the potential introduction of a carbon tax. These measures aim to meet India's emissions intensity reduction targets and contribute to global emission reduction goals. The complexity of implementing these systems, particularly at the subnational level, and the economic implications, including revenue generation for the national government, were also discussed.

- The presentation emphasised the need for complementary mechanisms alongside carbon pricing, like climate budget tagging, to track climate-relevant activities and expenditures. It also addressed the challenges that arise during the transition from fossil fuel-based revenue sources to more sustainable alternatives. This includes the reduced tax revenue from fossil fuels like petrol and diesel as the shift towards electric vehicles gains momentum, necessitating the exploration of alternative taxes like environmental taxes or commodity taxes on cleaner technologies. The presentation highlighted the need for greater budgetary resources for adaptation actions and a just transition, particularly for sectors that will not attract private finance.

Key Points Discussed:

- Emphasised the vital role of carbon pricing in tackling climate change and environmental issues. It highlighted the necessity of incorporating the true environmental costs of carbon emissions into carbon pricing models. The discussion aimed to explore effective implementation strategies for carbon pricing and to understand its wider implications, especially in the context of historical developments in regions like Maharashtra and the evolving opinions on energy subsidies.

- The focus was on the coal cess and the Perform, Achieve, and Trade (PAT) program. The coal cess, despite being initiated to fund clean energy technologies, saw only a small portion of its revenues used for this purpose. The PAT program faced issues like oversupply of certificates and low compliance, with only about half of the required certificates being purchased.

- The discussion underscored significant challenges in implementing carbon pricing and markets, particularly at the institutional level in India. This includes the difficulties in balancing multiple environmental targets and the governance challenges involving various ministries and the Bureau of Energy Efficiency. The importance of addressing these practical implementation challenges to ensure the effectiveness of carbon pricing policies was emphasised.

- The discussion emphasised the importance of carbon pricing in building economic and environmental resilience, particularly in response to climate change's impacts on social and natural systems. It was argued that economic resilience should be a central focus in carbon pricing strategies.
- The importance of tackling the fundamental causes of environmental problems was stressed, with a call to address the scale of production and consumption. The discussion advocated for approaches that meet needs and wants without unnecessary waste, thereby reducing environmental impacts.

- The discussion covered the practical considerations in determining carbon pricing, focusing on the costs associated with emission mitigation efforts like sequestration and recycling. It proposed the concept of

'carbon banks' for planned sequestration, factoring in both current and future emissions, and balancing new actions for carbon reduction with existing measures. Additionally, different carbon management approaches were compared, such as penalization strategies in the EU and incentive-based policies in the USA, with a suggestion to consider similar incentives for effective carbon management.

- It was noted that large industries are now mandated to report their Environmental, Social, and Governance (ESG) metrics. Additionally, they are required to allocate approximately 2% of their spending towards Corporate Social Responsibility (CSR), focusing on environmental sustainability initiatives such as water conservation, soil health, and climate change mitigation.

- Concerns were raised regarding the potential impact of a carbon tax on existing sustainability efforts in industries. The discussion delved into who would be most affected by such a tax, with suggestions that it might disproportionately impact those in lower economic strata. Highlighted the need for careful consideration in the implementation of carbon taxes to avoid unintended consequences.

- The conversation also focused on the challenges in allocating funds generated from carbon pricing. This includes addressing the absence of effective energy storage technologies and the high costs associated with carbon sequestration technologies. Emphasising the importance of using these funds effectively, the discussion pointed out the need for tailored solutions to local environmental issues such as flooding or drought. Additionally, parallels were drawn between water and carbon pricing, suggesting that direct pricing for residential water could reduce consumption and indirectly impact carbon emissions. The discussion also highlighted innovations like sodium-ion batteries as promising sustainable alternatives to lithium-ion batteries, crucial for reducing emissions in sectors like mobility.

- The current carbon market pricing is seen as insufficient for funding significant ecological restoration projects, which are often costly and complex. These projects involve soil restoration, water table recovery, biodiversity revitalization, and creating local employment opportunities. Additionally, there are concerns about the misuse of carbon markets, such as the premature selling of futures on unexecuted tree planting projects, which undermines genuine restoration efforts.

- A differentiated approach to carbon pricing is suggested, including the concept of 'ethical carbon,' which should command a higher price than standard carbon credits. This approach considers the varying efforts required in different ecological contexts, such as the disparity between growing trees in arid regions versus more fertile areas like the Amazon. Additionally, the introduction of a rating system for carbon credits is proposed, to distinguish between authentic and less credible carbon sequestration efforts, along with a focus on incremental carbon improvements and avoiding double counting. It's also recommended that carbon revenues be allocated proportionately to areas where carbon sequestration is actually taking place, such as in land restoration projects.

- India, while not having a carbon tax, has implemented various market-based instruments such as the Renewable Energy Certificate and the Perform, Achieve, and Trade (PAT) scheme, which indirectly price carbon. Additionally, the impact of subsidies was discussed, highlighting the phased withdrawal of diesel subsidies and the successful implementation of the LPG subsidy under the Ujjwala scheme, which encouraged a shift from biomass to cleaner LPG for cooking. Moreover, some state-level initiatives like Maharashtra's green tax on vehicles aim to discourage diesel vehicles and improve air quality.

- The discussion compared the efficiency of a carbon tax versus an Emission Trading Scheme (ETS), noting that a carbon tax could be more efficient in situations where the government is uncertain about the Marginal Emissions Benefit Curve. The effectiveness of a carbon tax depends on market dynamics and should align with broader policy objectives. The conversation also emphasised the need for a just transition for coal-dependent states, especially in Eastern India, which face significant revenue loss with the phasing out of coal. This transition could potentially be financed by a carbon tax, though other mechanisms like mineral development funds or CAMPA funds might also be necessary.

- The discussion included a personal experience with setting up a waste management plant in Kolhapur, India, highlighting the economic challenges encountered and how these led to the exploration and successful implementation of carbon credits under the Kyoto Protocol. This approach made the project self-sustaining without relying on public funds. The importance of carbon pricing was underscored as a critical element in achieving climate goals while maintaining economic feasibility.

- Discussion highlighted the widespread adoption of carbon pricing mechanisms globally, with a significant portion of emissions being covered under various pricing strategies. It was noted that India has been implementing carbon pricing in several indirect forms, such as through fuel surcharges. The financial challenges India faces in meeting its National Determined Contributions (NDCs) and climate targets were also discussed, with an emphasis on the significant funding shortfall that needs to be bridged through effective financing models.

- Additionally, the wide range of carbon prices globally was pointed out, as well as the adoption of carbon pricing strategies by corporations, including shadow pricing for investment and operational decisions. The discussion concluded with thoughts on policy considerations and state-level challenges, suggesting the need for customised approaches like carbon taxes or cap-and-trade schemes to suit specific economic contexts.

- The impact of a carbon tax on small and medium-sized enterprises (SMEs) and micro enterprises was identified as a significant concern. While large companies may have the capacity and resources to manage the implications of carbon taxation and maintain sophisticated sustainability reporting, there are doubts about the ability of smaller businesses to handle such a financial burden. This leads to the necessity for more in-depth research, focusing on how carbon taxation would affect businesses of various sizes, especially considering the distributional effects.

- The discussion emphasised the challenges that a carbon tax could pose for small and marginal farmers in India. With many such farmers earning limited returns from their farming activities, as reported by the National Sample Survey Office (NSSO), the introduction of a carbon tax in agriculture could place an undue burden on them. This contrasts with the likely lesser impact on larger agricultural operations. The question of how to support or compensate these small and marginal farmers if a carbon tax were implemented in the sector was raised, pointing to a need for balanced and equitable tax implementation strategies.

- The practicality of imposing a high-level carbon tax in a democratic country like India was questioned, especially in light of the social cost of carbon as per Pigouvian theory. Additionally, concerns were raised about the potential for industries to relocate to countries without carbon taxes. This could create tax havens and lead to uneven global implementation of carbon pricing, thereby undermining the effectiveness of such a measure in addressing climate change.
- The complexities involved in determining an appropriate discount rate for carbon tax pricing were highlighted, impacting the present and future values of the tax. This factor is crucial in cost-benefit analysis.

Moreover, the discussion suggested exploring solutions beyond carbon pricing to effectively address climate change, considering the limitations and challenges of relying solely on such a pricing mechanism. The need to understand the elasticity of demand in relation to energy consumption changes due to carbon pricing was also discussed, along with the costs and potential scale of renewable energy production and its associated challenges, including the Jevons paradox and the efficiency issues as per the second law of thermodynamics.

WRI Presentation on Climate Budget Tagging

The presentation emphasised the significance of climate budget tagging in monitoring and tracking climate-related expenditures, which is crucial for aligning with the goals of the National Determined Contributions (NDCs) implementation. The methodology adopted for climate budget tagging in Maharashtra, using the Climate Public Expenditure and Institutional Review (CPEIR) approach developed by the United Nations Development Programme (UNDP), was detailed. This involved a four-step process: reviewing public expenditure and data, setting parameters for analysing climate relevance (focusing on resilience, mitigation, and adaptation), conducting programmatic level expenditure analysis, and developing a Climate Relevance Index to categorise programs based on their climate impact.

The presentation included a detailed analysis of various departmental expenditures, such as Water and Soil Conservation, Agriculture, Water Supply, and Sanitation, assessing their climate relevance. This analysis categorised expenditures into high, medium, low, and marginal relevance based on their contribution to climate activities. It highlighted the importance of focusing on non-salary components of the budget and differentiated between charged and voted expenditures. The final numbers showed a significant portion of the budget falling under medium relevance for climate action. As next steps, the presentation suggested activity-wise tracking in departments, reviewing institutional structures, mainstreaming climate budgeting in annual budget presentations, and recommending linking revenues from carbon pricing to enhance government budgets. Global best practices in climate budget tagging and the utilisation of revenues from carbon pricing policies were also shared.

Session 2: Exploring Institutional & Regulatory Frameworks and Ways Forward for Institutionalising Inclusiveness in Carbon Pricing

Panellists: Atul Ayare, Pournima Agarkar, Preeti Mastakar, Ravindra Utgikar and Vishal Toro
Chair: V R Raman

Context Setting Presentation - Key Takeaway

- It was noted that globally, around 73 carbon pricing initiatives are in place, covering 23% of global greenhouse gas (GHG) emissions. Three main categories of carbon pricing were outlined: cap and trade systems (ETS), carbon tax, and hybrid regimes. The effectiveness of combining these mechanisms to achieve broader and more impactful results was suggested.

- The discussion delved into India's current carbon pricing mechanisms, like the Perform, Achieve, and Trade (PAT) mechanism and renewable energy certificates, acknowledging their contributions towards energy efficiency and renewable energy but also pointing out challenges in implementation and effectiveness. The need for a rigorous accounting and monitoring system for a national carbon market was emphasised, along with the potential structure for a carbon tax in India. Considerations for implementing a carbon tax included scope, fund management, transparency, and monitoring, with a suggestion for the involvement of various governmental bodies and stakeholders in the implementation process.

Key Points Discussed:

- Need to bridge the gap between policy formulation and execution in India's mixed economy, particularly in carbon pricing, ensuring that these policies are equitable and inclusive. This involves addressing the disconnect at the implementation level, prioritising 'doing no harm' to vulnerable communities, and promoting the principle of 'polluter's extended responsibility' to hold polluters accountable.

- The importance of honest declarations from stakeholders, especially industries, was stressed for the effectiveness of any carbon pricing mechanism. This includes the need for accurate energy consumption data, highlighting conflicts in Renewable Purchase Obligation (RPO) implementation and the importance of having benchmark standards for life cycle emissions.

- The need for simplifying application procedures for carbon pricing mechanisms was pointed out, along with concerns about the social and environmental impacts of large-scale renewable energy projects. The discussion also emphasised the importance of effective coordination among various government departments in implementing green taxes or carbon pricing, with a suggestion for a central agency to streamline these efforts.

- Additionally, the potential impact of state-specific carbon taxes on industry migration and the utilisation of carbon tax revenue in balancing renewable projects with local community needs were highlighted.

- The role of bioeconomy, particularly using renewable agricultural or bioresources for fuel and chemical production, was highlighted as a crucial element in achieving net zero targets. This approach facilitates the energy transition, especially through the use of biofuels in transportation, a significant sector for energy consumption and greenhouse gas emissions.

- The discussion focused on the importance of measuring the impact of biofuels based on carbon intensity reduction, considering the varying carbon footprints of different feedstocks.

- Additionally, the need for climate financing to support the commercialisation of low-carbon technologies was emphasised, underscoring the importance of moving from pilot projects to mainstream applications. This includes the potential implementation of taxation on unblended fuels to encourage the use of biofuels and the promotion of bioplastics as an environmentally friendly alternative to conventional plastics.

- The need for carbon taxes was argued as necessary to reduce production levels contributing to environmental damage, with emphasis on targeting all greenhouse gases in the carbon tax framework, particularly methane. A targeted approach to carbon taxation was suggested, focusing on major GHG emitters in sectors like transport, municipal solid waste, fossil fuel usage, and heavy industries, rather than a blanket approach.

- The discussion proposed including consumers in the carbon tax framework, particularly those using high GHG-emitting products. It was recommended to leverage existing tax structures, such as GST, VAT, and excise duty, to implement carbon taxation effectively. The potential leading role of industrially prosperous regions like Maharashtra in carbon taxation was highlighted, along with the reference to Gujarat's successful carbon trading pilot as a model for implementation. The importance of automating environmental assessment and tendering processes for enhanced transparency and efficiency was also advocated.

- The need for a broader framework for taxation was advocated, extending beyond just greenhouse gas emissions. This involves understanding the wider purpose behind taxation and how it's implemented. The concept of planetary boundaries and the model of "donut economics" were suggested as potential frameworks to revise the current economic model by incorporating environmental and social factors.

- The importance of integrating the new taxing system within existing frameworks like the Goods and Services Tax (GST) was proposed, extending this integration to other departments like water and wastewater management. Concerns were raised about the potential impact of heavy taxation on lower income groups, and the need for capacity building in understanding key environmental issues at the state and national levels. The discussion also touched on learning from past models, simplifying the tax system, and closing gaps in the current system to develop a more effective approach.

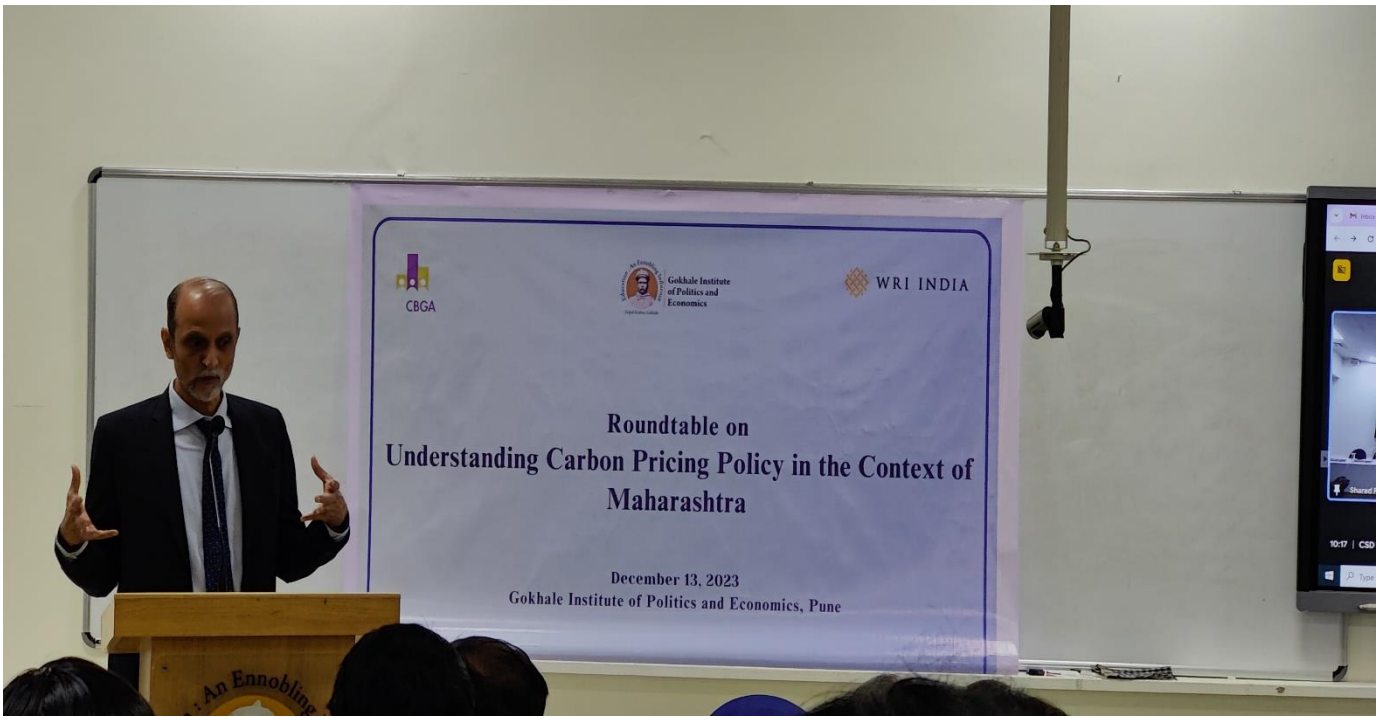
- There was an emphasis on the general aversion to taxes and the substantial tax burden people in India face, with a significant portion of income going to taxes without adequate facilities in return. This sentiment extends to industries, particularly MSMEs, which show reluctance in conducting carbon footprint assessments, lifecycle assessments, or audits, thereby hindering effective management of their carbon emissions.

- The discussion also talked about global environmental leadership and initiatives, such as COP 28, questioning the effectiveness of leaders from major polluting industries and the commitment to global climate finance. There was scepticism about renewable energy being a complete solution and a proposal for nature-based solutions. Additionally, the current practices of green accounting were noted as limited and not fully encompassing all industries. The high tax rates leading to migration were also discussed, with a proposal for a simplified and more equitable flat tax rate of 10% inclusive of all taxes.

Annexure

List of Speakers and Presenters

S.no	Name	Organisation
1	Aditya Chunekar	Prayas
2	Ajay Phatak	Ecological Society
3	Ajit Ranade	Gokhale Institute of Politics And Economics
4	Ashwini Keskar	Pune Knowledge Cluster
5	Atul Ayare	MITCON Consultancy and Engineering Services Ltd
6	Faiza Solanki	WRI India
7	Gurudas Nulkar	Gokhale Institute of Politics And Economics
8	Jyotsna Goel	Centre for Budget and Governance Accountability
9	Nitant Mate	SeeGreen Solutions LLP
10	Pournima Agarkar	INECC
11	Pranav Garimella	WRI India
12	Pravin Bhagwat	14 Trees
13	Preeti Mastakar	Gokhale Institute
14	Protiva Kundu	Centre for Budget and Governance Accountability
15	Ravindra Utgikar	Praj Industries
16	Rohith Jyothish	Jindal Global University
17	Saon Ray	Indian Council for Research on International Economic Relations
18	Sharad Pandey	Centre for Budget and Governance Accountability
19	Soutrik Goswami	Centre for Budget and Governance Accountability
20	Subrata Rath	Centre for Budget and Governance Accountability
21	Ulka Kelkar	WRI India
22	Unmesh Patnaik	Tata Institute of Social Sciences, Mumbai
23	V R Raman	Centre for Budget and Governance Accountability
24	Vishal Toro	Clean Energy Access Network
25	Vivek Adhia	Boston Consulting Group


CBGA
Gokhale Institute of Politics and Economics
WRI INDIA
Roundtable on
Understanding Carbon Pricing Policy in the Context of Maharashtra
December 13, 2023
Gokhale Institute of Politics and Economics, Pune


CBGA
WRI INDIA
Roundtable on
Understanding Carbon Pricing Policy in the Context of
Maharashtra


CBGA
WRI INDIA
Roundtable on
Understanding Carbon Pricing Policy in the Context of
Maharashtra
Vivek Adhia
Saon Ray
Pravin Bhagwat
Ashwini Keskar
Ajay Phatak