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Item 3(h) of the provisional agenda

Environmental tax issues

Chapter 1: Introduction

Handbook on Carbon Taxation for Developing Countries

Note by the Secretariat

Chapter 1: Introduction of the Handbook on Carbon Taxation is presented to the Committee FOR DISCUSSION AND APPROVAL at its 22nd Session.

This chapter is editorial in nature, and it is meant to provide a brief overview of the topics covered in each chapter of the Handbook.

Please note that the numbering adopted in designating Chapters in the introduction has been updated to the most recent (i.e. taking into account that the Chapter on Public Acceptability was placed in the Handbook as Chapter 3, resulting in a renumbering of following chapters).

Last updated on 22 March 2021

1. The United Nations Handbook on Carbon Taxation for Developing Countries is a response to the need, often expressed by developing countries, for clear and holistic guidance on the application of carbon taxes, as a policy option that is geared towards (i) curbing carbon-based emissions that are responsible for climate change; and (ii) living up to the commitments assumed by countries under the Paris Agreement. This Handbook outlines some of the common reasons why countries might want to introduce a carbon tax, and provides options for policy design and administration that might cater to the different needs and priorities of countries. It is meant as a practical guide, and it contains many real-world examples and practical tools, including checklists to guide on the design and administration of the tax.

2. This introduction is meant to provide an overview of the topics covered in each chapter of the Handbook.

3. The primary intention of **Chapter 2: An Introduction to Policymakers** is to give policymakers all the elements to make an informed decision when considering whether to introduce a carbon tax, and when weighting the benefits of a carbon tax over other carbon pricing instruments. It seeks to provide an introductory overview of key concepts and policy options further developed throughout the Handbook, as well as to discuss high-level concepts such as the goals of carbon taxation. Although Chapter 2 is intended primarily to address policymakers, it was drafted having in mind the wide range of potential users of the Handbook, from politicians to practitioners Chapter 2 starts by putting carbon taxation within the context of climate change, and discussing how countries might benefit from carbon mitigating policies; it then delves deeper into the features of carbon taxation, as opposed to other carbon pricing instruments; and finally, it discusses the goals and policy features to consider when introducing a carbon tax. Chapter 2 also briefly touches on the international framework that provides the backdrop for the introduction of carbon taxes; a more detailed discussion can be found in **Annex 1: Carbon Taxation in the Context of the United Nations** (placed at the end of the Handbook).

4. **Chapter 3: Public Acceptability of carbon taxes – conceptual model and policy implications** makes the argument that, when introducing a carbon tax, policymakers should take into account how to achieve public acceptability, and not just how to achieve the best technical design. Chapter 3 starts by developing a conceptual model of which factors potentially affect

individual behaviours and preferences towards environmental instruments, including carbon tax. Based on these considerations, the chapter then analyses what elements of a carbon tax can increase public acceptability, for example increasing transparency, addressing distributional concerns, and clearly communicating the intended use of revenues (e.g. to adapt to the effect of climate change, or to increase welfare). Finally, the chapter provides some example of how public concerns can be addressed, both from a policy design and from a timing perspective.

5. **Chapter 4** deals with **Designing a Carbon Tax**; for readers' convenience, it is divided into three Subchapters. In addition, in the spirit of providing a practical tool for policymakers and tax officials working in the design of a carbon tax, each Subchapter starts with a checklist of the aspects that should be taken into account when dealing with the different features of a carbon tax.

6. **Section 4A- Basic elements in designing a carbon tax** outlines different possible approaches in designing the key elements of a carbon tax, including the tax base, the point of regulation and the identification of the taxpayer. The two main approaches discussed in this section, which will constitute the framework for the following chapters, are the *Fuel Approach* (based on a tax by volume or weight units of the fuels giving rise to emissions when combusted, where the tax rate is based on standardized amounts of carbon content in those fuels), and the *Direct Emissions Approach* (which measures the emissions directly as they occur from the burning of such fuels). The Fuel Approach is discussed based mainly on the example of Sweden, while the Direct Emissions Approach is outlined making frequent reference to the case of Chile.

7. **Section 4B – How to set the carbon tax rate** discusses why setting the tax rate can be an important design element, and discusses several practical approaches and their theoretical framework; however, an important conclusion of this section is that it is more important to get started, and potentially set a sub-optimal tax rate, than delay the introduction of a carbon tax while trying to get to the perfect rate.

8. Finally, **Section 4C – Addressing undesired effects for households and industries** outlines the design features to keep in mind to counter potential undesired effects of the carbon tax. Potential adverse effects include negative impacts on households (some concerns include distributional impacts and equity implications); negative impacts on firms (for example, reduced competitiveness due to higher costs incurred as a result of the carbon tax); and carbon leakage (when the introduction of carbon pricing in one jurisdiction results in increased emissions in another jurisdiction, as producers decide to shift their activities to another country or area; or as

investors shift away from domestic production). The Section also takes the reader through some methods to assess the actual risk of such negative effects, and finally policy options to counter them, including tax-reducing measures, support measures and trade-related measures; some of this discussion is theoretical, as some of these instruments (for example, border carbon adjustments to address carbon leakage) have never been implemented in the real world.

9. **Chapter 5: From Design to Administration: Practical Application of a Carbon Tax** describes different procedures and steps necessary to implement a carbon tax, following its design. The chapter is framed around fundamental design features covered in previous chapters, primarily 4A, and details specific actions to each approach (Fuel vs Direct Emissions). It focuses on real-world execution and critical administrative considerations once the basic design selections concerning a carbon tax have been made. Chapter 5 strives to address how to execute the basic design choices during the regulatory process, considering initial implementation on-going daily administration and need for follow-ups and adjustments of the tax along the way of its application. The focus is on the “administrative” facet of design issues. The chapter addresses implementation issues, meaning regulatory choices that determine how the tax will function (facilitating the stakeholders’ involvement), as well as the administrators’ role in executing. Administrative aspects are reviewed in detail: who needs to do what, or how to make the system operate smoothly.

10. **Chapter 6: Revenue Use** discusses the complexities related to the use of revenues from carbon taxation, and what are issues to be further investigated in their specific national framework. The chapter starts by outlining how revenues from a carbon tax can fund the overall State budget, or finance specific items, and what are some of the mechanisms that countries can use to commit revenues from carbon taxation to a specific purpose (including earmarking and political commitments). Revenue raising is put into perspective with an overview of the current amounts raised by carbon taxes around the world, and their potential in different scenarios. Finally, the chapter discusses some of the main areas of uses that countries may allocate carbon tax revenues to, either by direct earmarking or by enforcing such destinations through the general state budget. Such areas could include compensation for affected households or industries, environmental spending and tax shifts; and some policy considerations that policymakers may want to take into account when designing policy packages, including the role that revenues can play in the acceptability of a carbon tax.

11. **Chapter 7: Carbon Taxation: Interaction with other instrument** aims to address the interaction between a carbon tax and a range of other instruments that (implicitly or explicitly) put a price on carbon, or conversely that reduce the cost of products that contain carbon, including (i) other carbon pricing instruments (both explicit, such as emission trading schemes, and implicit, such as emissions standards); (ii) other taxes, in particular energy taxes (excises and consumption taxes); and (iii) instruments that reduce the price of carbon, such as subsidies. The Chapter assesses those interactions by using a goal-oriented approach, i.e. for each instrument, the chapter discusses whether introducing a new carbon tax would reinforce or weaken the intended policy goals that the tax intends to achieve. For example, considering that a carbon tax aims to reduce carbon emissions, policymakers should think about how this goal would be affected if they introduce a carbon tax within an existing framework of fossil fuel subsidies.