

Taking the Environmental Tax Agenda Forward: How the U.N. Committee of Experts Can Lead the Way

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Reprinted from *Tax Notes International*, March 5, 2018, p. 949

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In this article, the author discusses how the U.N. Committee of Experts in International Tax Cooperation can provide leadership and guidance in the field of environmental taxation, helping to prevent climate change and secure revenues while considering the needs of both developing and developed nations.

In October 2017 the United Nations Committee of Experts in International Tax Cooperation (Committee of Experts) met in Geneva for the 15th time. It was a memorable meeting for several reasons. For the first time, the Committee of Experts elected co-chairs to lead the committee, selecting both the first female (Carmel Peters, from New Zealand) and the first representative from a developing country (Eric Mensah, from Ghana) to lead the group. It is also the first time that there are more representatives from developing countries than from developed countries on the committee, and the membership includes more representatives from African

countries than ever before.¹ Further, it was the first time the newly appointed membership met and established the main topics for discussion within the Committee of Experts for the four-year term. Finally, at the 15th session, the members finalized a series of documents approved by the previous membership, including the new version of the U.N. model tax treaty between developed and developing countries (U.N. model). This represents the start of greater corroboration between countries that have been represented on the committee in the past and countries that are new to the committee.

Traditionally, the first meeting of a new membership sets the agenda for the coming term and, as noted above, this time was no different. Putting aside the expected tax treaty matters, this article will draw attention to one particular topic that was approved for consideration by the committee over the coming years. It is a tax topic that is likely to intersect with several other public policy issues and affect decisions about the allocation of resources at the U.N. level and around the world — environmental taxation.

The topic of environmental taxation was first discussed by the 12th session of the Committee of Experts in 2016. It was briefly discussed again in the 13th session.² A conference paper³ presented at

¹ A list of committee members is available in the Financing for Development section of the U.N.'s website.

² See, e.g., Susanne Åkerfeldt, "Carbon Tax — A Good Idea for Developing Countries?" and Thornton Matheson, "Environmental Reform of Energy Prices in Developing Countries," both presentations from the 13th session of the U.N. Committee of Experts (Dec. 5, 2016). See also Åkerfeldt and Henrik Hammar, "CO₂ Taxation in Sweden: Experiences of the Past and Future Challenges" (Sept. 7, 2015) (English version of an article that also appeared in *Revue Projet* in Oct. 2015).

³ Ingela Willfors, Susanne Åkerfeldt, and Henrik Hammar, "Carbon Taxation — An Instrument for Developing Countries to Raise Revenues and Support National Climate Policies," E/C.18/2017/CRP.6 (Apr. 3, 2017) (conference paper for 14th session of the U.N. Committee of Experts).

the 14th session considered environmental taxation in the context of the Paris Agreement (discussed in greater detail below) and other commitments made under the U.N. Framework Convention on Climate Change (UNFCCC). However, because the 14th session was the final meeting of the last membership of the Committee of Experts, the members thought it best to leave the topic for consideration by the next membership. In this context, environmental taxation was brought to the new membership's attention during the 15th session, and no one opposed taking up the topic for consideration during the next four years.

This decision was based on the history of international environmental agreements, an understanding that there is a need to correct the theoretical framework behind some of the existing policies in the field of environmental taxation, and the admirable success that Sweden has had imposing a carbon tax while continuing to sustain a reasonable level of economic development. I personally brought these points to the attention of the Committee of Experts during the 15th session, which I will discuss further in this article.⁴

Historic Context

The United Nations has produced three key agreements on climate change directing member states to undertake specified obligations and meet specific targets for the reduction of greenhouse gas emissions. In chronological order, the agreements are: the UNFCCC,⁵ the Kyoto Protocol,⁶ and more recently, the Paris Agreement.⁷

The UNFCCC, the first international agreement on climate change, is an umbrella convention that provides a framework for both market and non-market approaches to address climate change. It was approved in 1994 and

contains an open pledge “to achieve...[the] stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”

While the UNFCCC targeted all signatory countries — both developed and developing — only developed countries listed in Annex I overtly committed to adopting national policies and taking corresponding actions to mitigate climate change by, among other things, limiting their emission of greenhouse gases. Annex II countries,⁸ a more restricted group of countries, had the supplementary obligation to provide financial resources to meet all costs incurred by developing country parties in complying with UNFCCC obligations.

Thus, the UNFCCC established imbalanced rights and obligations between developed and developing countries. However, it did not foresee a specific mechanism by which countries were to meet those limited rights and obligations.

The Kyoto Protocol was adopted only three years after the UNFCCC entered into force. It was clear in introducing a market-based approach for the reduction and control of greenhouse gases. The close proximity within which the UNFCCC and the Kyoto Protocol were admitted made it appear like trading in emissions permits was the only admissible instrument under the umbrella of the convention. Because of that choice, many countries and regions introduced cap-and-trade systems. The largest and most well-known emissions trading system is the one in the European Union, launched in January 2005.⁹

The Kyoto Protocol recognizes that developed countries are principally responsible for the high levels of greenhouse gas emissions in the atmosphere as a result of more than 150 years of industrial activity. Therefore, the protocol only places an obligation to reduce greenhouse gases

⁴This article is based on the author's presentation, delivered to the U.N. Committee of Experts on occasion of the 15th session of the committee.

⁵United Nations, Framework Convention on Climate Change, Doc. FCCC/INFORMAL/84 (June 4, 1992).

⁶United Nations, Kyoto Protocol to the United Nations Framework Convention on Climate Change (Dec. 11, 1997) (Kyoto Protocol).

⁷United Nations, Adoption of the Paris Agreement, Doc. FCCC/CP/2015/L.9/Rev.1 (Dec. 12, 2015) (the text of the agreement appears as an annex to the announcement).

⁸Australia, Austria, Belgium, Canada, Denmark, the European Economic Community, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

⁹Consolidated version of Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, OJ L 275 (Oct. 25, 2003).

on listed Annex I countries, applying the principle of common but differentiated responsibilities.

The international endorsement of the need for a consolidated emissions trading system did not stop countries from taking hybrid approaches and introducing environmental taxes in general — and carbon taxes in particular — to address climate change concerns. This occurred in the United Kingdom, Sweden, Canada, and several other countries as discussed in more detail later in this article.

For reasons beyond the scope of this article,¹⁰ the emissions trading permit schemes and emissions trading markets were incapable of setting a high enough price for carbon — that is, a price capable of producing a change in consumer behavior. It took the U.N. and its member states over 15 years to realize that a pure market approach would not be enough to achieve the aims of the UNFCCC, a realization that was followed by the adoption of the Paris Agreement.

Introduced in 2015, the Paris Agreement brought attention back to a broader set of tools to address carbon emissions specifically and climate change more generally — tools that include green financing, green bonds, and environmental taxes.

The Paris Agreement requires all parties (developed and developing) to use their best efforts through nationally determined contributions (that is, domestic mitigation measures, with the aim of achieving the objectives of the agreement) to curb greenhouse gas emissions and to continue to strengthen those efforts in the years ahead. The methodology used to curb greenhouse gas emissions is not specified. The agreement is thus a return to the original objective of the UNFCCC.

The Paris Agreement thus provides the theoretical framework and the momentum for the discussion by the Committee of Experts about environmental taxation and, in particular, the taxation of carbon emissions.

¹⁰ For a discussion of the history of carbon prices within the EU emissions trading system and also a broader assessment of environmental policies within the EU, see Simon Evans, “Q&A: Will the Reformed EU Emissions Trading System Raise Carbon Prices?” Carbon Brief: Clear on Carbon (Dec. 6, 2017). See also International Energy Agency, “Redrawing the Energy–Climate Map” (2013).

Defining Environmental Tax

At this point, a side note addressing the distinction between environmental taxes and environmentally related taxes is helpful.

Several agencies have attempted to define environmental taxes without examining the difference between an environmental tax and an environmentally related tax. At times, this has created confusion regarding how countries approach the policies behind an environmental tax. The OECD alone has three different definitions for an environmental tax, definitions that change according to which segment of the organization is using the term. For the purposes of illustration, these are:

- According to the OECD’s Glossary of Statistical Terms, an environmental tax is “a tax whose tax base is a physical unit (or a proxy of it) that has a proven specific negative impact on the environment. Four subsets of environmental taxes are distinguished: energy taxes, transport taxes, pollution taxes and resource taxes.”¹¹
- According to Eurostat and the OECD, an environmental tax is “a tax whose tax base is a physical unit such as [a] litre of petrol, or a proxy of it, for instance a passenger flight, that has a proven specific negative impact on the environment.”¹²
- According to the OECD’s Centre for Tax Policy and Administration, an environmental tax is a “tax imposed for environmental reasons, e.g. to provide an incentive to reduce certain emissions to an optimal level or taxes on environmentally harmful products.”¹³

As I have argued previously,¹⁴ a clear distinction must be made between environmental taxes (that is, taxes with both an environmental

¹¹ OECD, Statistics Directorate, “Glossary of Statistical Terms: Environmental Tax” (Nov. 30, 2005).

¹² European Commission, Eurostat, *Environmentally Related Taxes, a Statistical Guide* (2001 ed.).

¹³ OECD, Center for Tax Policy and Administration, “Glossary of Tax Terms.”

¹⁴ See, e.g., Tatiana Falcão, “A Proposition for a Multilateral Carbon Tax Treaty,” IBFD Doctoral Series (forthcoming, 2018); and Falcão, “Providing Environmental Taxes With an Environmental Purpose,” in *Market Based Instruments: National Experiences in Environmental Sustainability* 41-62 (2013).

purpose and effect) and environmentally related taxes (that is, taxes with an indirect environmental purpose).

To elaborate, an environmentally related tax is any tax with an environmental effect, even if the relationship to the environment is indirect. For example, a transport tax on the ownership and use of a vehicle is an environmentally related tax. Transport taxes tend to be levied on vehicles, ships, and aircraft using public highways, rivers, and airports maintained by the government. The tax is not tied to the size or the fuel consumption of a vehicle, but rather the likelihood that it will use government-maintained public infrastructure.

This differs from an environmental tax, such as a carbon tax. The application of a tax on carbon can change consumer behavior and reduce the consumption of carbon-based products; it has an environmental purpose and effect. The sole application of the tax is to reduce the consumption of carbon-based products and thus reduce carbon-based emissions.

Making this distinction at the international level would allow countries to follow suit and implement policies that are effectively geared toward environmental protection and pollution reduction. The committee's wide representation would make it the ideal body to help clarify the difference. Purely revenue-raising taxes that use environmentally related tax nomenclature should be distinguished from the other two categories.

Policy Options for Applying a Carbon Tax

Just as there are many types of environmental taxes, there are also many policy options and the choice will depend on the element being taxed. That is in fact why it is so important to have a subcommittee within the framework of the Committee of Experts to discuss these issues. This article will briefly review the policy options for the application of a carbon tax, because this is the environmental tax most commonly associated with the reduction of greenhouse gases, and it has been the most popular tax among countries looking to reduce carbon-based pollution.

Carbon taxes may be applied at the upstream, midstream, or downstream level of the oil, gas, coal, or mineral resource's production chain.

An upstream tax is a tax levied upon extraction of the mineral resource from the

ground. It is an excise tax applied to extraction and based on the carbon content of the mineral resource, which can be inferred from the volume of mineral resource extracted and knowledge of the chemical characteristics of the hydrocarbon. Because the tax is applied upstream, it takes into account the full polluting potential of the mineral resource; there are no fugitive emissions issues unlike some of the other options. It is applied when there are the fewest number of taxpayers — companies in the extractive industry would be the typical taxpayer. It would be the most suitable point of taxation for countries that are rich in mineral resources.

A midstream tax is typically applied at the refining or transport level (for gaseous byproducts). A tax applied at this level does not address the full polluting potential of the mineral resource because emissions will have been lost at the extraction and refinery levels. Thus, fugitive emissions will not be accounted for in the process. This tax is suitable for countries with good infrastructure. Because the tax is applied at the refinery or processing-plant level, it also benefits from targeting a reduced number of taxpayers.

A downstream tax applies either upon import of the final product to the country of consumption or upon acquisition of the final product by the consumer. Unless it is applied upon import, the larger number of taxpayers makes the application of a downstream tax more diffuse. Taxation at this level is best suited to countries that are not rich in mineral resources but have large consumer markets.

Many countries find it easier to apply a tax at the downstream level. The problem, however, is that a downstream tax does not address the full polluting potential of the fuel since the fugitive emissions issued during extraction and refining are not addressed by the tax. A downstream tax would, however, account for the full polluting potential of targeted carbons within national borders. The tax could be calibrated to account for leakage within the country itself.

A carbon tax — whether levied at an upstream, midstream, or downstream level — may be applied in an almost automated fashion. It should be easy to administer and limit the need for tax administration audits.

Because indirect taxes tend to lack a cross-country dimension, they offer fewer alternatives

by which developing countries can accumulate substantial revenues without committing more public resources.¹⁵

Of particular importance to developing countries, taxing fossil fuels provides revenue from both the formal and the informal sector. Applying the tax before fuel reaches a final consumer in the informal sector captures the impact associated with that economic sector.

The Committee of Experts should also consider whether a recommendation should be made about the use of revenue derived from a carbon tax. While earmarking is constitutionally problematic in some countries, there are practical examples of countries targeting the use of revenue from carbon taxes. Some countries have already reduced their dependence on fossil resources and even invested in renewable resources by using the surplus revenues derived from carbon taxes.

Administering subsidies to encourage the development of new technologies and attract investment in renewable resources might be another topic for discussion at the subcommittee level. However, the existing level of scrutiny of tax incentive structures involving IP rights¹⁶ and technology development may make it more difficult for countries to devise tax-based instruments aimed at facilitating the development of new technologies, even if they ultimately have an environmental effect.

Country Experience With Carbon Taxation

Several jurisdictions, all developed nations (or units thereof), currently administer carbon taxes. Denmark, Finland, Japan, Norway, Sweden, and the U.K., along with the province of British Columbia in Canada, all apply carbon taxes.¹⁷ Australia had a carbon pricing mechanism that

resembled a carbon tax before it was repealed in 2014.¹⁸

South Africa is the only developing country that has seriously looked at carbon taxation. The government of South Africa has issued several discussion papers, but there has been no agreement on how to implement a tax.¹⁹ In fact, there is very little research and data concerning the effects of climate change in developing countries and the potential economic impact of applying environmental taxes in general and carbon taxes in particular in developing countries. The work of the Committee of Experts in this field could become an incentive for nongovernmental organizations and academic research into these issues to thrive.

In the developed world, Sweden serves a real-life example that the establishment of a carbon tax does not forestall economic growth. One can, therefore, further conclude that the tax does not impose an excessive burden on domestic industry.

Many of the countries applying carbon taxes have come to rely heavily on the revenue it produces. Some of the more experienced countries that have drastically reduced the consumption of carbon-based fossil fuels are now considering alternative taxes to compensate for the loss in revenue following the reduced consumption of fossil resources. For example, Finland introduced a stockpile fee intended to maintain equilibrium in the Finnish public finances throughout the years in light of the expected decrease in revenues associated with the carbon tax and other environmental excises.²⁰

This is a notable feature of the carbon tax — successful administration of the tax can be verified through the government's reduced ability to accumulate additional revenue.

However, it takes a long time for countries to reach that point. In the meantime, revenue from the tax could be a valuable resource for countries,

¹⁵ Åkerfeldt and Hammar, *supra* note 2.

¹⁶ OECD, "Countering Harmful Tax Practices More Effectively, Taking into Account Transparency and Substance, Action 5 — 2015 Final Report" (2015) (including peer review and monitoring of preferential regimes by the Forum on Harmful Tax Practices).

¹⁷ U.N. Economic and Social Council, "Update on Environmental Taxation," E.C 18/2017/5 (Oct. 17, 2017) (note by the Secretariat for 15th session of the U.N. Committee of Experts).

¹⁸ See Celeste M. Black, "Considering the Taxation Implications of Australia's Carbon Pricing Mechanism," 41 *Australian Tax Review* 136-153 (2013); and Rosemary Lyster, "Repealing the 'Carbon Tax': Hidden Costs and Unanswered Questions," *The Conversation* (Oct. 15, 2013).

¹⁹ The most recent consultation document was issued in 2013: National Treasury of the Republic of South Africa, "Carbon Tax Policy Paper — Reducing Greenhouse Gas Emissions and Facilitating the Transition to a Green Economy" (May 2013).

²⁰ See Ministry of Finance of Finland, "Environmentally Related Taxes and Charges in Finland" (Jan. 2012).

in particular developing countries, working to meet the U.N.'s 17 Sustainable Development Goals for 2030 (that is, goals aimed at ending poverty, ensuring prosperity, and protecting the planet).

Conclusion

Environmental taxation, sometimes framed as part of green economics, has long been overlooked by the tax community. It is a field in desperate need of development and leadership. The limited legal framework that exists involves the fields of international environmental law and international trade law. An environmental tax policy will need to tie into these two fields to succeed.

The Paris Agreement has provided momentum for the movement to design new environmental taxes, and it is conducive to environmental tax reforms at the country level. It is incredibly significant that the Committee of Experts has taken on this topic. Countries that wish to fulfill the objectives of the Paris Agreement will need guidance and leadership to help them design the right tools to prevent irreversible environmental harm. As policy guidance becomes available, the U.N. can develop the capacity needed to draft suitable policies. Capacity development can (and should) occur at the policymaking level rather than at the implementation stage when ill-devised legislation is more difficult to correct.

The Committee of Experts' decision to take on environmental taxation is not an isolated act. The previous membership of the committee

developed a *Handbook on Extractive Industries for Developing Countries*,²¹ which is due to be published this year. The Subcommittee on Environmental Taxation is likely to consider that and other previous work products, develop areas of focus, and consider the perspective of the extractive industries as well as the potential benefits derived from pure environmental taxes that are marked by both environmental purpose and effect.

As a larger body that reaches well beyond the tax field, the United Nations is the only intergovernmental organization that contains an inclusive framework capable of creating synergies between the different facets of a comprehensive environmental policy — social, legal, economic, and environmental considerations — that have to come together to create sound and long-lasting policies on climate change.

Tax instruments have proven to be important instruments for behavioral change, but it is important to go beyond national solutions and avoid solutions that work to the detriment of less-developed countries. Through its work shaping international environmental tax regulation, the Committee of Experts can play an important and determinative role in the much larger environmental debate that is essential to fulfilling the international commitments assumed under the Paris Agreement. ■

²¹ Selected chapters of the *Handbook on Extractive Industries for Developing Countries* may be found in the webpages of the 13th and 14th sessions of the Committee of Experts.