



Green Tax for Development

The Role of Aid Agencies in Mitigating Climate
Change through Environmental Taxes

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Executive summary

The collective need to reduce greenhouse gas (GHG) emissions is well-documented, so are the financial and social costs associated with climate change – for both developed and developing countries. However, how to achieve this has not been fully explored. This note seeks to go behind the headlines with the aim of providing a balanced snapshot of the potential for, and obstacles to, implementation of green taxes in developing countries. The objective of the note is to explore how a bilateral development agency like Norad can contribute to reducing GHG emissions in partner countries through a green tax approach, and to inform how Norad can manage green taxes in within its tax for development secretariat as well as through other program portfolios.

Under the auspices of the UN Tax Committee, a broad group of officials from developing and developed countries have suggested that for many developing countries, climate taxation can be a more appropriate carbon pricing mechanism than other alternatives. Compared to an emissions trading scheme, climate taxes require less administrative capacity and investment. The taxes can also have an effect even for small economies independent of other countries and global processes. An argument echoed by both the International Monetary Fund and World Bank experts.

Climate taxation can, under the right circumstances, have a triple dividend – reducing GHG emissions, increasing government revenue and improving public health through reduced air pollution. Expert advice recommend that developing countries should start with a low rate and limited scope, which means that the benefits will be limited in the short term but this can translate to better results in the long term. It is important to note that climate taxation can have negative effects on poverty, depending on the tax design, consumption patterns and how the generated revenue is used (revenue recycling).

While the technical design can be relatively straightforward, especially if the tax builds on existing fossil fuel excises, green taxes are generally not easy to implement. Aside from the administrative challenges, a key obstacle is often political and social opposition – because of legitimate concerns with the poverty and distributional effects of the tax, a weak social contract leading to low trust in the government, and/or opposition from elite groups who benefit from the status quo. If the government’s capacity or willingness to implement public expenditure reforms to offset some of the adverse distributional impact (via social protection for example) is limited, then green taxes, like any tax change will meet strong opposition.

A set of insights emerge that could guide Norad’s approach to green taxes:

- Start walking – slowly. We have a global responsibility to reach the 1.5-degree target and climate taxes are a necessary part of the policy reform. We must start today, but have realistic expectations. Support from Norad should stimulate short-term action towards longer-term benefits.
- It’s the political economy, stupid. Any technical assistance on green taxes must first consider what is politically feasible. Perfect is the enemy of good. That might mean opting for second-best solutions in a climate and/or revenue perspective. Norad should encourage development partners to make the political dimension an important part of their project analysis.
- It takes a village. A government that wants to make sustainable changes and reforms needs to have the trust of the citizens. Green taxes must fit into the broader fiscal or green policy reform and perhaps include “fair” welfare policies to recycle revenue. Norad should promote an “ecosystem thinking” in green tax reform, where policymakers are supported by cross-

functional teams of advisers, informed by research and knowledge and held to account through a dialogue with transparency stakeholders.

- Moving target. This analysis provides recommendations based on a snapshot of the issue by mid-2021, but the issue is complex and fluid. Thus, both assumptions and conclusions should be revisited and revised regularly. To account for the uncertainty, Norad should pursue several tracks at the same time.

Norad can consider launching an initiative for «Fair Green Taxes». The initiative should be comprehensive, seeking to integrate climate and environment, tax, governance, transparency and social security issues, delivered by a cross-functional team and based on new partnerships. The initiative could build on existing work and partnerships in the Tax for Development (TFD) program, the work on renewable energy, the climate and forest initiative and relevant multilateral cooperations. Multilateral partners like the UN, World Bank, OECD and IMF are natural to consider as implementation partners, but also academia, civil society, private sector and Norwegian government agencies could play important roles in such an initiative.

Introduction

The collective need to reduce greenhouse gas (GHG) emissions is well-documented, as is the financial and social costs associated with climate change. Low and middle-income countries are most affected by extreme weather events.¹ Of all regions, Africa is most vulnerable to climate change effects with climate change damages estimated at between one and four per cent of gross domestic product (GDP) across the continent.² The UN-mandated principle of “*common but differentiated responsibilities based on respective capabilities*” means developing countries who have joined the Paris Agreement have a commitment to address climate change based on nationally determined contributions (NDCs).³ On the donor side, developed countries have committed to contribute with financing of climate change mitigation and adaptation measures to countries that require assistance and more vulnerable. Development assistance to support implementation of green taxes could be one such flow of climate finance.

The note is structured around five short sections:

Section 1 provides useful background on the objective of the note, how green taxes are anchored in Norway’s development policy, definitions used and the general scope of the note.

Section 2 provides a snapshot of carbon pricing today and explains why climate taxation is often more fit-for-purpose for developing countries than other carbon pricing mechanisms.

Section 3 takes a critical look at the benefits and costs of climate taxation from a developing country perspective.

Section 4 highlights some key obstacles to implementation.

Section 5 suggests how Norad can further its work on green taxes based on the insights from the previous sections.

A brief overview of Norad’s current engagement on green taxes is provided in Annex 1.

¹ United Nations Office for Disaster Risk Reduction (2018)

² African Development Bank (2020)

³ United Nations (1992) and (2015)

Section 1. Background

OBJECTIVE

The objective of the note is to explore how a bilateral development agency like Norad can approach green taxes, to inform how Norad manages green taxes in its tax and other portfolios.

GREEN TAXES IN NORWAY'S DEVELOPMENT POLICY

Norway's domestic climate policies have paved the way for green taxes in Norway's development assistance. Norway implemented its first carbon tax in 1991 and joined the EU Emissions Trading System (ETS) in 2008. Today, more than 80 per cent of Norway's GHG emissions are covered by the carbon tax or the EU ETS.⁴ The government has established a Green Tax Commission, which, through a series of reports have outlined how fiscal policies can be used to speed up the transition to a low-carbon society.⁵ The most recent Government white paper on long-term perspectives on the Norwegian economy highlighted that climate change challenges "can only be resolved through broad international cooperation to which all countries contribute", and that the most effective policy tool is to set a price on carbon.⁶ Norway is a member of the Coalition of Finance Ministers for Climate Action, where key principles include the promotion of carbon pricing and integration of pro-climate measures into macroeconomic and fiscal policies.⁷

DEFINITIONS AND SCOPE

A "green tax" is defined as any tax that increases the relative price of a product or activity that has a negative impact on climate or the environment. In line with the EU's statistical definition of environmental taxes, the key element is the *effect* of a tax, not the stated intention of the policymaker or the name of the tax.⁸ Both direct carbon taxes based on carbon intensity, and excise duties on fuels and other products with a negative impact on climate or the environment, are considered within the scope of this note.⁹ Throughout the note, the terms "climate tax" and "carbon tax" are used interchangeably for taxes that reduce GHG emissions directly, while "green tax" is used as a broader term that includes taxes with other positive environmental effects.

Climate taxes are one of several available carbon pricing mechanisms. Carbon pricing instruments include emission trading schemes (ETS), climate taxes, payment for offsetting emissions and performance-based climate financing.¹⁰ The note briefly discusses the pros and cons for a developing country of implementing a climate tax compared to an ETS (see below), but based on the analysis

⁴ Norwegian Ministry of Finance (2021)

⁵ NOU 2015: 15.

⁶ Norwegian Ministry of Finance (2021)

⁷ Finance Ministers for Climate (2020)

⁸ Eurostat (2013)

⁹ Taxes on greenhouse gases come in two broad forms: an emissions tax, which is based on the quantity an entity produces; and a tax on goods or services that are generally greenhouse gas-intensive, such as a carbon tax on gasoline. See Center for Climate & Energy Solutions (2021)

¹⁰ Norway's International Climate and Forest Initiative is an example of results-based climate financing, see <https://www.nicfi.no>

concludes that a climate tax will in most instances be more fit-for-purpose for a developing country and thus devotes more space to this instrument.

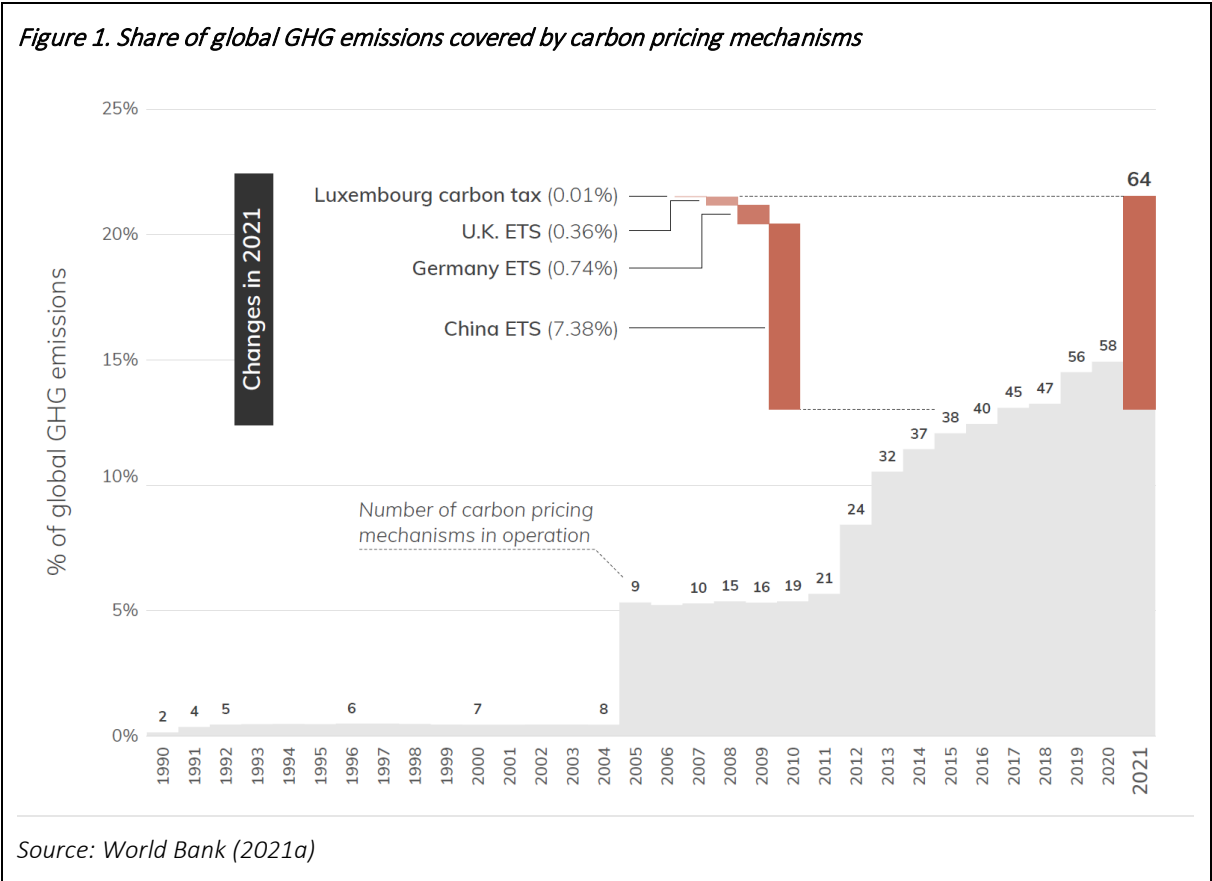
Fossil fuel subsidies act as a "reverse climate tax" and must be seen in conjunction with the tax system.

Many countries, including developing countries, spend a large proportion of government revenues on subsidizing fossil fuel. Reducing or phasing out fossil fuel subsidies could have the same positive effects on greenhouse gas emissions, fiscal space and public health as a climate tax, and faces some of the same constraints as green taxes. To keep the note focused and firmly within what Norad can do through the TFD program or related engagements, the note does not explicitly discuss fossil fuel subsidy reform. However, the discussion and conclusions on green taxes will to some degree also be applicable to fossil fuel subsidies.

Section 2. Carbon pricing today

Carbon pricing aims to adjust for the social and economic costs from emissions that are currently not reflected in the price. A carbon tax puts a price on those emissions, encouraging people, businesses, and governments to consume or produce less of them.¹¹ "Putting a price on carbon" is generally considered to be the most effective and least expensive measure to reduce greenhouse gas emissions. Two thirds of all NDCs (around 100 countries) are considering the introduction of carbon pricing to achieve their emissions targets, this also includes three of the five largest emitting countries (China, India and Brazil).¹²

Carbon pricing coverage is still limited, but is expanding rapidly. As of May 2021, 64 instruments (climate taxes or ETS) had been implemented which covers around 22 per cent of the world's GHG emissions.¹³ The coverage increased from 15 per cent in the previous year, which is mainly due to China implementing an ETS covering around seven per cent of the world's GHG emissions. Figure 1 below shows the share of global GHG emissions that are covered by carbon pricing mechanisms. The grey area shows development over time and the red bars show changes in 2021. 85 per cent of the jurisdictions that have implemented carbon pricing are upper middle-income countries or high-income countries.



The current price on carbon is low. The high-level panel for carbon pricing has estimated that the average price of one tonne of CO₂ must be 40-80 US dollars (USD) in 2020, and between 50-100 USD by

¹¹ Tax Policy Center (2020)

¹² World Bank (2021a)

¹³ ibid.

2030 to be able to fulfil the Paris agreement.¹⁴ The latest available estimates (from 2017) put the average carbon price at about 2 USD per tonne of CO₂, and less than 4 per cent of global GHG emissions are currently priced at or above the level we must be on (40-80 US dollars per CO₂tonne).

A key concern associated with green taxes has been "carbon leakage", i.e., that stricter climate regulation in one country leads to increased emissions in another country, due to weakened competitiveness or flagging out of polluting production. However, the empirical literature to date has not shown any strong effects of carbon leakage for developing and emerging economies, but the low pricing could be a factor.

Box 1. Can we set a global carbon pricing floor?

From a theoretical point of view, a global carbon tax or at least a minimum carbon pricing floor would be the most efficient instrument to reduce emissions.¹⁵ GHG emissions reductions is a classic case of "tragedy of the commons". This is a situation in which a group of people have joint access to a resource, and everyone would have gained from cooperation. But each individual makes their own decisions on how much of the resource to use, and this leads to the depletion of the resource – to the detriment of all. The theoretical solution to the problem is to impose a collective commitment that is enforced.

Leading academics, including Nobel Prize laureate in Economics William Nordhaus, have proposed to start with a "club" of countries that are willing to implement carbon pricing. Economic incentives can be used to enroll more countries.¹⁶ The EU's Carbon Border Tax is a recent example of this. The IMF in June 2021 launched a similar proposal, arguing for a carbon pricing floor among large emitters.¹⁷

For many developing countries, climate taxation will be a more appropriate carbon pricing mechanism than other alternatives. Compared to an ETS, climate taxation taxes require less administrative capacity and investment and can have an effect even for small economies independent of other countries and global processes.¹⁸ Carbon markets and other environmental fees are often regulated by ministries of environment, while climate taxes can be embedded into existing national and subnational revenue systems. Fiscal authorities¹⁹ could be better-placed to combine carbon taxes with other taxes, subsidies or rebates to influence consumption and production of emission. What is the most appropriate mechanism will vary from country to country, based on what the country wants to achieve by imposing a price on carbon, its needs and capabilities.

¹⁴ Carbon Pricing Leadership Coalition (2017)

¹⁵ Gaspar and Parry 2021)0

¹⁶ See e.g. <https://www.foreignaffairs.com/articles/united-states/2020-04-10/climate-club> for a summary or Nordhaus (2015) for the original article.

¹⁷ See <https://www.imf.org/en/Publications/staff-climate-notes/Issues/2021/06/15/Proposal-for-an-International-Carbon-Price-Floor-Among-Large-Emitters-460468>

¹⁸ See United Nations Committee of Experts on International Cooperation in Tax Matters (2021), ch. 2 for a deeper discussion of the pros and cons of climate taxation and ETS and why climate taxation is often more appropriate. World Bank (2021c) offers additional perspectives on the differences between carbon taxation and ETS.

¹⁹ Fiscal authorities at national level refers to bodies that oversee, manage and implement both collection and spending within an economy. At local levels, fiscal authorities would be bodies that are responsible at the local level.

Section 3. Benefits (and costs) of climate taxation²⁰

The key policy objective of climate taxation is to reduce emissions, but the impact is hard to quantify. Climate taxes are often implemented as part of larger green reforms. There is rarely a “control group” to compare with, which creates difficulties in isolating and quantifying the effect of the climate tax on emissions. However, over the last few years a few studies have been published that indicate the magnitude of the impact. A 2019 study of the Swedish carbon excise in the transportation sector over the period of 1990 to 2005 estimated that emissions were 11 per cent lower than they otherwise would have been.²¹ A 2020 study looked at emissions for 142 countries, of which 43 countries had a price on emissions, over two decades.²² The study found that emissions grew by two percentage points less in the countries with a price on emissions, and that an increase in the carbon price of EUR 1 per tonne CO₂ led to a 0.3 percentage points reduction in emissions growth per year.

Climate taxes can generate substantial revenue, but the potential is likely limited in the short term for developing countries. Depending on how a carbon tax is designed, it can have a potential to either raise revenue or be revenue neutral. The OECD has expanded their database on taxes on energy with data from 15 developing and emerging economies, and OECD’s analysis shows that these 15 countries on average could increase revenues with one percentage point of GDP if they applied a carbon price of 36 US dollars per ton.²³ When the average carbon price is around two US dollars per ton in the world today, one should be conservative when estimating the revenue potential from a climate tax in the short run. The professional consensus among multilateral organizations who advise developing countries is that developing countries who implement a climate tax should start with a low rate and limited scope (e.g., a small number of large emitters) and a credible plan to increase the rate and scope gradually.²⁴

The most immediate and popular effect of green taxes may be health benefits through reduced air pollution. The World Health Organization (WHO) has estimated that air pollution annually leads to around 3.8 million deaths that could otherwise have been avoided.²⁵ Green taxes can reduce the consumption of fossil energy sources that lead to air pollution and thus provide benefits that are more localized and more visible in the short term than reduced climate change. An example of this is taxes that reduce (fossil) car use translating to increased use of public transport and active transport in densely populated areas.²⁶ How the measures are designed is a determinant for whether they reduce both greenhouse gas emissions and air pollution, as some measures against air pollution can increase heating.

Climate taxes can have negative development effects on poverty and inequality. The effect on other development goals will depend on a number of factors, including how the climate tax is designed, consumption patterns and how the state budget is used, and can be different for urban and rural areas. The conventional wisdom has been that climate taxes can have a positive effect on income inequality because those with the highest incomes have the highest fuel consumption, but that it can increase poverty because small changes can have a severe effect on the economy of poor households.

²⁰ See Heine and Black (2018) for a useful discussion of the benefits of environmental tax reform for developing countries

²¹ Andersson (2019)

²² Best et. al (2020)

²³ OECD (2021)

²⁴ United Nations Committee of Experts on International Cooperation in Tax Matters (2021)

²⁵ WHO (2018)

²⁶ Creutzig et. al. (2012)

Section 4. Obstacles to climate taxation

Social and political opposition is often the main reason why governments hold back on implementing climate taxes or have to reverse a planned reform. Climate taxes can interfere with people’s everyday life in a visible and often unpopular way, as experienced in France with the “yellow vest protests” in 2018 or Ecuador in 2019.²⁷ Fear of the negative effects of taxes on poverty or inequality can also create resistance among certain interest groups.²⁸ Additionally policymakers can face opposition from powerful elites who benefit from the status quo. Finally, unsuccessful introduction of a climate tax undermines the credibility of a government, making it harder to to introduce new taxes in the future.

There is a disconnect between climate and finance at various levels. Ministries of Environment (MoE), Ministries of Finance (MoF) and revenue authorities are often operating in silos. Their mandates, objectives, instruments and policies are often different, poorly integrated and/or conflicting. The disconnect is mirrored by sub-national governments, multilateral organizations and donor agencies, and has translated into political, technical and communication gaps. Furthermore, there is a different valuing between the cost and benefit of environment and natural resource sectors.

Lack of sufficient data, knowledge, and technical capacity makes it harder for institutions to address climate and finance challenges in a more integrated way. There are few experiences with climate taxation from developing countries to build upon, and just a few years of experience from emerging economies. The current knowledge base is dominated by experiences from developed countries, and we have limited knowledge of what is transferable to developing countries, as well as what must be adapted to cater to the needs and capabilities of developing countries. Currently in most developing countries, fossil fuel excises function as a carbon tax. While this is a good first step, this data can be utilized better by expanding or integrating the data with other knowledge sources to inform the aggregate costs and benefits of a green tax policy to a country – hence the need to build a national data capacity for the long-term is imperative. Design and implementation of climate taxes rely on broader foundational data and tools which are currently not available to all countries. An example is economic models that can estimate how changes in taxes and/or social safety nets can influence different households, which could be important to model the effect of a climate tax on poverty and inequality and plan mitigating measures.

²⁷ See for example <https://www.rechargenews.com/transition/riots-and-trade-wars-why-carbon-taxes-will-not-solve-climate-crisis/2-1-694555>

²⁸ See for example McCulloch et. al. (2021)

Section 5. How Norad can work with green taxes

Based on Section 2 through 4 above, a set of key insights emerge that could guide Norad's approach to green taxes:²⁹

- Start walking – slowly. We have a global responsibility to reach the 1.5-degree target and climate taxes are a necessary part of the policy reform. We must start today, but have realistic expectations. Support from Norad should stimulate short-term action towards longer-term benefits.
- It's the political economy, stupid. Any technical assistance on green taxes must first consider what is politically feasible. Perfect is the enemy of good. That might mean opting for second-best solutions in a climate and/or revenue perspective. Norad should encourage development partners to make the political dimension an important part of their project analysis.
- It takes a village. A government that wants to make sustainable changes and reforms needs to have the trust of the citizens. Green taxes must fit in the broader fiscal or green policy reform and perhaps include "fair" welfare policies to recycle revenue. Norad should promote an "ecosystem thinking" in green tax reform, where policymakers are supported by cross-functional teams of advisers, informed by research and knowledge and held to account through a dialogue with transparency stakeholders.
- Move with the target. This analysis provides recommendations based on a snapshot of the issue by mid-2021, but the issue is complex and fluid. Thus, both assumptions and conclusions should be revisited and revised regularly. To account for the uncertainty, Norad should pursue several tracks at the same time.

Following the logic behind the Tax for Development program, Norad could consider taking a limited role in the global collaboration systems for green taxes. The starting point should be via the established roles and responsibilities as this relates to climate work in the Norwegian Ministry of Climate and Environment (MoCE), and the Ministry of Foreign Affairs (MFA) and Norad . In Norad's TFD program, a defined outcome area is global collaboration systems that cater to the interests of developing countries.³⁰ A key source of inspiration could be Norway's work on taxation of multinational companies in the digital economy, where The MoF and the MFA have led Norway's participation in the global processes, while Norad, through its grant agreements, has contributed to strengthening the participation of developing countries, the production of knowledge on how changes could impact them, and enhancing capacity so that developing countries are better able to formulate their needs for global solutions. Additionally, Norway's work on global public goods through the Rethinking Development Project can give important insights into how Norway can approach this.³¹

On a country level, Norway's position on tax-related development assistance and the TFD portfolio presents ample opportunities to enhance Norad's engagement on green taxes. A few tracks could be particularly useful to pursue in the near term, in a loosely prioritized order:

²⁹ See Norad (2021b) (in Norwegian) on what Norway can do to mitigate climate change through development cooperation, including a chapter on green taxes with highlights from what is covered in this paper. <https://www.norad.no/aktuelt/nyheter/2021/bistand-mot-2030--mennesker-klima-og-natur/>

³⁰ See Norad (2020) for a full overview of the program

³¹ Norad (2021a) (in Norwegian) <https://www.norad.no/aktuelt/nyheter/2021/tar-til-orde-for-en-ny-utviklingspolitisk-kategori/>

1. Enable implementing partners to respond to countries' demand. Multilateral and regional organizations, including TFD partners WB, IMF, OECD, UN, ATAF and CIAT, appear to be well-placed to ramp up country-level work based on demand, and have sufficiently broad skillsets to cater to the complexity of the issue. Norwegian public institutions like Statistics Norway, the Norwegian Tax Authority, the Norwegian Environment Agency and academic institutions could play an important role.
2. Support semi-normative work based on the needs and capabilities of developing countries. The UN Tax Committee has convened policymakers and experts from developing and developed countries, multilateral organisations and academia, to jointly define the issues and present solutions that are fit for developing countries.
3. Enable transparency stakeholders to engage on green tax reform – in countries and globally. Transparency stakeholders such as civil society organizations are critical to strengthen the social contract, and can play an important role in addressing political and social barriers to green tax reform.
4. Promote new knowledge and tools on green taxes – from a developing country perspective. The WB/IMF-led development of the Carbon Pricing Assessment Tool shows great promise, as does the nascent International Centre for Tax and Development research program on climate and environmental taxes. Tax-benefit micro-simulation models, such as UNU-WIDER's SOUTHMOD or CEQ, could perhaps be adapted or expanded to inform the design of climate taxes and revenue use.
5. Build green taxes into other portfolios. To bridge the gap between climate and finance in Norway's development assistance, TFD could explore connections with Norway's large climate-related development assistance portfolios, such as the climate and forest initiative and the renewable energy program.

Norad can consider launching an initiative for «Fair Green Taxes». The initiative should be comprehensive, seeking to integrate climate and environment, tax, governance, transparency and social protection issues, delivered by a cross-functional team and based on new partnerships. The initiative could build on existing work and partnerships in the TFD program, the work on renewable energy, the climate and forest initiative and relevant multilateral cooperation. Multilateral partners like UN, World Bank, OECD and IMF are natural to consider as implementation partners, but also academia, civil society, private sector and Norwegian government agencies could play important roles in such an initiative.

Annex 1. Norad 's current engagement on green taxes

UN Tax Committee and UNDESA. Multi-year grant agreement to support the secretariat function and the work of the committee, including the UN Tax Sub-Committee on Climate and Environmental taxes. Key activities include publication of a handbook on carbon tax aimed specifically at developing countries, based on extensive engagement with a community of practitioners from developed and developing countries as well as multilateral organizations and academia.

OECD Centre for Tax Policy and Administration. Offer Multi-year grant agreement to co-finance a work program where environmental taxation is one of the workstreams. Key activities should include expansion of the Taxing Energy Use database and report to 15 developing and emerging countries and providing expert assistance to a few countries undergoing reform.

World Bank Group. Multi-year grant agreement to co-finance a multi-donor trust fund. The program has as one of its strategic priorities to increase efforts on climate and environmental taxes. Key activities include development of a tool that government officials can use to price carbon and model the effect of different designs (Carbon Pricing Assessment Tool) and implementation of a project with two phases – in the first phase new knowledge about climate tax is being developed in developing countries and in the second phase (which starts later in 2021) the World Bank will provide expert assistance to countries that implement climate tax.

The regional tax organizations in Africa (ATAF) and Latin America (CIAT) are increasingly working on climate and environmental taxes based on requests from their member countries.

Norad is in the process of signing an agreement with the **International Centre for Tax and Development** (ICTD), a research institute that is particularly good at political economy and tax reform. One of the areas of cooperation is climate and environmental taxes.

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