
A CLIMATE OF FAIRNESS

Environmental Taxation and Tax Justice in Developing Countries



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Executive Summary

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EXECUTIVE SUMMARY

Developing countries are increasingly affected by environmental pollution. Air pollution resulting from fossil fuel combustion for power generation and transport is having an increasingly high impact on life expectancy. Deforestation, soil degradation, air, soil and water pollution, and poor resource management are an obstacle to poverty alleviation. All economic predictions indicate that climate change will hit developing countries hardest.

Environmental taxes can address some of the environmental problems faced by developing countries while encouraging sustainable production and consumption patterns and delivering the financial means necessary to enhance environmental and social indicators. However, environmental taxes may result in both direct and indirect price increases of goods and services, which can have negative impacts on social equity, particularly in poor households.

This report aims to address this potential conflict and to consider the trade-offs and complementarities between environmental taxation and social equity. It analyses the role that environmental taxation has to play in ob-

taining tax justice and considers whether and to what extent environmental taxation can contribute to more progressive and sustainable tax systems and more equitable societies in developing countries.

This report is divided into two chapters. The first chapter examines possible linkages and complementarities between environmental taxation and tax justice, by purporting to explain the policy considerations countries, and particularly developing countries, ought to undertake when introducing environmental taxes. The objective is to provide guidance both from the fiscal and regulatory perspectives, while exploring the potential for environmental taxes to contribute to more progressive and sustainable tax systems and more equitable societies in developing countries.

The second chapter looks at specific examples of environmental taxes in low- and middle-income countries. The objective is to analyse the environmental, social, economic and fiscal impacts of environmental taxes in these countries and to draw conclusions on the compatibility of environmental taxation and the principles of tax justice.

CHAPTER I

ENVIRONMENTAL TAXATION AND TAX JUSTICE IN DEVELOPING COUNTRIES

by Jacqueline Cottrell and Tatiana Falcão

ENVIRONMENTAL TAXATION: DEFINITIONS, INSTRUMENTS, LEGAL PRINCIPLES

The report starts by proposing a definition for environmental taxation whereby an environmental tax would be defined as *any compulsory, unrequited payment to general government imposed for an environmental reason and levied on a tax base that has a proven specific negative impact on the environment*. An environmental tax, for the purposes of this report, is one that is regarded to have both an environmental purpose and effect.

The report thus draws a conceptual distinction between environmental and environmentally related taxes, which are revenue raisers but only bear an indirect environmental purpose. This distinction might appear to be only theoretical in nature, but it is of utmost importance when it comes to monitoring country action in connection with the Paris agreement commitments. The conceptual distinction does not place one type of tax in prominence with respect to the other – it merely highlights the purposes intended by the countries pursuing each of these policies.

In the context of this definition, an inventory of environmental taxes and environmentally related taxes is provided and highlights the kind of policy measures that are currently available to developing countries when it comes to the imposition of taxes that are motivated by environmental concerns.

Furthermore, a number of fiscal approaches to environmental taxation (charges or surcharges, fees, consumption taxes like VATs, subsidies and incentives, prohibition and excise taxes) are considered against the backdrop of the theoretical underpinnings of environmental taxation, which call for the internalisation of external costs and the implementation of the polluter pays principle. The focus in this report will be on taxes, due to their greater potential for domestic revenue mobilisation. Subsidies, incentives and prohibitions are not addressed. Fees and charges tend to be measured against the provision of a public service, and therefore are not generic in nature.

The commitments assumed under international environmental agreements such as the UNFCCC, the Kyoto Protocol and the Paris Agreement underline the high relevance of environmental taxation to the fulfilment of mid and long-term environmental goals with-

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in other action plans such as the Agenda 2030 for Sustainable Development and the Addis Ababa Action Agenda. The requirement for the international community to fulfil these international obligations has created a political momentum for the advancement of environmental taxes and environmentally related policies.

Very few countries are on the right path to get to the required level of taxation by the due date. With the predominance of very low carbon pricing initiatives, and most of them being set at under USD 10 per tonne of carbon dioxide equivalent (CO₂e), further escalation of carbon prices is needed in most countries in order to further stimulate emission reduc-

tion, and achieve the goals set by the Paris Agreement.

Action needs to occur within the context of the existing international legal framework, so that the implemented measures are consistent with the general principles of environmental taxation, the general tax principles and the broader social justice principles¹ which safeguard equitable taxation. The observance of the general principles of environmental law² and tax law³ are particularly relevant to achieve a coordinated approach between countries. Likewise, countries should be aware of the obligations assumed under the context of the World Trade Organisation Agreements.

1 (1) Fairness, (2) equality, (3) equity, (4) tax justice, (5) gender justice.

2 (1) The Polluter Pays Principle, (2) The Precautionary Principle, (3) Common but differentiated responsibilities and

(4) Principle of historic responsibilities (not worthy of pursuit under a domestic environmental tax framework).

3 (1) Price parity across different segments and businesses, (2) Minimisation of regressiveness in the administration of environmental taxes, (3) avoidance of economic and juridical double taxation, (4) gradual introduction of new taxes and predictability when it comes to the readjustment (increase) in taxes.

ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACTS OF ENVIRONMENTAL TAXATION

The impact of environmental taxes on environmental degradation, social equity and the economy, examining trade-offs between them, is further examined. The criteria used are:

- (1) Environmental effectiveness: analysing whether the tax is capable of leading to an overall reduction in pollution and/or result in reduced consumption of energy or other scarce resources.
- (2) Social impacts: including indirect impacts, resulting from changing relative prices, and the potential for regressive impact of the tax.
- (3) Economic and fiscal impacts, including impacts on GDP, international competitiveness, employment, and government revenues.

Evidence that environmental taxes can bring about environmental improvement in developing countries, such as emission reductions, cleaner energy generation, and improved recycling rates is presented. In some cases (like Thailand), it can be shown that even a small difference in the tax rate between more or less polluting substances can be enough to change consumer behaviour. Policy recommendations for tax design (particularly for policymakers from developing countries) are provided. Approaches to minimise trade-offs between environmental impact and social, political or economic considerations are discussed.

The regressive nature of environmental taxes is only one aspect of inequality associated with environmental policy. There are four dimensions of inequality which are further

examined, all of which correlate to a greater or lesser extent to inequality of income: Inequality of (1) exposure to environmental degradation, (2) contributions to pollution, (3) outcomes resulting from environmental taxation, and (4) representation in policymaking. This highlights an important facet of tax justice in view of the objectives of this report. However, equity considerations rarely enter the policy discourse when defining environmental policy approaches, and environmental improvements are seldom taken into account when estimating the social equity impacts of environmental taxation.

The report finds that the greatest concern in developing countries in terms of equity impacts lies with indirect taxes on domestic fuel (electricity, cooking, heating), because substitutions are rarely available and poor households thus often have no alternative aside from paying the tax. There is also a gender dimension to this debate, as the impact of environmental taxes on domestic energy use may have a greater effect on women, who tend to pay for household costs.

The report explores how in countries with relatively unequal income distribution, environmental taxes in the transport sector may in essence act as a luxury tax, affecting high-income households far more than the poor.

The report demonstrates that environmental taxation might have the potential to address inequality resulting from environmental degradation as experienced by different income groups, particularly if social welfare measures are implemented in parallel to address potential negative equity impacts.

Earmarking of environmental tax revenues is examined as a policy approach of particular interest to developing countries, in allocating expenditure for environmental protection. It is contended that in the developing country

context, it may be necessary and beneficial for governments to make political declarations regarding the use of revenues from environmental taxation to communicate policy priorities, boost government credibility, foster political acceptance and prevent policy reversals or the diversion of revenues to less desirable outcomes. In addition, spending a proportion of the environmental tax revenues on green infrastructure, renewable energy and energy efficiency technologies can increase the overall environmental effectiveness of tax measures and lessen the cost of reducing pollution.

The report also examines the competitiveness impacts of taxing environmental externalities, especially with regards to possible negative effects on employment, and looks at a range of potential economic benefits resulting from environmental taxes, including job creation in “green industries” and innovation.

RECOMMENDATIONS FOR POLICYMAKERS

When formulating the legal framework for the introduction of environmental taxes, countries should be sensitive to the difference between applying a tax directly aimed at the pollutant itself, and applying a tax on an element of pollution, or a by-product of pollution. The former will generally harness greater environmental effectiveness than the latter. In this report, we define an environmental tax as one which should have both an environmental purpose and effect, and should not be a simple revenue raiser.

In terms of design, environmental taxes should have the broadest possible coverage with few or no exemptions. If pollutants are taxed at different rates or exempt, policymakers should be aware of unintended, environ-

mentally harmful behavioural responses, like fuel switching. Environmental tax exemptions for business should only apply to sectors exposed to international competition, and be limited in time.

Trade-offs between fiscal (revenue raising) and environmental objectives should be addressed. In the long-term, if environmental taxes are effective, revenues will decline as a result of behavioural change. This is a natural consequence of the application of an environmental tax: The successful application of the tax will most likely lead to a long-term reduction in revenue.

To stabilise revenues in the short-term, governments might find it useful to index the tax rate to inflation or GDP growth or to foresee regular tax increases. A range of possible tax rates can give policymakers flexibility to adjust the tax as necessary.

Governments can mitigate negative equity effects by using environmental tax revenues to improve capacity to implement and target social welfare schemes and pro-poor investment accurately. Governments can overcompensate as an interim solution: If policymakers are ambitious in their implementation of environmental taxation, revenues raised should be sufficient to overcompensate poor households and deliver on other policy goals at the same time. Transformative social welfare policies, or co-benefits policies designed to foster green economy transition, are preferable to unconditional compensation, such as cash transfers.

Identifying which taxes have the potential to be most progressive can be helpful in all developing countries to introduce redistributive taxation, while raising revenues. Due to many developing countries’ capacity constraints, it might be advisable to first target a tax base for which existing effective collec-

tion mechanisms exist. Revenues can subsequently be used to improve fiscal capacity.

Publicising the data may be an important tool to harness popular support for the tax and raise awareness capable of inflicting a change in consumer consumption habits.

In developing countries, fiscal space is limited and environmental policies tend not to be prioritised. In this context, loose symbolic earmarking, or even legal earmarking of a proportion of revenues, can be an important tool to raise awareness of the implementation of the tax, gain popular support, and to ring fence funds for a specific environmental cause. A trust fund supported by environmental tax proceeds can be a useful tool to make sure that at least part of the environmental tax revenues are used for the development of new technologies, or to protect the environment. Independent agencies can be set up to fulfil a similar role. However, countries should be aware of potential domestic limitations to earmarking revenues for a particular purpose, as revenues may not correspond to the cost of addressing the environmental problem they have been earmarked to address.

Countries should reach out to other countries adopting similar taxes to work in a co-ordinated fashion. Cooperation on environmental tax policy will protect countries against loss in competitiveness and may help build a geographic region with heightened environmental protection standards.

ENVIRONMENTAL TAXATION: POTENTIALS AND PROSPECTS

The potential for environmental taxation to address equity issues in developing countries is analysed while highlighting prospects for the future application of environmental taxes. The role of environmental taxes in the

improvement of fiscal governance is also assessed. Because environmental taxes are hard to evade (as they tend to be levied on immobile tax bases), the fiscal governance framework can be bettered by contributing to a framework of improved tax compliance and tax morale.

The problem of stranded nations is also looked at within this context. That is the problem faced by resource-rich developing countries dependent on revenues from fossil fuels. They might face severe financial losses due to divestment in the extractive sector as countries shift onto a low-carbon development path. The report proposes a solution to this problem along the lines of the REDD+ (Reducing Emissions from Deforestation and Degradation) scheme, which would entail developed countries paying developing countries not to extract fossil fuels. A REDD+ type approach could work in tandem with other forms of environmental taxation.

MULTILATERAL APPROACHES

From a multilateral perspective, the role of border tax adjustments is assessed as a possible measure to enable high environmental tax rates or a high carbon price in particular countries or groups of countries, without jeopardising international competitiveness. Border Tax Adjustments work by either taxing an import, so that it is taxed at the same level as the domestically produced product, or reducing the tax on an export, in order not to impose an undue burden on the nationally produced product when it is known that the foreign product is not burdened by a like tax. By grouping countries and creating a framework for them to act collaboratively, this approach also has the potential to create momentum to

enable other countries to join a carbon pricing strategy.

Moreover, the creation of a multilateral, intergovernmental body on environmental taxation under the auspices of the United Nations to address a number of global tax justice issues is further considered to place environmental taxation within a framework of multilateral cooperation. Joint oversight by the UN and the WTO would be required to align the legal framework of carbon tax regulation with international tax competition and trade regulation.

CONCLUSIONS

All countries must commit to more ambitious Greenhouse Gas emission reduction targets. Environmental taxes can help all countries, but particularly developing countries, deliver on the commitments assumed through international environmental agreements and generate a double positive, by bringing about an improved environment while mobilising domestic revenues for the achievement of the SDGs.

In many developing countries increasing the amount of revenues raised through environmental taxation has also the potential to reduce state dependence on aid and debt financing, and to facilitate the mobilisation of domestic resources for public services.

As environmental taxes are harder to evade than e.g. corporate or personal income taxes, they also have the potential to strengthen state accountability, improve tax morale and enhance fiscal governance. In countries with high levels of tax evasion, the benefits of a tax on carbon emissions – aside from any climate or environmental benefits – outweigh the costs, simply as a result of welfare gains resulting from reduced tax evasion.

This chapter has shown that there could be a role for environmental taxation in addressing inequalities, and that tax justice and the implementation of environmental taxation can indeed be compatible in theory and in practice. It calls on policymakers to take steps to bring together the joint agendas of environmental taxation and tax justice to make progress on both agendas and to set the standards under which environmental tax and environmentally related tax mechanisms will be judged for the coming ten years.

It is imperative to get the conceptual frameworks, priorities and standards right, in order to both advise developing countries on the implementation of sound policies, and to assess the extent to which those policies are effective, both from an environmental and social justice perspective. Pollution sees no borders. Let us leave no one behind.

CHAPTER II

ENVIRONMENTAL TAXATION IN PRACTICE

Environmental, Economic and Social Effects of Environmental Taxes in Selected Developing Countries

by Jacqueline Cottrell

Chapter II of the study works through a series of examples of environmental taxation in industrialising countries. For each case, on the basis of available data, it was considered whether or not an environmental tax was a successful policy within the specific policy context of the country in question. As used in Chapter I, the criteria used are: (1) environmental effectiveness, (2) social impacts and (3) economic and fiscal impacts.

The cases examined were chosen to provide a balance between different regions of the global South – Asia, Africa and South America. However, finding good cases underpinned by robust data on the impacts of specific environmental tax measures in low-income countries in particular is quite challenging. The four country cases therefore look at the impacts of environmental taxes in middle-income countries – Vietnam, Morocco, Mexico and China. These country case studies are followed by an analysis of environmental taxes in low-income countries (LICs) and attempts to draw some general conclusions for these countries.

THE ENVIRONMENTAL PROTECTION TAX IN VIETNAM

Vietnam implemented a broad-based package of environmental taxes in the Environmental Protection Tax Law in 2012 (EPT). Tax rates can be relatively easily adjusted within a given tax rate range. The tax is one element within a broader process of greening the Vietnamese economy.

The EPT in Vietnam is often held up as a best practice example of environmental taxation in the context of non-OECD countries, because the tax law is quite comprehensive and covers a wide range of pollutants, and the design of the tax facilitates easy adjustment.

There is some evidence for positive behavioural responses and reduced pollution and emissions as a result of the EPT. It may have had a small negative impact on GDP growth and employment in comparison to a business-as-usual scenario. The EPT also appears to have had a progressive impact on household welfare, with modelling indicating that the richest income quintiles lost a comparatively greater proportion of their income in EPT payments – presumably because a



large proportion of EPT revenues are raised through transport taxes, which tend to be progressive in developing countries. Nonetheless, for households living on or below the poverty line, even a small decrease in household income can impact quality of life and ability to pay for essential goods and services. While there is no data available to indicate the extent of such impacts, the report recommends that policymakers pay more attention to equity impacts when introducing higher tax rates in future and to ensure that targeted social compensation measures are in place.

THE PLASTICS TAX IN MOROCCO

Morocco's National Waste Management Programme (Programme National des Déchets Ménagers, PNDM) included a number of ambitious measures to increased recycling and

improve solid waste management. To achieve the objectives of the programme, the PNDM included in its second phase a new environmental tax on plastics, which came into force in January 2014. Tax revenues are directed to the National Environment Fund (Fond National pour l'Environnement, FNE) and are used to finance activities to promote the recycling and recovery of plastic waste, and to create a formalised waste separation sector. A minimum of 20% of total tax revenues are to be allocated to informal waste collectors, with particular attention paid to gender issues in fund distribution.

The tax has had a positive environmental impact by boosting resource efficiency, as it created an incentive for manufacturers to use recycled plastics as inputs for production. Revenues have been used to increase the number and size of sanitary landfills in the country.

The plastics tax has had positive economic impacts, as it affected imported goods more than domestic products. As a result, the competitiveness of domestic industries in Morocco was not adversely affected. Revenues have been considerably higher than predicted. These revenues have been used to create new Small and Medium Enterprises (SMEs) in the waste sector and bring informal waste-pickers into formalised cooperatives.

Given the low value of many plastics, it is unlikely that the tax had more than a minimal impact on household welfare. Because the tax was introduced as part of a package of measures to bring about improvements in the waste sector, the overall impact of the tax and expenditure of plastics tax revenue has been positive, both environmentally and socially.

CARBON TAXATION IN MEXICO

The carbon tax in Mexico was introduced as part of a range of measures to reduce Greenhouse Gas emissions in Mexico in 2014, which also included fossil fuel subsidy reform and from 2019, the piloting of an emissions trading system. The introduction of the carbon tax and the implementation of subsidy reform were internationally significant, as the Mexican economy had traditionally been reliant on income from oil sales, and because Mexico was one of the first newly industrialised countries to have introduced carbon taxes in the run-up to the UNFCCC COP21 (also known as the 2015 Paris Climate Conference) in Paris.

When the carbon tax was introduced, it was one element within a broad fiscal reform in Mexico, covering personal, corporate, consumption and energy taxes. Tax rates implemented were substantially lower than those originally proposed and natural gas (the main

fuel for power generation) was ultimately zero-rated. Given the unequal income distribution in Mexico, it is likely that the direct impact of the carbon tax on transport fuels was that of a “luxury tax”, affecting high-income households far more than the poorest quintiles. Due to the low tax rate, the carbon tax had a very limited impact on domestic energy prices. Thus, the carbon tax is not likely to have had negative impacts on domestic household income, or to have had a significant negative effect on the poorest households.

The report notes that the effectiveness of the tax could be enhanced by broadening the tax base in future to include natural gas, and by increasing the tax rate. This would also raise additional revenues to compensate poorer households, to create employment, or investments to drive inclusive growth. While the equity impacts of the carbon tax itself appear to have been broadly neutral, fossil fuel subsidy reform may have had a negative impact on social equity and household incomes in early 2017 when the oil price increased and transport fuel prices rose rapidly as a result.

The report concludes that the carbon tax rate was too low to have a significant impact on climate mitigation, or on social equity, at the time of writing. Nonetheless, the tax and associated reform in the energy sector represent an important shift away from subsidising of fossil fuels and towards taxation of their use.

DIFFERENTIATED ELECTRICITY PRICING IN CHINA

In the 2000s, reducing air pollution in general and SO₂ pollution in particular became a matter of political urgency in China. In 2003, the pollution levy was reformed with the objective of improving the effectiveness of the

levy and preferential grid prices for desulphurised electricity were introduced to help fund technological improvements and incentivise the installation of flue gas desulphurisation (FGD) technology. However, these initial steps did not result in SO₂ emissions being effectively reduced, in part because the levy on SO₂ was so low that it was cheaper for enterprises to pay the fee than take action to abate SO₂ emissions.

In China, getting the price right for SO₂ emissions proved crucial. In 2007, preferential grid prices were complemented by the introduction of penalties for electricity production without the application of FGD technology, and the pollution levy on SO₂ emissions was doubled. These taxes made it economical for power stations to install desulphurising technologies and thus reduce SO₂ emissions. The political commitment expressed by the government ensured that emissions targets were taken seriously, both by provincial governments and by the managers of state-owned power producers.

There were no direct social equity impacts resulting from these tax measures, as electricity prices in China are strongly regulated. Hence, the increase in the production cost of electricity due to penalties and the cost of the pollution levy were not passed through to electricity consumers. In economies where prices are regulated, the impact on poorer households of an environmental tax is less of a concern than in economies where energy prices are unregulated and all price changes can be passed through to domestic consumers. Given the strict regulation of electricity prices at government level, there were also no direct impacts on GDP growth due to higher prices.

The report notes although there were no negative social impacts resulting from the

measures, the benefits of subsidies attributable to price regulation in the domestic electricity sector are captured far more by wealthier households than by poorer households. There is therefore potential to enhance social equity and fairness in the country by introducing fairer electricity prices and targeting subsidies or social protection measures to those in need of them.

ENVIRONMENTAL TAXES IN LOW-INCOME COUNTRIES

There is insufficient literature and data available on the impacts of environmental taxation in low-income countries (LICs) to analyse one specific environmental tax instrument as a specific case for this report. The report analyses the impacts of both environmental taxes and environmentally related taxes in LICs, as they tend to implement what is referred to in this report as environmentally related taxes, rather than taxes with an explicit environmental objective. Furthermore, given the lack of research and robust data available, this approach broadens the number of cases available for the analysis.

In the context of limited domestic fiscal capacity in LICs, the report notes that revenues from environmental taxes levied in LICs could be used to facilitate higher levels of spending for the achievement of the Sustainable Development Goals. Currently, LICs collect much lower tax revenues and social insurance contributions than high-income countries (13.4% on average in 27 LICs, compared to 28% in HICs). These low tax-to-GDP ratios severely restrict the capacity of governments to tackle shortfalls in fiscal governance and to invest in measures for poverty reduction, infrastructure, healthcare, education, or green economy transition. Implementing environ-

mental taxes to increase fiscal space could be part of the solution to this problem.

The report examines measures implemented in LICs in East and Southern Africa to highlight the range of environmentally related taxes implemented in LICs. Nearly all countries levy environmentally related fuel taxes on petroleum products and impose vehicle taxes and annual circulation charges, often related to cylinder capacity. Royalties, taxes and fees on natural resource use are common, although they tend to be purely revenue-raising instruments and do not have positive environmental impacts. Fisheries are subject to fiscal measures, whereby a large proportion of fisheries revenue stems from distant water fleets, rather than from domestic fishers. Royalties are levied on timber extraction, and taxes on timber volumes. User fees on electricity and water services are widespread and usually include a lifeline tariff for low-income households or progressive tariffs based on the amount of electricity or water consumed. Finally, some LICs levy wastewater fees targeting pollutant emissions. As in OECD countries, the highest proportion of environmentally related tax revenues in LICs is attributable to transport fuel taxes.

LICs suffer from poor governance, lack of fiscal capacity and the negative impacts of tax competition, tax avoidance, trade mispricing and VAT evasion on the part of multinational enterprises. Environmental taxes may be part of the solution to these challenges, as they are comparatively difficult to evade. In addition, the report suggests that a stronger focus on taxation and domestic revenue mobilisation in LICs may have the potential to contribute to state building processes.

With regards to social impacts, the report contends that transport fuel taxes are often

in effect luxury taxes. Indeed, transport fuel taxes have been shown to be strongly progressive in African and large Asian countries. In LICs, negative impacts on the poor may result from the indirect effects of environmental taxes, when public transport and food prices increase. However, there is evidence that fuel taxes can even be progressive when taking these costs into account. However, as even a small decrease in income can impact poor households' ability to pay for essential goods and services, policymakers must ensure that social compensation measures are in place to protect the vulnerable from price increases.

Definitive statements on the economic and fiscal impacts of environmental taxes in LICs cannot be made. In wealthier countries, there is evidence that environmental taxes have at best a positive impact on GDP growth and at worst, have a less negative impact than other direct and indirect taxes.

CONCLUSIONS

Environmental taxes did not result in price increases of a magnitude that could have had a significant impact on social equity or household income in the countries covered in this report. Many environmental taxes are levied upstream – at the start of the value chain – and as a result, may impact consumer prices to a limited extent. Other taxes examined were levied directly e.g. on the consumption of transport fuels, but due to the low tax rate, also had a limited impact on household income.

In the future, it is reasonable to expect environmental tax rates to be increased in low- and middle-income countries, particularly carbon and energy taxes. Environmentally related taxes, most notably fuel excise duties, have been levied at a higher rate in many countries.

Higher environmental tax rates, even if implemented by means of stepwise increases over time – desirable from a theoretical perspective to compensate for devaluation due to inflation and maintain the dynamic incentive created by the tax – will require policy-makers in low- and middle-income countries to evaluate carefully whether and to what extent targeted compensation measures or improved social welfare are necessary.

Indirect impacts of environmental taxes are particularly difficult to measure. Policy-makers should take care to monitor not only direct impacts but also the pass through effects of price increases on basic commodities. Lack of capacity to target social welfare measures effectively amplifies this concern, as in many low-income and lower-middle-income countries, coverage of social compensation schemes does not exceed 50% of the population.

The second chapter of the report concludes that environmental taxation has considerable potential to contribute enhanced tax justice, if it is well designed and carefully implemented. First, environmental taxation can act as a progressive tax policy that supports people to share in local and global prosperity and access public services and social protections. Second, environmental taxation can contribute to tax justice by shaping the economy so that it acts in the interest of the environment.

Finally, the report highlights the inequality of the outcomes of severe environmental degradation and climate change, both of which are significant obstacles to poverty alleviation. To prevent these significant negative impacts on equity and achieve climate justice, all countries must step up and commit to more ambitious GHG emissions reductions. The most cost-effective and thus politically feasible way of achieving these emissions reductions is the introduction of a carbon price, alongside additional measures to facilitate the transition to a low-carbon economy.

Ultimately, the predicted outcome of the climate crisis is just one of several dimensions of inequality in environmental policy examined in the report. The report highlights the potential role of environmental taxation in addressing some of these dimensions – by implementing the polluter pays principle, by reducing negative environmental impacts, and by ensuring equality of policy outcomes by designing compensation in a way which protects the vulnerable from price increases. Thus, the report concludes by emphasising the ways in which the vision and objectives of the tax justice movement for more progressive and more sustainable taxation can be compatible with the implementation of environmental taxation.



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