CARBON PRICING LEADERSHIP COALITION

Executive Brief

Distributional impacts of carbon pricing on households

KEY MESSAGES

- Carbon Pricing Instruments (CPIs) can have ***positive and negative socio-economic impacts*** on societies.
- The ***extent of impacts varies*** across households, sections of societies and regions. It also depends on the level of policy ambition, design of the CPI, and local context. Well designed and carefully implemented climate change mitigation policies (including CPIs) have the potential to ***reduce poverty*** and provide opportunities to ***address gender, health and economic inequalities.***
- CPIs are ***more progressive in developing countries, where lower income groups have limited access to fossil fuels, compared to developed countries.***
- In countries where lower income groups use fossil fuel-based energies, the ***risk of negative impacts is greater when there are high levels of existing poverty and inequalities*** and when no action is taken to mitigate potentially adverse side-effects.
- Possible negative distributional impacts of carbon pricing can be mitigated by ***adapting the design of the policy and using a portion of the carbon revenues*** to offset detrimental effects.
- Efforts to minimize distributional impacts ***should not undermine the ultimate objective of reducing emissions.***

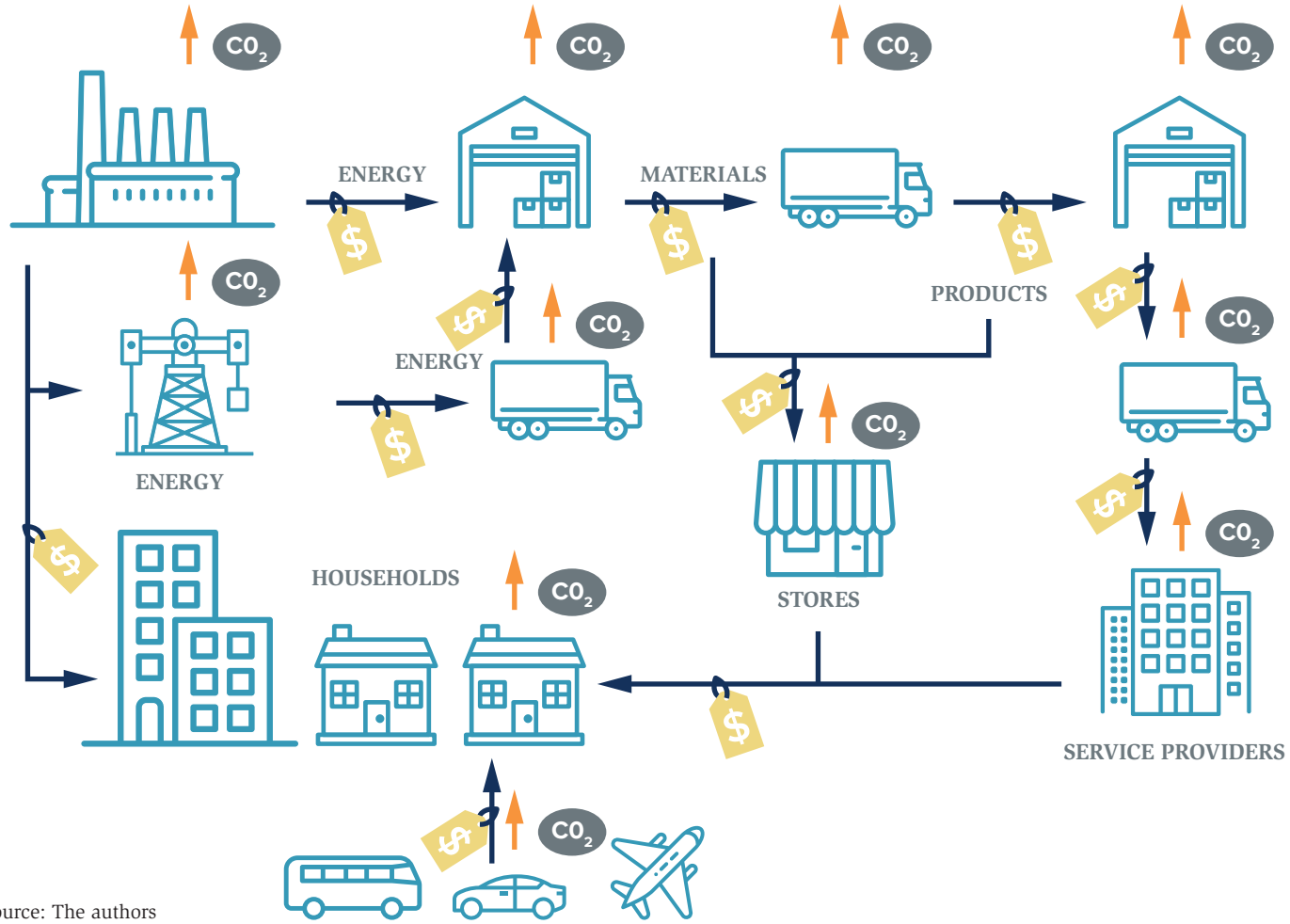
1. INTRODUCTION

Carbon pricing policies that are aligned with the Paris Agreement objectives will have positive and negative socio-economic impacts on society.

Impacts of unabated climate change are expected to disrupt economic development and disproportionally affect the poorest parts of the population, especially in lower-income countries.[1] In response, through the Paris Agreement, the international community pledged to limit global warming to well below 2 degrees Celsius above pre-industrial levels.[2]

Carbon pricing has been highlighted as a crucial prerequisite for effective climate change mitigation.[3] Carbon pricing is essentially a payment required to emit one ton of CO_2 into the atmosphere. This makes production or consumption of carbon-intensive goods and services more expensive. While carbon pricing policies aim to shift behavior towards low-carbon alternatives, they can also result in unintended distributional effects for households, especially when lower-cost alternatives are not available. The negative distributional impacts can be offset through specific policy design choices, but efforts to do so should not undermine the goal of incentivizing emissions reduction. Figure 1 shows different routes through which carbon pricing can affect households, depending on CPI coverage.

Figure 1: Carbon costs incurred at various parts of the supply chain – depending on which sectors and activities are subject to a CPI - can be passed on to downstream stakeholders through price increases on energy, materials, products and services. The width of the lines indicates their relative importance.



Source: The authors

Climate change policies lead to socio-economic impacts on different groups in society. These impacts can be both positive and negative. The perceived fairness of how these costs and benefits are distributed over different countries, sectors, businesses, and households will affect the acceptability and effectiveness of proposed measures. Mitigating adverse social and economic impacts can help increase acceptability and scale-up levels of ambition.[4]

To date, there has been considerable attention on limiting the negative impacts of CPIs on businesses. This briefing paper focuses on potential distributional impacts of carbon pricing on households and individuals and how CPIs can be designed to maximize positive outcomes, especially for low-income households. It builds on insights from extensive discussions on the cost and distributional impacts of environmental tax and fossil fuel subsidy reforms.

Through this paper, we aim to describe the mechanisms through which distributional impacts from CPIs may occur:

- Through which routes can carbon pricing impact households?
- What factors determine the extent of the social and economic impacts on households?
- How are these impacts distributed across different types of households?

Subsequently, we assess to what extent CPIs impact low-income households and how to maximize benefits through smart CPI design. The lessons learned outline how to further the use of CPIs in climate policy and increase ambition levels.

2. HOW DO DISTRIBUTIONAL IMPACTS OCCUR?

2.1 FROM CARBON PRICE TO HOUSEHOLD IMPACTS

The socio-economic impacts, which may be distributed unequally across society,[5] (see Box 1 for definitions[6]) of carbon pricing are categorized as follows:

- *Direct impacts* of increased taxes, i.e. higher prices for carbon-intensive goods and services;
- *Impacts of revenue recycling,* e.g. direct financial transfers or alleviation of taxes;
- *Broader economic impacts* of the price increase, e.g. employment or inflation; and
- *Environmental effects* of the price increase, e.g. a cleaner environment.

Of these impacts, all but the second will also occur as a result of cost increases caused by other (non-CPI) policy instruments. The generation of revenues is specific to CPIs (and fossil fuel subsidy reform), providing an opportunity to combine environmental efficiency with reduced inequality. Fossil fuel subsidy reforms and carbon pricing could result in $2.8 trillion in annual global revenues by 2030.[7]

Also, there can be indirect distributional effects due to impacts from emission reduction measures taken in response to the introduced carbon price. Examples include a shift to low-carbon transport modes, increased use of biomass and alternative energies or lower energy consumption through energy efficiency measures.

2.2 WHAT DETERMINES ECONOMIC AND SOCIAL IMPACTS?

A carbon price will lead to an increase in costs in the short run, either directly or indirectly, due to the costs of implementing mitigation measures in response to the carbon price.

The magnitude of the increase in costs and the distribution of costs across the economy and society depend on the following:

- *Sectoral and spatial distribution of costs*

  If certain energy or emission sources are more strongly affected than others, there can be a stronger impact on specific sectors. Furthermore, if these sources are geographically concentrated, there can also be strong regional impacts (e.g. affecting regions with large mining sectors).

- *To what extent are costs passed through?*

  Whether the costs are passed through to consumer prices

Box 1: Definition of impacts[6]

Economic impacts relate to income and wealth of individuals (including changes in disposable income) and society as well as value creation and profitability for companies and the economy as a whole (including changes in production or investment trends, trade, competitiveness, and employment), which in turn can impact individual incomes.

Social impacts relate to impacts on individuals and society, including the effects on communities, such as cohesion, people's way of life, the lining environment, gender, health and wellbeing, and personal fears and sense of security. This is also affected by the economic impacts mentioned above, such as employment and disposable income.

Distributional impacts relate to the extent to which there are differences in the social and economic impacts of interventions across different groups in society, such as on households with different levels of income, different companies and sectors and their respective employees as well as impacts on the inhabitants of different geographical locations.

or other companies will determine who is impacted and to what extent. Companies will need to consider whether they want to protect their profitability by passing on incurred costs to final consumers, potentially at the expense of losing market share.

- *To what extent – and how – are compensation or protection measures taken?*

  Protection measures can be implemented to avoid incurring costs, such as through free allocation in emissions trading or exemptions in carbon taxation. Capping energy prices for consumers can also prevent costs from being passed on to them. However, any measures to reduce the impact on prices will also reduce the environmental effectiveness of the policy. Alternatively, compensation measures can be taken to limit negative impacts, for example by reducing other taxes, or supporting initiatives to reduce energy bills through energy conservation.

2.3 WHAT DETERMINES DISTRIBUTIONAL IMPACTS?

The national context and policy priorities determine what impacts are considered more important. For example, in developed countries, the focus has been more on employment and wealth and only recently on energy affordability. In developing and emerging economies, the focus is more often on energy access and poverty.

For households, increasing energy prices impact disposable income differently for different income levels. This is caused by higher costs of fossil energy consumed for cooking, heating, lighting, and private transport and higher prices for other goods and services consumed by households. The magnitude of these impacts will depend on their relative shares in total household consumption, the energy sources used and the carbon intensity of other goods and services. These shares also depend on location. For example, rural households often spend a larger share of their income on heating and transport.

At a macroeconomic level, increasing energy prices may affect wages, employment, ownership and return on financial investments. This may have distributional effects. For example, lower-income groups depend more heavily on wages for their income. Additionally, the type of employment affected by CPIs may be concentrated in specific income groups. The effects of reduced income can be distributed differently across income groups than those of increased energy prices. Therefore, both aspects (income and prices) need to be considered to assess the impact of CPIs on households.

For fossil-fuel dependent communities, a transition to a low-carbon economy, which a carbon price incentivizes, could lead to transition-related job losses and tax revenue losses. For example, in some communities in the United States, a significant amount of revenue used to pay for public priorities such as schools and repaying debt comes via taxes on the coal industry.[8] A transition away from coal, due to climate policies or market forces, could eliminate jobs. In this specific case, this is exacerbated by a loss of coal tax revenue used to pay for these public priorities. These challenges emphasize the importance of a just transition away from fossil fuels for communities currently dependent on these sources of energy.

Apart from the differential effects of CPIs across groups, there needs to be a focus on the absolute impact on the lowest income groups. In developing countries, the lowest income households may not have access to electricity or may not be able to afford commercial forms of energy. Increased prices may not affect their disposable income, but it will prevent them from 'climbing the energy ladder'[9] or expanding their energy mix.

The reduction in adverse environmental impacts due to CPIs can also have positive distributional impacts. This is because the consequences for indoor air quality, local air pollution, and occupational health and safety depend on fuel use, type of employment and location (rural vs urban, low-cost housing near polluting industries).

3. WHAT ARE THE DISTRIBUTIONAL IMPACTS OF CPIS ON HOUSEHOLDS?[10]

Well designed and carefully implemented climate change mitigation policies (including carbon pricing) have the potential to generate social and economic co-benefits that can reduce poverty and provide opportunities to address gender, health and economic inequalities. The risk of negative distributional outcomes because of CPIs is greater when low income groups use fossil-based energy, there are existing high levels of poverty and inequalities, and when no action is taken to mitigate potentially adverse carbon pricing side-effects. However, in lower-income countries

where the poor have no or limited access to electricity and fossil fuels, carbon pricing can have progressive outcomes.

Low Income Households Versus High Income Households

In countries where all income groups use fossil fuels and/or fossil fuel-based electricity, policies that increase the cost of energy generally have a negative impact, disproportionately affecting lower income households. These low-income households tend to spend a larger proportion of their income on energy for cooking and heating, which have fewer (affordable) options for substitution. Transport fuels have a somewhat different position here, as their use is typically the highest, relatively, in medium-income level households. Policies that increase the cost of energy also have a disproportionately negative impact on the elderly, the disabled, and the sick. Such households (in colder climate zones) require greater than average warmth and are more strongly affected by higher energy prices than others.

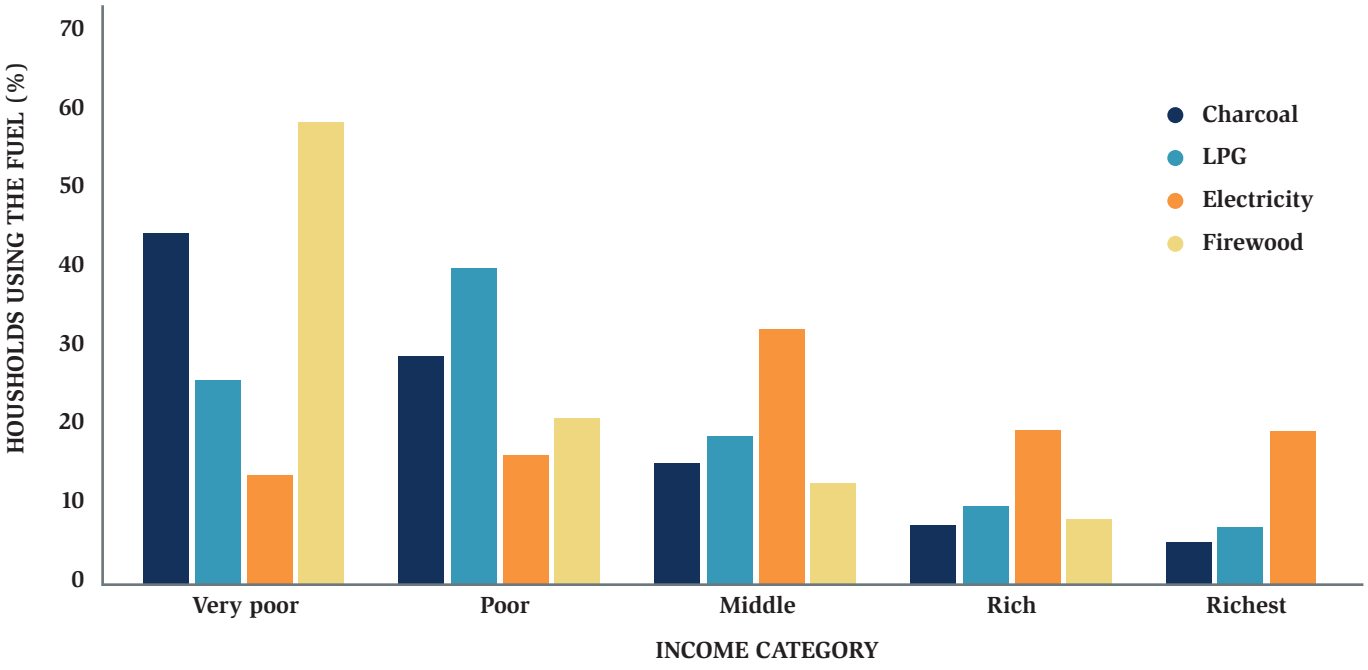
A series of studies from the Tax Policy Center on the US found that a carbon tax can have regressive outcomes in higher-income countries—it imposes moderately higher burdens as a share of income on lower-income households than on higher-income households (in absence of compensation measures). However, a new paper from the same organization found that combining a carbon tax with tax rebates could result in a net-benefit for low-income households.[11]

Additionally, impacts may vary among low-income groups across countries. For example, the distributional impact of carbon pricing on fuels depends on the consumption of different types of fuels across income groups, which can vary significantly across countries. In China,[12] the poorest spend a larger share of income on coal-based electricity while the wealthy spend more on heating and fuel. In Ghana, the poorest spend a larger share of their income on kerosene compared to gasoline, diesel, or liquefied petroleum gas[13] (LPG), and their main energy sources are firewood and charcoal (See Figure 2).

Developed Countries Versus Developing Countries

In lower-income countries, some evidence points to a relatively progressive carbon tax burden. A recent methodologically consistent study comparing distributional effects of carbon pricing across low- and middle-income countries[14] covering energy as well as high-energy-content goods and services suggests higher-income countries largely observe negative impacts of an economy-wide CO2 price. The impacts across developing and middle-income economies, however,

Figure 2: Type of fuel use by income category in Ghana[15]



depend on average per capita income level. In lower-income countries (average annual PPP-adjusted per capita income below USD 15,000), the direct effect of carbon pricing would be progressive: lower-income groups are less negatively affected than the national average (see Figure 3). Above this threshold the effect would be regressive, with lower-income groups more negatively affected than the national average. These distributional outcomes are primarily determined by differences in consumption patterns of fuels and electricity, less of services.

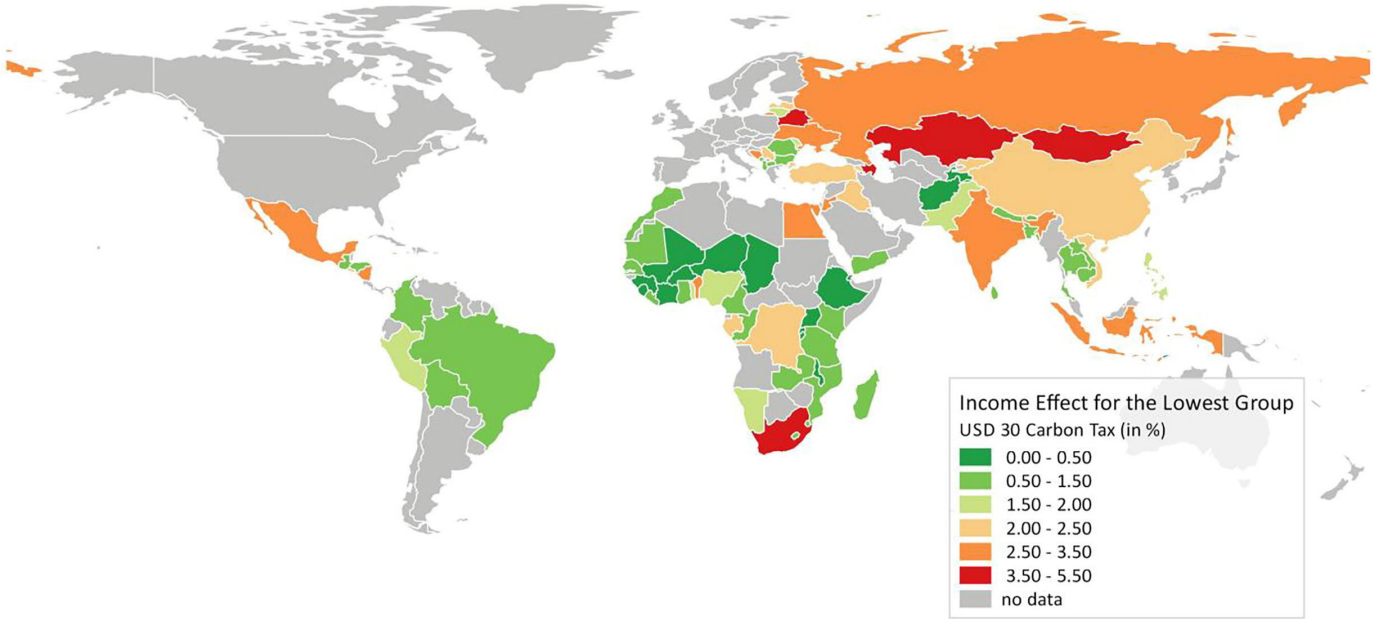
Figure 3 shows the estimated effect of a $30/t carbon price on the lowest income group in each of the countries studied, relative to the national average, indicating a progressive effect in many cases. The lowest income group does in all cases suffer income losses, though. In most of the countries, the lowest group would lose less than 2.5% of their income, but effects range from less than 0.2% (Ethiopia) to up to 5.5% (Belarus). The poorest in middle-income economies suffer larger impacts than those in lower-income countries (Belarus, Kazakhstan, Mongolia, South Africa, and Azerbaijan). While the analysis focused on a carbon tax, the results and conclusions are also valid for CPIs more broadly.

In developed countries, energy and carbon taxes tend to have moderately negative impacts in most countries, with stronger negative effects in some cases (e.g. the UK). In Canada, for example, assuming a carbon price of $30/t, the carbon cost as a share of household income would range from 0.3-2.1%, with the lowest income groups at the high end of the range.[16] As a developed country, Canada experiences limited differences in impacts between urban and rural groups. However, there are considerable differences between provinces, due to their different carbon intensities. When tax revenues are redistributed, the effect of a carbon price (as a form of environmental tax reform) is usually nearly neutralised.[17] Furthermore, on the benefits side, a switch to less carbon-intensive vehicles can decrease air pollution. This could happen, for instance, by imposing a carbon tax on fuel. The reduction in air pollution can reduce existing health inequalities, especially in heavily polluted large cities. The greatest air quality benefits will accrue primarily to lower-income households who are most likely to live in locations affected by poor air quality from road transport.

4. LIMITING IMPACTS FROM CPIS ON LOW-INCOME HOUSEHOLDS

The negative impacts of carbon pricing can be mitigated by adapting the design of the carbon pricing policy and using carbon revenues to offset detrimental impacts arising from the policy.

Figure 3 Estimated effect of a carbon tax of $30/t on the lowest income group relative to the national average (values smaller or greater than unity indicate progressive or regressive respectively distributional outcomes.[18]



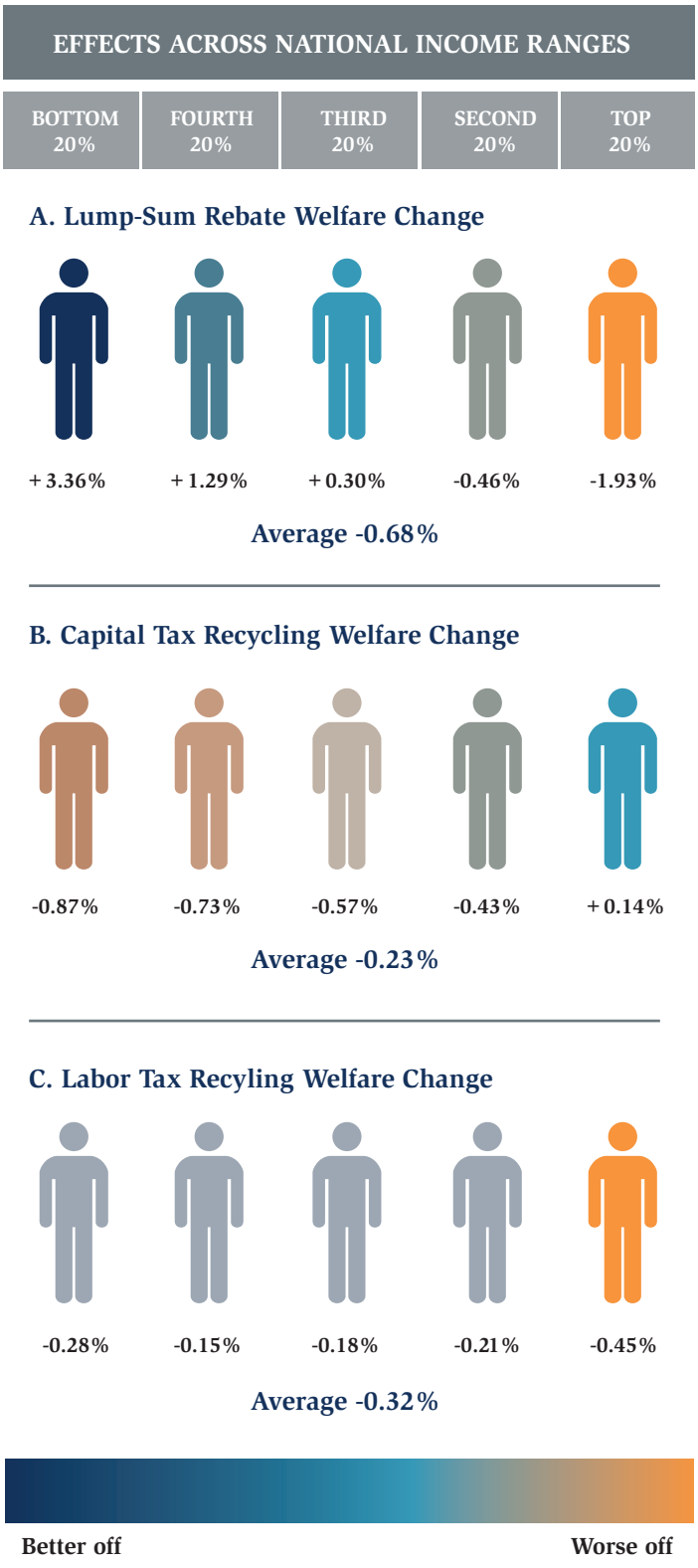
Any regressive effects of carbon pricing can be mitigated using tax or benefits systems to compensate groups who have been made worse off. The Urban-Brookings Tax Policy Center concludes that "an overall carbon tax policy can be progressive, regressive, or neither, depending on how the revenue is used"[19].The analysis of a potential federal US carbon tax shows the carbon tax to be moderately regressive when revenue is used to reduce the deficit, strongly regressive if used for the reduction of the corporate income tax, progressive if used for lump-sum rebates and 'U-shaped' when used to reduce employee payroll taxes (lower taxes for upper middle-incomes, higher taxes for low-income and highest-income categories).

Compensatory measures can be introduced directly as part of a green tax regime. This can be done through direct lumpsum transfers, or indirectly, reducing other types of taxation. Specific suggestions for revenue recycling measures include reducing employer taxes in low-paying carbon-intensive sectors, raising incomes of vulnerable groups via reduced social security payments or income tax reductions, and lower value-added tax (VAT) rates for products serving basic needs. Figure 4 shows an example of how different income groups are affected by a carbon price (in this case a carbon tax) depending on how the revenues are recycled.[20] Generally speaking, negative impacts can be significantly reduced, and poorer households may receive a net benefit, using only a moderate share of the generated revenues.[21]

Other options for mitigating the negative impact of carbon/energy pricing on low-income groups include (i) exempting energy uses that are characteristic of low-income households (such as exemptions for night storage heaters), (ii) linking carbon prices to the amount of energy consumed, (iii) higher carbon prices on energy uses characteristic of wealthier households (such as aviation), and (iv) subsidies to help improve energy efficiency in lower-income households.

When policies reduce essential household expenditure or improve opportunities for economic participation among poorer households, regions or countries, there is a reduction in economic inequality. Benefits can occur because of different types of policies, such as new opportunities for income generation in deprived areas through participation in forest carbon markets, improved access to electricity, better public sector transport connectivity and strategic location of large-scale renewable energy production in areas with limited employment opportunities. This would, in turn, require better monitoring of such impacts and increased

Figure 4 Example of how a carbon tax can impact different income groups depending on how revenues are recycled.[20]



transparency. The extent to which this is done currently varies across countries and instruments.

The transition to a low-carbon economy will create new jobs in the public transport sector, through the retrofitting of existing buildings, and in the development and production of energy-efficient technologies.[22] In developing countries, many of these new jobs are likely to be more secure and better paid than previous employment opportunities in the 'grey' economy. **Several opportunities that use carbon payments can be tapped into to lift populations out of poverty.** For example, women can take an active role in low carbon projects and earn an income from these or other associated projects.

Design of the European Emissions Trading System (EU ETS) to limit negative distributional impacts on households

Extensive impact assessments of macro-economic, micro-economic, socio-economic and social impacts fed into the design of the EU ETS.[23] This includes impacts on household energy prices and employment. As a result, the EU ETS has several provisions to limit negative distributional impacts on both companies and, through them, households. Free allocation is an important element of limiting such impacts. While, as of 2013, auctioning of emission allowances is the default allocation approach, a considerable part of industry is still eligible for 'transitional' free allocation because they are considered to be 'vulnerable to a significant risk of carbon leakage'.[24] Electricity companies in selected lower-income countries can also (temporarily) receive free allowances under Article 10c of the EU ETS Directive if an equivalent value is invested in the "modernisation, diversification and sustainable transformation" of the energy sector.[25]

In addition to the free allocation provisions, the EU ETS uses auctioning revenues to limit the negative distributional impacts of the system. Of the total auctioning revenues (€15.8 billion) across the EU ETS between 2013-2016, 10 billion was redistributed to lower GDP/capita Member States. There is also a centrally managed Modernisation Fund and a requirement that at least 50% of each Member State's auctioning revenues are spent on one or more of a range of mitigation and adaptation measures, RD&D, or financial support measures to address socio-economic and social impacts. The Modernisation Fund, amongst others, is intended to facilitate a "just transition in carbon-dependent regions". This will take place in ten lower-income Member States and include "support for redeployment, re-skilling, and up-skilling of workers, education, job-seeking initiatives, and start-ups". Member States' spending of auction revenues includes financial support for lower- and middle-income households and promoting "skill formation and reallocation of labor in order to contribute to a just transition to a low carbon economy, in particular in regions most affected by the transition of jobs".[26]

So far, there is limited ex-post evidence of negative distributional effects due to the EU ETS. Pass-through of carbon costs was shown to occur in several industrial sectors.[27] Ex-post, empirical evidence of carbon leakage occurring is limited.[28] A recent empirical analysis suggests that while the EU ETS has resulted in a 10% reduction in emissions, revenues and assets of regulated companies increased by 8-16% with a small positive effect on employment.[29] While end-user energy prices have increased over recent years, this is largely unrelated to the implementation of the EU ETS and the allowance allocation methodology used.[30]

The use of auctioning revenues in the US Regional Greenhouse Gas Initiative (RGGI) to reduce energy bills

In the Northeastern United States, RGGI is a mandatory emissions trading system for CO2 emissions from fossil-fuelled power plants with a capacity larger than 25 megawatts. The program covers the US states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont (New Jersey

will join in 2020). Approximately 90% of allowances are distributed through quarterly regional auctions,[31] generating proceeds for reinvestment at the discretion of the individual states. Investments fall into 4 main categories:[32]

- Direct bill assistance (14% of cumulative investments up to 2016), resulting in $49 million in bill credits and assistance to consumers in 2016.
- Energy efficiency measures (58%), expected to result in $823 million in lifetime energy bill savings to over 176,000 participating households and 2,430 businesses from measures implemented in 2016 alone.
- Clean and renewable energy technologies (14%), expected to result in $465 million in lifetime energy bill savings to 3,182 participating households and 91 businesses from measures implemented in 2016.
- Other greenhouse gas abatement measures (8%), including clean transport initiatives and electric vehicle programs.

Over the years, the share of coal in regional electricity generation has decreased while the shares of natural gas and renewable sources have increased.[33] However, it is not clear to what extent this is caused by RGGI investments and/or other trends. In 2010, the New York State Energy Research and Development Authority (NYSERDA) found that "the emission allowance price accounted for approximately 3% of the change in the price difference between natural gas and coal in the RGGI region between 2005 and 2009".[34] Since RGGI's introduction, electricity prices within RGGI states decreased by 6.4% and increased in non-RGGI states by 6%.[35, 36]

The program is also estimated to have created 30,000 job-years between 2009 and 2014[37] and retrained 317 employees in 2016. RGGI revenue funds the activities of various state agencies that have the explicit objective to combine clean energy sector development and job creation. This includes NYSERDA, MEA (the Maryland Energy Administration) and MassCEC, the Massachusetts Clean Energy Center.

Designing a carbon tax in South Africa with limited negative impacts on the poor

In South Africa, the carbon tax came into effect in June 2019, with the aim of helping to reduce emissions and restructure the economy to be less carbon-intensive. The first phase will run from 1 June 2019 to 31 December 2022, and the second phase from 2023 to 2030.[38] The initial tax rate is pegged at R120/t CO2, but different allowances will effectively make it R6-48/t to start with, low by international standards. These discounts will apply to the first phase with the second phase kicking off in 2023. The National Treasury has highlighted that the low rates will allow "significant emitters time to transition their operations to cleaner technologies through investments in energy efficiency, renewables and other low carbon measures".[39] The carbon tax will limit economic impacts on affected sectors and their employers and consumers. This will be implemented through a 60% basic tax-free allowance across sectors, additional free allowances for trade-exposed industries and well-performing companies, and the use of offsets to reduce firms' carbon tax liability.

Deloitte South Africa has stated that "the current carbon tax rate of R120/t is likely to increase the price of petrol by 22.8cts/l and diesel by 28.6cts/l".[40] Electricity will be less affected, as measures are in place to ensure that electricity prices are only affected by the carbon tax to a limited extent. This includes a tax credit for the renewable energy premium that is incorporated into the electricity tariffs and a credit for the existing electricity generation levy.

The carbon tax in its current form would reduce inequality slightly, and this impact could be enhanced if revenues are recycled through direct transfers to poorer households.[41] While details of the policy are still unclear, the carbon tax plan aims to be revenue-neutral for the first five years with revenues to be used in part to support vulnerable households.

Limiting distributional impacts of price increases through fossil fuel subsidy reform in Iran

The Targeted Subsidies Reform Act was ratified by parliament in 2010, mandating an increase of energy prices over a 5-year period. Retail prices of oil-derived fuels (petrol, diesel, fuel oil, kerosene, and LPG) would increase to at least 90% of "the prevailing prices in the Gulf area", with natural gas prices increasing to at least 75% of "average export prices" Electricity prices were to increase to cover full costs. This was estimated to result in US$10-20 billion of revenues from the price increases in the first year.[42]

The law states that energy users should be compensated for higher prices by redistributing up to 50% of the revenues of the reform "to the population in the form of:

- In-cash and in-kind payments according to each family's level of income;
- Social security, including the introduction of national health insurance, job creation, and house mortgage loans."[42]

30% of the revenues was to reduce negative impacts on industries = (subsidised loans for energy-saving technologies, credit to deal with cash-flow issues due to increased energy costs), while 20% covered increased government costs and infrastructure spending. Later changes in the law mandated 80% of payments to go to households and 20% to industry.

In the initial years of implementation, the law succeeded in reducing inequality and poverty. However, international sanctions, inflation and revisions of the law (extending the number of recipients) led to much higher than anticipated expenditures and government deficits. This has necessitated a cut-back of the payments which may have reversed some of the equity gains.[43] Recommendations for improving the policy include more targeted payments and replacing payments with in-kind cost mitigation measures.

5. LESSONS LEARNED

Climate policies, including carbon pricing, can have both positive and negative distributional impacts, the extent of which depends on policy design and implementation choices, as well as contextual background.

Unmitigated increases in the price of consumer goods and services from carbon pricing policies can affect the poorest and most vulnerable members of society the most when they have access to and use fossil fuel-based energy. This is because they rely more heavily on public transport for their mobility needs, tend to spend a larger proportion of income on energy services (e.g. space and water heating, electricity, fuel), and lack options for substitution with cheaper alternatives. However, mitigating strategies such as subsidies, exemptions and various types of revenue recycling mechanisms can be effectively utilized to minimize such adverse economic outcomes and improve quality of life. Significant revenue can be generated by CPIs and distributional impacts can be addressed by using relatively modest portions of the revenue.

While a transition to a low carbon economy will result in new jobs, it may also be accompanied by transition-related job losses in some carbon-intensive sectors. This could come with adverse socioeconomic impacts including unemployment, loss of income, and social unrest, potentially exacerbating wealth disparities and access to economic opportunities between regions and countries.

For carbon pricing instruments in developed and developing countries, empirical evidence of negative distributional impacts at the country and business level is limited, and no significant negative impact on employment seems to have occurred. It is unclear, though, whether this is due to relatively low carbon pricing levels, the short period of time over which instruments have been in place, the design features chosen (free allocation, exemptions, recycling of revenues), or because it is less of an issue than anticipated.

Policy design choices that minimize negative or maximize positive distributional impacts should not undermine the intended carbon price effects. The smart design of carbon pricing policies will provide tangible benefits to a range

of stakeholders and targeted use of the resulting revenue can substantially benefit low-income households. This will help reduce public resistance to mitigation actions, and as a result, help reduce resistance among policymakers and politicians to develop and/or scale up the scope and ambition of climate policies. In this context, it is critical to have a clear understanding and communication of the potential impacts and the measures being taken to limit negative effects. This also suggests better monitoring of the impact of CPIs and increased transparency of revenue spending is needed. The extent to which this is done currently varies significantly across countries and instruments.

MORE INFORMATION

Context: The Carbon Pricing Leadership Coalition (CPLC) is a voluntary partnership of governments, businesses, and civil society organizations working together to identify and address the key challenges to the successful use of carbon pricing to combat climate change. This Briefing Note was developed by Climate Strategies. It was authored by Dian Phylipsen, Annela Anger-Kraavi, and Chipo Mukonza. The Authors are grateful to Michael Grubb, Andrzej Błachowicz, Suneira Rana, Joseph Pryor, Daniel Besley, and Tom Erb for their input and guidance.

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