SOUTHMOD

Policy Note

Assessing the impact of fuel subsidies on the poor and vulnerable

Mbewe Kalikeka, Ikabongo Mwiya, Jones Bowa, Esther Chilala, and Emmanuel Musonda

November 2025

UNU WIDER

ZIPAR
Zambia Institute for Policy Analysis & Research

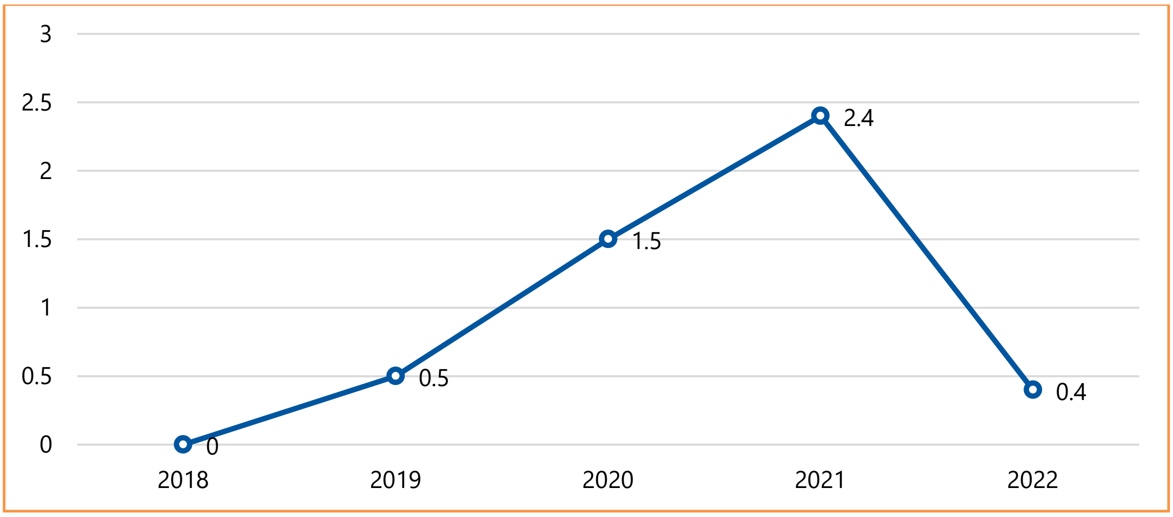
Findings

- Fuel and energy subsidies in Zambia required a budget of 2.4% of GDP to maintain at their peak
- These subsidies were regressive, disproportionately benefiting wealthier households
- Despite high fiscal costs, subsidies did not meaningfully reduce extreme poverty or inequality with rates remaining at 48.3 (% of population) and 50.5 (Gini)
- Replacing subsidies with an increased Social Cash Transfer (SCT) amount, from ZMW 200 to ZMW 400, reduced the poverty rate by 1.5 percentage points and improved equity, with the strongest gains for single-parent and single-person households

The rationale to abolish fuel subsidies

In 2022, Zambia abolished fuel and energy subsidies, announcing the move would ease fiscal pressures. The move was a part of a broader set of economic reforms carried out by a government confronting a deepening budget deficit, one that grew from 1.8% of GDP in 2010 to 14.5% of GDP in 2020. Subsidy spending had risen sharply from 0.1% of GDP in 2018 to 2.4% in 2021, before declining to 0.4% in 2022, as seen in Figure 1.

Figure 1: Spending on Electricity and Fuel Subsidies, % of GDP



Source: IMF Fiscal Monitors.
Notes: Disaggregated expenditure on fuel subsidies was not available.

Before they were scrapped, Zambia's fuel subsidies were an explicit consumer price subsidy, in which the government bridged the gap between the international cost of fuel and a regulated domestic pump price. Simplified, the government paid part of a consumer's fuel bill when international prices rose above the domestic threshold. In addition to subsidising the price of fuel, the policy also exempted fuel sales from value-added tax (VAT) and excise duties.

While removing fuel and energy subsidies was not without economic justification, for instance the imperative to redirect resources towards pro-poor interventions such as the enhanced SCT and related social protection programmes, the policy was unpopular across socioeconomic groups. The removal of subsidies has had a direct impact on fuel prices and indirect ripple effects on other products that use fuel as an input. While not all companies pass on increased input prices, consumers were aware that the policy could increase price levels.

In this policy note, we examine the direct effects of the change in fuel subsidy policy on government revenue and its distributional consequences on household wellbeing. For this analysis, we do not consider indirect price increases. This is important because our estimates might be considered a lower-bound of the benefits, especially for poor households that do not consume fuel directly. We compare these impacts to those of the 2024 SCT benefit increase to better gauge the overall distributional and fiscal effects of the two policy changes taken together.

Our results highlight the need for well-targeted compensatory measures to protect the most vulnerable from policy changes, while preserving the budgetary gains achieved through them.

Methodology

This analysis uses the tax-benefit microsimulation model MicroZAMOD, within the harmonised SOUTHMOD v. A 3.0 framework, which is underpinned by the 2022 Living Conditions Monitoring Survey (LCMS) together with the inclusion of annual policy reforms on social protection and taxation. The LCMS provides a nationally representative picture of household incomes, consumption, and socio-economic characteristics. The model allows us to assess the distributional impacts of fuel subsidies.

The assessment was carried out by simulating three scenarios. The results from these three scenarios are then used to provide evidence on the relative effectiveness of fuel subsidies versus targeted social protection in reducing poverty and inequality.

2022 baseline scenario without fuel subsidies

This scenario reflects the tax-benefit system that was in place in 2022, reflected in the baseline 2022 system in MicroZAMOD. There are no fuel subsidies in this scenario.

2022 scenario with fuel subsidies

Within the MicroZAMOD framework, we simulate the situation with the fuel subsidies in place, as they were before 2022. This entails, (1) exempting all households from paying VAT and excise duty on fuel purchases, as announced by the authorities in 2021, and (2) calculating the value of the fuel subsidy. This is done by calculating the difference in expenditure on fuels multiplied by households' fuel usage in 2022. We approximate the value of the subsidy per litre of fuel through the difference between the international price in 2022 and the last regulated domestic pump price in December 2021, as per the Energy Regulation Board (ERB) annual economic reports.

The fuel subsidy reduces government revenue and increases government spending

In our first simulation, we observe that a reintroduction of the fuel subsidy for 2022 results in a reduction of government revenue in the form of less indirect tax collection, from ZMW 6.3 billion to ZMW 6.1 billion, a reduction of ZMW 233 million (Table 1). The decrease in revenue is primarily due to the suspension of VAT on fuel sales, which is standard-rated at 16% on fuel purchases by consumers.

Table 1: Total revenue and expenditure (yearly, mill. national currency), with and without fuel subsidy

	2022 Baseline: without Subsidy	2022 Scenario: with Subsidy	Difference
Sum of government revenue	**22,505.70**	**22,272.72**	**-232.97**
o/w Direct taxes	12,748.11	12,748.11	0.00
Indirect taxes	6,340.80	6,107.83	-232.97
Sum of government expenditure	**9,041.84**	**9,230.09**	**188.25**
o/w Cash benefits	8,051.39	8,051.39	0.00
In-kind benefits	990.45	990.45	0.00
Indirect subsidies	0.00	188.25	188.25

Source: MicroZAMOD Outputs.

In terms of expenditure, the government spends ZMW 188.3 million more on the subsidy, pushing total expenditure from ZMW 9.0 billion to ZMW 9.2 billion. According to the simulation, total expenditure on fuel subsidies in 2022 would have cost about ZMW 421.2 million.

Poor households did not benefit from the subsidy

We now turn to estimates of the impact on household poverty and inequality. The results show that reintroducing a fuel subsidy for 2022 would have no change on the poverty level, as it remains at 48.3%. Inequality levels also remain unchanged, at Gini 50.5.

This can be explained by the fact that low-income households have a significantly low expenditure towards petroleum products, as most do not own vehicles and rely primarily on walking or non-motorized transport (NMT). For instance, Zambia's non-motorised transport (NMT) strategy reveals that the majority of people living in Zambia (65%) actually walk for their daily commutes.

The results confirm that fuel subsidies were not inherently pro-poor, as the distribution of benefits across households was skewed towards higher-income groups with relatively higher fuel consumption.

These estimates suggest that the withdrawal of fuel subsidies had only limited negative effects on low-income families, with drawbacks concentrated among wealthier socioeconomic groups who had captured a disproportionate share of the government's price supports. The central policy challenge, therefore, lies in the absence of effective targeting mechanisms, as Zambia's fuel subsidies were not structured with the explicit objective of advancing pro-poor outcomes.

Repurposing funds for pro-poor policies

Our next simulations explore a repurposing of fiscal resources towards more targeted social protection. Given the limited welfare gains observed under fuel subsidies, we assess the effectiveness of targeted cash transfers in reaching both the poor and those at risk of falling into poverty.

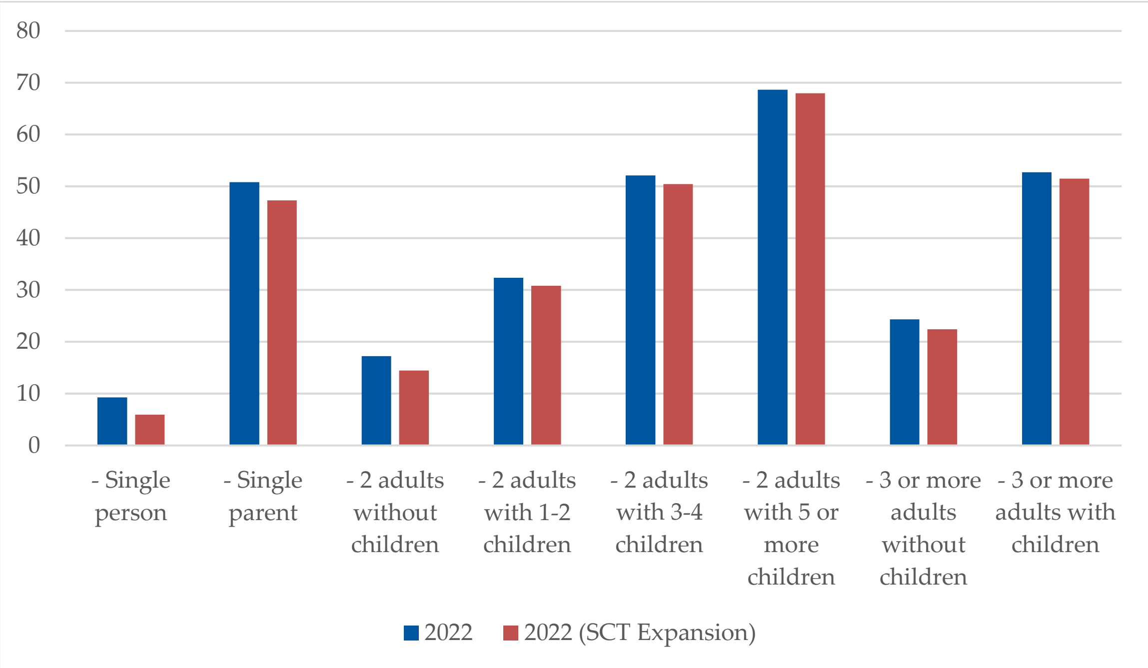
2022 scenario with SCT expansion as of 2024

In this scenario, we include an expansion of Zambia's targeted flagship social protection programme, the Social Cash Transfer (SCT). Specifically, we increase the transfer amount of the SCT per beneficiary from ZMW 200 to ZMW 400, in line with the 2024 policy change. We also adjust this new amount by the Consumer Price Index (CPI).

While this policy mix results in a reduction of Government revenue by ZMW 233.0 million from fuel VAT and excise removals and an increase in expenditure by ZMW 2.5 billion, it delivers measurable welfare gains. Poverty falls from 48.3% to 46.8% (–1.5 percentage points), and inequality improves, with the Gini coefficient declining from 50.5 to 49.5. The biggest poverty reductions are observed among vulnerable groups, such as single-parent households—where poverty drops from 50.8% to 47.3% (–3.5 percentage points)—and single-person households—from 9.3% to 5.9% (–3.4 percentage points).

In contrast, larger households, particularly those with two adults and five or more children, see only marginal gains, with poverty decreasing from 68.7% to 68% (–0.7 percentage points). This is shown in Figure 2. Overall, while the combined policy package improves welfare and equity, its benefits remain unevenly distributed, highlighting the need for stronger targeting of social protection measures to maximize pro-poor outcomes.

Figure 2: Poverty rates with increased SCT amount (2024 benefit levels)



Note: Welfare results from the new Statistics Presenter
Source: Authors' calculations using MicroZAMOD

Conclusion and recommendations

Fuel subsidies were fiscally unsustainable and regressive due to their universal design, benefiting wealthier households more than the poor. Their removal improved the government's fiscal position, and budget resources should now be redirected toward targeted social protection. Expanding the SCT is a more effective way to reduce poverty and inequality.

In this regard, this policy note validates the government's policy choices and provides the following recommendations going forward:

- **Increase SCT benefits** to cushion vulnerable households and achieve stronger poverty reduction outcomes
- **Maintain the removal of fuel subsidies** as a permanent reform to protect fiscal space and redirect resources to pro-poor investments.
- **Consider strengthening food security for vulnerable households**—as the removal of fuel subsidies might contribute to food price increases—through the expansion of school feeding schemes and targeted subsidies on essential staple foods, such as mealie meal—a staple maize flour widely consumed in Zambia—and broader targeted agricultural policies.