

OPINION

Envisioning climate change debates and policies through the tension triangle lens

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Recently, awareness about climate change has increased. Behavioural changes and micro-level and macro-level actions towards low-carbon economies are becoming more widespread, propelled by increasing scientific evidence and climate activism. As individuals continue to become more climate-conscious, climate-mitigation legislation has also gained traction. In 2019, the European Commission agreed on the European Green Deal, which included a recommendation to phase out new financing for fossil fuel projects in third countries [1]. This recommendation was reiterated at the COP26 in Glasgow, by the European Investment Bank, and more recently by the European Commission in preparation for the COP27 in Cairo [2].

Against this background, the European Parliament recently adopted resolution 2022/2826 (RSP), broadly condemning alleged human rights violations linked with the planned construction of the East African Crude Oil Pipeline (EACOP). Alongside the human rights questions, the European Parliamentarians also argue that the project will both increase emissions and cause ecological damage—and so, in line with European climate policies, they argue that the project should close.

In this essay, I use the example of EU resolution 2022/2826(RSP) and the debates surrounding it to argue that whilst debates following this and similar resolutions supporting blanket bans on fossil fuel investments in low-income countries might be well-intentioned, a more differentiated view of the implications of these resolutions is necessary, especially considering developing countries' needs and preferences. Blanket application of climate strategies developed in the Global North (such as stopping funding fossil fuel extractions in low-income countries) can be deeply unfair and unjust, and entrench more poverty than they hope to reduce [3]. Moreover, these debates tend to focus on the policy needs of the Global North, with limited regard to Global South contexts and needs. This is especially significant in the context of aiming for just energy transitions, in which low-income countries are not left worse off without fossil fuel extraction [4].

Navigating the tension triangle

To avoid the possible detrimental outcomes of good policies, there is a need to rebalance the debates and policies along the framework of the tension triangle [5]. The tension triangle framework (e.g Fig 1 below) helps navigate relationships between processes that pull in different directions with different stakes and different implications on well-being. The tension triangle calls for a balance between climate policies, energy policies, and development policies. A sole focus on one of the policies can be more harmful to well-being.

The tension triangle allows policymakers, climate activists, and citizens at large to appreciate that socioeconomic development remains a key objective of poor countries. Poor countries



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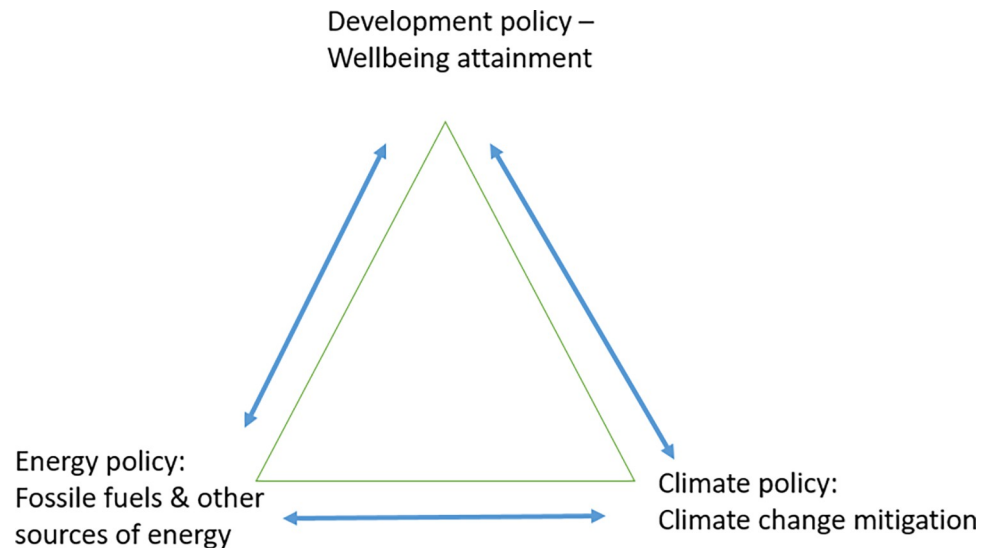


Fig 1. Modified tension triangle based on Wood and Roelich [5].

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are generally substantially energy poor and are net importers of energy. The climate policies they employ cannot, therefore, be decoupled from their energy and development needs. Within this framework, I provide three reasons why this resolution, the debates around it, and policies that might emanate from it would be disadvantageous to low-income countries.

Focus on climate fairness

Researchers and policymakers have long highlighted structural imbalances and underlying unfairness in climate change policies regarding low-income countries [6] calling for more fairness in policy processes. Accordingly, fairness includes a) securing basic needs, b) attributing historical responsibility to past emissions, and c) working within countries' feasible reduction rates [7]. To give an example, consider two countries: Nigeria and Germany, the largest economies in Africa and Europe respectively. Germany is estimated to have emitted 644 million tons of CO₂ in 2020, while Nigeria emitted 125 million tons of CO₂ [8]. An average German resident is responsible for about 13 times more emissions than an average Nigerian. Yet, about 64% of people in Nigeria live below \$4 per day, compared to 0% in Germany. Considering the fairness principle, Nigeria and Germany might therefore not be expected to implement similar strategies for dealing with the climate crisis.

The fairness principle can also be coupled with the right to develop [4]. Fossil fuels have been essential for the development of high-income countries and the same right should be afforded to low-income countries [4]. However, the questions are, at what cost and to what benefit? At what point do the economic benefits from fossil extraction stop outweighing the progress on poverty reduction such that any additional unit of carbon emitted is detrimental to the environment and not helpful for social development? More recently, researchers have proposed a Carbon Intensity of Poverty (CIPR) indicator, a measure defining how much an additional unit of carbon intensity is associated with poverty reduction [9]. In 66% of countries studied ($n = 135$) the CIPR threshold (US\$5,000) was higher than their current per capita income, implying that in these countries, emissions and poverty reduction would be strongly correlated.

Respecting carbon budgets

Related to fairness are country-specific carbon budgets. About 20 countries account for over 80% of global emissions. Africa as a whole emits only 4% of global emissions [3], just about half the emissions of the EU [8]. Uganda and Tanzania currently emit about 4 and 11 million tons of CO₂ respectively. Even including the projected annual emissions from EACOP and assuming an equal distribution to the two countries, an average German would still emit 16 times more than an average Ugandan. Low-income countries still have more reserves on their carbon budgets. Moreover, while the IPCC warned in 2018 that current carbon budgets would run out by 2030, it also gave a clear direction on responsibility [10]. High-income countries have fewer years to run down their budget (under a no-action scenario), while low-income countries like India and Uganda still have 30 and 100 years respectively to run down their carbon budgets (see Global Carbon Budgets at <https://carbonbudgetcalculator.com/country.html>). Indeed, if these high-income countries were to not act fast enough or overuse their budgets, they would not only quicken their budgets' depletion but would also encroach on the budgets of less-emitting countries. Ending fossil fuel extraction in Europe is therefore different and has different implications from curtailing fossil fuel activities in low-income countries.

The cost of green energy: rare earth, greenflation, and associated risks

The resolution and MEP submissions call on Uganda and Tanzania not just to explore renewable energies but also to limit their energy projects to these sources. Aspirations to go 100% renewable energy are indeed noble, especially with the discovery of hydrogen across several African countries. However, green energy is not necessarily an environmental panacea. Knowledge about the socio-ecological consequences and effects on land and marine ecosystems is still thin [11]. A lot of green energy production will also depend on rare earth minerals such as lithium whose extraction is not without substantial environmental damage [12], compelling the Director of the Initiative for Responsible Mining Assurance in the United States to state “our new clean energy demands could be creating more harm, even though it is with good intentions” [13].

Finally, there is the question of greenflation—an increase in the prices of inputs for renewables and the politics of controlling the markets [14]. China currently dominates this market, a scenario that some see negatively through both economic and security lenses [15]. With rising demand and global competition likely to affect prices of inputs, unequal power relations, and geopolitical manoeuvres, and yet unknown effects on land and marine ecosystems, green energy cannot be framed as a panacea for socioeconomic development and climate change mitigation. The above reasons should lead policymakers to appreciate that to attain a just transition, striking a balance between climate change, development and energy policies is paramount.

A call for net zero in low-income countries

Resolutions and debates such as those recently carried by the European Parliament tend to convey an aspiration for zero emissions, whilst the focus in developing countries should lie on *net* zero emissions. Reaching net zero emissions implies that emissions are balanced with a realistic energy transition to less emitting sources, carbon capture strategies such as expanding forest cover, and land use/soil management systems that increase carbon retention capacities. Where possible, technology transfer should enable carbon capture technologies developed in and/or financed by high-income to be deployed in low-income countries. Countries like

Uganda can realistically commit to these targets with technology and time-bound milestones rather than abrupt cut-offs. One key commitment is reforestation initiatives. The high rate of forest loss in low-income countries is undoubtedly worrying [16]. It could be argued that the fact that Uganda loses about 115,000 hectares of forest annually [17], with some forests virtually vanishing, is more alarming than the country's fossil fuel use trajectory. For Uganda and similar low-income countries, every effort to economically develop through exploiting fossil fuels should be more than offset by low-cost forest restoration and, over an appropriate timeline, a steady transition to renewable energy. In this way, even low-income countries can reduce emissions while remaining on a healthy socioeconomic development trajectory. Moreover, the fact that low-income countries still have more in their carbon budgets does not permit complacency in aiming for net zero economies. Overall, climate policies need to be pro-poor and not just blanket resolutions without context and balance.

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