



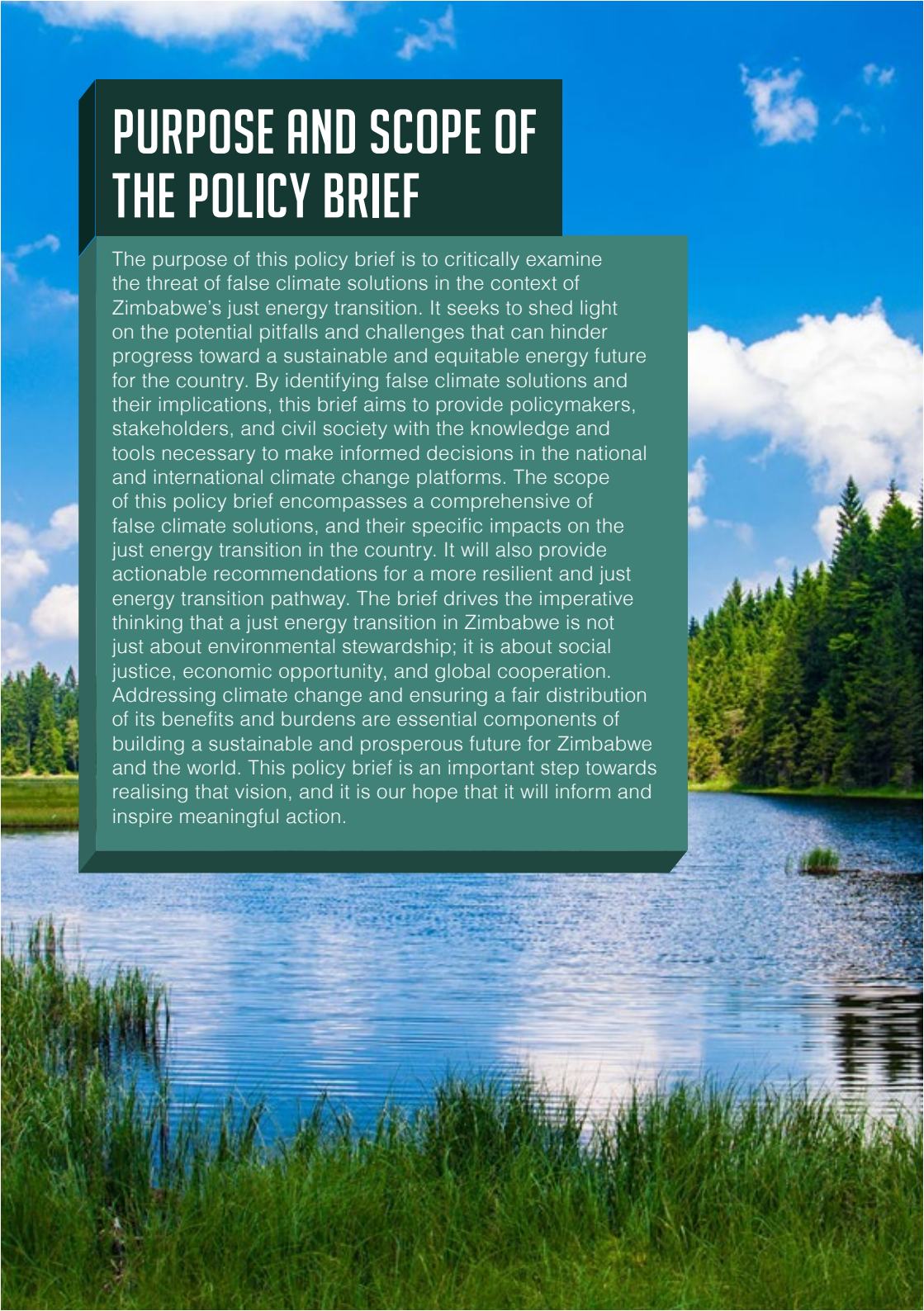
**POLICY BRIEF**

# **ASSESSING THE THREAT OF FALSE CLIMATE SOLUTIONS**

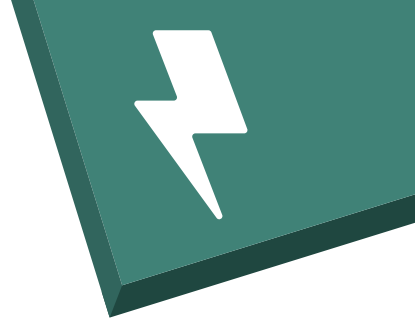
**ON THE JUST ENERGY TRANSITION IN ZIMBABWE**

# PURPOSE AND SCOPE OF THE POLICY BRIEF

The purpose of this policy brief is to critically examine the threat of false climate solutions in the context of Zimbabwe's just energy transition. It seeks to shed light on the potential pitfalls and challenges that can hinder progress toward a sustainable and equitable energy future for the country. By identifying false climate solutions and their implications, this brief aims to provide policymakers, stakeholders, and civil society with the knowledge and tools necessary to make informed decisions in the national and international climate change platforms. The scope of this policy brief encompasses a comprehensive of false climate solutions, and their specific impacts on the just energy transition in the country. It will also provide actionable recommendations for a more resilient and just energy transition pathway. The brief drives the imperative thinking that a just energy transition in Zimbabwe is not just about environmental stewardship; it is about social justice, economic opportunity, and global cooperation. Addressing climate change and ensuring a fair distribution of its benefits and burdens are essential components of building a sustainable and prosperous future for Zimbabwe and the world. This policy brief is an important step towards realising that vision, and it is our hope that it will inform and inspire meaningful action.



# BACKGROUND ON THE IMPORTANCE OF A JUST ENERGY TRANSITION FOR ZIMBABWE



The global community finds itself at a critical juncture in the battle against climate change. The evidence of our planet's changing climate is undeniable, and the consequences of inaction are becoming increasingly dire. The current international trajectory of international greenhouse gas (GHG) emissions do not exhibit the possibility of meeting the targets of the Paris Agreement. The Paris Agreement's overarching goal is to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. The United Nations Intergovernmental Panel on Climate Change (IPCC) indicates that crossing the 1.5°C threshold risks unleashing far more severe climate change impacts, including more frequent and severe droughts, heatwaves and rainfall.

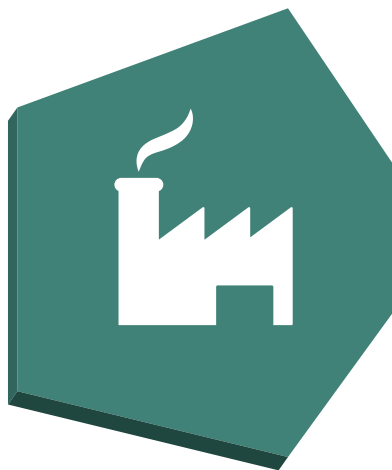
A just energy transition is not merely an abstract concept; it is a moral imperative rooted in the principles of equity, fairness, and human rights. The urgency to transition from fossil fuels to renewable and sustainable energy sources is driven by the need to mitigate the adverse effects of climate change, such as extreme weather events, rising sea levels, and loss of biodiversity. It is also fuelled by the desire to limit global temperature rise to well below 2°C, as established in the Paris Agreement. A just energy transition acknowledges that the burdens of climate change have not been distributed equally. Vulnerable communities, whom are often the least responsible for greenhouse gas emissions (GHG), bear the brunt of the environmental and socioeconomic impacts. It recognises that those living in poverty, marginalised groups, and developing nations are disproportionately affected. Therefore, a just energy transition seeks to rectify these injustices by prioritising the needs and rights of these communities. Moreover, a just energy transition encompasses the creation of green jobs, the promotion of clean and affordable energy access, and the establishment of mechanisms for technology transfer and capacity building in developing countries. It is about ensuring that the shift to a low-carbon economy does not exacerbate existing inequalities but rather fosters a more equitable and sustainable future for all.

As we delve into the specifics of this policy brief, it is crucial to recognise the importance of addressing climate change in Zimbabwe. This landlocked southern African nation, like many others, is grappling with the impacts of a changing climate. Erratic rainfall patterns, prolonged droughts, and extreme temperatures have all become increasingly common, posing a threat to food security, water resources, and the overall well-being of its citizens. Zimbabwe's vulnerability to climate change is compounded by its reliance on fossil fuels and a predominantly

carbon-intensive energy sector. The need for a just energy transition is particularly pressing in this context. It offers an opportunity not only to reduce greenhouse gas emissions but also to enhance energy security, reduce energy poverty, and stimulate economic growth through the development of renewable energy resources.

The importance of addressing climate change in Zimbabwe extends beyond its borders. The country's environmental sustainability is intertwined with regional and global stability. Climate-induced displacement, resource conflicts, and food shortages can have far-reaching consequences, affecting neighbouring nations and contributing to regional instability. In light of this evidence above, it is imperative for the global community to proactively prescribe and embrace proven and efficacious climate change mitigation solutions, instead of false solutions. As it already stands, African countries are suffering disproportionate negative impacts of climate change. These false climate solutions can hinder the progress towards a just energy transition by diverting resources and attention away from truly sustainable and equitable solutions. It is therefore imperative that African states be vocal and advocate against the proliferation of false climate solutions at the expense of the environment.

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## WHAT ARE FALSE CLIMATE SOLUTIONS?

The global discourse surrounding climate change mitigation has led to the proliferation of various strategies and solutions aimed at curbing GHG and fostering a sustainable future. However, not all proposed solutions align with the principles of effectiveness, equity, and environmental integrity.

### DEFINITION OF FALSE CLIMATE SOLUTIONS:

False climate solutions, also known as “climate mitigation fallacies,” are strategies, technologies, or policies that purport to combat climate change but fail to deliver meaningful reductions in greenhouse gas emissions or perpetuate environmental

and social injustices. False climate solutions are primarily promoted by fossil fuel corporations and their political allies to give the appearance of meaningful climate action while delaying effective policies that could threaten their power, control, or profits. They often divert attention and resources from more effective and equitable approaches to combating climate change. For the sake of this brief, examples of such solutions to be focused on include carbon offsets, biofuels, forest management / REDD and REDD+, nuclear energy and Carbon Capture and Storage Sequestration.

## WHAT MAKES THESE CLIMATE SOLUTIONS “FALSE”?

In the ongoing battle against climate change, various solutions have been proposed by numerous stakeholders. In this section we will delve into the intricate landscapes of selected climate solutions in a bid to unearth why they have been termed as “false solutions” in the first place.

## CARBON OFFSETTING

The concept of carbon offsetting has emerged as both a beacon of hope and a source of controversy. Carbon offsets and carbon credits are mechanisms that aim to address carbon emissions by allowing entities to claim emissions reductions without making actual changes. Carbon offsets involve projects that claim to prevent or reverse emissions, generating credits that can be sold to polluters exceeding their emissions cap. These programs, often involving activities like tree planting or investments in renewable energy projects in far-flung regions, have been hailed as solutions that allow entities (usually big capitalist corporates in the energy sector) to counterbalance their GHG. However, they have also been met with skepticism and criticism. While carbon offsetting may seem like a promising strategy, its effectiveness remains a subject of debate, as numerous studies have pointed out significant shortcomings. According to a study by Bastin et. al in 2019, the potential for reforestation to offset carbon emissions is limited and cannot replace the urgency of reducing emissions from fossil fuel use.

Key questions arise about the concept of carbon offsetting itself. Firstly, the system allows Emitter A to potentially evade genuine emissions reductions by simply purchasing inexpensive credits from Emitter B. This prompts a fundamental query as to whether it would not be far more impactful if both entities were directly required to meet emissions reduction targets, rather than relying on this indirect exchange of credits? Secondly, the issue of verification comes into play, especially concerning credit sellers engaged in tree planting or conservation projects with unpredictable outcomes. The question arises: who is responsible for verifying the actual emissions savings generated by these projects, given the inherent uncertainty surrounding their effectiveness? Furthermore, the true impact of offset projects on emissions reduction remains a matter of debate. Are these projects authentically lowering emissions, or are they merely substituting fossil fuel usage with renewable energy sources, without delivering a net reduction in emissions? Lastly, there is the overarching concern about whether carbon offsets genuinely lead to emissions reductions or merely serve as a mechanism for shifting

emissions from one company to another. These questions collectively highlight the complexities and potential pitfalls associated with carbon offsetting and the need for careful scrutiny of their effectiveness in addressing the urgent challenge of climate change.

In terms of threatening the just energy transition in Africa, carbon offsets are criticised for their ineffectiveness and potential harm. They do not genuinely reduce emissions; instead, they create the illusion of action while allowing pollution to persist. Big oil and gas corporates have latched onto carbon offsets as a justification for continued GHG emissions. Essentially, one's ability to buy carbon offsets now stands as justification to allow one to pollute accordingly. Moreover, offset projects, especially in the global South, have been shown to violate human rights and exacerbate inequality. They shift responsibility for emissions reduction from the global North to the South, worsening climate change. These mechanisms, driven by fossil fuel interests, obscure the truth. True climate solutions require government-mandated emissions reductions across industries and incentives for adopting clean renewable energy. As it stands, carbon offsets are being dominated by the global North and big oil and gas firms at the expense of the much needed transition to clean energy which will benefit the global South in just and fair manner, hence threatening the just energy transition.

## BIOENERGY

Bioenergy, derived from organic materials such as crops, forestry residues, and organic waste, is widely regarded as a renewable energy source with potential climate benefits. Bioenergy refers to the energy derived from biological materials, including biomass, biogas, and biofuels. It is often perceived as a sustainable alternative to fossil fuels, primarily due to its potential to reduce greenhouse gas emissions when sourced and managed responsibly. Large quantities of biofuel are made from corn, but other crops that are used to produce biofuel include sugar cane and soybeans.

Bioenergy proponents emphasise several climate benefits. Firstly, bioenergy is often lauded for its carbon neutrality, grounded in the idea that it operates within the carbon cycle. During combustion, emissions are theoretically balanced by carbon sequestration during the growth of biomass (van Leeuwen, Cappon, and Keesman 2021). Secondly, bioenergy offers the potential to diminish dependency on fossil fuels, thereby curbing emissions linked to fossil fuel combustion. Lastly, bioenergy projects can contribute to waste utilisation by converting organic waste into valuable energy resources, effectively lowering emissions associated with landfill disposal. These perceived advantages have fuelled enthusiasm for bioenergy as a climate-friendly energy source.

However, bioenergy has a huge possibility of undermining the just energy transition for Zimbabwe. Firstly, concerns arise regarding land use changes, especially in large-scale bioenergy crop cultivation scenarios that can lead to deforestation and consequential carbon emissions exceeding the savings. In Africa, the expansion of jatropha and sugarcane plantations, for example, has prompted worries about deforestation and soil degradation. Secondly, the competition for resources

between bioenergy and food crops presents a substantial drawback, potentially driving up food prices and jeopardising food security. In Zimbabwe, bioenergy projects have displaced subsistence farmers, exacerbating food insecurity for instance the Chisumbanje ethanol plant saga. The harvesting and utilisation of non-edible biomass can lead to land degradation, loss of biodiversity, and disruption of ecosystems. Additionally, the production of bioenergy in Africa often relies on inefficient technologies and practices, which can further contribute to negative health and environmental impacts. For instance, the inefficient burning of biomass for energy production can result in high levels of air pollution and negative health effects for local communities. Thus in terms of threatening the just energy transition, bioenergy seems to contain numerous factors which can undermine the overall goal of mitigating climate change and exacerbate the environmental challenges faced by African nations.

## FOREST MANAGEMENT / REDD AND REDD+

REDD stands for “Reducing Emissions from Deforestation and Forest Degradation.” It is a program that was initially developed to address deforestation and forest degradation, which are significant contributors to GHG and climate change. The primary goal of REDD was to create financial incentives for developing countries to reduce their deforestation rates and conserve their forests, thereby lowering carbon dioxide emissions. These financial incentives would come from developed countries or international funding mechanisms, such as carbon markets, where emission reductions achieved through forest conservation could be traded as carbon credits. The concept of REDD has evolved over time and expanded to include broader forest-related activities, leading to the development of REDD+. REDD+ includes not only reducing deforestation and degradation but also activities aimed at sustainable forest management and enhancing forest carbon stocks through afforestation and reforestation.

REDD has come under scrutiny as a climate solution, particularly in Africa, due to several contentious issues. While its primary aim is to combat climate change by curbing carbon emissions resulting from deforestation and forest degradation, its implementation has raised significant concerns and has posed a significant threat to the just energy transition in Africa. Firstly, REDD has led to significant land grabs and displacements of indigenous communities from their traditional and ancestral lands. This displacement disrupts their access to resources and traditional livelihoods, often giving rise to social unrest and conflicts. A good example of this is in Mozambique, where the Envirotrade’s carbon projects in Mozambique, including the “Nhambita Community Carbon Project,” has been riddled with concerns about food insecurity and land conflicts resulting from the REDD+ initiatives.

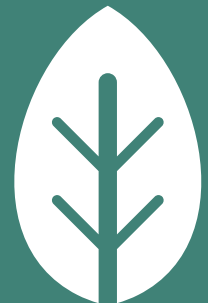
Essentially, REDD projects have been associated with significant corporate interests, raising concerns about profit-driven motives rather than genuine environmental conservation or the well-being of local communities. Critics argue that REDD allows developed countries in the Global North to maintain high levels of GHG while transferring the responsibility for carbon reduction to countries in the Global South. This is seen as an unjust burden on developing nations.

# NUCLEAR ENERGY

Nuclear energy, often touted as a climate solution, is criticised for several compelling reasons. First and foremost, the entire lifecycle of nuclear energy is plagued by massive contamination. Uranium mining, a crucial component of nuclear power production, leaves a long-lasting trail of toxins that endure for hundreds of thousands of years. A good example has to be 1986 Chernobyl Nuclear Power Plant disaster which led to extensive contamination of the local environment and the wildlife therein. Up to today, animal, plant and insect species occupying the Chernobyl Exclusion Zone (CEZ) are still suffering from the effects of contamination.

Despite being labelled “Clean Energy” by some governments, nuclear energy is far from clean. Nuclear power plants have a history of leaks and near-meltdowns, posing significant risks to the environment and surrounding communities. For instance, the Fukushima explosion resulted in radioactive traces being detected in all fish species in the Pacific Ocean. Indigenous Peoples and their lands are disproportionately targeted for uranium mining and nuclear waste disposal sites, exacerbating environmental and social injustices. Currently, there is a lack of viable nuclear waste disposal sites, leading to the storage of radioactive waste on-site at nuclear power plants, which is far from a sustainable solution. These concerns highlight the adverse environmental and health impacts associated with nuclear energy, undermining its claim as a clean and sustainable climate solution.

The most significant deterrent of the adoption of nuclear power by the global South would have to be the sheer cost of building a nuclear power plant safely. According to Hernandez, the cost of building the new nuclear plant in southwest England is expected to increase by approximately 2%, reaching nearly £33 billion (\$40 billion) due to inflation. This project, known as Hinkley Point C, is crucial for Britain’s energy security and its goal of achieving net zero emissions by 2050. Hence, if indeed nuclear





energy is clean, then African countries will certainly not be able to access it due to cost. What makes things worse is that the current support from the developed world for climate solutions is largely focusing on false solution leaving no funding for clean solutions.

## CONCLUSION

False climate solutions, such as carbon offsetting, bioenergy, forest management (REDD and REDD+), and nuclear energy, present critical drawbacks. Carbon offsetting allows big corporations to evade genuine emissions reductions, maintaining pollution levels. Bioenergy, while promising, can lead to deforestation, higher food prices, and land degradation, exacerbating food insecurity. REDD and REDD+ initiatives displace indigenous communities, prioritize corporate interests, and shift emissions responsibilities to developing nations. Nuclear energy, touted as clean, poses environmental contamination and exorbitant costs. These false solutions undermine the just energy transition, hindering progress in mitigating climate change and environmental challenges. Genuine climate solutions require equitable and sustainable approaches, focusing on emissions reduction and clean energy adoption

## WAY FORWARD

In trying to navigate the world of climate solutions, Zimbabwe has to adopt a policy strategies approach to issues. A deliberate policy strategy must be instituted to combat false climate solutions. Firstly Zimbabwe must establish a clear project evaluation criteria of any climate solution based projects. Establish clear criteria for evaluating the environmental, social, and economic viability of climate and energy projects. This should include a thorough examination of the project's potential to reduce emissions, create jobs, and benefit local communities. Additionally a benefit-sharing mechanism approach must be established. The government must mandate benefit-sharing mechanisms to ensure that communities affected by climate and energy projects receive a fair share of the benefits, including employment opportunities, revenue-sharing, and access to clean energy. Monitoring and accountability of climate solution projects must be part of policy. The government must implement a robust system for monitoring and evaluating the progress and impacts of climate and energy projects. The system should hold project developers accountable for meeting their commitments and address non-compliance effectively. Green finance and incentives must be part of policy. The government must create financial incentives and mechanisms to attract investments in sustainable and low-carbon projects. These can include green bonds, tax incentives for renewable energy investments, and subsidies for clean technologies. Above all the government should foster collaboration and establish a pluralistic approach to handling climate solution issues. The government should promote inclusive multi-stakeholder collaboration, where government, NGOs, the private sector, and communities work together to shape climate and energy policies and projects. There is a need to establish platforms for constructive dialogue, conflict resolution, and consensus-building. These collaborations should transcend sectoral interests and prioritise the collective good.

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