



SOUTH AFRICA

# Policy Brief

APRIL 2024



© Getty Images / pidjoe / WWF-US

# ADVANCING THE JUST ENERGY TRANSITION WHILST NAVIGATING THE WATER-ENERGY-FOOD NEXUS FOR SUSTAINABLE DEVELOPMENT

## Executive Summary

South Africa stands at a crucial crossroads, grappling with the complexities of sustainable development, climate action, and long-term structural inequality. Committed to the ambitious goals of Agenda 2030, as evident in its 2019 Voluntary National Review, the nation is striving to usher in an era of balanced growth and development. However, South Africa's ranking of 110th out of 166 nations on the Sustainable Development Goal Index underscores the pressing need for holistic policies that bridge these disparities.

This policy brief responds to the pressing demand for harmonising the imperatives of a Just Energy Transition (JET) with the intricate dynamics of the Water-Energy-Food (WEF) Nexus in the context of South Africa's broader sustainable development imperatives. As the nation charts its path toward sustainable development, the JET stands as a key opportunity, guiding the nation toward a resilient, low-carbon economy. Simultaneously, the WEF Nexus underscores the undeniable interconnections among these vital sectors highlighting that a just transition cannot be limited to the energy sector alone.

The central argument of this policy brief is that policy coherence is the key to attaining a more equitable and sustainable future. It illuminates the symbiotic relationship between the JET and the WEF Nexus and stresses the importance of confronting these challenges in a unified manner. This coherence goes beyond technical expertise, necessitating considering a broader range of non-technical factors, including political, social, economic, and environmental dimensions. To prevent policy incoherence and unintended disparities, policies must encompass the diverse interests, values, and perspectives of diverse stakeholders and communities. The complexity and interdependence of these policy issues mandate a holistic approach that incorporates social equity, economic consequences, and environmental sustainability alongside technical considerations.

## Aims and Objectives

The overarching aim of this policy brief is to shed light on the intersection of a Just Energy Transition and the Water-Energy-Food Nexus, providing insights into the following key aspects:

- Highlight the conflicts and synergies between South Africa's national goals about the Just Transition and the Water-Energy-Food Nexus, while upholding global climate obligations.
- Examine the political contestation surrounding efforts to achieve policy coherence and how various actors navigate these challenges, influenced by ideas, interests, and institutional dynamics.
- Assess the tangible impact of policy coherence (or the lack thereof) on implementation outcomes for water, energy, and food security.

The following sections of this policy brief delve deeply into these aspects, concluding with key findings and recommendations. The central message emphasises the utmost significance of integrated policy frameworks, interdepartmental coordination, enhanced public engagement, economic incentives for sustainability, and strengthened institutional capacity. South Africa can activate the transformative potential of a Just Energy Transition that is intricately linked to the Water-Energy-Food Nexus through the adoption of an integrated approach, the exploitation of economic incentives, and meaningful engagement with stakeholders at all levels.

This policy brief is, in essence, a clarion call to action, imploring policymakers, stakeholders, and practitioners to engage on a transformative journey that embraces the interconnectedness of these multifaceted challenges. In doing so, South Africa can pave the way for a more inclusive, equitable, resilient, and sustainable future for all its citizens.

## Policy Landscape and Context

For over a decade, the South African government has been at the forefront of advocating for a 'just transition' toward a climate-resilient, low-carbon economy. This transition is recognised for its potential to address the intricate tapestry of socio-economic challenges that the country faces. The National Climate Change Response White Paper of 2011 delineated the government's vision for a 'long-term, just transition to a climate-resilient and lower-carbon economy and society'. Aligning with this vision, the National Development Plan (NDP) 2030 underscores the imperative of transitioning to an environmentally sustainable, low-carbon economy across all government plans. While poverty alleviation, inequality reduction and tackling unemployment are central tenets of the NDP, the explicit integration of the JET into these efforts has yet to be fleshed out.

The pivotal Climate Change Bill unveiled as a draft in 2018 plays a crucial role in shaping the strategic trajectory of the JET. The Bill highlights a critical issue - the poor integration of climate mitigation and adaptation planning into the broader sustainable development framework into vertical and horizontal government structures. It mandates the implementation of a national adaptation plan within two years of the bill's enactment into law, and sectoral emissions targets within one year, underscoring the pressing need for immediate action (Hägele and Iacobuta, 2020, p.9).

Shedding light on South Africa's 'Just Transition process,' the National Department of Public Enterprises outlined the key pillars in a 2019 'roadmap' aimed at instituting governance reforms within Eskom, the nation's public electricity utility. These pillars encompass the establishment of an inclusive economy founded on affordable

energy, the protection and creation of employment opportunities through low-cost energy solutions, and the assurance of energy access and security for all South Africans (Field, 2021).

More recently, the Presidential Climate Commission (PCC) has unveiled a compelling Vision for a Just Transition Framework for South Africa, aimed at bolstering the economy's resilience and the well-being of its citizens. This visionary framework encompasses the development of affordable, decentralised, and diversely owned renewable energy systems, the conservation of natural resources, equitable access to water resources, the promotion of a healthy environment, and sustainable, inclusive land use, particularly for the most vulnerable segments of society. The Just Energy Transition Investment Plan (JET IP), a subsequent document draws somewhat upon the framework and serves as a strategic guide for allocating resources and investments to expedite the transition to a lower-carbon economy. However, it has faced criticism for not adequately representing crucial justice elements. Similarly, the Just Energy Transition Implementation Plan (2023) focusses primarily on the growth of specific transition-aligned sectors as drivers of employment and consequently poverty reduction but does not deeply consider the cross-cutting implications for the WEF nexus and correlated SDGs.

Despite these commendable initiatives, South Africa's heavy reliance on coal presents a significant challenge in attaining its own Nationally Determined Contributions (NDCs). The NDCs set the goal of peaking emissions and achieving a plateau by 2025, followed by a subsequent decline (IRP 2019). While the nation plans to decommission its existing coal fleet, it also envisions investment in high-efficiency, low emissions (HELE) technology, 'super' and 'ultra-critical' plants, and carbon capture and storage (CCS) facilities, as outlined in the Integrated Resources Plan (IRP) 2019. On the other hand, renewable energy is set for a remarkable increase. The South African Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) has yielded numerous positive outcomes, including expanded renewable energy capacity and reduced reliance on fossil fuels. The REIPPPP has led to the creation of thousands of jobs within the South African renewable energy sector, fostering skills development and contributing to economic growth (Eberhard and Naude, 2016). However, this job creation has primarily centred in parts of the country that are not coal-producing, raising questions about the equitable distribution of benefits of expanded renewable energy capacity and how jobs in the coal mining sector will be replaced, particularly in Mpumalanga (Nel et al., 2023; Hägele et al., 2022). Moreover, the realisation of just transition benefits to local communities through local ownership and beneficiation does not appear to have been achieved in many cases for REIPPPP.

As South Africa grapples with resource constraints and its coal dependence, competition for fertile land suitable for agriculture, pristine water, and energy resources intensifies. The Mpumalanga region, known for its arable land, finds itself embroiled in a battle for 60% of its surface area, sought after for mining purposes (Simpson et al., 2019). South Africa has initiated several key water and agricultural policy developments in response to these challenges. Notably, recent water management reforms, such as the National Water and Sanitation Master Plan (2019), aim to address water scarcity and improve equitable access to safe water. Similarly, agricultural policies such as the Comprehensive Agricultural Support Programme (CASP) ensure access to agricultural support and service delivery for land reform beneficiaries, communal farmers, and other vulnerable groups, whereas the Climate Change Adaptation and Mitigation Plan (CCAMP) promotes sustainable farming practices and increases food security while mitigating environmental impact.

Despite these efforts, the detrimental effects of mining, coupled with the impact of agriculture, continue to result in significant water consumption and pollution, jeopardising access to safe water and public health (Shawoo et al., 2020). The consequences of polluted water sources and limited land availability extend to reduced agricultural yields, potentially leading to elevated food prices and exacerbating food and water insecurity (Shawoo et al., 2020). As a largely arid country with more than 98% of its available water already allocated, South Africa faces significant risks to water supply under current and future climate conditions. In addition, degradation because of climate change and unsustainable land-use practices have led to significant loss of arable land. These policy developments, while promising, underscore the ongoing and complex challenges South Africa faces in balancing its resource demands and environmental concerns.

Recognising the significance of the WEF Nexus, the Water Research Commission (WRC) has identified integrated resource management as a critical issue. While the WEF Nexus is not the primary focus of individual policies, water and land management, food security, and energy security are addressed through various policy instruments, albeit in isolation. The NDP 2030 explicitly addresses water and food security and environmental protection but is largely independent of energy considerations. Similarly, the IRP (2019) primarily focuses on energy provisioning, with limited reference to water and land constraints, despite the intimate relationship between energy generation and these resources. In summary, while policy objectives are ambitious and interdependent, they exist in relative isolation within the policy landscape.

## **Policy Coherence: Case Study Analysis**

The pursuit of policy coherence in South Africa, particularly in the context of the JET and the WEF Nexus, presents a multifaceted landscape marked by numerous challenges and complexities. These barriers to achieving policy coherence can be delineated into several key areas, namely, ideas, institutions, and interests, all of which play pivotal roles in shaping the direction and effectiveness of policies and implementation challenges.

This section delves into a case study analysis, conducted through 22 interviews between July and November 2022, to uncover the factors influencing policy (in)coherence in South Africa concerning these crucial aspects. These interviews involved 23 diverse participants representing government, the private sector, academia, and civil society. Interviews aimed to capture insights from stakeholders involved in the Just Energy Transition (JET) and the Water-Energy-Food (WEF) Nexus sectors.

Notably, interviews were obtained from key agencies such as the Department of Water and Sanitation (DWS), the Presidential Climate Commission (PCC), and ESKOM, but interviews with the Department of Forestry, Fisheries, and the Environment (DFFE) could not be secured. Transcriptions and notes were made during interviews, and all interviews have been transcribed and coded for analysis.

The policy brief's analysis is based on these interviews, including transcripts and notes. A predefined coding scheme aligned with interview questions was used to identify key themes and patterns related to policy coherence and influencing factors in South Africa.

## **Barriers to Policy Coherence**

### **The Role of Ideas**

Ideas are instrumental in shaping policy coherence as they influence how problems are interpreted and how policy solutions are framed. In South Africa, several fundamental principles, including those enshrined in the National Water Act (1998), guide the development and implementation of policies. The Water Act establishes that all water resources belong to the state, emphasising the state's custodianship over this critical resource. Additionally, it recognises a fundamental right to a basic water supply for both people and the environment, underlining the importance of safeguarding water resources for ecological sustainability.

Similarly, within the agricultural realm, the principle of equitable land distribution and support for emerging farmers plays a pivotal role in shaping policy coherence. Land distribution policies aim to address historical injustices and inequalities in land ownership, thereby promoting social and economic development. Support for new-era farmers underscores the commitment to empower emerging agricultural entrepreneurs, fostering food security and economic sustainability.

In the South African context, the idea of a Just Transition (JT) holds significant prominence. Notably, South Africa is unique in its incorporation of the JT concept into its 2015 National Determined Contributions (NDC). The conceptual engagement with this idea has further deepened, particularly following the establishment of the Presidential Climate Commission (PCC), which recently introduced a consultative Just Transition Framework for South Africa. This transparent and open approach to the idea of just transition has the potential to foster policy coherence.

Additionally, the Just Energy Transition Investment Plan (JET-IP) harbours other influential ideas in South Africa's policy landscape. It aims to address a wide array of challenges, including capacity issues, decarbonisation, environmental law compliance, high water usage, energy poverty, and debt. The JET-IP strategy, involving the closure of coal facilities, renewable energy development, job creation, and local economic stimulation, aligns diverse sectors and goals, promoting a more coherent and sustainable energy transition. The JET-IP also, "gives effect to the historic Just Energy Transition Partnership (JET-P)" announced at the Glasgow COP in November 2021 (PCC, 2022), with the EU, France, Germany, the UK and the USA set to mobilise \$8.5 billion between 2023 and 2027, albeit mostly in the form of loans.

Moreover, the WEF Nexus serves as a valuable strategy and framework for understanding the interdependencies, trade-offs, and connections between these critical resources. Utilising the WEF Nexus conceptual framework facilitates discussions and dialogues about the JET, leading to a more coherent and integrated approach to policy-making and overall implementation of the JT.

However, policy coherence faces challenges from the increasing opposition to the idea of achieving net-zero emissions by 2050. Some environmental groups argue that this target is insufficient, while the environment-versus-development argument gains ground due to high unemployment and inequality. This debate poses a substantial obstacle to coherence, highlighting the intricate balance required between environmental concerns and economic development.

The importance of adopting a whole-of-society approach and building a resilient economy was raised consistently during the interviews. Despite criticisms, this is an area where some of South Africa's democratic institutions such as the Presidential Climate Commission, the National Development Planning Commission and the National Economic Development and Labour Council (NEDLAC) tend to perform reasonably well – at least in agenda setting, if not implementation. However, it is essential to note that policy coherence is not solely determined by the democratic process. A maturing democracy can introduce political contestation, instability, and implementation challenges. The presence of multiple consultative bodies, while fostering democracy, introduces more voices and interests, potentially complicating coherence.

## **The Significance of Institutions**

Institutions play a pivotal role in shaping policy coherence. The PCC has emerged as a prominent body within the climate policy sphere in South Africa. Established with the sole purpose of overseeing and facilitating a just and equitable transition toward a low-emissions and climate-resilient economy, the PCC has attempted to contribute to increased coherence by promoting transparency and accessibility in the policy-making process, engaging a wide range of constituents in society through online platforms. However, as an advisory entity, it does not have the authority to ensure that its recommendations are manifested in policy implementation.

Conversely, institutions such as the Department of Mineral Resources and Energy (DMRE) and the Department of Forestry, Fisheries, and the Environment (DFFE) have different approaches and mandates that can hinder policy coherence. The DMRE's focus on protecting the coal mining industry as a key resource beneficiation opportunity, for instance, has led to a lack of horizontal coordination. This lack of coordination has the potential to undermine the whole-of-government approach by introducing activities that poorly align with other stated Sustainable Development Goals (SDGs). In contrast, the DFFE, mindful of interventions that may negatively

impact the economy, particularly in terms of employment, often encounters difficulty in balancing environmental and climate considerations with economic growth objectives.

Moreover, it is crucial to highlight that the DFFE, along with flagship projects like Natural Resource Management (NRM), has suffered from substantial budget cuts, severely affecting their ability to fulfil their mandates. These cuts create a precarious situation, putting hard-earned gains in sustainable development at risk. In many areas, the capacity for follow-up and effective implementation has been compromised.

Furthermore, the crucial role of catchment management agencies in promoting collaborative governance at the local level has been hampered due to budget constraints and reduced support. These agencies were originally conceived to serve as linchpins for coordinating efforts and ensuring efficient management of water resources, particularly within catchment areas.

However, the challenges posed by reduced funding have eroded their ability to fulfil this pivotal role, further complicating the intricate navigation of the WEF nexus. In addition to these concerns, the capacity of municipal governments to deliver on devolved mandates remains a pressing issue. In a decentralised governance system, municipal governments bear the responsibility of implementing and managing policies related to sustainable development. Unfortunately, limited resources and capacity constraints at the municipal level have posed significant obstacles to the effective execution of these mandates.

However, there is optimism on the horizon with the forthcoming Climate Change Bill expected to be finalised in 2024. This legislative development holds the potential to introduce substantial changes to the institutional landscape, offering an opportunity to address these challenges and promote greater coherence and alignment between departments with conflicting objectives.

The influence of institutions extends to critical domains such as energy procurement and environmental audits for mineral resource extraction and mining. The energy minister's authority over energy procurement significantly influences the acquisition of various energy sources. Additionally, the same ministry's oversight of environmental audits pertaining to mineral resource procurement and mining can potentially compromise the protection of vital water and agricultural resources, even to the extent of reversing protections for critical water provisioning areas.

Eskom, as the national power utility, plays a substantial role in energy transition policy. This influence emanates not only from its impact on government decisions but also from the government's increasing role in reforming Eskom and addressing its colossal debt, as seen through initiatives like the State Capture Commission.

Challenges to policy coherence are also attributed to the dearth of institutionalised coordinating platforms. This shortfall results in system-level trade-offs, hindering coordination between government departments. System-level trade-offs manifest when various government departments or institutions pursue individual goals or policies without synchronisation, inadvertently leading to adverse consequences in other facets of the system. For instance, if the Department of Water and Sanitation (DWS) over-allocates or fails to implement effective pricing strategies, this can result in overconsumption and wastage of a critical resource that is essential for delivering multiple developmental goals, particularly for the rural and urban poor.

Moreover, the lack of coordination is exacerbated by disparities in institutional maturity, efficiency, and the use of distinct institutional languages. These disparities impede effective coordination and communication. The concept of different institutional languages signifies that various institutions may articulate their policies, objectives, and priorities in distinct ways, creating challenges in harmonising and aligning efforts.

The implementation stage reveals a mismatch between written policies and their execution, often due to institutional capacity constraints and governance inefficiencies. South Africa has a long history of good policy development, but poor follow-through. Local government capacity limitations underscore the need for institutional capacity-building.

It is important to recognise that while institutions are crucial, a holistic view must be taken. Overemphasis on institutional frameworks and networks should be cautioned against. It is crucial to recognise the role of ideas (as highlighted above) and interests (as explored below) in shaping institutions and coherence or lack thereof. Additionally, the limited engagement of civil society at the decision-making stages of policy processes and the need for alternative conversation mechanisms highlight the limitations of institutional structures in enabling effective participation.

## Interests and Power Dynamics

Policy coherence in South Africa is profoundly influenced by a complex interplay of interests, power dynamics, and economic considerations. This section illuminates the multifaceted nature of these influences and their impact on both policy content and implementation, shedding light on critical aspects that demand attention and resolution.

Certain interest groups, notably within the fossil fuel industry and coal unions, have managed to wield significant influence by strategically framing their arguments around potential job losses resulting from the energy transition. The allure of job security and vested interests within the energy sector presents a formidable obstacle to the progress of the JET. Even though ample opportunities exist within this transition for economic growth and sustainable development, these dynamics must be addressed proactively. Overcoming these dynamics hinges on embracing transparent decision-making processes, redistributing power, and actively engaging stakeholders to ensure their alignment with the goals of JET and the WEF Nexus.

Influential stakeholders, such as entrenched energy incumbents and multinational corporations, often demonstrate opposition to the transition toward renewable energy sources. Despite the potential of initiatives such as the Just Energy Transition-Partnership (JET-P) between South Africa and international collaborators, the influence of the renewable energy sector on policy remains somewhat limited. Various powerful constituencies, both legitimate and otherwise, have deftly employed their influence to undermine policy coherence. This underscores the significant impact of political inequality and deeply entrenched interests within the system (Calland, 2023). The coal lobby's strategic exploitation of fears regarding employment losses and corruption within the coal value chain, for instance, poses formidable obstacles to the energy transition (Rennkamp, 2019). There is also considerable concern amongst all players about the role of corruption in the capture of politics.

Existing power dynamics within South Africa's ruling political party contribute substantially to policy incoherence and misaligned political expressions. This is exemplified by a disconnect between statutory commitments, such as South Africa's revised Nationally Determined Contributions (NDCs), and the Department of Mineral Resources and Energy's (DMRE) leadership. This discrepancy leads to a lack of sustained support for the just transition plan, highlighting the imperative need for transparent decision-making processes and a clear alignment between political commitments and policy implementation to foster policy coherence.

Non-state actors, such as commercial farmers, exert a significant amount of influence on policy decisions. This influence may result in conflicts of interest and misalignment with the JET's and broader sustainability objectives. The case study analysis revealed that the agricultural sector stands out as one of the most influential interest groups. The sector's importance to food production and rural economies means that this influence plays out in the allocation of water resources. Using approximately 61% of the nation's water resources, agriculture is the dominant player in water allocation and use (DWS, 2022), and consequently, this sector has a substantial impact on water resource management. Moreover, agricultural interest groups wield considerable political influence.

However, these interests can sometimes contribute to conflicts over water allocation, particularly in areas facing water scarcity and drought. This competition for limited water resources poses challenges for other sectors, such as municipal and industrial users and environmental conservation efforts, despite the importance of ensuring an ecological reserve of water flow in rivers highlighted in the National Water Act.

## Consequences of Policy (In)Coherence and its Impact on Goal Achievement

Policy incoherence has far-reaching implications for South Africa's ability to achieve its WEF Nexus and JET goals. These challenges manifest in several adverse consequences, undermining the nation's pursuit of a sustainable and equitable future.

One of the most immediate and concerning outcomes of policy incoherence is the perpetuation of unsustainable practices. Notably, supporting (even high-efficiency) new coal power projects – low emissions and other cleaner coal technologies notwithstanding – not only impedes the much-needed phase-out of coal but also exacerbates several critical issues. This perpetuation of coal-based energy has far-reaching ramifications: it hampers progress in reducing greenhouse gas emissions, contributes to environmental degradation through increased water consumption and continued acid mine drainage, and deteriorates air and water quality. Additionally, it leads to the consumption of precious land and water resources, centralisation of benefits, and insufficient focus on rural livelihoods, further deepening inequalities and limiting opportunities for sustainable development.

Although accelerating the coal phase-out is necessary for long-term sustainability and will increase both GDP and employment, it will also create job losses within vulnerable communities particularly dependent on the mining and thermal coal industries. This trade-off can undermine public support for the JET and create political obstacles to achieving the transition to cleaner energy sources, particularly amongst communities and groups most at risk within the transition process.

The absence of coherence in addressing the JET and the WEF Nexus can further exacerbate existing social inequalities. When the transition to renewable energy disproportionately benefits certain regions or demographics while neglecting others, it deepens disparities in income and access to resources. This, in turn, can lead to social unrest and undermine broader sustainable development goals.

Furthermore, insufficient investment in the Just Transition Framework hampers its successful implementation. Without adequate resources and support, this vital framework struggles to drive the necessary changes in the energy sector and related areas, further hindering progress toward WEF Nexus and JET goals.

## Recommendations

To address the challenges and improve policy coherence between the Just Energy Transition (JET) and the Water-Energy-Food (WEF) Nexus in South Africa, we propose the following recommendations.

- **Develop an Integrated Policy Framework:**

Establish a comprehensive policy framework that explicitly integrates the principles of the Just Energy Transition and the Water-Energy-Food Nexus. This framework should be endorsed at the highest political levels, demonstrating a clear commitment to addressing the interdependencies among these critical areas. Political buy-in is crucial for overcoming political barriers and ensuring the implementation of coherent policies. We must also consider the interplay between industrial policy and its potential influence on the JET to create a more integrated approach.

- **Enhance Political Will for Interdepartmental Coordination:**

Institute interdepartmental collaboration and coordination among key institutions involved in the JET and WEF Nexus planning. Enhancing collaboration will break down silos, allowing for better alignment of strategies, resources, and actions, ultimately leading to more coherent policies. This approach is particularly relevant for energy policy and industrial policy, both of which need to align to avoid incoherence.



- Enhance Public Engagement:

Establish mechanisms for broader public participation in policy and decision-making processes. Public engagement ensures that final policy decisions reflect the diverse needs and concerns of communities, helping to avoid unintended consequences and promoting social equity. We need to work on defining better engagement practices to create a more inclusive and legitimate process, considering consultation with communities at large and co-creation of solutions. A critical additional consideration is how to address differential access to policymaking for special interest groups. Put bluntly, access tends to be correlated to total income for a group, issues of corruption aside. This is because larger income enables some groups to dedicate people to the engagement process, consistently raising self-serving talking points in stakeholder engagements at the expense of more diverse stakeholder input.

- Align Political Priorities with Sustainable Economic Goals:

Leverage the investment opportunity presented by the JET-P and JET-IP, even if the financing comes mostly in the form of loans. Emphasise the economic benefits of transitioning to renewable energy, sustainable agriculture, and resource-efficient technologies. This approach should also address the concerns related to job losses and the opportunities for retraining workers, particularly in coal-mining regions. A strong focus on the long-term economic advantages of such investments can help garner political support.

- Strengthen Governing Institutions:

It is essential to strengthen our governing institutions to promote policy coherence and protect against corruption and subversion of our systems. This involves enhancing their ability to effectively implement policies and maintain transparent, accountable processes. Furthermore, understanding the implications of the JET on water and food resources should be central to the discourse.

Additionally, collaborative governance platforms play an important role in alleviating potential policy incoherence in implementation. These spaces need to be created both at the national level and regionally, as well as locally, where they can inform the co-development of strategies, implementation frameworks, and projects. This collaborative approach should be supported by capacity building that enables an integrated, cross-sectoral extension platform involving extension workers, emerging as important tools for promoting coherent implementation.

Extension: A process of working with resource users to improve their land biodiversity and water management, livelihoods, well-being, and environmental sustainability. (Includes regenerative agriculture).

It is important to emphasise the consequences of the JET on water and food resources and ensure that these aspects are thoroughly integrated into the policy recommendations. This includes considering the complexities of carbon markets or mechanisms and aligning them with the WEF Nexus. Mainstreaming gender in the JET is also crucial for promoting inclusivity and equity in the transition.

Furthermore, to address the issue of public engagement, materials, and audiovisuals should be developed to help communities better understand the JET and its implications at the local level. The importance of making the transition relevant to local governments and municipalities and aligning national policies with what is happening on the ground cannot be understated.

## Conclusion

The journey towards a sustainable, equitable, and resilient South Africa hinges on navigating the convergence of the Just Energy Transition and the Water-Energy-Food Nexus. This policy brief has illuminated the interdependencies among these critical sectors, dissecting the challenges and opportunities they present. It has underscored the importance of a comprehensive, coherent policy framework that transcends traditional boundaries and fosters collaboration among diverse stakeholders.

As South Africa strives to address climate change, advance sustainable development goals, and mitigate inequality, the imperative of policy coherence cannot be overstated. By embracing an integrated approach, leveraging economic incentives, and engaging stakeholders at all levels, South Africa can unlock the transformative potential of a Just Energy Transition intricately linked with the dynamics of the Water-Energy-Food Nexus.

In essence, this policy brief is a call to action, urging policymakers, stakeholders, and practitioners to embark on a transformative journey that acknowledges the interconnectedness of these challenges. By doing so, South Africa can embark on a path towards a more inclusive, resilient, and sustainable future for all its citizens.

### For more information:

James Reeler, Senior Manager:  
Climate Action, WWF South Africa

Nokwethaba Makhanya, Climate  
Science Officer, WWF South Africa

Caroline Gelderblom, Programme  
Manager: Water Source  
Partnerships, WWF South Africa

Alexia Faus Onbargi, Policy  
Researcher Researcher:  
Environmental Governance and  
Transformation to Sustainability,  
German Institute of Development  
and Sustainability (IDOS)



Lasting positive outcomes for people and  
nature in the places where we work and  
from priority environmental challenges  
we focus on.

FOR NATURE. FOR YOU.

[wwf.org.za](http://wwf.org.za)

WWF-SA is a registered non-profit organisation, number 003 -226 NPO. © 1986 Panda symbol WWF – World Wide Fund for Nature (Formerly World Wildlife Fund) ® “WWF” is a WWF Registered Trademark

1<sup>st</sup> Floor, Bridge House, Boundary Terraces Mariendahl Lane, Newlands, Cape Town. P.O.Box 23273, Claremont 7735, t +27 21 657 6600, e: [info@wwf.org.za](mailto:info@wwf.org.za), [www.wwf.org.za](http://www.wwf.org.za)

## References

- Calland, R. 2023. Sustaining Carbon Lock-In: Fossil Fuel Subsidies in South Africa. In Keys to climate action: How developing countries could drive global success and local prosperity. A. Bhattacharya, H. Kharas, & J.W. McArthur, Eds. Washington, D.C.: Brookings Institute. Available at: <https://www.brookings.edu/articles/south-africas-just-transition-a-whole-economy-transformation/>
- Climate Commission. 2022. "Framework for a Just Transition in South Africa." Final Framework Report and Recommendations. A Presidential Climate Commission Report. Available at: <https://www.climatecommission.org.za>.
- Department of Energy, Republic of South Africa, 'Integrated Resource Plan' (IRP2019), GN 1359, Government Gazette 42778, 18 Oct. 2019. Available at: <IRP-2019.pdf (energy.gov.za).>
- Department of Public Enterprises, Republic of South Africa, Roadmap for Eskom in a Reformed Electricity Supply Industry (Public Enterprises, 2019), (Eskom Roadmap). Available at: [https://www.gov.za/sites/default/files/gcis\\_document/201910/roadmap-eskom.pdf](https://www.gov.za/sites/default/files/gcis_document/201910/roadmap-eskom.pdf).
- Department of Water and Sanitation, Republic of South Africa, South Africa Yearbook 2021/22 Water and Sanitation (DWS, 2022). Available at: <<https://www.gcis.gov.za/sites/default/files/docs/gcis/21.%20Water%20and%20Sanitation.pdf>>
- Eberhard, A. and Naude, R., 2016. The South African renewable energy independent power producer procurement programme: A review and lessons learned. Journal of Energy in Southern Africa, 27(4), pp.1-14.
- Field, T.L., 2021. A just energy transition and functional federalism: The case of South Africa. Transnational Environmental Law, 10(2), pp.237-261. DOI: 10.1017/S2047102520000436
- Government of the Republic of South Africa, 'National Climate Change Response White Paper', (2011). available at: [https://www.environment.gov.za/sites/default/files/legislations/national\\_climatechange\\_response\\_whitepaper.pdf](https://www.environment.gov.za/sites/default/files/legislations/national_climatechange_response_whitepaper.pdf). Government of the Republic of South Africa, 'South Africa's Intended Nationally Determined Contribution'. Available at: <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/South%20Africa%20First/South%20Africa.pdf>.
- Hägele, R., and Iacobuta, G. (2020). Overcoming Incoherence between Climate Change and Sustainable Development: Insights from South Africa. Country Pre-Study (Unpublished).
- Hägele, R., Iacobuță, G.I. and Tops, J., 2022. Addressing climate goals and the SDGs through a just energy transition? Empirical evidence from Germany and South Africa. Journal of Integrative Environmental Sciences, 19(1), pp.85-120.
- Nel, E., Marais, L. and Mqotyana, Z., 2023. The regional implications of just transition in the world's most coal-dependent economy: The case of Mpumalanga, South Africa. Frontiers in Sustainable Cities, 4, p.1059312.
- PCC, 2022. South Africa's Just Energy Transition Investment Plan. Available at: <https://www.climatecommission.org.za/south-africas-jet-ip>
- Rennkamp, B. 2019. Power, coalitions and institutional change in South African climate policy. Climate Policy. 19(6):756–770. DOI: 10.1080/14693062.2019.1591936.
- Shawoo, Z., Dzebo, A., Hägele, R., Iacobuta, G., Chan, S., Muhoza, C., Osano, P., Francisco, M., Persson, A., Linner, B-O., and Vijge, M. (2020). Increasing policy coherence between NDCs and SDGs: a national perspective. SEI Discussion Brief. Stockholm Environment Institute, Stockholm.
- Simpson, G.B., Badenhorst, J., Jewitt, G.P., Berchner, M. and Davies, E., 2019. Competition for land: The water-energy-food nexus and coal mining in Mpumalanga Province, South Africa. Frontiers in Environmental Science, 7, p.86.
- South African Government. (2021). National Development Plan 2030. Available at: National Development Plan 2030 | South African Government ([www.gov.za](http://www.gov.za))