**BRIEFING NOTE**
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# THE JUST TRANSITION TRANSACTION:

## *MOTIVATING CLIMATE FINANCE SUPPORT FOR ACCELERATED COAL PHASE DOWN*

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## KEY MESSAGES

- The Paris Agreement's objective of making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development (Article 2c) indicates a shift away from an incremental view of climate finance towards one that is more holistic and systemic.
- South Africa is one of a number of coal-dependent emerging economies required to rapidly transition away from fossil fuels in order to align with the Paris Agreement temperature goals. Such a transition must be adequately managed and supported to deal with both the localised and systemic socio-economic disruption it will bring.
- To date, climate finance for climate mitigation under the Financial Mechanism of the United Nations Framework Convention on Climate Change (UNFCCC) as well as other public and private sources of climate finance, have been focused on supporting the uptake of (historically more expensive) low carbon activities and processes.
- Now that renewable energies are cost competitive in power sectors across many jurisdictions, a focus on the South African situation reveals that a more appropriate contemporary use of public climate finance in the power sector is to support the accelerated but managed phase down of coal-fired power.
- However, the paper demonstrates that there is a gap in the climate policy architecture for the instruments that can provide such support.
- The South African Just Transition Transaction (JTT) has been conceptualised to respond to this need. It is proposed as a prototype instrument of what should be established as a recognised sub-category of climate mitigation finance: 'transition finance', within the global climate finance landscape and articulated in Article 9 of the Paris Agreement.
- Such recognition, and the establishment of associated transition finance instruments and modalities are anticipated to unlock rapid and low-cost mitigation across other coal-dependent emerging economies, such as India, Indonesia and Vietnam.

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## THEMATIC OVERVIEW OF THE JUST TRANSITION TRANSACTION

The JTT is proposed as a transition finance instrument, aimed at securing an accelerated, managed, affordable and just energy transition for South Africa. This paper is one of a number of resources elaborating various aspects of the JTT, with a summary provided in the 'What is the JTT' report. Figure 1 provides a thematic overview of the JTT. Available resources on the JTT can be found on the Meridian Economics website.

This paper addresses the Climate Policy and Finance theme, specifically how the JTT suggests the need for a new sub-category of climate (mitigation) finance within the international climate policy architecture, specifically aimed at supporting countries and sectors in transition.

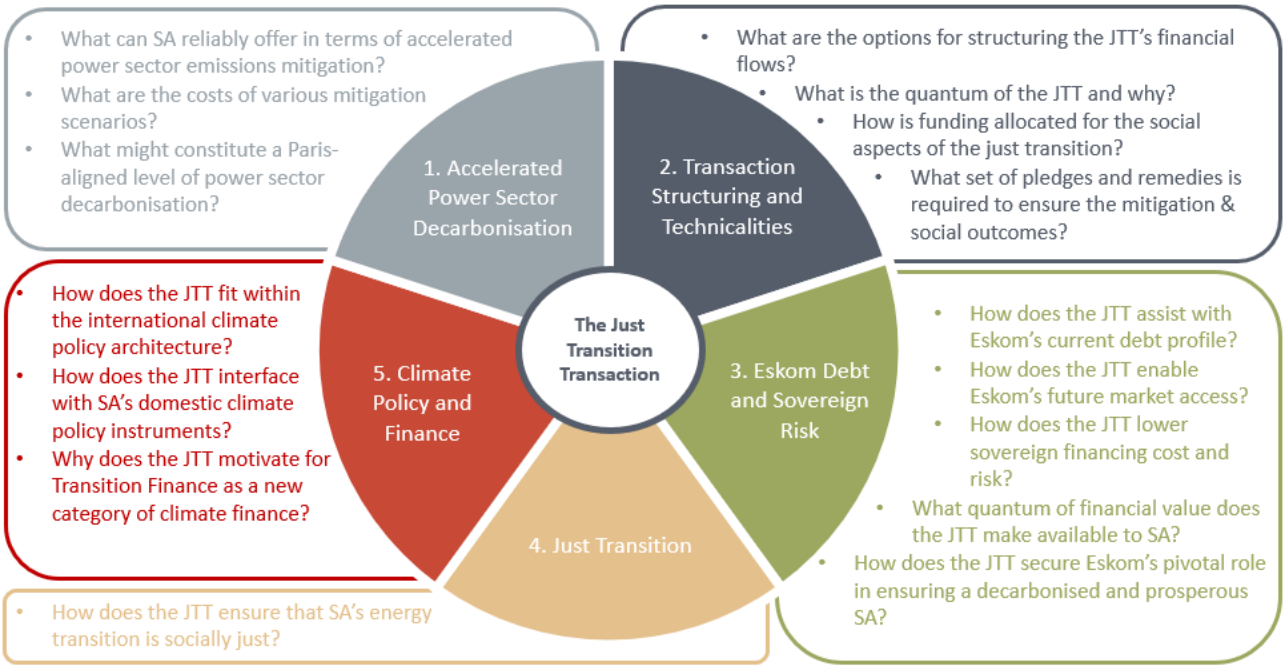


*Figure 1. Thematic overview of the Just Transition Transaction*

# 1 INTRODUCTION

Humanity has a rapidly dwindling window for action to limit global temperature rise and avoid the worst effects of climate change. According to the IPCC (2018) Special Report on Global Warming of 1.5 degrees Celsius, achieving the yardstick temperature goal of 1.5°C warming will require a 45% reduction of global emissions by 2030 from 2010 levels, and net zero global $CO_2$ emissions by 2050. This drastic reduction will only be achieved through far-reaching societal transformation and full buy-in from carbon-intensive companies, sectors, and countries (IPCC, 2018).

In 2019, South Africa was the 15th largest carbon emitter in the world in absolute terms and the 11th largest in terms of Gross Domestic Product (Crippa *et al.*, 2020). This poor ranking is to a large part explained by the country's highly carbon-intensive power sector, which alone accounts for roughly 42% of South Africa's total carbon emissions (Department of Environment, Forestry and Fisheries, 2020). Coal-fired power generation by Eskom, the country's state-owned utility, catered for 84% of the annual national electricity demand during the 2019/2020 financial year (Eskom, 2020).

As a signatory Party to the United Nations Framework Convention on Climate Change (UNFCCC) and ratifier of the Paris Agreement, South Africa has voluntarily committed to 'peak, plateau and decline' economy-wide carbon emissions over the near-term and ultimately aspires to move towards a goal of net zero carbon emissions by 2050 (Department of Environment, Forestry and Fisheries, 2020). The decarbonisation of South Africa's power sector will be critical to achieving these climate goals (Meridian Economics, 2020).

South Africa, like many other developing countries, faces serious developmental challenges including high levels of poverty, inequality, and unemployment. The national fiscus is highly constrained, particularly after the impact of the covid-19 pandemic. South Africa has articulated that implementing its intended climate commitments is to a large extent dependent on technical, financial, and capacity support from the international community being forthcoming (Department of Environment, Forestry and Fisheries, 2021).

The South African Just Transition Transaction (JTT) is a blended (concessional and commercial) finance framework, targeted at enabling an accelerated and just energy transition from South Africa's highly coal dependent power sector. In a nutshell, the JTT involves the use of international climate finance to support and enable Eskom to accelerate the phase down of its coal fleet, whilst simultaneously ensuring that adequate support measures are in place through the establishment of a dedicated Just Transition Fund to assist coal-dependent workers and communities through the transition. The JTT was conceptualised in 2018 by Meridian Economics, and since then has been socialised broadly with South Africa's government, finance sector, labour, business and civil society, as well as the international climate finance community and developed country governments. Eskom is currently championing its elaboration and implementation.

The JTT has a number of distinct and innovative features in the context of accessing international financial support for mitigation:

1. In terms of scale, at ~$10-15bn (a third of which is concessional loan and grant finance), the JTT will be the largest transfer of international climate finance to date requiring highly concessional rates.
2. The JTT targets entity-level finance for the Eskom power utility, as opposed to the traditional project-level climate finance model.
3. The JTT challenges the coal divestment paradigm, which essentially aims to withdraw funding from coal. Instead, through the JTT, climate finance invests in a coal utility subject to its verifiable adherence to an ambitious phase down of coal-fired power, thereby restoring its market access.
4. As such, the JTT suggests the need for a new type of climate (mitigation) finance, 'transition finance' which actively finances the phase down of emitting activities.

The mitigation policy space into which the JTT enters is also one that is rapidly changing. The IPCC Special Report on Global Warming of 1.5 degrees Celsius gave the world the concept of achieving "net-zero" carbon emissions in the second half of the century. From here, the concept of 'transitioning to net zero' has rapidly gained traction. Ahead of the next UNFCCC Conference of the Parties (COP) to be held in Glasgow in November 2021, many countries have pledged their commitment to achieving 'net zero' emissions by 2050, or similar targets. From an incremental approach of 'low carbon or sustainable development', the conceptual landscape is now dominated by the 'transition to net zero emissions'.

This paper introduces South Africa's mitigation and power sector context (section 2), scopes the primary mechanisms for accessing financial support for mitigation in the UNFCCC architecture in sections 3–5, before contextualising the proposed South African JTT within this architecture (sections 6–7). The paper argues that the JTT is a timely prototype of financial instruments to assist fossil fuel intensive developing countries wishing to accelerate the transition towards net zero emissions, constituting a practical example of meeting the Paris Agreement's objective of making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development (Article 2c). We conclude that elaboration of the climate finance mechanism (Paris Agreement Article 9) is the most practical and appropriate way to enable transition finance instruments such as the JTT access to international financial support for mitigation. This argument is summarised in Figure 2 below.

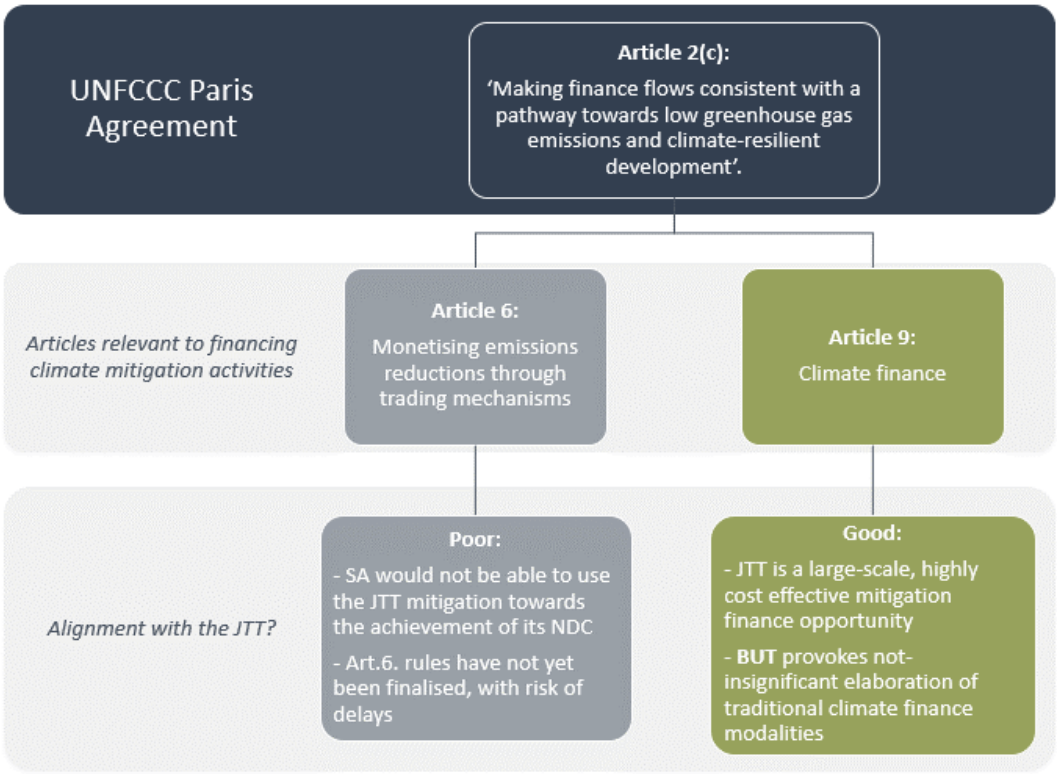


*Figure 2. Positioning the JTT within the Paris Agreement architecture.*

# 2 SOUTH AFRICA'S MITIGATION COMMITMENTS AND THE ROLE OF THE POWER SECTOR

## 2.1 THE NDC AND LONG-TERM NET ZERO GOAL

South Africa submitted its first Nationally Determined Contribution (NDC)[2] under the Paris Agreement in 2015 (see Meridian Economics, 2021a (forthcoming) for a discussion of how the JTT might align with South African Domestic policy architecture), which commits to achieving a "peak, plateau and decline" trajectory of greenhouse gas (GHG) emissions within the range of 398-614 million tonnes of carbon dioxide equivalent ($MtCO_2e$) per year by 2025, and staying within this range to 2030. SA's current NDC is in the process of being updated to include greater ambition. The currently proposed update (2021) commits to achieving GHG emissions with a reduced upper trajectory: a proposed range of 398-510 MtCO2e between 2021-2025, and 398-440 MtCO2e between 2026-2030. The extent to which this range is deemed a fair contribution to achieving the goals of the Paris Agreement is debatable (see ME, 2020; Climate Action Tracker, 2021).

In addition to mandatory short-term NDCs, countries are invited to submit long-term low greenhouse emissions development strategies (LT-LEDS) to the UNFCCC. LT-LEDS are intended to place NDCs in the context of country-level long-term planning and development priorities (Verkuijl, Jones and Lazarus, 2019). South Africa has recently submitted its LT-LEDS. The document states that South Africa commits to "ultimately moving towards a goal of net zero carbon emissions by 2050" whilst ensuring a just transition and maximising the economic advantages brought about by

[2] *NDCs should outline the actions that shall be undertaken by each country to contribute to the Paris goals including how countries intend to reduce their emissions within a specific timeframe, their adaptation efforts, and their climate finance provisions or requests for climate finance support (UNFCCC, 2015).*

a transition (Department of Environment, Forestry and Fisheries, 2020:21).

## 2.2 THE POWER SECTOR HOLDS SIGNIFICANT LOW COST MITIGATION POTENTIAL

The decarbonisation of the power sector presents South Africa's least-cost route to achieving both higher NDC ambition and long term economic decarbonisation (Mccall *et al.*, 2019; Marquard, 2020; Meridian Economics, 2020, 2021b).

South Africa's coal-based electricity generation sector currently accounts for 42% of national GHG emissions, forming the largest portion of the national total (See Figure 3 below). Because of its systemic importance, decarbonising the power sector is critical in enabling South Africa to meet its national emissions reduction targets (Meridian Economics, 2020). In addition, an increased supply of low-carbon electricity is needed to assist other hard-to-decarbonise sectors such as transport and heavy industry (e.g. steel and cement production) to reduce their emissions (Energy Transitions Commission, 2021), especially in light of South Africa's aspirations to reach net zero by mid-century.

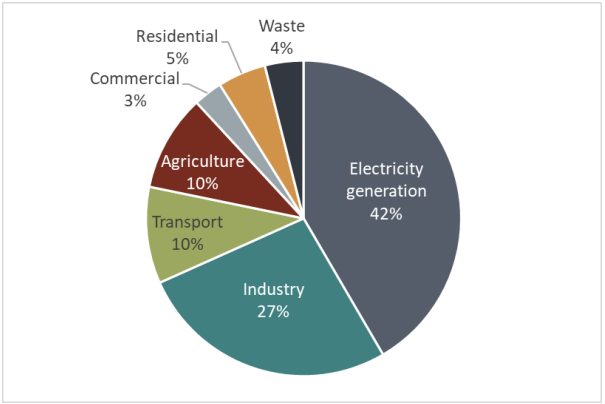


*Figure 3. Proportion of national greenhouse gas emissions per economic sector (Department of Environment, Forestry and Fisheries, 2020:14)*

Reducing power sector emissions is fortunately the biggest 'bang-for-your-buck' option in South Africa. This was demonstrated in South Africa's GHG Mitigation Potential Analysis of 2014 (which is currently being updated), where the potential quantum and cost of emissions abatement was determined for various economic sectors including electricity, industry, liquid fuels and agriculture. The analysis shows that the largest volume of national total emissions reductions can be achieved in the power sector, at the lowest cost (Department of Environmental Affairs, 2014).

Given the rapidly declining costs of wind, solar PV and battery storage, the case for South Africa's power sector as a cost-effective mitigation option has only grown stronger since 2014. A recent power system modelling study by Meridian Economics and the Council of Scientific and Industrial Research (2020) finds that accelerating the uptake of renewable energy to achieve up to 1 Gigaton (Gt) of emissions reductions relative to South Africa's current policy pathway (the Integrated Resource Plan 2019) in fact is cost equivalent for the power system. Furthermore, the "additional costs" of achieving even higher mitigation of around 1.5 Gt (which involves ramping the renewable energy build rate up to 5-6 Gigawatts (GW) per year by 2025) are small.

It thus appears feasible for South Africa to achieve even greater ambition than that stated in its currently proposed NDC update. However, whilst feasible from a power system cost perspective, there are a number of reasons why South Africa will require additional financial support for an accelerated electricity sector transition:

1) To overcome current political barriers towards accelerating the transition, by ensuring that Eskom, a systemically important institution, is supported in its transition away from coal.
2) To cover the costs of 'just transition' elements including the establishment of an institutional structure to manage the transition, worker compensation and retraining, catalysing new green economic activity through the localisation of green industrial zones, and upgrading public infrastructure.
3) To cover the cost of 'front-loading', renewable beyond a least-cost trajectory, to achieve additional mitigation.
4) To provide cost compensation to South African taxpayers and consumers for closing the coal fleet before the end of its economic life.

# 3 INTERNATIONAL FINANCIAL SUPPORT FOR DEVELOPING COUNTRY MITIGATION

The UNFCCC of 1992 established the first international treaty to drive a global effort to tackle climate change and is the foundation of international climate policy. The overarching objective of the Convention is to stabilise GHG concentrations in the atmosphere "at a level that would prevent dangerous anthropogenic interference with the climate system" (UNFCCC, 1992: Article 2). As of 2020, the UNFCCC has 197 signatory Parties from developed and developing countries, who meet annually at the COP to discuss progress towards and plans for addressing climate change.

## 3.1 PRINCIPLES AND MECHANISMS OF THE UNFCCC AS THEY RELATE TO CLIMATE FINANCE

A foundational principle of the UNFCCC recognises the unequal historical contributions of developed and developing nations towards climate change, as well as their uneven capabilities for implementing climate change mitigation and adaptation strategies. This principle has been termed 'common but differentiated responsibilities and respective capabilities' (CBDR-RC) and obligates developed nations to reduce their emissions deeper and faster, and to support developing nations to achieve their adaptation and mitigation targets through means of finance, technological transfer and capacity building.

A 'Financial Mechanism' was established under Article 11 of the UNFCCC (1992), with the aim of facilitating the provision of climate finance to developing country parties to the Convention. It was intended that the details for operationalising the mechanism would be fleshed out in subsequent negotiations. Since then, formal UNFCCC structures including the Global Environmental Fund (GEF), the Green Climate Fund (GCF) as well as the Special Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF) – both managed by the GEF, have served as operating entities for the UNFCCC Financial Mechanism (UNFCCC, 2021).

At the 15th COP in Copenhagen (2009) the first collective climate finance target was quantified – to mobilise $100 billion per year by 2020 to support climate action in developing countries, from both public and private sources (this would include those operating through formal UNFCCC Financial Mechanism channels, as well as those originating elsewhere in the global climate finance landscape). At the 16th COP in Cancun (2010), this finance target was formally adopted, and a Standing Committee on Finance was established to oversee progress towards it (Figure 4).

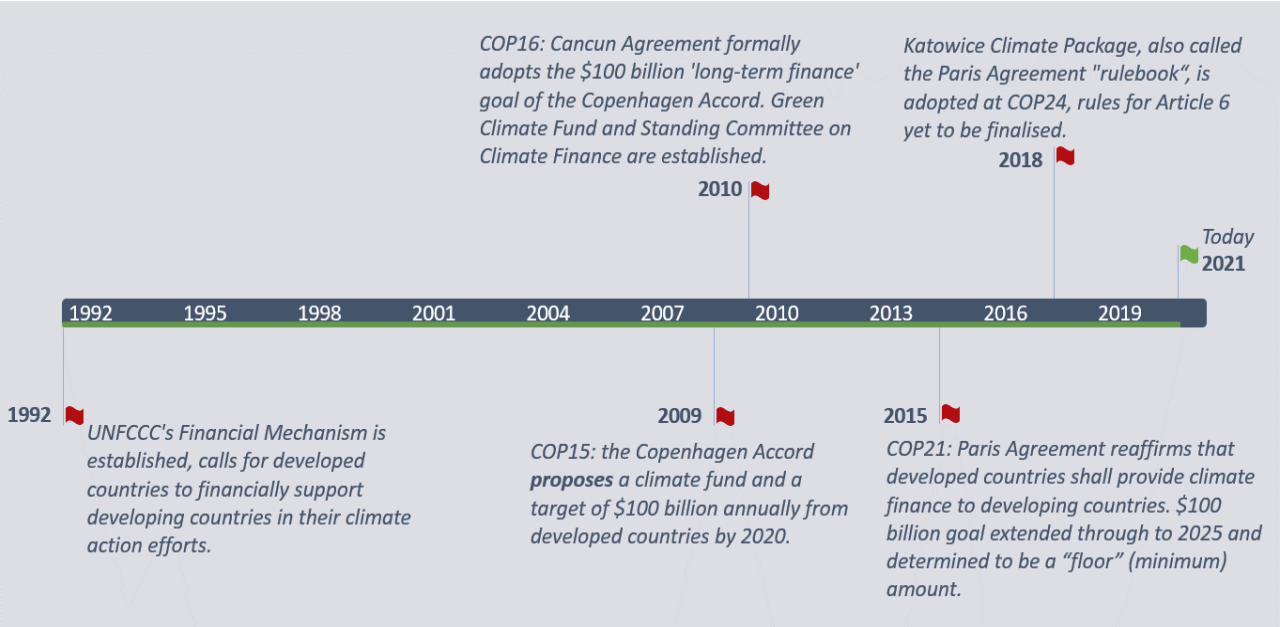


*Figure 4. Timeline of relevant climate finance decisions in the UNFCCC process.*

## 3.2 FINANCE WITHIN THE PARIS AGREEMENT

The 21st COP in 2015 led to the adoption of the Paris Agreement, which forms the current legally binding policy framework on climate change. The Agreement aims to enhance the implementation of the UNFCCC through three key overarching aims, as outlined in Article 2:

a) *Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;*

b) *Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and*

c) *Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.*

Article 2(c) is significant in the context of the JTT, in that it indicates a shift from an incremental consideration of funding for climate purposes, towards embarking on a more fundamental, whole-system transformation and re-alignment of global financial flows. This brings into plain sight the need for innovative financial mechanisms to support the transition period of reorientating emissions-intensive activities to low-carbon activities.

Article 4 of the Paris Agreement contains the obligation for all signatory Parties to prepare and submit their Nationally Determined Contributions (NDCs) towards realising the goals of the Paris Agreement every five years. The UNFCCC CBDR-RC principle is reinforced throughout the Paris Agreement, and in relation to the implementation of NDCs, whereby "support shall be provided to developing country Parties, recognizing that enhanced support will allow for higher ambition in their actions" (UNFCCC, 2015). Article 9 of the Paris Agreement reinforces the need for developed countries to provide financial support to developing countries to achieve their NDCs.

One aspect of the pre-Paris climate policy architecture that, whilst not formally carried through in the Paris Agreement nevertheless remains relevant for an initiative such as the JTT, is the concept of Nationally Appropriate Mitigation Actions (NAMAs), introduced by the 2007 Bali Action Plan. A NAMA is a mitigaton action undertaken by a developing country that has now become 'naturally framed' by the targets specified in a country's NDC (Lütken, 2016). NAMAs could be considered as the means of implementation of NDCs; they have often described sectoral mitigation initiatives and have been evaluated for their transformational potential. Whilst South Africa has not pursued the NAMA terminology and developing infrastructure significantly over the years, there is nevertheless a useful literature on methods of preparing NAMAs for financial support that may be relevant in articulating an instrument such as the JTT.

In this brief, we explore how the South African JTT – including its financial flows and resultant emissions reductions – could be positioned within the current global climate policy architecture. To this end, we focus on the Paris Agreement **Article 9** on the provision of climate finance, **and Article 6** which addresses cooperative approaches to reducing emissions involving mechanisms for monetising emission reductions).

# 4 PARIS AGREEMENT ARTICLE 9: CLIMATE FINANCE

Article 9 of the Paris Agreement obligates developed country parties to provide financial resources to assist developing country parties with respect to both mitigation and adaptation activities. It is stipulated that this 'climate finance' may be mobilised "from a wide variety of sources, instruments and channels, noting the significant role of public funds" (UNFCCC, 2015:13).

Article 9 also emphasises that the mobilization of funds by developed countries should represent a progression beyond previous efforts (each financial support pledge in their NDC should be more progressive than the last).

At the 16th COP in Cancun, a concrete financial target for climate finance was formalised within the UNFCCC framework, with developed countries committing to a

goal of jointly mobilising $100 billion per year by 2020 to support climate action in developing countries.

The $100 billion funding goal is intended to have a 50/50 percent balance between adaptation (including loss and damage) and mitigation funding, and is to be harnessed from a variety of sources, both public and private. Furthermore, least-developed countries are to be sufficiently represented as beneficiaries (UNFCCC, 2016).

It is expected that a substantial portion of the $100 billion will flow through formal UNFCCC climate funds that have been established under the Financial Mechanism at various COP negotiations including the GCF, the GEF, the LDCF, the Adaptation Fund, amongst others (Williams, 2019). However, it is also anticipated that large contributions to the $100 billion goal will come from outside the formal UNFCCC financial structures, including from bilateral development finance institutions, multilateral development banks, and multilateral funds like the Climate Investment Funds, as well as the private sector.

## 4.1 REINFORCING THE GOAL TO MOBILISE CLIMATE FINANCE IN THE PARIS AGREEMENT

Article 9.1 of the Paris Agreement creates a legally binding, collective obligation whereby developed country Parties are obligated to provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention. In the Paris Agreement, through decision 1/CP.21, the goal of jointly mobilising $100 billion was extended through to 2025 (from 2020) and it was decided that the $100 billion target should be a "floor" (minimum) and not a ceiling amount. This progression of decisions is demonstrated in Figure 4.

## 4.2 WHAT COUNTS AS CLIMATE FINANCE?

Though Article 11.1 of the UNFCCC (1992) framework specifically stipulates that financial resources for climate-related activities should be provided "on a grant or concessional basis", subsequent negotiations at the COP have resulted in a broader interpretation of climate finance, with an emphasis on engaging both public and private flows and through a variety of instruments (Oxford Climate Policy, 2020). Currently, there are a number of different types of climate financing options including grants, loans, equity, and export credits. The grant component of climate finance has been highlighted as a critical lever to mobilise private capital, thus de-risking investments in developing countries that the private sector may otherwise avoid, and further scaling up efforts in blended finance structures (IEGCF, 2020).

In line with Article 9.5 of the Paris Agreement (UNFCCC, 2015), developed countries are to self-report their provision of public climate finance through bilateral and multilateral channels to the UNFCCC every two years. Consistent methodologies for the measurement and reporting of climate finance are in development, but have not yet been harmonized, making the task of collecting, aggregating and analysing climate finance flows difficult (UNFCCC Standing Committee on Finance, 2018; IEGCF, 2020).

According to the latest report by the UNFCCC Standing Committee on Finance (2018:10) – which is unfortunately now fairly dated – total "climate-specific" public finance, which is reported as the sum of mitigation, adaptation, cross-cutting and other climate finance provided via bilateral, multilateral, regional and other channels, was ~ $38 billion in 2016. A large portion of this was made up of bilateral climate finance (flows directly from developed to developing countries predominantly through Development Finance Institutions) with a smaller portion from UNFCCC multilateral channels such as the GCF. The split between grant and concessional finance in both bilateral and UNFCCC flows at this time was fairly even. However, recent analysis shows that loans have been increasing far more rapidly than the grant components of public climate finance, with grants remaining relatively stagnant over the last few years (IEGCF, 2020).

The absence of internationally agreed accounting practices for climate finance flows highlights the importance of exercising caution when interpreting climate finance numbers. Inconsistent methodologies have led to vastly different statements on the progression to the $100 billion goal, and the 'self-reporting' framework has been criticised for being prone to overestimations of developed country climate finance contributions (Weikmans & Roberts, 2019; Roberts et al., 2021; IEGCF, 2020). For example, the

Organisation for Economic Co-operation and Development (OECD), a group of developed countries, reported an annual average of $57 billion of public and private climate finance in 2013/14, while the Indian Ministry of Finance highlighted loopholes in the OECD accounting methodology and asserted that only $1-2.2 billion could in fact be counted.

More broadly, it is difficult to make meaningful comparisons between the efforts of different countries, as many account for their financial instruments at cash face value, which inflates the reported climate finance figures of contributors with a predominance of loans, compared to those with a predominance of grants.

Addressing accounting discrepancies and building a rigorous framework to measure progress on the $100 billion commitment is hugely important for the future integrity of the climate finance system and building trust between countries. Pauw et al (2019) have argued that, in order to build trust and establish mechanisms to hold developed countries accountable for their climate finance commitments:

(1) Developed countries should more specifically and granularly articulate their intended provision of and types of climate finance support to developing countries; and
(2) Developing countries should 'add substance' to their support needs, which include feasible projects, plans and financial requirements for their implementation. Around 136 developing countries have expressed the need for partial or full financial support (in addition to technical and capacity-building support) in order to achieve their NDC targets, including South Africa (Pauw *et al.*, 2019). For example, South Africa's proposed updated NDC indicates that the country "expects developed countries to continue to provide and mobilize climate finance and to support country-driven strategies, consistent with Article 9." (NDC Update 2021)

# 5 PARIS AGREEMENT ARTICLE 6: MONETISING EMISSION REDUCTIONS THROUGH TRADING MECHANISMS

Outside of the financial support for climate action under Article 9, another way of monetising mitigation is through market mechanisms (the sale of emission reduction units or credits). Such 'Flexible Mechanisms', aimed at co-operative action on emission reductions, were initially established by the Kyoto Protocol, with the Clean Development Mechanism (CDM) being relevant for developing countries. Under the CDM, government accredited projects in developing countries that reduced emissions beyond an identified 'Business as Usual' baseline would generate emission reduction credits, which could then be sold to developed countries for use against their Kyoto targets.

Whilst the Paris Agreement architecture is fundamentally different to Kyoto, similarly to the Kyoto Flexible Mechanisms, its Article 6 intends to catalyse voluntary cooperation between countries to raise climate ambition and guide the foundation of a carbon market system to lower the cost of achieving emissions reductions (Carbon Brief, 2019). Article 6 contains two market-based frameworks: one for the bilateral trading of emissions between countries and another for the trading emissions through a centralised, multilaterally governed mechanism[3]. Successive COPs have struggled to negotiate the rules for operationalising both the market-based and non-market-based frameworks of Article 6. At the time of writing, the Article 6 rules are yet to be finalised.

## 5.1 ARTICLE 6.2: BILATERAL EMISSIONS TRADING BETWEEN COUNTRIES

Paragraph 2 of Article 6 provides a framework for country-to-country emissions trading, whereby emissions reductions achieved by one 'host' country can be sold at an agreed price to another country and counted towards the buyer's NDC targets. These emissions reductions are sold in the form of Internationally Transferred Mitigation Outcomes (ITMOs). Only the purchasing country can count the traded portion of the mitigation outcomes towards its

[3] Article 6 also includes a third framework for 'non-market'-based cooperative approaches, which are aimed at non-financial forms of co-operation, and therefore is not considered further in this paper.

NDC, the seller cannot use these outcomes for its own NDC compliance to avoid "double counting" (UNFCCC, 2015: Article 6.2).

## 5.2 ARTICLE 6.4: A CENTRALISED TRADING MECHANISM FOR MITIGATION PROJECTS

Paragraph 4 of Article 6 makes provision for a centralized global trading "mechanism" for emissions reductions credits generated through specific projects from one host Party to another. A significant requirement for this Article, and one which distinguishes it from its predecessor, the Kyoto Protocol's Clean Development Mechanism (CDM), is that it aims to deliver an 'overall mitigation in global emissions'. How to achieve this overall mitigation, or 'additional' emission reductions, is a highly debated topic, with some arguing that this might involve automatically cancelling a portion of the emissions credits generated by a specific project. In other words, a portion of the emission reductions achieved by the project would *not* be used to offset an equal volume of emissions elsewhere, in order to achieve an overall emissions reduction (Schneider and Warnecke, 2019). In terms of "double counting", the language in Article 6.4 is more ambiguous than that in Article 6.2 which specifically states that emissions reductions can only be used by one country. This has allowed room for countries, such as Brazil with some support from India and Russia, to argue that emissions credits generated should *also* be allowed to be counted by the host country. This is opposed by many European countries (Carbon Brief, 2019).

## 5.3 LACK OF CLEARLY ESTABLISHED RULES FOR ARTICLE 6 IMPLEMENTATION

The Paris Agreement is elaborated by rules which are designed to enable it to be implemented. Article 6 rules have been particularly difficult to agree on, with attempts at COP24 in Katowice and COP25 in Madrid failing to achieve consensus. There is hope that COP26 in Glasgow will see the finalisation of the Article 6 rulebook (Climate Finance Innovators, 2020). The main (and fairly fundamental) issues for which rules need to provide clear guidance are: reporting requirements for bilateral and multilateral emissions trading, regulating the use of ITMOs, methodologies to ensure that emissions reductions are not 'double counted' in both the country of origin and the recipient country, the use of NDCs as crediting baselines given the lack of clarity and comparability of NDCs across countries, lack of adequate ambition in the case of some NDC mitigation targets, the modalities and procedures of a central, multilaterally governed mechanism and how existing CDM credits will be dealt with (Sharma *et al.*, 2016; Müller and Michaelowa, 2019).

Though a clear rules framework has not yet been established, there are a number of Article 6 piloting activities in the preparatory phase. For example, the first Article 6 specific bilateral agreement has been signed by Switzerland (buyer) and Peru (host Party), after having established its own framework for purchasing mitigation outcomes (Climate Finance Innovators, 2020).

South Africa's draft update to its current NDC has expressed that it may be open to hosting Article 6.4 type projects and may enter into trading under Article 6.2 (Department of Environment, Forestry and Fisheries, 2021)

## 5.4 CHALLENGES TO SITUATING THE JTT AS A PARIS ARTICLE 6 MECHANISM

Under Article 6.2 and 6.4, additional carbon emissions reductions achieved by South Africa through the implementation of the JTT (or a portion of them) would be voluntarily traded as ITMOs at a certain price through a bilateral or multilateral mechanism. Emissions reductions would need to be determined 'additional' - likely by demonstrating them to be over and above those which would have been achieved if South Africa were to have followed the IRP 2019, which is identified as its highest level of power sector ambition in its proposed updated NDC (Meridian Economics, 2021b). These ITMOs would then be used towards the achievement of the *purchasing* country's NDC mitigation targets. Co-operative mechanisms under Article 6.2 and 6.4. will mostly likely imply a corresponding reduction in carbon space from South Africa's first updated NDC, and successive NDCs, given the term of the JTT (likely to 20 years).

As discussed in section 2.2, emissions reductions in the power sector play a critical role in enabling South Africa to achieve its proposed updated NDC, together with its net zero emissions aspirations by mid-century. Therefore, it is not readily apparent that South Africa

has space to sell emissions mitigation from the power sector without comprising its achievement of its own NDC targets.

In addition, Article 6 rules have proved particularly difficult to agree in the international process. Whilst there is an intention to conclude this at COP26 in Glasgow, this is far from certain. This presents a major risk to the refinement and implementation of such approaches. The need for an intervention such as the JTT to unlock an accelerated electricity transition for South Africa is urgent.

# 6 THE JTT AS A CLIMATE FINANCE INSTRUMENT

The JTT is premised on the notion that South Africa will be able to accelerate its just transition in the power sector if enabled by the requisite financial and political support from the international climate policy process.

Whilst there are arguments to be made that the JTT could happen outside of the UNFCCC and its policy architecture, through the issuance of transition bonds (Climate Bonds Initiative, 2020), or the sale of voluntary offset credits (HSBC, 2020), there are more compelling reasons for why it would be advantageous for the Transaction to occur within the ambits of the climate policy architecture.

These include:

1. **Political:** the barriers to an accelerated coal phase down in South Africa are primarily political and institutional (as elaborated in Steyn *et al.*, 2021). Climate diplomacy can assist South Africa to overcome domestic political barriers through high political profiling of the JTT, and financial support.
2. **Legitimacy:** The UNFCCC process affords the highest level of legitimacy and credibility to mitigation initiatives, this is important to support the JTT's political profiling.
3. **Established principles:** The UNFCCC journey has yielded important scaffolding for approaching the support of energy transitions in developing countries (such as the CBDR-RC principles), which the JTT can leverage to achieve its objectives.
4. **Establishing a transition finance precedent**: There is no precedent in the UNFCCC climate finance space for the support of the phase down of emitting activities at a sectoral or entity level, which, given the urgency of mitigation to remain below 1.5 degrees Celsius of warming, will be required. The JTT provides a useful prototype for this, together with practical learnings and guidance to support other similar developing countries needing to rapidly transition away from fossil fuel path dependencies.

The UNFCCC's goal of mobilising $100 billion of climate finance per year from developed countries under Article 9 seems at first glance an easy fit for the JTT. The JTT is a large-scale sectoral mitigation intervention targeted at enabling substantial, additional and low-cost emissions reductions in the South African power sector through a blended finance vehicle. As such, it provides an avenue for developed countries to allocate a significant portion of climate finance in one transaction, demonstrating progress towards compliance with their $100bn collective obligation. The JTT is supported by government, and its implementation will involve the evolution of national policy such as the Integrated Resource Plan. The JTT will include clear mitigation and social performance metrics, with remedies for non-performance. It aligns well with the South African domestic climate policy architecture, which includes provisions for reporting and a legal framework for compliance (Meridian Economics, 2021a (forthcoming))**.** A portion of the funding is set aside for just transition elements, attending to the sustainable development and social aspects enshrined in the 'equitable access to Sustainable Development' principle of the UNFCCC, and aligned with the Paris Agreement taking account of the imperative for a just transition of the workforce. The JTT appears well suited to make use of the work on climate finance support for NAMAs, such as Lütken, 2016.

However, a deeper look reveals some challenges to situating the JTT within the current UNFCCC Finance Mechanism structures and climate finance modalities. Whilst the scale of the JTT is attractive from the perspective of reduced transaction costs, allocating such a large amount to a middle-income African country for mitigation above adaptation (the priority for the African continent) has political implications within the context of the UNFCCC negotiations (Masters, 2011).

The JTT is designed to provide entity-level finance for Eskom, in contrast to the traditional project-level climate finance model. DFIs and climate funds typically specify the climate finance 'use-of-proceeds' in any project very closely, requiring detailed retrospective reporting confirming that that the funds have indeed been spent on the activities specified up front.

This brings us to the third challenge. The activities that climate finance typically funds in the mitigation space are predominantly low / zero carbon technologies or process improvements. The installation of renewable energy, or energy efficiency interventions are examples in the energy space. However, the JTT proposes using the finance to support a utility phase down its emitting activities – i.e. the finance is used for a coal utility, albeit subject to a clearly determined transition pathway where emissions decline over time. Up until now there has been no space for this type of financing within the climate finance conceptual frameworks, largely because the need to transition rapidly has only come into clear collective view since the IPCC Special Report on 1.5 degrees. Figure 5 below demonstrates this point clearly – there is no 'transition finance' category. The disruption of renewable energy cost declines in the global energy sector presents an additional change: whilst it used to be appropriate for (public or concessional) climate finance to support renewable energy, that these technologies are now largely commercially viable the rationale for such use now becomes questionable. Rather, particularly given the pressures of the divestment movement for investors to withdraw financing from coal entities and activities, it can be argued that support is required for the managed transition of these entities, ensuring minimal socio-economic disruption.

Finally, the level of concessionality or grant finance required by the JTT appears to go significantly beyond the typical mix of public versus private flows of climate finance. In addition, Meridian Economics' experience to date of engaging with the climate finance community confirms that the concessional rates offered by DFIs are insufficient to cover the costs of South Africa's accelerated transition. The current inadequacy of climate finance reporting does not help in fully understanding this issue.

Despite these challenges the shifts in the broader climate policy architecture described in the introduction, together with the growing awareness and understanding of the implications of the goals of the Paris Agreement and the IPCC Special Report on Global Warming of 1.5 degrees Celsius provide fertile ground for an evolution of these Finance Mechanism structures. Most specifically, Article 2c of the Paris Agreement – on aligning financial flows towards achieving the Paris temperature goals – can be argued as opening up the space for transition finance initiatives which support emitting activities under a strict phase down condition; and for supporting entities as opposed to projects. In the case of South Africa at least, the unmanaged transition will have severely anti-justice and anti-sustainable development outcomes. Whilst large business and the wealthy can afford to build their own supplies of renewable power, the same cannot be said of the vast majority of the country's citizens. A multi-dimensional intervention such as that of the JTT, leveraging international climate finance provides an organising focus that has the potential to chart a way forward for the South African power sector.

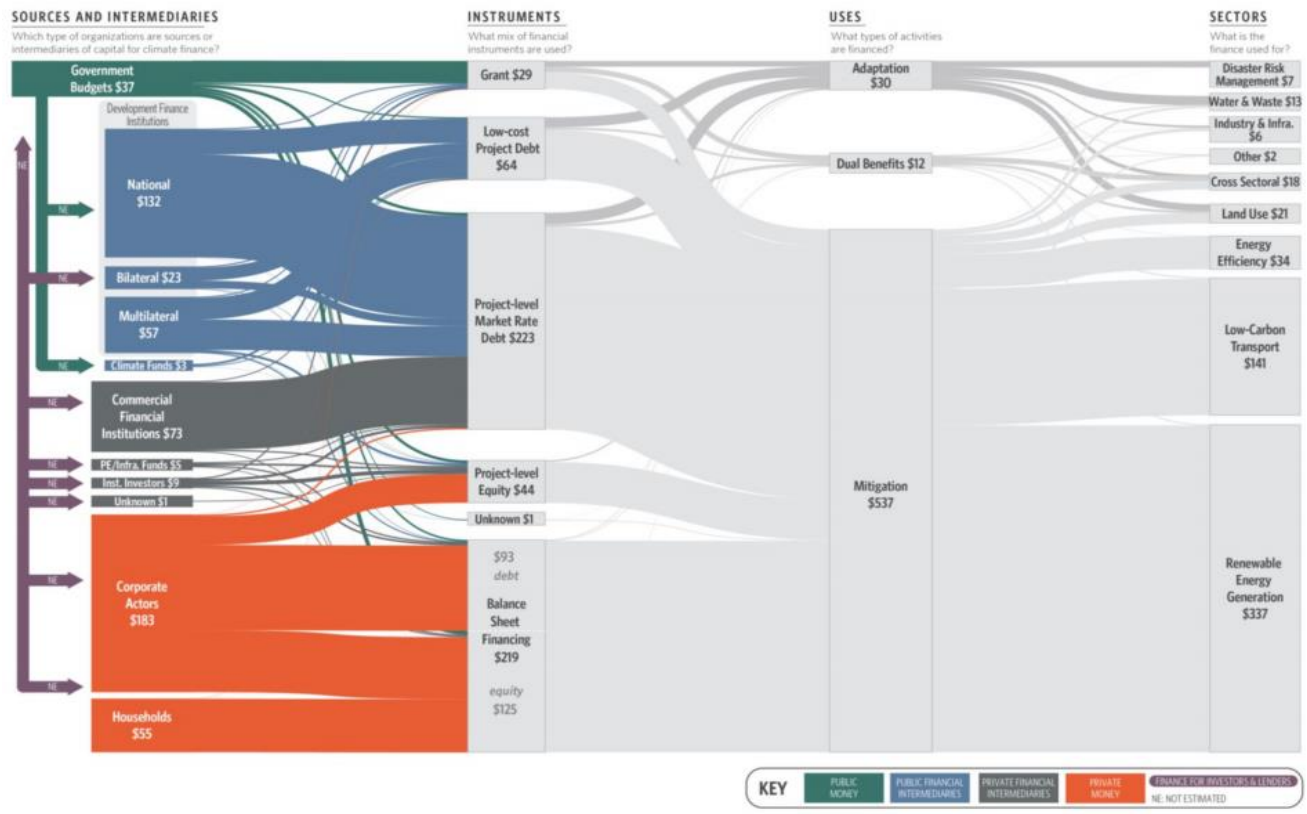


*Figure 5: Global climate finance flows along their life cycle in 2017 and 2018. Values in US $ billions.(Climate Policy Intiative, 2019)*

# 7 CONCLUSION

This paper has considered how an initiative such as the South African Just Transition Transaction (JTT) for Eskom / South Africa might best be supported within the UNFCCC climate finance architecture. Eskom is currently transitioning away from its coal based legacy infrastructure, and requires financial support to do so in a managed and equitable manner.

The paper argues that the JTT is in principle a mechanism for operationalising Article 9 of the Paris Agreement, which is situated within the broader UNFCCC financial support framework and goal of mobilising $100bn per year of climate finance from developed countries. However, it also argues that current climate finance modalities and orientation (both within the UNFCCC formal Financial Mechanism structures and those outside them) to date fall short of what would be required to support the JTT and other similar 'transition finance' initiatives across coal-dependent emerging economies: Many climate finance institutions are becoming constrained by coal exclusion mandates, the depth of the concessionality on offer is insufficient, and the 'use of proceeds' model is restrictive. There is therefore a gap for a sub-category of climate (mitigation) finance which caters for transitions at the country, sector and potentially entity level under the UNFCCC architecture, and beyond. Addressing this gap is urgent – as by all accounts significant inroads into coal phase down has to occur in the early days of the current decade, if countries like South Africa are to be in a position to align with the Paris Agreement temperature goals (Meridian Economics, 2020).

The stakes are high, both domestically for South Africa, and for the ability of international climate finance to play a meaningful role in unlocking similar fossil fuel transitions in other emerging economies. Situating the JTT as a new category of climate finance – 'transition finance' – positions it as a prototype of an important suite of transition finance mechanisms that are anticipated to follow in growing numbers.

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