



SOUTHERN AFRICAN POWER POOL

SAPP Climate Change Mitigation and Adaptation Strategy

July, 2017

1. INTRODUCTION

Climate change threatens the foundations of sustainable socio-economic development in SADC countries in that energy, water, agriculture and other economic sectors are vulnerable to climate change. The impacts are already perceived and result in increased frequency and severity of droughts, floods, cyclones, sea level rise and other extreme weather events which are detrimental to marine and terrestrial ecosystems, water resources, energy, food security, health, infrastructure and overall economic development. Most SADC communities are vulnerable to these impacts mainly because of high poverty levels, low resilience and adaptive capacity and lack of technologies to counter the climate change impacts, including extreme weather events

An international convention, the “**United Nations Framework Convention on Climate Change [UNFCCC]**” was developed in 1992 during the UN Conference on the Environment and Development (“the Rio Conference”). The objective of the UNFCCC is to stabilize “greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system”.

Each year the countries that have signed/ratified or acceded to the UNFCCC come together at “Conference of the Parties (COP)” and “Subsidiary Body” meetings to discuss and negotiate the actions required to meet the objectives of the UNFCCC. At one such meeting, the **Kyoto Protocol** to the Convention on Climate Change was adopted, “under which industrialised countries will reduce their combined greenhouse gas emissions by at least 5% compared to 1990 levels by the period 2008 – 2012”. All SAPP member states were signatories to the Kyoto Protocol. In December 2015, 196 Parties to the UNFCCC adopted the Paris Agreement, a new legally binding framework for an internationally coordinated effort to tackle climate change. The Agreement establishes a global warming goal of well below 2 degrees Celsius on pre-industrial average's. It requires countries to formulate progressively more ambitious climate targets, which are consistent with this goal.

The Attachment provides a brief description of the UNFCCC and the Paris Agreement, and the status of the SAPP member countries ratification/accession.

2. IMPLICATIONS FOR SAPP MEMBER COUNTRIES

The SAPP member countries are vulnerable to both the negative impacts of climate change, as well as the impacts of response measures taken by the industrialised countries in order to meet their commitments.

Article 4.8 of the UNFCCC lists categories of particularly vulnerable countries and it is clear that in terms of vulnerability, SAPP member countries all meet some of the criteria:

- arid and semi-arid areas, forested areas and areas liable to forest decay,
- areas prone to natural disasters;
- areas liable to drought and desertification;
- areas of high urban atmospheric pollution;
- areas with fragile ecosystems, including mountainous ecosystems;
- economies [that] are highly dependent on income generated from the production, processing and export of, and/or on consumption of fossil fuels and associated energy-intensive products;
- land-locked and transit countries.

It must be considered that SADC countries are:

- developing states whose economies are generally weak, thus limiting their adaptive capacities to climate change risks;
- constrained to diversify their economies and adapt to periodic impacts of extreme climatic events due to lack of appropriate skills and technology and poverty;
- characterised by large carbon stocks in forests and woodlands and wetlands that constitute significant carbon sinks, which play a major role in stabilizing the global climate;
- experiencing significant impacts on key sectors such as energy, water and agriculture as a result of climate change.

3 SAPP STRATEGY

None of the Southern African Power Pool member states have obligations to reduce greenhouse gas emissions. Some of the SAPP member countries have submitted NDCs outlining their emissions target and initiatives they will be putting in place to adapt to the impacts of climate change including the required means of implementation. However, the SAPP is committed to continuing development in a sustainable manner that results in benefit to the economy, society and the environment. The SAPP's approach is to contribute to global efforts to combat climate change, while ensuring sustainability of the region's economies.

3.1 SAPP's Climate Change Strategy unpacks our commitment to this challenge through;

- Raising awareness and promote training and capacity building within our respective organisations at all levels:
- In the context of their respective countries national policy, support the establishment of an inventory of applicable greenhouse gases and National Climate Change Communications under the UNFCCC
- Providing input and become involved in climate change projects, particularly energy projects in the SADC region.
- Organizing and facilitating climate change related **workshops, conferences, seminars** etc for SAPP members.
- Facilitating collaboration with other organizations in order to promote climate change **capacity building** initiatives.
- Facilitating co-operation with and support to **research institutions** and centres of excellence with respect to climate change and related activities.
- Facilitating and/or co-ordinating **researching and investigating** the impacts of climate change and response measures on SAPP's business.
- Together with the SAPP Planning Sub-Committee, ensuring that climate change issues are incorporated into SAPP long term planning processes to ensure **diversified generation mix** with the aim of lowering carbon emitting technologies, taking into account the inter-relationship between socio-economic factors and the environment.
- Identify and implement **Energy efficient technologies** to reduce demand and green house gas emissions
- Identifying and exploring **climate change related opportunities**, for example opportunities provided through the Clean Development Mechanism (CDM) and the Global Environmental Facility (GEF), for the provision of funding, capacity building and technology transfer. The SAPP remains supportive of the carbon market and has adopted a UNFCCC approved Standardised Baseline for the Grid Emission Factor for the SAPP used in the calculation of

carbon credits for the Clean Development Mechanism, the first of its kind in the world.

- Support and co-ordinate utilities in the region to be compliant with all the national climate change obligations by 2020
- Support and co-ordinate the utilities in the region to understand all the related climate change impact risks and the required adaptation options by 2020
- Support and coordinate the utilities in the region in their climate change response policy and strategy development processes in line and as defined by national policies by 2020
- **Identify and implement adaptation measures** to negative climate impacts such as increased number and severity of droughts and floods. Short-term adaptation measures include the consideration of dry-cooling at new power stations, thus reducing water consumption by approximately 90%. Medium to long-term measures include improving resilience of infrastructure by incorporating adaptation issues into long term planning and risk mitigation strategies.
- **Partnerships advocacy and collaboration** - the SAPP interacts with various organisations on Climate Change. SAPP members are active members of National Committees on Climate Change and participate at the Conference of parties on Climate change annually. The SAPP interfaces with leading global organisations that address various aspects of climate change such as: IRENA, UNEP, AfDB and the World Bank.
- **Identifying opportunities**, and recommend for approval by the Management Committee, statements to be made on behalf of SAPP at International climate change negotiations, such as the Conference of the Parties.

Climate change efforts specific to SAPP activities will be co-ordinated by the SAPP Environmental Sub-Committee, subject to oversight by the SAPP Management Committee.

ATTACHMENT

The United Nations Framework Convention on Climate Change [UNFCCC] details a framework and process for agreeing to specific future actions. The UNFCCC was finalized in 1992 at the Rio Conference and has since come into effect.

All the Southern African Power Pool (SAPP) member countries have signed/ratified the UNFCCC and it has entered into force in all SAPP member countries.

COUNTRY	RATIFICATION	ENTRY INTO FORCE
Angola	17 May 2000	15 August 2000
Botswana	27 January 1994	27 April 1994
Democratic Republic of Congo	9 January 1995	9 April 1995
Lesotho	7 February 1995	8 May 1995
Malawi	21 April 1994	20 July 1994
Mozambique	25 August 1995	23 November 1995
Namibia	16 May 1995	14 August 1995
South Africa	28 August 1997	27 November 1997
Swaziland	7 October 1996	5 January 1997
United Republic of Tanzania	17 April 1996	16 July 1996
Zambia	28 May 1993	21 March 1994
Zimbabwe	3 November 1992	21 March 1994

Source: <http://unfccc.int/resource/conv/ratlist.pdf>

The SAPP member countries have all ratified/acceded to the UNFCCC as **non-Annex 1 / developing countries**, and as such have no obligation to reduce carbon emissions. The commitments that they do have include making available their national inventories of the production of greenhouse gases (GHGs) by source and the removal by sinks.

Paris Agreement December, 2015

Introduction

On 12 December 2015, 196 Parties to the UN Framework Convention on Climate Change (UNFCCC) adopted the Paris Agreement, a new legally-binding framework for an internationally coordinated effort to tackle climate change. The Agreement represents the culmination of six years of international climate change negotiations under the auspices of the UNFCCC. The Agreement establishes a global warming goal of well below 2°C on pre-industrial averages. It requires countries to formulate progressively more ambitious climate targets which are consistent with this goal. To achieve this goal, all Parties to the Paris Agreement will need to make profound changes to their economies. The Paris Agreement defines a universal, legal framework to 'strengthen the global response to the threat of climate change' (Art. 2). It establishes the obligation of all Parties to contribute to climate change mitigation and adaptation. For the first time, all countries will develop plans on how to contribute to climate change mitigation, and will communicate their 'nationally determined contributions' to the Secretariat of the Convention. The Paris Agreement puts emphasis on processes rather than on defined mitigation goals. Unlike the Kyoto Protocol, the Paris Agreement does not formulate country specific emissions targets. Instead, the Paris Agreement depends on voluntary mitigation contributions and a series of processes that seek to ensure collective and individual progress in meeting the initial and progressively more ambitious mitigation.

Highlights of the Paris Agreement

The Paris Agreement contains:

- An ambitious collective goal to hold warming well below 2 degrees with efforts to limit warming to 1.5 degrees
- An aim for greenhouse gas emissions to peak as soon as possible to achieve net –zero emissions in the second half of this century
- A requirement for mitigation measures of individual countries to be expressed in nationally determined contributions (NDCs);
- A process that demands a revision of NDCs at least every 5- years representing progression beyond the last NDCs;
- A mechanism for countries to achieve NDCs jointly, sharing mitigation targets, and a mechanism for countries to cooperate in achieving NDCs.
- Countries can meet their NDC targets by transferring 'mitigation outcomes' internationally – either in the context of emission trading, or to allow results-based payments;

List of SADC countries that have signed the Paris Agreement as at 22 April 2016

The Paris Agreement opened for signature by the Parties to the United Nations Framework Convention on 22 April and will remain open for signature for one year. This list contains the countries that signed the Agreement at the Signature Ceremony on 22 April. States that have signed the Paris

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Agreement and deposited their instrument of ratification at the Ceremony for the Opening for Signature, on 22 April 2016. The following is a list of SADC countries that have signed the Paris Agreement as at 22 April, 2016.

- 1. Angola**
- 2. Botswana**
- 3. Democratic Republic of Congo**
- 4. Lesotho**
- 5. Mozambique**
- 6. Namibia**
- 7. South Africa**
- 8. Swaziland**
- 9. Tanzania**
- 10. Zimbabwe**