



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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MINISTER

QUESTION NO. 256 FOR ORAL REPLY: NATIONAL COUNCIL OF PROVINCES

A draft reply to **Ms C Labuschagne (Western Cape: DA)** to the above-mentioned question is enclosed for your consideration.

**MS NOSIPHO NGCABA
DIRECTOR-GENERAL**

DATE:

DRAFT REPLY APPROVED AS AMENDED

**DR B E E MOLEWA, MP
MINISTER OF ENVIRONMENTAL AFFAIRS**

DATE:

NATIONAL COUNCIL OF PROVINCES

(For oral reply)

QUESTION NO. 256 {C0377E}

INTERNAL QUESTION PAPER NO.29 of 2017

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Ms C Labuschagne (Western Cape: DA) to ask the Minister of Environmental Affairs:

What were the most important risk factors which were indicated in the first Biannual Report compiled by the Department of Science and Technology on the State of Climate Change in South Africa that was submitted for Cabinet approval in March 2017?

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256. THE MINISTER OF ENVIRONMENTAL AFFAIRS REPLIES:

The DEA in partnership with DST work in synergy particularly on the science-policy domain of environmental affairs which incorporates climate change as a cross cutting feature of this work.

The Department of Science and Technology appointed the Academy of Science of South Africa (ASSAf) to prepare two biennial reports on the State of Climate Change in South Africa, the first one being approved by Cabinet in March and the second 1 due in 2019. The baseline report highlighted three strategic climate change related challenges anticipated to occur in the South African climate system, and in the technology environment that affects or is affected by climate over the next three decades; as listed below.

1. Southern Africa will be hotter in all places and drier in most

There is high scientific confidence that South Africa will continue to become warm, at a rate somewhat higher than the 0.15 °C per decade observed over the 20th century. In the period up to the middle of this century, this warming will occur regardless of the success or failure of international agreements to curb climate change, such as those reached in Paris in December 2015, although those agreements have important benefits to the climate in the second half of the century. Should mitigation and adaption measure not be fully implemented the warming will be especially strong in the already hot north-west interior of southern Africa, and by 2050 will result in a doubling of the number of days of dangerously hot weather over about half of the country, and increasing difficulty in sustaining livestock-based or human outdoor activity-based economies in the most-affected areas.

There is less scientific confidence in projections of rainfall trends. Most models project less rainfall on average, especially in the west of the country. Coupled with the higher water demand due to warmer temperatures, this provides high confidence that soils will be drier in the future over much of the country, and water supply for agriculture, domestic use and industry will be under increasing pressure.

The strongest impact of climate change in South Africa in the first half of the 21st century is likely to be on;

- the security of freshwater supplies to industry, towns and agriculture;
- crop and livestock agriculture, due to less favorable growing conditions;
- Human health, due to heat stress and disease spread, particularly in urban areas; and biodiversity, due to shifting habitat suitability.

2. More extreme weather and floods

The future climate is very likely to include an increase in the frequency and severity of damage-causing extreme weather events. When coupled with an unavoidable sea level rise of around 300 mm by 2050, the likelihood of flooding, especially on the coast, will increase risks to human settlements. Prolonged heat waves and multi-year dry spells will also be more likely than in the past. This has risk implications for local government planning and disaster risk management, that are likely to exacerbate current problems associated with for example water infrastructure.

3. Reduced use of fossil fuels

As a result of the conditional and unconditional contributions by South Africa to reducing greenhouse gas in international forums, there will need to be strenuous efforts to reduce the energy mix in South Africa away from its current high dependence on fossil fuels, especially coal. Even without these commitments, there will likely be trade pressures for our economy to become less carbon intensive than at present in order to remain competitive. The coal sector, a big part of our energy mix and export earnings, is already struggling to attract finance because of the strong belief that it will become progressively less viable within the lifetime of newly-built coal infrastructure.

We must however remember that we cannot just stop coal use due to our heavy industry uses that cannot be supported through wind nor solar energy.

Secondly we have always argued that we have a policy of reducing our emission over a period and not abrupt given that we are still a developing country and need our development space.

Concluding remarks

Sectors across the country i.e. Government, Climate scientists, technology innovators, municipalities, civil society, business etc. are already implementing our responses as a country in mitigating and adapting to changes in temperature, seasonality and water availability, more frequent extreme weather events and the necessity of lowering emissions.

It is envisaged that the need to address these challenges will intensify over the next decade. The progression from research to technology development typically requires several decades. The alignment of the timeframes for changes in climate and the completion of technology implementation processes thus define the necessary time horizon for state interventions; it is in the order of decades in both cases. Against this background the report supports the notion that climate change-related research and technology investments need be sustained and directed over decadal planning horizons, not on a yearly basis, although frequent checks on progress and needs, accompanied by adjustments to the rolling plan, are in order. These are similarly noted and addressed in the policy domain of climate change that the DEA leads in partnerships with other sector departments and institutions in the country.

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