International climate change policy: background and significance of upcoming COP17 meeting for South Africa

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he 17th Conference of the Parties (COP17) under the United Nations Framework Convention on Climate Change (UNFCCC) will be held in Durban from 28 November to 9 December 2011. The principal purpose of this meeting is, through international negotiations, to develop legally binding international agreements to help mitigate climate change by controlling emissions of greenhouse gases (GHGs). What is the background of these meetings, however, and what does it mean for South Africa?

The science of climate change

COP17 is primarily a meeting about climate change and what can be done internationally to mitigate climate change. The overarching mitigation goal that drives these meetings is to develop a legally binding agreement to control and limit the amount of GHGs that countries would be allowed to emit. Such a goal comprises the key issue as it is the GHGs that are causing man's contribution to climate change.

GHGs are gases that, when present in the atmosphere, interact with incoming radiation from the sun to lead to a warming of the atmosphere. Examples of GHGs are carbon dioxide (CO2), water vapour and methane. These gases are naturally in the Earth's

atmosphere, as they are necessary to keep the surface of the earth at a warm enough temperature for life to survive. In the past century, however, people have released large concentrations of these GHGs into the atmosphere through actions such as burning fossil fuels. These emissions of GHGs that are due to human activities are called anthropogenic GHG emissions.

Since the Industrial Revolution, for example, CO2 concentrations in the atmosphere have changed from about 280 ppm in 1850 to around 380 ppm in 2010 due to increases in CO2 emissions from human activities.

Increases in GHG emissions will lead to a general warming of the Earth, which in turn will have a variety of impacts in essential areas such as health, biodiversity, food security and water quality. In order to keep these impacts at a minimum, it is critical for countries to decrease their emissions of GHGs. The current state of climate science, as well as the potential impacts, is described in the Fourth Assessment Report by the IPCC available online at http://www.ipcc.ch.

International climate change policy

As stated earlier, international climate change policy is aimed at developing an international

agreement to reduce emissions of GHGs to specific levels. After such an international agreement, there would be a variety of policies and measures that a country could enact to actually decrease emissions. Both of these broad topics, among others, will be covered in the international climate change negotiations at COP17 - the primary end goal of the COP meetings is to set legally binding emission limits.

Currently, the Kyoto Protocol is the overarching climate policy that was designed in 1997 to achieve a reduction in GHGs as a means of preventing what the United Nations Framework Convention on Climate Change (UNFCCC) deemed dangerous human interference in the climate system. Ratified by 183 countries, the Kyoto Protocol prescribes emission reductions, covering a set of six GHGs, namely CO2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride, for the period 2008 to 2012.

The commitment period of the Kyoto Protocol will expire in 2012 and thus the goal of the COP meetings has been to establish a second commitment period for the Kyoto Protocol and a legal form of the convention outcome. These negotiations will continue at the COP17.

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CSIR ICC Transfers delegates by Gautrain

SIR International Convention Centre (CSIR ICC) recently hosted its first confex that required transferring a group of 300 conference delegates from Johannesburg (Sandton) to Pretoria (Hatfield) and then to the ICC using the Gautrain.

The CSIR ICC arranged a shuttle service, using luxury coaches, between the Gautrain Hatfield Station and the venue. The entire group of 300 delegates and exhibitors were transferred from Johannesburg to the CSIR ICC, in Pretoria east, in just under one hour. Once the conference had ended in the afternoon, delegates were given the option of boarding shuttles back to the Gautrain station every half hour, for two hours, so that those who wished to stay on into the evening to enjoy cocktails on the deck at the venue could do so.

Event organisers provided free Gautrain return tickets to all exhibitors and delegates on confirmation of their attendance and placed staff in the Sandton and Hatfield Gautrain stations to welcome and direct delegates. CSIR ICC staff were on hand at the Hatfield Station to ensure that the shuttle services ran smoothly. The CSIR ICC also provided shuttles to the Gautrain Hatfield Station to the event and back hourly during the event for those delegates who needed to return to Johannesburg during the day.



A value-added service provided by the CSIR ICC which assists exhibitors travelling by Gautrain is the centre's dedicated exhibitors' storerooms for pre-event and/or post-event storage. This facility enables exhibitors to courier their exhibition material prior to the event and have the material collected afterwards instead of having to lug heavy exhibition material to the ICC by train.

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This meeting will provide a platform for developing multi-lateral agreements on commitments to GHG mitigation, as well as the financing and transfer of technologies to support these reduction targets.

COP meetings are generally called "negotiations" as each country represented has its own viewpoint on what it can achieve towards decreasing GHG emissions and what should be expected of other countries as well.

National policy within the international framework

South Africa has been active in the international climate change arena. In 1997, the South African government ratified the UNFCCC and in July 2002 acceded to the Kyoto Protocol. South Africa is required to report on GHG emissions and provide information on climate change impacts and vulnerability in South Africa as well as potential adaptation measures. The first and second communications to the UNFCCC have been completed (the second will be officially released prior to COP17), with a third report under way.

GHG emissions inventories have been included in the country's communication reports to the UNFCCC as well. Understanding the country's emissions is a critical first step in decreasing these emissions. South Africa's most recent GHG emission inventory for the year 2000 has been used to assess the potential for GHG mitigation in the country, through the development of long-term mitigation scenarios (LTMS). These scenarios outline possible development and growth strategies for South Africa and their impact on GHG emissions, and were intended to guide the South African position in the COP negotiations. An updated process in this regard is now being undertaken, with updated methodologies; however, this research is still in progress.

Following the LTMS, the White Paper on South Africa's Climate Change Response was drafted, outlining the South African position for the COP17 meeting. This forthcoming White Paper proposes that South Africa could take voluntary action to reduce its carbon footprint by 34% by 2020 and 42% by 2025 below business-as-usual GHG emission levels. However, these reductions would be contingent

on, amongst others, the provision of financial and technological support from the international community. This level and type of support will be discussed at COP17, as well as details around the actual emission limits that should be enacted.

As COP consists of high-level international negotiations, they have not yet been able to fulfil the goal of agreeing to legally binding limits on GHG emissions. If at the end of COP17 no limits are agreed to, it is essential to note that this does not mean that countries will not have any climate change policy. In fact, many countries, including South Africa. have local and domestic policies and initiatives to work towards mitigating and adapting to the impacts of climate change. Regardless, therefore, of whether or not an international binding agreement is achieved at COP17, these local and domestic policies and initiatives will continue to be of utmost importance. There is a significant opportunity for government officials at all levels, as well as the general public, to contribute to real change with climate policy and response strategies at a regional, national and local level.

