UNIVERSITY OF CAMBRIDGE
PROGRAMME FOR SUSTAINABILITY LEADERSHIP

A Logical Framework for Climate Leadership or The Logic of a Carbon Budget

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The UN climate change negotiations that South Africa is soon to host (28 November to 9 December in Durban) can seem rather confusing. They cover very complex political and scientific territory on which international negotiators have been trying for no less than 17 years to reach agreement.

Their primary challenge is to come up with a globally fair, ambitious and binding agreement to reduce man-made greenhouse gas emissions and thereby avoid condemning future generations to dangerous and potentially catastrophic levels of climate change.

Despite the complexity we think it is possible and important to simplify the climate policy landscape. As representatives from two big South Africa companies, we want to put forward a framework that was developed by the Cambridge Programme for Sustainability Leadership in the hope that it will be improved upon through public dialogue and will then provide a platform from which leaders from all sectors can act with speed and determination.

The framework proposes four steps that logically follow from each other:

Firstly, significant and mounting scientific evidence indicates that human emissions of CO2 are causing the climate to warm and, if not arrested, could lead to dangerous levels of climate change. International consensus has converged on the fact that we should not allow the global average temperature to rise more than 2°C above the pre-industrial norm (we are already today at +0.8°C). Going above this would place too many parts of the world at too great a risk. At the last big UN climate change meeting, which took place in December 2010 in Cancun, 193 countries (including the US, China and South Africa) signed the Cancun Agreement that explicitly confirmed this 2°C target.

According to scientists this means that, having emitted carbon more or less commensurate with economic growth since the industrial revolution, humanity now has a strictly limited 'carbon budget' that may be emitted in future. To emit more than this would seriously

jeopardize our chances of keeping below the 2°C threshold (which incidentally many believe is not low enough to prevent significant changes to the climate which would affect low-lying states and other vulnerable areas). It seems to us that the idea of a global carbon budget makes simple, logical sense and gives us all a clear target to work with. Interestingly, the recent National Climate Change Response White Paper also employs the carbon budget concept as a means to specify desired emission reductions consistent with a national emissions trajectory.

How big a carbon budget do we have? It is estimated that if we want no more than a 25% risk of exceeding the 2°C threshold we have a budget over the next 40 years of around 680 gigatonnes (Gt) of CO2 or 680 billion metric tonnes.

How much CO2 are we emitting currently? In 2010 we emitted around 35Gt globally. Simple arithmetic reveals that, if we emit at our present rate (instead of growing it at 2,5% per year as we did over the last decade), our global carbon budget will be exhausted in less than 20 years. That is a hugely challenging piece of information. Yet we believe it is critical that leaders in all sectors acquaint themselves with the basic science behind it – or at least accept the fact that the great majority of esteemed scientists working on climate change regard this as a reality.

The second logical step, having understood and acknowledged the reality of humanity's fixed carbon budget, is that the world's governments must divide up that budget in a fair manner amongst the nations. This is the current task of the United Nations Framework Convention on Climate Change (UNFCCC), who will run the 17th Conference of the Parties (COP17) in Durban. There are a number of ways one can calculate each nation's fair share and different countries, of course, have different preferences depending on their past emissions, their future development needs, their population, etc. These differences must be addressed but ultimately what matters is that the global budget is shared out. We assume that, in spite of current difficulties, this will be done because it has to be done for the sake of future generations.

What share of the global carbon budget can South Africa expect? That depends on which calculation method one uses, but a range between 0,5% and 2% has been suggested – bearing in mind South Africa currently contributes about 0,58% of global GDP and 1,29% of carbon emissions. Our relatively heavy emissions of CO2 in the past counterbalance our need to develop. If one assumes South Africa is allocated 1.5% of the global carbon budget that means a national budget of 10,2Gt of CO2 to be emitted from now until 2050. We currently emit more than 0,45Gt per year, so at that rate we have less than 23 years before we must effectively cease emitting CO2. Given the currently high carbon intensity of our economy, this is another challenging piece of information.

The third logical step is that this South African carbon budget must be shared out amongst all its people and companies – including energy suppliers and large energy users – in order to maximise socio-economic benefits. This requires a participative and well-informed

discussion amongst relevant stakeholders. Tough as well as creative decisions will have to be made and policies and laws will be needed to enable the allocation. We see no reason why the process of agreeing an allocation of the national carbon budget cannot be run in parallel with the on-going international negotiations, but it needs to be informed by the global carbon budget framework. Indeed a strong national agreement would greatly enhance our government's international negotiating stance.

Lastly, at the level of the individual business one needs to ask, "How can we continue to create value for all our stakeholders given the steep reductions in carbon emissions that have to be made to stay within our carbon budget?" At the organisational level we see great value and potential benefits in early planning for the transition to a low-carbon economy.

We believe business leaders have an important role to play in all four steps outlined in this framework.

• We should call for and support continued scientific research, particularly of likely regional and local climate impacts and potential responses.

• We should support the international negotiations to find a binding global agreement. To this end we have worked with other global business leaders to contribute to and endorse The 2°C Challenge Communiqué, written by the Corporate Leaders Network for Climate Action (CLN) and delivered to the world's governments today.

• We should engage constructively with government and civil society in South Africa to develop a plan for reducing South Africa's emissions while continuing to deliver on our social goals.

• Finally, we need to do what business does best – come up with innovations and invest in better ways of doing things to create lasting value in the economy.

We fully acknowledge that reducing South Africa's emissions to stay within our carbon budget will be very challenging, but we believe that the consequences for future generations of unmitigated climate change will be far worse. That is why we urge everyone to join us as we take up this tough but absolutely crucial task.

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