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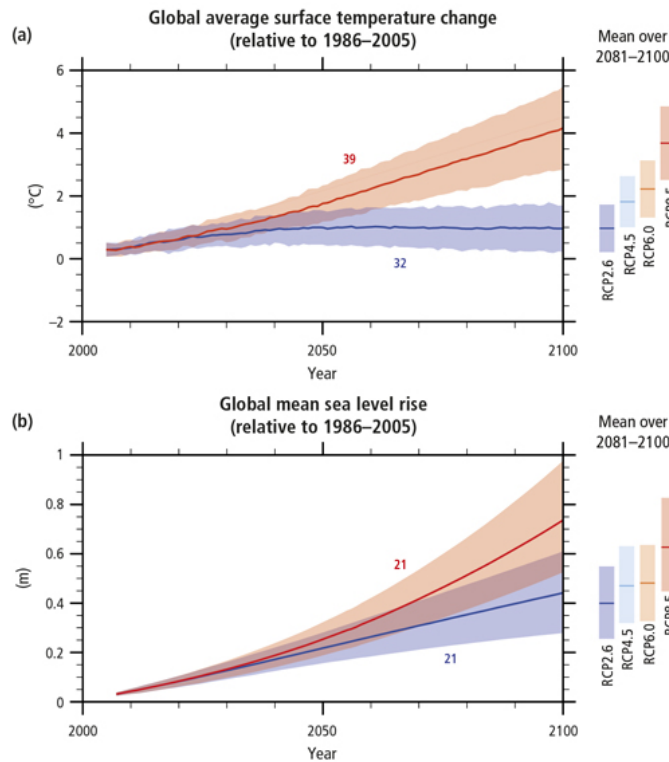
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IPCC agrees on outline for 1.5 degrees Celsius Special Report

By Candice Arendse

The Intergovernmental Panel on Climate Change (IPCC) held its 44th session in Bangkok, Thailand from 17 to 20 October 2016. Providing feedback on what he said was a very productive meeting, IPCC Chair Hoesung Lee highlighted the pending entry into force of the Paris Agreement, commenting that the policy environment is changing: “Policymakers are ready to act and need robust science to be able to formulate policy”.

Image: Intergovernmental Panel on Climate Change, Fifth Assessment Report, Synthesis Report

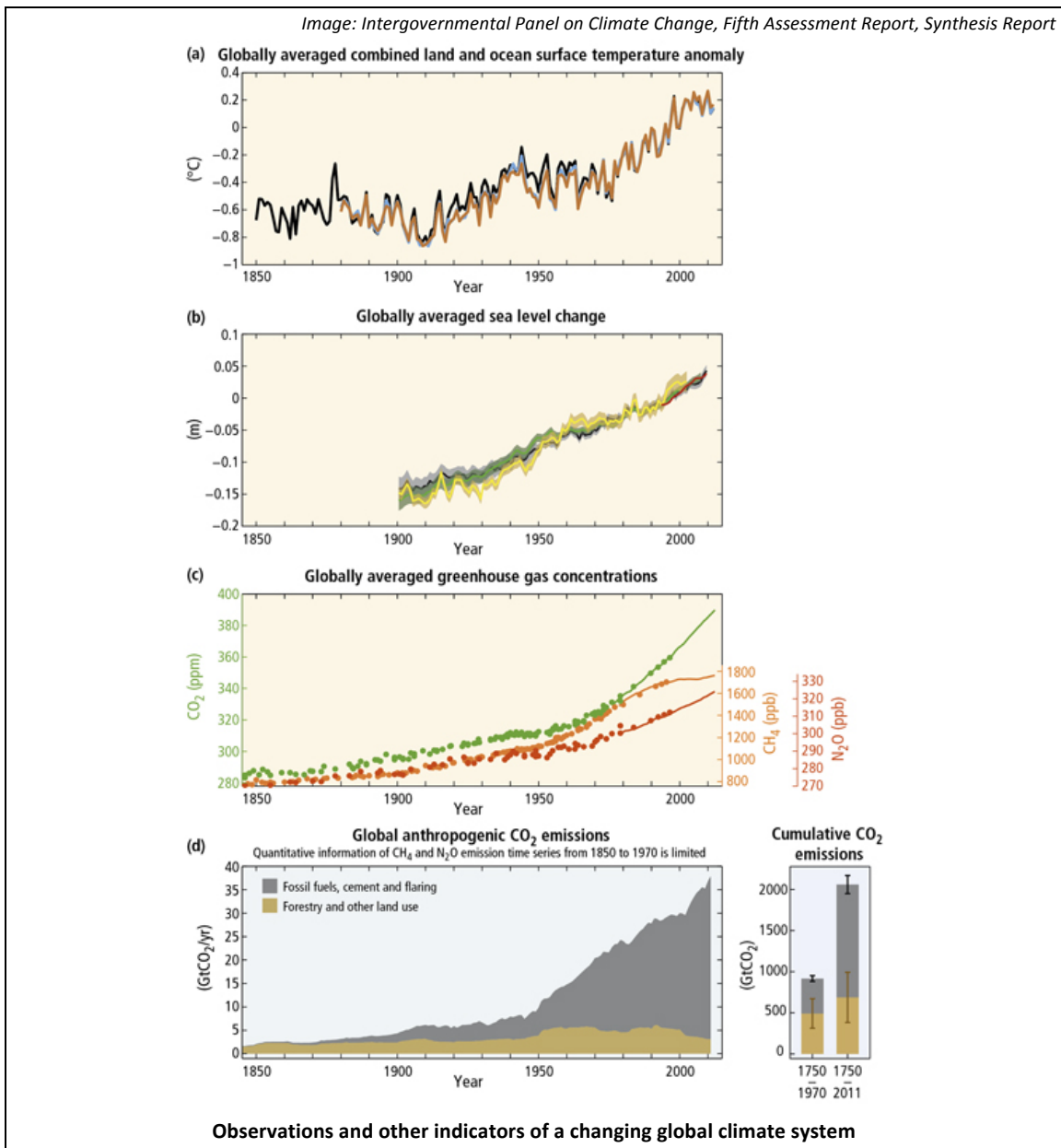


Projected global average surface temperature and global mean sea level rise from 2006 to 2100

The meeting discussed and reviewed the outlines of two IPCC reports, the Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways that is due to be completed in 2018, and a new Methodology Report on national greenhouse gas inventories, which is due for completion in 2019.

Co-Chair of the IPCC Task Force on National Greenhouse Gas Inventories, Kiyoto Tanabe, explained that the decision to produce a new methodology report was taken because of advances in the scientific and technological arenas for accurate measurements of greenhouse gases since the last guideline was published in 2006. The new methodology is intended to provide governments with updated knowledge on how to estimate the level of their greenhouse gas emissions and reductions, which is important for tracking progress on meeting their commitments under the Paris Agreement and the UNFCCC.

In December last year, the Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC) invited the IPCC to produce the Special Report on 1.5 degrees, in the context of “strengthening the global response to the threat of climate change, sustainable development and efforts to eradicate poverty”.



The work on the Special Report is led by Thelma Krug, who is one of the three IPCC Vice Chairs. She explained that at the time of finalisation of the IPCC Fifth Assessment Report (AR5), “the science was not evolved enough to provide enough support” for the 1.5 degrees Celsius limit, and thus the invitation to focus on 1.5 degrees and associated impacts. When asked whether global warming would reach 1.5 degrees before the Special Report is published, she said: “No.....when we talk about 1.5 degrees, we are talking about a time series to see if this indicates a trend”.

A scoping meeting for the Special Report took place in August 2016 in Geneva, Switzerland. Selected participants included stakeholders from academia, government institutions, international organisations, civil society, and the private sector with expertise in scientific, technical and socio-economic fields. In addition to this being a gender balanced group, Krug pointed out that 51 per cent of the scientists in the group are from developing countries, which she said is essential for creating a report that gives a cross sectoral and broad view of the impacts of warming of 1.5 degrees Celsius.

Earlier in October the African Climate and Development Initiative (ACDI) of the University of Cape Town held a seminar that brought together a few of the South African experts who were selected to participate in the scoping report. This included Harald Winkler from the Energy Research Centre, Bruce Hewitson from Climate Systems Analysis Group, Anton Cartwright from African Centre for Cities, and Mark New from ACDI.

Winkler gave a background to the Special Report, discussing the contents of the Paris Agreement and outlining the activities of the IPCC Working Groups. He said that at the scoping meeting participants were asked to discuss, create and agree on an outline for the report, a process that first time IPCC participant, Anton Cartwright, described as interesting to observe, inclusive, and a platform for innovation amidst traditional thinking.

After a rigorous session with groups and individuals lobbying for and debating over the inclusion of specific topics, titles and text, an outline for the report was proposed. South Africa was able to succeed in including the topic of equality in the report. The outline was discussed further in Bangkok and agreed. Authors of the report will determine the details of the content, in light of available scientific literature.

Outline of the Special Report on 1.5 degrees Celsius

Chapter 1: Framing and context

Chapter 2: Mitigation pathways compatible with 1.5 degrees Celsius in the context of sustainable development

Chapter 3: Impacts of 1.5 degrees Celsius global warming on natural and human systems

Chapter 4: Strengthening the global response to the threat of climate change

Chapter 5: Approaches to implementing a strengthened global response to the threat of climate change

Chapter 6: Sustainable development, poverty eradication and reducing inequalities

Commenting on the process, Krug indicated that the final decision on the outline did not differ much from what the participating scientists had initially proposed. Lee added that the originally proposed Chapters 4 and 5 were however merged to produce a more sharpened focus chapter which he said will give more strength to the implementation of the report.

In response to a question on addressing the management of potential conflict between scientific reporting and political influence, Krug said that the process had had very little political interference so far. Hoesung added the assessment of scientific literature for the IPCC reports should be able to help policymakers with their decisions, and that the IPCC does not produce prescriptive reports.

For more information: www.ipcc.ch

Nuclear energy crowding out adaption responses

By Liziwe McDaid

Nuclear Energy is a false solution to climate change. Research into costs, timeframes and lifecycle carbon costing shows that even if nuclear energy did not emit radiation during operations or leave us with toxic waste for thousands of years, it is too expensive, too late and not carbon-free.

In addition, nuclear power needs uranium as fuel, which comes from uranium mining. There are advanced plans to surface-mine for uranium across hundreds of thousands of hectares of the Karoo, which would result in degraded land, polluted water, and serious long-term health impacts on communities across the region. The wind would blow radioactive uranium dust for many hundreds of kilometres across the Karoo, tainting everything with uranium dust, affecting animals, insects, plants, and people. Is this a fair or reasonable burden to place on land and people that are already experiencing the harsh realities of climate change?



Image: Rehana Dada

Mining uranium to provide fuel for nuclear power stations can affect life across vast expanses of land

Adapting to climate change will need resources. Government resources are limited, and every rand that goes into the coffers of the nuclear industry is one less rand for other national priorities, such as responding to climatic changes that have already happened. We need food and water security, and infrastructure investment that responds and adapts to a hotter, drier, harsher climate, with more frequent extreme weather events. Building resilience to climate change requires resources, both human capacity and financial.

A suite of decentralised renewable energy options is the solution to mitigating climate change. It is much less costly than nuclear energy and if delivered correctly, can provide sustainable energy to many marginalised communities who currently are forced to use firewood or paraffin and endure the accompanying ill health. Renewable energy achieves both mitigation and adaptation in one step. But such solutions also need government intervention, and any government programme needs a system of good governance to ensure that the benefits reach their intended recipients.



Image: Jeeten Morar

Renewable energy can provide clean and sustainable energy to marginalised communities

The manner in which the nuclear deal is unfolding shows clearly that democratic institutions and due process and procedures are being undermined. The Southern African Faith Communities' Environment Institute (SAFCEI) together with Earthlife Africa Johannesburg (ELA Jhb) have taken the South African government to task, challenging in the courts the Russian nuclear deal that South Africa signed in 2014. "This is an issue of ethical governance, we need to make a stand against abuse of state institutions and procedures to enrich the few", says Liziwe McDaid, SAFCEI spokesperson. The court challenge was launched in October 2015, and the case will be heard in the Cape High Court on 13 and 14 December.

Way Beyond Nuclear: Dinner fundraiser

On 03 November 2016, a dinner is being held in Durban to help raise funds for the nuclear court case. Guest speakers include Kumi Naidoo and Desmond D'Sa, who will look at the real costs of nuclear, the legacy it would leave our children's children, and how we can realise South Africa's energy potential in a sustainable way that benefits our economy, people and environment. SAFCEI's Executive Director, Venerable Ani Tsondru and Makoma Lekalakala from Earthlife Africa Johannesburg will speak to their joint court application, questioning the legality and transparency of the nuclear procurement process.

Tickets are available at: <http://qkt.io/WayBeyondNuclear/> Email: info@safcei.org.za

In recent weeks, a number of additional issues concerned with the nuclear procurement have emerged, including the idea that Eskom will now take over the nuclear build. Firstly, this would remove the nuclear deal from the oversight of Parliament, shielding it from public scrutiny. Secondly, the current electricity plan, IRP 2010, includes nuclear energy in the proposed mix, and is based on now outdated energy use and economic growth predictions. Added to these changes are the ever-falling costs of solar and wind installation since 2010. The most current cost comparisons show that nuclear (estimated R1.65kWh) is more expensive than both wind (R0.69c/kwh) and solar PV (R0.87c/kWh). Electricity prices would have to be raised significantly in order to pay for new nuclear energy.

Thirdly, committing the country to one single highly complex large-scale centralised energy technology, based on outdated planning scenarios, could mean that there will not be the anticipated numbers of customers for the electricity when it finally comes online ten or more years in the future, bearing in mind that nuclear power station construction usually takes far longer than budgeted and planned for. By then Eskom will have spent enormous amounts of money on the nuclear build, and if it is unable to recover the costs via tariffs, the State, effectively the tax-payers, will have to bail it out.

Fourthly, Eskom seems to have usurped the policy-making role of Government, adjusting energy policy itself by announcing that it will not, though required to do so, be signing new power purchase agreements with Independent Power Producers. If Eskom believes it is not accountable to government, this is very worrying given the proposed future role of Eskom as the procurer of nuclear technology, away from the public gaze.

At this stage, our government priorities appear to be focused on nuclear, which will be to the detriment of other inexpensive, sustainable and safe solutions that will enable vulnerable communities to respond and adapt to climate change. "We should not be wasting time and a lot of money even debating the need for nuclear power in South Africa," said SAFCEI Executive Director, Venerable Ani Tsondru: "Decisions have been kept from the public, decisions that involve spending a trillion rand or more of our money - money we need for health and education and housing - all without following the due process required by our constitution and laws. This is immoral and unconstitutional".

SAFCEI is calling on all the people of South African to support the court challenge to the nuclear deal.

For more information and to watch a video on the impacts of nuclear energy on South Africa's economy: <http://safcei.org>

Employment vulnerability to climate change

By Rehana Dada

The Economic Development Department (EDD) and the Department of Environmental Affairs (DEA) have jointly commissioned a study on the impacts of climate change on employment, with the intention of addressing potential job losses that may result from measures to address climate change. There are two outputs of the research process, the National Employment Vulnerability Assessment (NEVA) and the Sector Jobs Resilience Plan (SJRP).

As Mac Makwabela of DEA explained, the process is guided by the National Climate Change White Paper: “As we mitigate [climate change] there will be impacts on jobs, and we want to investigate that and see how we can balance the positive with the negative. We want to address risks so that our interventions don’t compromise us as a country”.

NEVA analyses the impacts of mitigation and adaptation interventions on traditional economic sectors rather than sectors more commonly referred to in climate change research. The economic sectors are: agriculture; mining and quarrying; manufacturing; electricity, gas and water supply; construction; wholesale and retail trade; transport, storage and communication; financial and business services; community and personal services. Within the sectors, a number of sub-divisions or industries are considered. For example, included within manufacturing, some of the industries are: food products, beverages and tobacco products; textiles, clothing and leather goods; and coke, refined petroleum products and nuclear fuel.

Economic modelling was done, based on existing data such as the Long Term Adaptation Scenarios and the Mitigation Potential Analysis, as well as available data from research centres such as the University of Cape Town’s Energy Research Centre and Climate Systems Analysis Group.

Some sectors show a benefit to employment and others show clear losses. For example, electricity shows an increase in jobs largely because of growth in the renewables sector, while mitigation measures result in job losses for mining and steel. The modeling looked at best and worst case scenarios and produced aggregate results for the whole country, but also presents the data for different provinces.

Economist Antony Boting, a lead consultant in the research process, said: “The challenge for us is not looking too far in the future. We want to look into the immediate future, but at the same time we have to look beyond 2020, and we do know that the economy is changing”. He said that the NEVA will need to be updated and refined over time.

Once the vulnerability assessment is completed, Sector Jobs Resilience Plans can then be developed with the idea of “minimising the negative impacts and capitalising on the positive impacts”.

At a workshop in Pretoria in late September, stakeholders representing government departments, civil society, water boards, and industry discussed the first findings of the NEVA and made input into the report as well as the SJRP process. Further input is invited through electronic media, and at further stakeholder engagements.

For more information please contact Kaemete Tsoetsi of the Economic Development Department: ktsotetsi@economic.gov.za.

Marrakech: Will the international community recommit to inclusive participation?

By: Happy Khambule

It's that time again for the annual climate change conference, better known as the COP. This time around COP is earlier than usual and to be frank, this is in keeping with recent developments of urgency and action. This COP will be an African COP, being held in Marrakech, Morocco.

As you read this, the world is preparing for a historic and unexpected instance. The Paris Agreement was adopted in December 2015, the agreement was then opened for signature on 22 April 2016, and following unprecedented accelerated ratification by 81 countries, it will enter into force on 04 November 2016. As an international community, we approach an important crossroad at this COP - critical issues still need to be resolved for the global community to successfully implement the historic package agreed at COP21 in Paris last year.

A successful COP21 was critical - this was where a post-2020 international climate agreement was to be finalised, agreed and adopted by the Parties of the UNFCCC; it was to be the turning point in international multilateral negotiations. The significance of the success of COP21 could not have been understated. And COP21 did not fail; it laid foundations for global collective action and delivered an implementation tool under the convention like no other.

But in order for a globally binding agreement to be reached, a few things were left to the wind, several of which were mandated to COP22 to resolve. It is with this in mind that the focus has shifted to what is called a capacity building COP in Marrakech, or if you prefer, an implementation COP.

Of great importance is the need for decisions regarding the work programme mandated to the Ad hoc Working Group on the Paris Agreement (APA). The Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA) must be convened at the first meeting of the parties after the agreement enters into force, and in theory APA would close once CMA opens. Parties initially expected that the agreement would enter into force closer to 2020, if not in 2020, but due to the unparalleled political will demonstrated, the agreement will enter into force within a year of its adoption. This means that the groundwork for implementation of the Paris Agreement needs to happen now, and it requires thoughtful deliberation to be able to realise successful implementation in 2020.

It cannot be forgotten that pre-2020 ambition has to be addressed, and in fact the eventual success of the Paris Agreement hinges on this. COP22 should be the place where some level of finality is reached on the steps for resolving pre-2020 ambition.

With respect to post-2020 implementation, governments need time to negotiate and agree on, amongst other things, procedures and modalities for articles in the agreement such as climate finance flows for pre-2020 and post-2020, provision of guidance on harmonisation and submission of Intended Nationally Determined Contributions (INDC/NDCs), and the process to which adaptation efforts will be recognised. Secondly, clarity on how the global stocktake will work and what it will consider is key to generating the necessary ambition and communicating areas of disquiet in achieving the objectives and purpose of the agreement.

Beyond this, ambiguity remains over how the transparency framework will operate in light of increasing developing country party concerns that there is a plethora of administrative obligations born from the convention and agreement. As such any further obligations of an administrative kind, if not synchronised, will act as barriers to achieving agreed aims and NDCs.

Fourth, what are the rules and procedures that will govern the compliance mechanism? At what point will the said mechanism be triggered and what steps or considerations will be employed in determining the means of facilitating compliance?

Lastly, it is imperative to have clarity on the financial support that developing nations will receive in order to accomplish their mitigation and adaptation contributions, as well as lucidity on the information that is used to track climate finance required in order to determine mobilised and provided support.

Marrakech presents an opportunity for South Africa to reiterate its intention to ratify the Paris Agreement. South Africa has to remind the climate community that the agreement is part of the Durban legacy, and it will be a party to it. The caution that must be communicated is that, given the constitutional democracy that South Africa has, ratification requires a domestication process that is transparent and open to public participation. Domesticating a transformative agreement like the Paris Agreement requires due diligence and time.

The Paris Agreement offers each party to the UNFCCC an opportunity to signal the transition to a low carbon economy. South Africa's legislative process has to consider the impact of the agreement on domestic processes related to planning and infrastructure development. When South Africa made its last commitment to the international climate change community, there was a shift in domestic affairs. For example the formulation of South Africa's commitment, as stated in the COP15 pledge (Copenhagen), formed the basis of South Africa's climate change policy. The policy underpins all development planning, with implications at many levels, from energy planning to spatial planning and economic competitiveness.

Thus it stand to reason that an agreement such as the Paris Agreement would necessitate that South Africa undergoes an evaluation of its domestic climate change governance with the view of enacting climate change specific legislation.

President Jacob Zuma reiterated the Copenhagen pledge at the 2014 Climate Summit in New York. In effect, he had communicated South Africa's INDC under the Convention, but when the actual INDC was submitted, there were major differences from the Copenhagen pledge.

What is of particular importance is that the Copenhagen pledge was developed with targets that appear variable, and deviate from what was required based on the data presented by scientific communities. However, the subsequent INDC was more closely aligned with requirements of equity and science. It increased South Africa's overall ambition and also included much needed contributions on adaptation.

South Africa's contribution to the global effort on climate change is no longer based solely on greenhouse gas emission reductions, but also has a component of actions required to build climate resilience as well as adaptive capacity. This is different from the approach that led to South Africa's pre-COP21 policies.

COP22 is a second chance to make more inclusive and informed decisions, providing a platform for countries to engage around the rules that govern the Paris Agreement under the Convention.

It is also a second chance for the international community to abide by the principles of inclusive participation. One way of making sure of this is for the international community to recognise the purpose and significance of domestication, and that there is a need to accommodate parties that are still going through the domestication process. This would be achieved by convening and then immediately suspending the CMA until a future date, so as to provide the APA the necessary time to complete its mandate.

This is it. COP22 can continue the momentum of a truly new paradigm or it could result in the reoccurrence of the same old bottlenecks. Without tangible outcomes towards inclusive climate change action, post-2020 implementation will be riddled by the same flaws and inconsistencies that permeated previous climate change instruments.

Acronyms used in the article

APA: Ad hoc Working Group on the Paris Agreement

CMA: The Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement

COP: Conference of the Parties of the UNFCCC: UNFCCC COPs are held annually, and colloquially referred to by number (e.g. COP22, COP15) or the city in which they were held (e.g. Durban, Paris)

Copenhagen Pledge: During COP15 (Copenhagen) many countries put pledges on the table to reduce emissions, and these pledges became part of the Cancun Accord that was agreed at COP16 in Cancun.

INDC: Intended Nationally Determined Contributions: Countries' contributions to addressing climate change as communicated to the UNFCCC

NDC: Nationally Determined Contributions: INDC become NDC on entry into force of the Paris Agreement for countries that have ratified the agreement

UNFCCC: United Nations Framework Convention on Climate Change

Credits

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