Att: Ms Tyhileka Madubela

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RE: National Climate Change Response Green Paper 2010

Dear Ms Madubela

The African Centre for Biosafety is a non-profit organisation, based in Johannesburg. We provide authoritative, credible, relevant and current information, research and policy analysis in issues pertaining to genetic engineering, biosafety, and biopiracy in Africa. We have read, with a great degree of discomfort, the Department of Environmental Affairs national climate change response green paper for 2010, and would like to use the opportunity afforded for comment to bring to your attention a number of crucial issues, with particular relevance to agriculture, that we feel the paper fails to address.

In this submission, we will highlight the clear link between the current industrial agricultural model and the climate crisis, and unpack some of the unsustainable 'solutions' that have been imposed on policy makers and the public alike by the very architects of the crisis. In conclusion we comment on the Climate Change Response Paper's section on agriculture, and cite what we believe are several important questions that we feel the paper leaves unanswered.

Industrial agriculture's contribution to the climate crisis

Since the end of the Second World War, the global agricultural system has undergone profound changes. With the specter of food rationing still hanging over much of war-torn Europe, governments re-prioritized domestic food production through a raft of subsidies and other supports. Coupled with the industrial consolidation of agriculture in the United States (and other large grain producing countries) and the dictates of cold war foreign policy, the northern agro-industrial machine went into overdrive. In the second half of the twentieth century, the difference in labour productivity between traditional manual agriculture and industrialized agriculture widened from 1:10 to 1:2000.

These shortsighted productive gains have come at an enormous long term cost; this industrial agricultural system is now responsible for up to 30% of the planet's greenhouse gas emissions.

On the ground, soils are everywhere being degraded (as the fertilizers essential to the upkeep of the system are also dwindling), water supplies are diminishing, and up to 75% of the biodiversity in agriculture has been lost in the last 50 years. In spite of this enormous cost, the ETC group has calculated that industrial agriculture presently produces only around 30% of the world's food supplies. Clearly, efforts to expand this system into 'marginal' lands (or lands that have yet to be enclosed by private capital) will only lead to further environmental destruction. This is exactly the approach that is being advocated at the highest policy levels, albeit while paying lip-service to notions of 'sustainability' and 'empowerment'.

GMOs and negative environmental impacts

The latest phase of this industrial agricultural system is the genetic modification of seeds, both for food and other industrial uses. While the technology's developers and pushers have heralded it as the key to the world's future food supply, the majority of GM crops currently grown globally are used for edible oils or for animal feed. Given that it takes approximately 16 kg of grain feed to produce 1 kg of beef, collaborations between the world's largest seed and grain trading companies in sham forums such as 'responsible soy' indicate who the true beneficiaries of this technology are. Wherever GMOs have been planted on a large scale, environmental problems have arisen. In the US several states have reported mass incidents of 'super-weeds' that have developed resistance to the herbicides that GMOs are engineered to resist. Similarly, crops that have been engineered to kill insect pests have now been made redundant by the insects developing resistance.

Closer to home the South African National Biodiversity Institute (SANBI), together with universities in South Africa and the world renowned Norwegian Biosafety institute, GENOK, recently completed a 3 year study into one of the most commonly grown GMOs in South Africa, Monsanto's GM maize event MON 810. The results were startling, and seriously call into question the South African government's gung ho approach to the technology. As has occurred elsewhere, insect populations in several of the country's most important maize growing areas have already started developing resistance to this GM maize variety. This has been further exacerbated by reports of gene-flow between GM and non-GM plant varieties; another phenomenon that has been reported wherever GMOs have been planted.

Drought tolerant crops

As a means to mitigate the impacts of climate change that the industrial agricultural sector has contributed so much to, the industry is now pinning its hopes on the so called 'climate ready' crops. The reality of this is that the world's largest seed and chemical companies have engaged in a patenting stampede on genes that are through to possess commercially lucrative traits, such as tolerance of drought, heat, salt and floods. Of particular relevance to South Africa and the wider continent is the Water Efficient Maize for Africa (WEMA) project. The project, launched with much fanfare by the Bill and Melinda Gates and Warren Buffet foundations in

2008, seeks to create a GM maize variety that is 'drought tolerant', and bring it to African agricultural markets. With $47 million of funding from the two foundations, and the involvement of Monsanto, the US Agency for International Development (USAID), and the African Agricultural Technology Foundation (AATF), the project has all the hallmarks of a biotech Trojan horse exercise, designed to open up African markets and either severely weaken existing biosafety policies, or build up non-existent ones from scratch. The fact that the Gates Foundation chose last year to invest $23 million in Monsanto speaks volumes for the rationale behind their partnership.

The Agrofuel push in South Africa

Agrofuels offers yet another opportunity for multinational capital to stick its head in the sand and offer 'solution's to the climate crisis. Rather than utilizing the technical and scientific knowledge of industry towards creating cheap, clean and efficient public transport systems, the 'green' future envisioned by big capital involves diverting food crops towards fueling more and more motor vehicles (while simultaneously offering apocalyptic images of food shortages and famine). To replace all the fossil fuel currently used in transport with biofuels would require more agricultural land than exists in the world. If vehicle ownership just in China approaches ownership patterns in the United States, the world's vehicle fleet will double.

South Africa has already begun its flirtation with agrofuels, following the release of an industrial biofuels strategy in late 2007. To the dismay of the maize industry lobby, the nation's staple food was prohibited for use as a feedstock due to concerns over food security. Small scale farmers were also to be the used as the principle source of agrofuel feedstocks, in moves designed to integrate them into an industrial agricultural model that has not yet fully penetrated the former homeland areas. The current strategy is up for review in 2013, and already there are signs that certain vested interests are seeking to have maize re-included. The recently released 'New Growth Path' cited with great enthusiasm the employment potential of agrofuels. The commercial maize farming sector meanwhile faces widespread ruin, as farmers are currently sitting on a 6 million ton surplus they cannot sell (and which has done little to alleviate the extreme levels of poverty and deprivation faced by the majority of the population). Having failed to convince the competition commission to pool their maize for export, the maize industry has now set its sights on re-opening the agrofuels debate over maize, and seems to have already won over the Minister of Agriculture, Ms. Tina Joematt-Pettersen.

The national climate change response green paper 2010

A global agricultural system that can produce enough food for everybody on the planet, yet leave a billion people hungry, and close to a billion more clinically obese, is the tragically logical outcome of the global capitalist system. It is a system that is also responsible for approximately 30% of the Earth's green-house-gas emissions. As the climate becomes more unpredictable

food production will inevitably become more and more affected, and the industrial agricultural model which remains dependent on finite resources to sustain it will be shown to be obsolete.

As the old adage states, 'never waste the opportunity of a crisis', and the powerful multi-national interests pushing for 'green' technologies such as GMOs and agro-fuels have sensed a clear political opportunity to present the multiple ecological, economic and social crises we face as mere technical challenges, which only they themselves have the means to arrest. It is with great concern that we note this a-political, technocratic tone throughout the paper's paltry two page summary of agriculture. Such is the paucity of information given, or indeed of any kind of strategic vision for agriculture in the document, that it is extremely difficult to draw any conclusions from it at all. It states that intensely irrigated agriculture uses more than 50% of South Africa's water, yet then goes on to claim that large scale irrigated agriculture will be least vulnerable to climate change. What are the conclusions that one can draw from this? That, in spite of an encroaching water crisis, intensely irrigated crop lands is to be encouraged? What of the inherently political and potentially confrontational issue of the awarding of water rights, and allocation of water resources in general? This is a question that cannot be adequately or equitably answered through the technocratic language of the paper.

Mention is made of the need to support the agricultural industry's 'proactive efforts' to exploit new opportunities in the sector, and of the need to develop climate resistant crops. It does not say who will be funding or directing this research, or whether indeed, what is being referred to are GM drought tolerant crops? Can the private sector be trusted to carry out this task? One only has to see the discrepancy in the amount of resources the oil industry has devoted to agro-fuels as opposed to genuinely renewable energy sources, such as solar or wind, to view their claims for sustainability with extreme skepticism. We welcome the commitment the document appears to make towards diverting resources towards organic farming and more information for farmers on the ground, but have also learnt through bitter experience that initiatives such as these can also merely serve as window dressing, while behind the scenes a system on the verge of collapse continues to receive staunch support.

We thank-you for the opportunity afforded us to comment on the Green Paper, and sincerely hope that this signals an increasing scope for the engagement of civil society in this, and other, crucial issues.

Yours sincerely

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