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earthlife AFRICA

A project of Earthlife Africa Jhb

Earthlife Africa Johannesburg and groundWork comment on:

Report Title: The Greenhouse Gas Inventory for South Africa from 2000- 2010

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INTRODUCTION

1. In this submission, Earthlife Africa Johannesburg (ELA) and groundWork make comments on the South African Greenhouse Gas (GHG) Inventory from 2000 – 2010.

2. Comments mainly focus on the Energy Sector category, since this is the area within which ELA and groundWork are mostly involved. However many of the comments made to the section on the energy sector remain valid in other sections as well.

3. The comments in this document do not follow the same order as is presented in the National Greenhouse Gas inventory.

PUBLIC PARTICIPATION

4. ELA and groundWork hereby note that the opportunities for civil society to engage in the GHG process have been disappointing. Although ELA understands that the development of the GHG Inventory may have been discussed with the Department of Environmental Affairs (DEA) at Monitoring and Evaluation Technical Working Groups, ELA and groundWork maintain that insufficient engagement with the public has taken place. Public participation is crucial in the development of this Inventory since the public are vulnerable to the impacts of GHGs in the atmosphere and have an interest in ensuring that these emissions are mitigated and reported.

5. Further, civil society was not invited to any workshop where the contents of the GHG Inventory were explained to ensure that public comment is insightful and useful to the process.

DOMESTIC POLICY CONTEXT

6. A major short fall of the GHG Inventory is that it fails to explain the relevance of the document within the climate change policy context of South Africa. In particular, the Inventory gives a substantially higher estimation of GHG emissions than previous estimates such as the DEA's 'Defining South Africa's Peak, Plateau and Decline Greenhouse Gas Emission Trajectory' (October 2011). This needs to be noted and the implications discussed.

7. This GHG Inventory is crucial for a number of initiatives being undertaken by DEA and other responsible departments towards the goal of reducing climate change causing greenhouse gases and in adapting to dangerous climate change, this relationship must be fully explained. There is also a need to describe the multi-sectoral and co-ordinated response which DEA is pursuing and the subsequent sectoral responsibilities of other key departments that also form a part of their Presidential Outcomes.

INTERNATIONAL POLICY CONTEXT

8. While the Inventory does explain that its purpose is a result of South Africa's ratification of the United Nations Framework Convention on Climate Change (UNFCCCC) and the Kyoto Protocol, it fails to relate the total of GHGs by sector, in the period under review, to South Africa's climate change mitigation targets. These targets are defined by the National Climate Change Response Policy (NCCRP), and have been informed by earlier assessments of what the actual emissions of South Africa are and what the potential for mitigation is. Therefore this Inventory, with revised data, must explain how the initial climate change mitigation targets of the South African government are affected.

INSTITUTIONAL RESPONSIBILITIES

9. The Inventory is unclear on the respective responsibilities of government departments and institutions. The Inventory only mentions the DEA as being mandated with co-ordinating climate change policy, yet all other departments are required - as a part of their reporting and outcomes - to mainstream and implement climate change policy.

10. Further, the document mentions the Air Quality Act (Act 39 of 2004) as being the only piece of legislation which mandates the DEA to monitor environmental information. The current environmental legislation must be further unpacked and explored.

TIME FRAME

11. The GHG Inventory is long overdue and the document itself is unclear about how long it has taken for the Inventory to be developed. While the publication date on the document is August 2013, the document was only published for public comment in May 2014. The period under review in the document is from 2000 to 2010, but the relevance of this time frame towards climate change policy which is being developed and implemented now must be explained.

12. Are the sectoral totals in this inventory useful towards implementing recent policy such as Carbon Budgets, the Carbon Tax and the declaration of GHGs as priority pollutants? Further, is the period that has been reviewed still acceptable and recent enough to present to the UNFCCC as a part of South Africa's commitments towards mitigating global climate change?

COMPLETENESS OF THE REPORT AND LOOKING FORWARD

13. In the section on completeness of the GHG Inventory, pg. xix, a full narrative should be provided. This narrative should describe what the Inventory has been able to achieve, where it has failed, why it has failed, and how and by when outstanding information will be achieved. The section should not be limited to data sources which are missing.

14. ELA understands that there have been significant hurdles in the development and publication of this GHG Inventory, which has not been limited to the collection of reliable data. It is therefore important that the development of mechanisms for stronger monitoring, evaluation and reporting are thoroughly explained.

STRUCTURE

15. Overall, the GHG Inventory is structured in a complicated way and makes for a difficult read, especially for interested parties that do not have a background in statistics. Some of the overall structural problems with the document are explained in the bullets below:
    - The first time that an acronym is used in the body of a document, the full term must be written out in full so that the reader does not have to keep referring to the list of acronyms at the beginning of the document.
    - There is much repetition throughout the document, which shows that the chapters have been written by different authors and that not enough attention has been paid to editing. The Inventory could be much shorter, clearer and more precise if the repetition is removed.
    - The relevance of some of the information within the body of the Inventory is unclear. This appears from the descriptions of the South African context and in the descriptions of the different energy sector categories, such as transport.
    - The document would have done well to have included a list of terms and their meanings at the very beginning, because it will be the first time that many readers will be coming across them before. Terms such as “Auto electricity producer” and “First-order” should be listed in the first few pages and given brief explanations.
    - The Executive Summary does not sum up the conclusions and ambitions of the document adequately enough.

METHODOLOGY

16. The Inventory makes use of the International Panel on Climate Change (IPCC) 2006 methodology for reasons of transparency and accuracy. Please explain when the IPCC will promote a new methodology as the 2006 method may already be outdated.

17. The global warming potential of greenhouse gases is taken from the Third Assessment Report. These values have been updated in the Fifth Assessment Report. Methane, for example, is now put at 35 times the GWP of CO2 over a 100 year timeframe whereas the Inventory uses a figure of just 23 times. If the earlier values are required for international comparability – i.e. if all countries are using these values – this should be stated. But the implications of the revised values should be shown.

18. A major shortfall is that the IPCC methodologies used in the Inventory and the methods of analysis, such as the tier approach, are not explained thoroughly enough at the beginning of the document. Methods such as level and trend assessment are introduced without being explained and left to the reader to interpret.

19. The difference between the reference approach and the sectoral approach should be explained in more detail. Further, the significant discrepancies between these two approaches should be investigated in this inventory.

QUALITY ASSURANCE

20. The Inventory claims that external quality assurance was performed, yet does not note by whom. In some instances the document claims that quality assurance was performed by the “Department”. Which department, and does this classify as an external assessment?

21. It is explained in the document that South Africa has developed its own validation and verification procedure for GHG assertions for corporate reporting of emissions. This is a positive step, but must be explained in more detail. In this regard, we note that the draft National Atmospheric Emission Inventory Reporting Regulations limits public access to emission data and undermines the importance of public participation in environmental decision-making. This is clearly contrary to the Constitution, the National Environmental Management Act, AQA, the Framework for Air Quality Management, and the Promotion of Access to Information Act.

INCONSISTENSIES

22. There are several inconsistencies within the document from section to section, which may be as a result of the different authors writing on the same subject. For example, in one section it is written that it is difficult to obtain level data on waste, yet in another section it is written that waste data is in sufficient supply.

DATA SOURCES

23. A constant theme throughout the document has been that there insufficient level data and activity data for higher tier analysis of the GHG emissions. The document should explain why the data is not available and from which institution the data should be made available. The document also admits that this feature needs to be improved in future inventories. It should then be carefully explained what policies and regulations are being put into place to ensure that the data becomes more readily available from industry and to what extent the DEA will be able to effectively enforce these regulations.

24. Further, the document mentions data difficulties from line departments of the DEA, such as waste. South Africa has a National Waste Inventory in place, yet the document claims that there is insufficient level data available on waste.

25. A wider range of institutions should have been prepared to provide data for this inventory, such as local municipalities and the military. What measures are being put into place to ensure that a wider range of institutions are able to provide data on fuel use and GHG emissions in the future?

26. The Inventory acknowledges that because of the difficulties in obtaining sufficient data, the Inventory is incomplete. If the Inventory is incomplete, how credible is it? Is the Inventory a reliable enough resource to hand to the UNFCCC and to base domestic climate change policy on?

27. With regards to emissions from the Energy sector, it is unacceptable that no level data is available from: abandoned mines, spontaneous combustion of coal seams, the paper and pulp industry and from open burning of waste. Especially because some of these data sources should be under the monitoring and regulatory processes of the DEA.

28. It is also unacceptable that no activity level data was available from industry run coal-fired power stations. How will this situation be improved?

TRENDS IN GHG EMISSIONS

29. It must be explained how the overall increase in South Africa's CO2 emissions and overall increase in GHG emissions affect South Africa's domestic climate change planning and international commitments. South Africa's international climate change targets have been calculated making use of older and lower estimations.

30. The increase and decrease in other GHGs besides CO2 should be further evaluated and explained, such as the overall decline in nitrous oxide emissions.

31. The Inventory estimates that the energy sector is responsible for 88.9% of the total amount of CO2 emissions. Is this figure credible, given the difficulties in obtaining activity data from industry, especially from industry run and operated coal-fired power stations?

32. It is insufficient to constantly reason changes in the emissions from the energy sector to changes in the economic growth in the country. Changes in emissions would be better explained through policy developments in the energy sector, such as the Return to Service of old coal-fired power stations and the construction of new mega coal-fired power stations. Labour relations in the mining sector will also contribute towards energy use and therefore to an increase in total emissions.

33. The statement that the energy sector is critical to the economy of South Africa is biased. The energy sector also incurs massive debt and is costing the tax-payer. Further, the pollution from the energy sector severely impacts on human health and agricultural potential. The statement fails to take account of the significant external costs of the energy sector.

34. The relevance and focus on renewables is unclear, especially on biomass.

COAL TO LIQUIDS AND GAS TO LIQUIDS

35. As a major contributor to the total CO2 emissions in South Africa and on the African continent, more attention should be paid to the activities of SASOL and of PetroSA (and other refineries). It was consistently unclear throughout the Inventory under which category these activities are included.

36. The activities of Sasol and PetroSA (and other refineries) should be discussed in the executive summary, as many readers will read this inventory for this information in particular, especially international readers.

37. According to the text, emissions from these activities "are accounted for under fugitive emissions" (p.9) and specifically under "Other emissions from Energy Production".

38. It is written in this section that there is emphasis on CO2 removal. Please explain this in more detail. What method is used to remove CO2 and how much CO2 is removed?

39. Why was no uncertainty analysis performed in this section?

40. What are the reasons behind the fluctuations in this section?

41. Why is the overall contribution of this section to C02 totals in the inventory so low when Sasol's Secunda plant is known to be the largest point source of C02 emissions and Sasol reported GHG emissions of 75 million tonnes in 2010?

RECALCULATIONS FROM BASE YEAR

42. Under many sections it is explained that the base year calculations (from 2000) were incorrect and recalculated. Often with the result of a much lower GHG emission total. Please explain in more detail, in all instances, what was wrong with the initial calculations and how they were recalculated. The 95% drop in calculated emissions from coal mining & handling [44] is of particular concern.