How is climate change incorporated into Environmental Impact Assessments in South Africa?

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Aljareo, Abdulhakim and Watson, Ingrid
School of Animal, Plant and Environmental Sciences
University of the Witwatersrand
Private Bag 3, Wits, 2050
E-mail: aalgerew@yahoo.com

Background

- Climate Change Impacts
  - Environmental – ecosystem functions & processes, water resources
  - Social - livelihood sources, limited capacity, settlements in coastal lowlands
  - Economic – infrastructure damage, food security

- Impacts in South Africa
  - Changes in rainfall & evapotranspiration, increasing temperatures, water availability, sea level rise, health issues, economic losses, impacts on biodiversity systems and agricultural sector

Background

- National Climate Change Response Strategy (2011)
  - Purpose

    For an effective climate change response and the long-term, just transition to climate-resilient and lower-carbon economy and society in SA
  - Objectives:

    Support sustainable development

    Participate in the international efforts to mitigate GHGs in a way that does not affect SD in SA

- Climate Change Mitigation
- Climate Change Adaptation

Research Questions

How is climate change incorporated into EIAs in South Africa?

1. How is climate change incorporated in the EIA legal regime?

2. How is climate change considered in the practice of EIA in SA, using Gauteng as a case study?

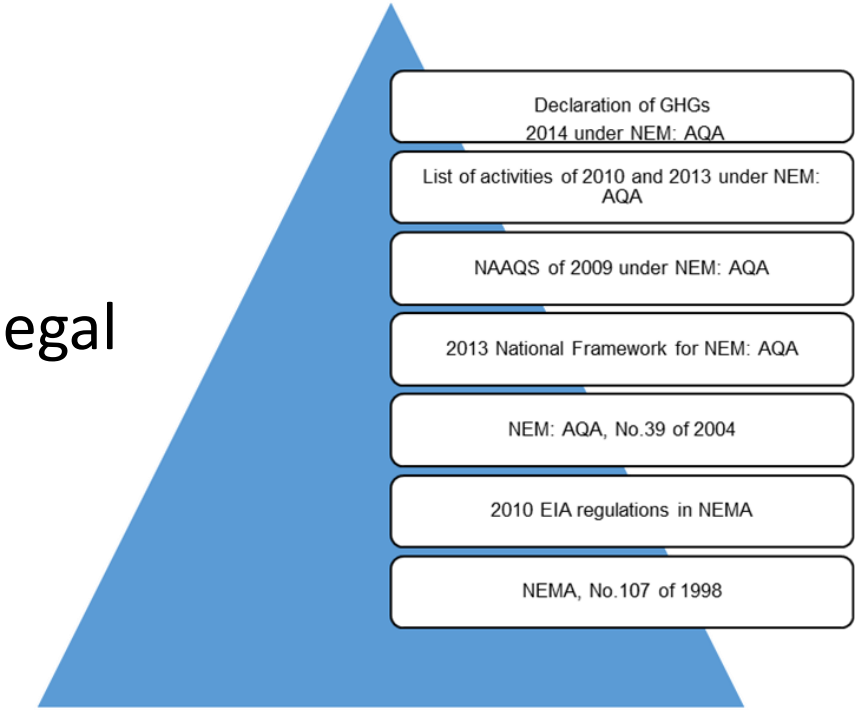
Methodology

Descriptive and qualitative methodological approach

1. Reviewing climate change incorporation into EIA legal regime and related legislation
   - Direct and implied climate change incorporation

2. Reviewing 21 EIA's from Gauteng (2010 – 2013)
   - Direct and implied climate change incorporation
   - Consideration of mitigation, adaptation and baseline adaptation (Larsen, 2013)
   - EIA for mining, SEA and BA not included

3. Key informant interview
   - Discuss results and EAPs experience with EIA and climate change



Results

- Climate Change not directly incorporated into EIA legislation or practice, but implied in NEMA

EIA type	Climate change mitigation (direct/implied)	Climate change adaptation (direct/implied)	Climate change baseline adaptation (direct/implied)
Waste license application	None	None	None
Petroleum construction	None	None	None
Power line and substation construction	None	None	None
Residential development	None	None	None
Smelter construction	None	None	None
Furnace construction	None	None	None
Commercial development	None	None	None
Tailing backfill plant & pipeline construction	None	None	None

No	Legislation have been searched	Direct incorporation of climate change into EIA	Implied (indirect) incorporation of climate change into EIA
1	NEMA	Not incorporated	Implied in the achievement of IEM objectives by using instruments such as EIA
2	2010 EIA regulations	Not incorporated	• Implied in the consideration of cumulative impact •The list of activity No.1 •The list of activity No.4 •The list of activity No.5 •The list of activity No.17
3	NEM: AQA	Not incorporated	Implied in the linkage between EIA and AEL process
4	2013 National Framework for NEM: AQA,	Not incorporated	Implied in the linkage between EIA and AEL process
5	Declaration of GHGs as priority air pollutants under NEM: AQA (legislation still under the process of comment)	Not incorporated directly, but standard for GHG emissions has been set	Not incorporated indirectly, but standard for GHG emissions has been set
6	2009 NAAQS under NEM: AQA	Not incorporated directly and no standards for GHG emissions	Not incorporated indirectly and no standards for GHG emissions
7	The list of activities which result in atmospheric emissions of 2010 under NEM: AQA	Not incorporated directly and no standards for GHG emissions	Not incorporated indirectly and no standards for GHG emissions
8	The list of activities which result in atmospheric emissions of 2013 under NEM: AQA	Not incorporated directly and no standards for GHG emissions	Not incorporated indirectly and no standards for GHG emissions

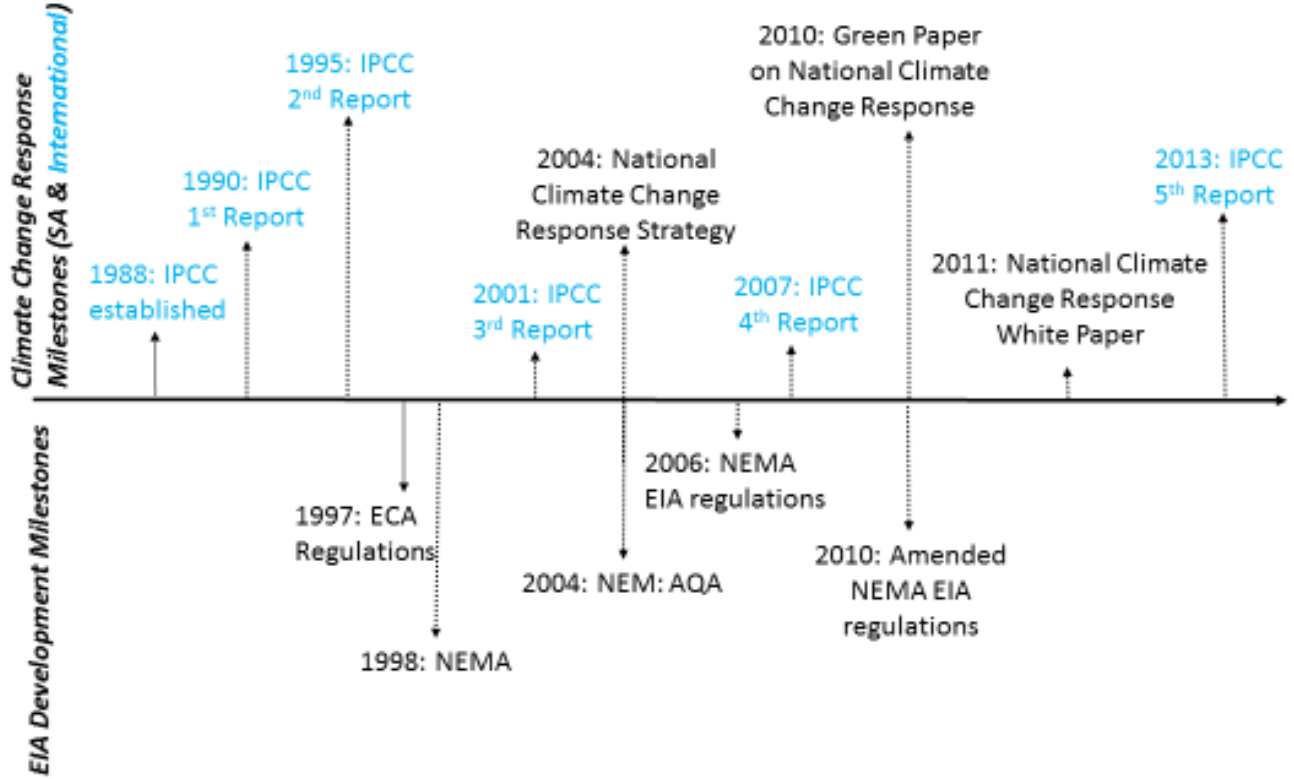
Results

- Key informant interviews
  - None had considered climate change in EIA practice locally
  - One EAP had considered climate change in an international project, based on IFC standards
  - Noted that climate change should be considered in conjunction with other IA tools, such as SEA
  - Noted a number of challenges for climate change consideration in EIA

Discussion

Climate change not stated explicitly in 2010 EIA regs, or other legislation reviewed

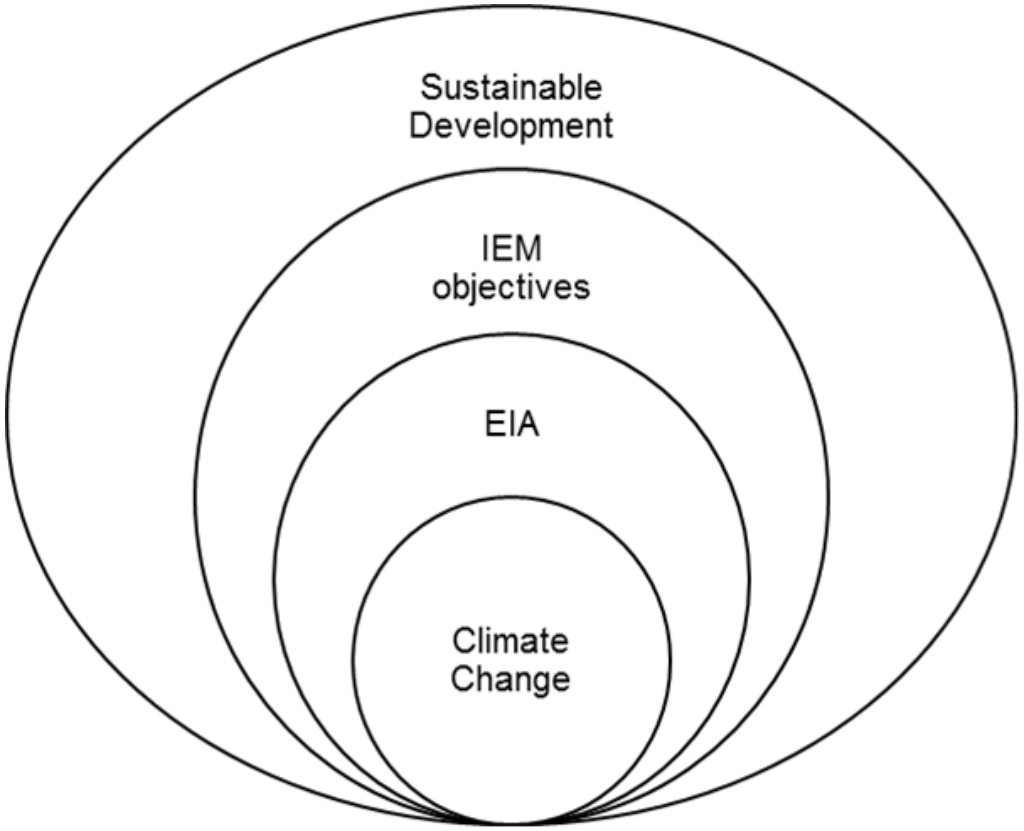
- Policy not (yet) translated into law
  - Policy development timeline
  - Lack of cooperation between government departments
  - Lack of understanding and information
  - Lack of human capacity and financial resources



Discussion

Climate change implied in EIA legal regime

- 2010 EIA Regs
  - Cumulative impacts
  - Listing Notice 2 – activities no. 1, 4, 5 and 17
  - Linkage between EIA, IEM objectives and Sustainable Development
- NEM:AQA
  - Atmospheric Emissions License process



Discussion

Climate Change is not incorporated into EIA practice

- No direct legal requirement to do so

- Limited information – few climate change forecasts of local impacts

- EIA process problematic

Discussion (cont.)

Is EIA the appropriate tool to consider Climate Change?

- Concerns around the effectiveness of EIA in SA generally, adding Climate Change may be problematic

- Cost, time and capacity

- International issues – lack of capacity, tools, policy, guidance & incentives

Recommendations

- EIA can contribute to climate change mitigation and adaptation, especially when used together with other IEM tools

- Direct incorporation into EIA regs
  - Assessment climate change concern during scoping
  - Additional listed activity – based on activity and/or receiving environment
  - Develop guidelines

- Availability of data & modelling technology

Recommendations (cont.)

- Enhanced role of SEA & EMF
- Mainstream climate change across government departments
- Increase capacity of EAPs & regulators
- Supporting role of EAPSA & IAIAsa

Thank you

Questions ?