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**TOWARDS A LOW-CARBON ECONOMY:
REPORT BACK ON THE ENVIRONMENTAL LAW
ASSOCIATION (ELA) SEMINAR ON CLIMATE
CHANGE
THE ROLE OF CLIMATE CHANGE IN EIA**

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The ELA Climate Change Seminar 2010

□ Goal

- Explore and encourage discourse on the shift to a low-carbon economy.
- Focus on opportunities and constraints

□ Background

- Structure of the global economic system is under siege.
- Sub-Saharan Africa expected to be hit the hardest by the impacts of climate change.
- SA is the 12th largest emitter of GHGs worldwide.
- SA is the largest emitter of GHGs in Africa.



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- International climate change regime
 - Basis for domestic action by individual States
 - UNFCCC and Kyoto Protocol
 - Outcome of COP 15: Copenhagen Accord
 - Not a binding international agreement
 - States may 'pledge' future reduction targets
 - Perceived as weak – political statement of intent

- Currently no binding emissions limitation targets for SA BUT government committed to achieving a 34% reduction of GHG emissions below BAU by 2020.

- Requires decisive action in the immediate future.



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- SA position
 - International regime as basis for domestic action
 - To date market forces largest driver of action to address climate change.
 - Several policies, particularly in the energy sector.
 - Dichotomy between policies and implementation.
 - No comprehensive regulatory regime.

- Addressing climate change: Constraint or opportunity?
 - Growth of carbon intensive energies must be constrained.
 - Growth opportunities for the “green economy” .



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- Moving towards a low-carbon economy: the options
 - Rules and regulation
 - Positive and negative incentive schemes
 - Market forces

- Market forces alone insufficient - require legal regulation
 - Regulate behavioural patterns of both industry and individuals

- ELA commitment to further research on the role of law in regulating climate change in SA



PART 2 - Climate change and EIAs

“EIA presents an important but unrealised opportunity for immediate global action on climate change.”

How can we integrate climate change considerations into the EIA process and what does the law require?

Relationship between EIA and Climate change

- ❑ The ultimate goal of all the EIA process is essentially to nip in the bud the detrimental effects of human activity on the environment
- ❑ Anthropogenic GHG emissions goes to the heart of this
- ❑ Human conduct emitting GHGs links people to climate change

Climate change and EIAs – NEMA

- ❑ No direct reference to climate change
- ❑ Section 2 principles (guide the interpretation & implementation of NEMA)
 - ❑ Avoid disturbance of ecosystems and loss of biodiversity
 - ❑ Apply a risk averse and cautious approach
 - ❑ Anticipate negative impacts on the environment



Climate change and EIAs – NEMA

- Chapter 5- Integrated environmental management
 - Ensure the effects of activities on the environment receive adequate consideration
 - Potential consequences of activities must be considered, investigated, assessed and reported on

Climate change and EIAs – NEMA

- ❑ Content of Impact Assessment Reports
 - Description of the environment affected
 - Need and desirability
 - Description and assessment of significance of any impacts
- ❑ Sound legal basis for integrating climate change considerations into EIA
- ❑ Given the severity of potential impacts – crisis of epic proportions – integration also has “common sense appeal”
- ❑ But integration is not a simple affair – cf. the dominance of direct effects

Climate change and EIAs

- Two components to climate change considerations: Firstly – will the proposal affect the climate (e.g. the construction of a road)?

- Forest clearing = GHG sinks



- Anticipated energy use = GHG emissions



Climate change and EIAs

- Secondly, will climate change affect the project (e.g. through climatic or environmental changes)?
- Cf. Coastline development:
 - Coastal erosion and sea level rise as tangible climate change impacts
 - Integrated coastal management
 - Determine coastal setback lines?
 - Adaptation measures required?

Climate change and EIAs

- Both components of climate change considerations play an NB role in shaping (1) assessment and (2) mitigation:
 - Assessment of alternatives
 - Avoidance and adaption strategies

Impediments to integration

- Technically complex
- Problems of quantification
 - Scope – what must be measured?
 - Accountability – who must measure?
 - Resources – how to measure effectively?
- Analytical difficulties
 - Quantifying baseline data
 - Identifying level of intensity of impact
 - Issues of significance
 - Combined impacts of other projects

Impediments to integration

- Critical issues will be:

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Determination
of significance

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Cumulative
impacts

Significance determinations

“Experts, let alone the public often disagree on the significance or nonsignificance of a impact. To a certain extent, the interpretation of significance is in the eye of the beholder.”

- Significance is potentially complex and elusive. Climate change considerations make it infinitely more problematic.
- Large projects – minor GHGEs on global scale

Significance determinations

- ❑ Determination of significance of climate effects of a single proposed project is problematic
- ❑ Additional emissions of a single project arguably negligible in global context
- ❑ Causal link - tracing GHG emissions from any one project to specific climate impacts
- ❑ Lack of certainty re: expected impacts of climate change - assessment, mitigation and adaptation measures presuppose availability of scientific data

“Death by a thousand puffs”

- But it is undeniable that each project with GHG emissions contributes to total atmospheric GHG emissions and therefore contributes to climate change globally

The **tyranny** of small decisions

Cumulative effects

- Cumulative impact is defined in the NEMA EIA Regulations as follows:

“impact that in itself may not be significant, but may become significant when added to existing and potential impacts eventuating from similar or diverse activities in the area.”

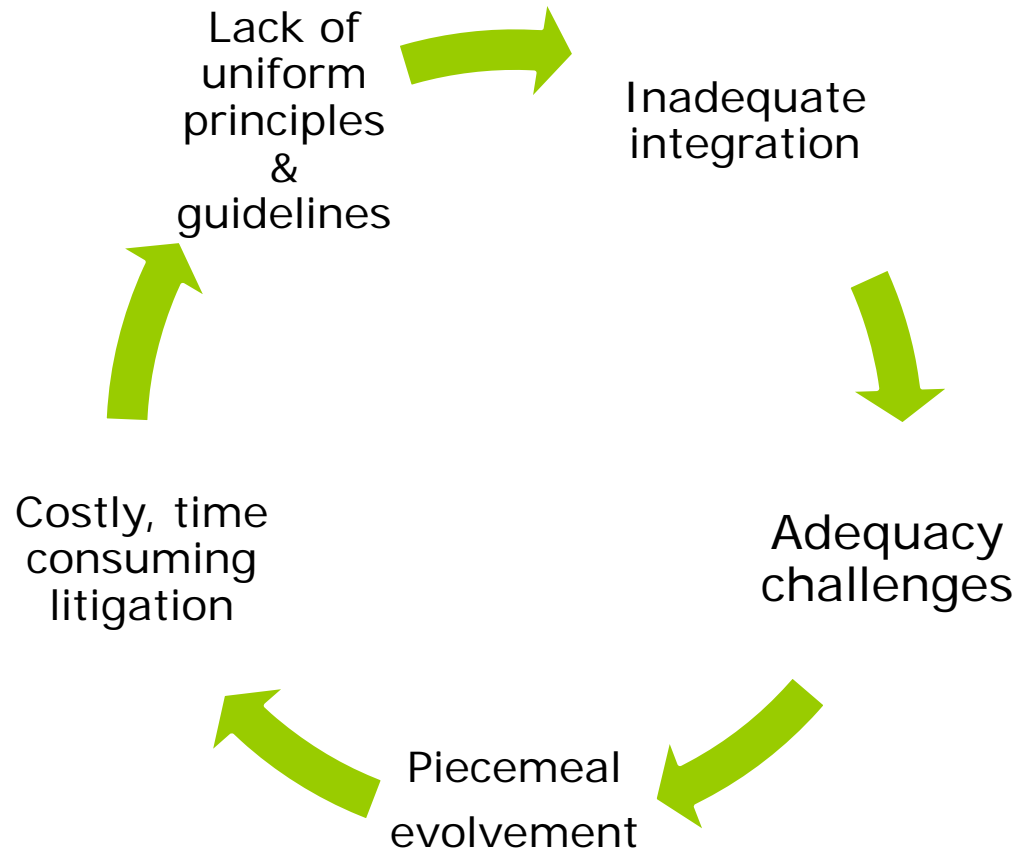
Cumulative effects

- ❑ Cumulative effects is one of the reasons why – in the USA – the integration of climate change considerations into the EIA procedural framework has been described as:
 - “...muddled, messy and complicated...”
- ❑ EU EIA Directive 85/337/EEC – Cf Art 3: requires assessment of direct and indirect effects on, inter alia, the climate

Cumulative effects

- ❑ Inexorably linked with thresholds of significance
- ❑ Whether or not climate change considerations are appropriately integrated and considered will depend on efficacy of cumulative effects assessment
- ❑ Lack of indicators is a problem

Integrating climate change



Climate change and EIAs – SA

□ Strong link between climate change and the need for sustainable development

■ Current growth patterns are no longer sustainable

■ More efficient urban form

□ Sustainable transport

□ Location of new developments

□ Sustainable energy

□ Carbon sequestration

□ Sustainable buildings

□ sustainable living

PSDF

- Food security
- Public transport
- Urban edge
- Location of housing near places of work and along public transport routes

Carbon sequestration

- Ensure natural areas remain unspoiled
- Tree lined streets
- Retain indigenous vegetation
- Biodiversity corridors

Building materials

- Future local by-laws?
- Encourage innovation

Water

- Water conservation measures
- Water availability

Conclusions

- ❑ In the absence of legislative or regulative guidance, how can climate change considerations be incorporated into an EIA in a meaningful manner?
- ❑ No simple solutions to incorporating considerations into EIA
- ❑ Potential for EIA to make significant contribution to mitigation and adaptation to climate change
- ❑ Lessons from other jurisdictions?

Conclusions

- ❑ Several US courts have found project-related GHG emissions and associated climate impacts are within the scope of NEPA required impact analyses.
- ❑ Courts generally now accept that climate change considerations are relevant in NEPA impact assessments
- ❑ *Centre for Biological Diversity v National Highway Traffic Safety Administration* 508 F.3d 508 (9th Cir. 2007): “The impact of GHG emissions on climate change is precisely the kind of cumulative impact analysis that NEPA requires agencies to conduct.”

□ *Anvill Hill case* (Australia)

- Objection against an EIA on the basis that coal mining applicant did not take into consideration downstream GHG emissions from burning of coal
- Court held that downstream emissions are relevant consideration – cumulative impacts of burning to be assessed despite scientific uncertainty about the extent of the impact.

Conclusions

- Clear need for:
 - Leadership from government and stakeholders to resolve compelling need for integration of climate change considerations
 - Need for rigorous parameters for content and consistency