

IAIAsa NW Branch Chairpersons Report

1 Introduction

This has been a busy and in my view a very successful year for the NW Branch of IAIAsa. I make this judgement based on the improvements we have made across what we do, how we do it, and how this translates to benefits for our members. I am proud to report on our activities during the 2013/14 year.

2 Our committee 2013/14

The North West Branch committee consisted of 14 committee members of which 7 formed part of the student committee. I would personally like to thank the committee for all they have done this year. Each committee member played a huge part in the success of this year. It has been a pleasure working with you. In particular I would like to thank Jan-Albert Wessels for the smooth transitioning for me as the new branch chair.

Eight members, namely Danie Labuschagne, Hermien Slabbert, Reinhardt Hauptfleisch, Thalita Botha, Mandré Joubert, Marius Theron and Ruan Calitz are leaving the committee. All vacancies have already been filled for the 2014/15 committee – refer to the next section of the report.

North West Committee:



Carli Steenkamp:
Branch Chair



Jan-Albert Wessels:
Outgoing chair



Francois Retief:
Vice chair



Charlotte Cilliers:
Treasurer



Percy Sehaole:
Secretary



Jurie Moolman:
CEM/ Potch representative



Danie Labuschagne:
Marketing and communication

North West Student Committee:



Hermien Slabbert:
Chair



Danie Labuschagne:
Outgoing chair



Reinhardt Hauptfleisch:
Vice chair



Thalita Botha:
Secretary and membership



Mandré Joubert:
Events



Marius Theron:
Student communication



Danitza Janse van Rensburg:
Marketing & communication



Ruan Calitz: Job opportunities & news

3 The committee for 2014/15

The 2014/15 North West Branch committee will once again consist of 14 committee members of which 7 will be part of the student committee. The majority of the branch committee will stay the same in order to ensure institutional memory for the branch. We are welcoming the following new members to the committee: Marelie Griesel, Jason Chabalala, Auguste Brits, Lauralee Koekemoer, De Wet Joubert, Liesl de Swart, and Cowille Janse van Rensburg – refer to the table below.

IAIA NORTH WEST BRANCH COMMITTEE 2014/15			
NW Branch Committee			
Portfolio	Name	Cell Number	E-mail
Outgoing Chair	Jan-Albert Wessels	079 524 4847	JanAlbert.Wessels@nwu.ac.za
Vice chair	Francois Retief	083 639 2293	Francois.Retief@nwu.ac.za
Chair	Carli Steenkamp	082 220 8651	Carli.Steenkamp@nwu.ac.za
Secretary	Percy Sehaole	083 382 1735	thibello.percy@hotmail.com
Treasurer	Charlotte Cilliers	072 573 8962	cilliers.charlotte@gmail.com
CEM/Potchefstroom Representative	Jurie Moolman	018 299 1588	20035551@nwu.ac.za
Marketing & Communication	Marelie Griesel*	082 493 5166	mareliegriesel@gmail.com
Student Committee			
Portfolio	Name	Cell Number	E-mail
Outgoing Chair	Hermien Slabbert	0783359550	22118845@nwu.ac.za
Vice chair	Danitza Janse van Rensburg	082 973 9834	22115390@nwu.ac.za
Incoming Chair	Jason Chabalala*	079 591 6832	22187936@nwu.ac.za
Secretary & Membership	Auguste Brits*	079 096 5520	24163368@nwu.ac.za
Events	Lauralee Koekemoer*	0725688104	22812679@nwu.ac.za
Communication with students	De Wet Joubert*	0796958267	22731288@nwu.ac.za
Marketing & Communication	Liesl de Swart*	0822133389	22817522@nwu.ac.za
Job opportunities & news	Cowille Janse van Rensburg*	079 829 4687	24161489@nwu.ac.za

* New members

4 Events

Our primary function at a branch level is to contribute to the Continued Professional Development (CPD) of members through the organisation of events that are regular, relevant, and cater for the very diverse membership. The following sections provide more detail regarding the events held.

4.1 Summary of events

The branch organised the following events:

DATE	TITLE	SPEAKERS	ATTENDANCE
17 & 21 February 2014	Introduction to IAIAAsa	Hermien Slabbert & Reinhardt Hauptfleisch	~150
20 May 2014	IAIAAsa/ELA: "Transboundary Aquifer Management and the Role of International Law"	Prof. Dr. Francesco Sindico	38
25 July 2014	IAIAAsa/NWU: "EIA Follow-up, Compliance monitoring and Enforcement"	Prof. Angus Morrison-Saunders & Mr. Jan-Albert Wessels	47
25 July 2014	AGM	Carli Steenkamp	16
5-7 October 2014	Medupi Student site visit	To be confirmed	~20
TOTAL ATTENDANCE			271

In summary we have had 7 presentations across five events which were attended by 271 people. Some notable aspects of the events offered this year:

1. There has been an increase of attendees of events from last year. This would suggest that we have focussed on relevant topics, and that the presenters we have involved have been of a good standard.
2. We held joint events with the North West University (Potchefstroom Campus) and the Environmental Law Association which supports the objective of building partnerships and optimizing mutual benefits or related associations.
3. We have continued to offer events free to members as their primary benefit.

The events are discussed in more detail below.

4.2 Introduction to IAIAAsa

Hermien Slabbert & Reinhardt Hauptfleisch introduced the NWU students (3rd and 4th year) to IAIAAsa in February 2014. In total, approximately 150 students attended the event – refer to Annexure A for the presentation and attendance register.



Figure 1: Event held on 17 February 2014



Figure 2: Event held on 21 February 2014

4.3 IAIA/ELA: “Transboundary Aquifer Management and the Role of International Law”

Our second event was a joint event with the Environmental Law Association on 20 May 2014. Prof. Dr. Francesco Sindico from the University of Strathclyde, Scotland presented on “Transboundary Aquifer Management and the Role of International Law” – refer to Annexure B for the event invitation, presentation, paper and attendance register. Thirty eight people attended the event. The abstract from his paper is presented below:

Abstract- The goal of this lecture is to critically assess the role that international law plays in the field of transboundary aquifer management. The lecture will begin by explaining briefly what a transboundary aquifer is and the relevance of groundwater, more generally, for global water security. It will then move on to discuss the development of international law in the field of transboundary aquifer management with special emphasis on the United Nations International Law Commission Draft Articles on the Law of Transboundary Aquifers. The final part of the presentation will discuss the “guiding role” that such Draft Articles may play in the future. What this guiding role may look like and how it can be operationalised will be explored in the context of the Guarani Aquifer System in Latin America and of transboundary aquifer systems throughout the Southern African Development Community region.



Figure 3: Prof. Dr. Francesco Sindico



Figure 4: Event held on 20 May 2014

4.4 IA/Asa/NWU: "EIA Follow-up, Compliance monitoring and Enforcement"

On 25 July 2014 the North-West Branch in collaboration with the Department of Geography and Environmental Management of the North-West University, Potchefstroom Campus, organised a joint event on EIA follow-up, compliance monitoring and enforcement. Professor Angus Morrison-Saunders and Mr. Jan-Albert Wessels presented the guest lecture – refer to Annexure C for the event invitation, presentation and attendance register. Forty eight people attended the event. This was also our first event to be video graphed. It is envisaged that the video will be made available to other branch chairs to screen at their events.

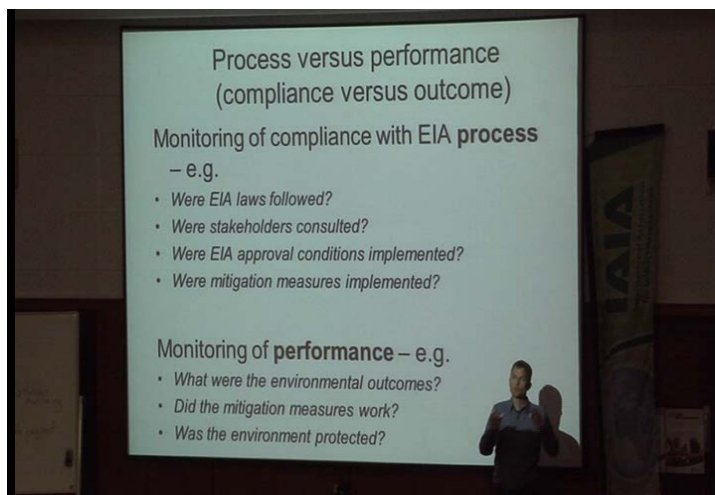


Figure 5: Event held on 20 May 2014



Figure 6: Event held on 20 May 2014

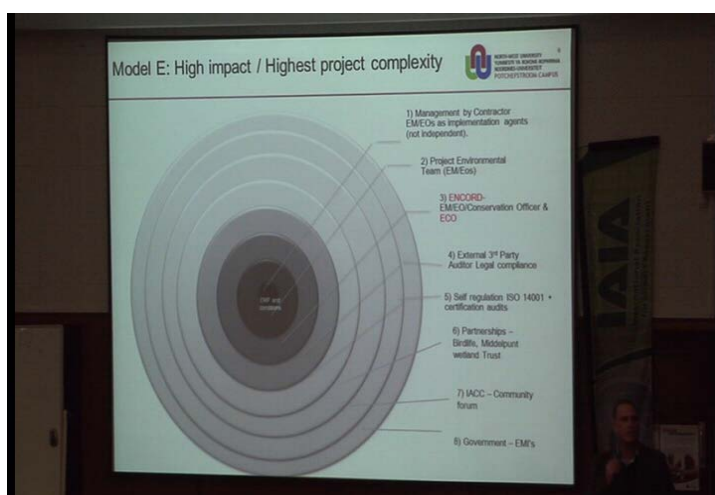


Figure 7: Event held on 20 May 2014

4.5 AGM

Our annual general meeting was held on 25 July 2014. I provided feedback on the 2013/2014 successes, challenges, our 2014/2015 strategic output expectations and financial matters – refer to

Annexure D for the event invitation, presentation and attendance register. Hermien Slabbert also provided feedback on the student committee. An important objective for the meeting was to select the new committee for 2014/15 and to discuss the IAIAsa Conference taking place on 27-29 August 2014. The meeting was attended by 16 people.

4.6 Site visit to Medupi

The site visit to Medupi is scheduled for 5 – 7 October 2014. Jan-Albert Wessels and the student committee is currently busy organising the visit. It is envisaged that approximately 20 students will attend the event.

5 Events planned for 2014/15

The branch will once again aim to organise at least four events during the next year. Two events are already being planned for September and October 2014. The following events are proposed for the year 2014/15:

DATE	TITLE	SPEAKERS	ATTENDANCE
16 September 2014	Guest lecture on "Nuclear costs"	Professor Stephen Thomas	~80
16 October 2014	Guest lecture on climate change	Nick King	~50
February 2015	Introduction to IAIAsa	Carli Steenkamp & Jason Chabalala	~150
May 2014	IAIAsa/ELA joint event	To be confirmed	~40
July 2014	IAIAsa/NWU joint event	To be confirmed	~50
July 2014	AGM	Carli Steenkamp	~20
AIMING FOR A TOTAL ATTENDANCE OF			~390

In addition to these events we will also aim to organise a meeting or an event in Mafikeng or Rustenburg thereby also improving our relations with the provincial Department of Environmental Affairs.

6 Finances

At the last National AGM, it was decided that given the organisations healthy financial position, branches should be urged to spend to deliver the advertised benefits of being an IAIAsa member. We developed our most detailed budget ever this year including more detailed funds for the student branch.

The attached financials show that we spent significantly more on events this year compared to the previous financial year, with a total of R14 976.78 spent – refer to Annexure E for the annual financial statements for year ended 30 June 2014. This figure is below the overall budget expenditure we put to the NEC, due mainly to saving costs on committee meetings and the fact that we did not need to hire venues or arrange accommodation for our guest speakers. Unfortunately this saving is also due to the fact that we were unable to organise a meeting or an event in Mafikeng or Rustenburg. As

mentioned previously we will aim to organise this event in the following year. The budget for 2014/15 is included to this report as Annexure F.

We have not been successful in closing our branch bank account this year. I still don't have access to the account and am therefore not in a position to report on the financial status of our account. All payments for our events have gone through the national office since February this year. This has proven to be an effective method but did put some pressure on me, since I had to cover the costs initially before being refunded. This may be ascribed to the fact that most events were not planned well in advance. To overcome this challenge we will aim to plan the 2014/15 events well in advance.

During this year the branch did not receive an income from non-member participation at events. The introduction of a fee for non-members could be investigating for the following year. We should however consider the impact that this may have on the number of people attending our events.

7 Communication

The branch communicated with our members through advertising our events and circulating information via the email system, which goes out to both members and our friend's database. This year eventually saw the release of the new IAIAsa website. Hopefully all future events will also now be communicated through the official website.

8 Marketing

With the help of Danitza Janse van Rensburg we have compiled a friend's database for the North West Branch, which include people from business and industry. With the help of the NEC and Marelle Griesel we have also developed and distributed a prospectus that explains who we are and what we do. The prospectus was made available at the EIA follow-up event in July 2014 and also at student events at the University throughout the year. We have not distributed it widely to business and industry yet but aim to do so in future.

9 Membership

We have not seen a growth in the branch numbers and membership actually decreased slightly. We stand at 47 members for July 2014 compared to 63 members in September last year. It should be noted that this number does not reflect the honours students (~15 students) that will still join IAIAsa before the site visit to Medupi in October this year. Hopefully this will once again increase our membership numbers to more than 50. It should also be noted that our IAIAsa/NWU event that links with the masters class reaches a lot of members from other Provinces, especially the Gauteng Province.

10 Closure

So, based on the successful events organised, positive financial outcomes and increased marketing I am of the opinion that our branch had a fruitful year. We trust that we will build on this success and I look forward to the role that I will play as the North West branch chair.



Carli Steenkamp
Branch Chairperson

24 August 2014

ANNEXURE A: Introduction to IAIAsa



Februarie 2014

IAIA NW Studente-inligtingssessie / Student information session



South African affiliate of the
IAIA
International Association
for Impact Assessment



IAIAsa
North West student branch

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Hermien Slabbert
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Reinhardt Hauptfleisch
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NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Agenda / Agenda



South African affiliate of the
IAIA
International Association
for Impact Assessment



IAIAsa
North West student branch

- Doel van kontakssessies / *Aim of event*
- Wat en wie is IAIA / *What and who is IAIA*
- Organisasies deel van IAIA / *Organisations part of IAIA*
- Takkomitee / *Branch committee*
- Hoekom aansluit by IAIA / *Why join IAIA*
- Aansluiting / *Membership*
- Vrae / *Questions*



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Doel van kontakssessie / Aim of event

- Om jong, opkomende en toekomstige professionele persone bekend te stel aan IAIA (SA & NW) en om studente aan te moedig om deel te word van die IAIA NW-studenteraad en bedrywigheede.



- *To introduce young, upcoming and future environmental professionals to IAIA, as well as to encourage students to become members of the IAIA NW student body.*



Wat en wie is IAIA / What and who is IAIA



- Die “International Association for Impact Assessment” (IAIA) is in 1980 gestig om navorsers, konsultante en verbruikers van die verskillende tipes impakstudies van alle dele van die wêreld bymekaar te bring.
- Mense van ‘n verskeidenheid dissiplines en professies is by IAIA betrokke.
- *The International Association for Impact Assessment (IAIA) was established in 1980 to bring together researchers, practitioners and users of various types of impact assessment from all parts of the world.*
- *IAIA involves people from many disciplines and professions.*



Wat en wie is IAIA / What and who is IAIA



- Die IAIA bestaan tans uit meer as 2500 lede en verteenwoordig meer as 100 lande.
- Organisasies is bedrywig in onder andere Brasilië, Kameroen, Sentraal- en Oos-Europa, Japan, Nieu-Seeland, Nigerië, Ontario, Quebec, Senegal, Suid-Afrika en die VSA.
- Internasionale konferensies word ook jaarliks gehou.
- *IAIA members now number more than 2500 and represent more than 100 countries.*
- *Organizations are active in Brazil, Cameroon, Central and Eastern Europe, Japan, New Zealand, Nigeria, Ontario, Quebec, Senegal, South Africa and the USA.*
- *International conferences are held annually.*



Wat en wie is IAIAsa / What and who is IAIAsa



- Suid-Afrika is die sesde land in die wêreld (na die VSA, Australië, Brazilië en Kanada) om 'n plaaslike IAIA-affiliaat te stig.
- *South Africa is the sixth country in the world (after the USA, Australia, Brazil and Canada) to form a local IAIA affiliate.*
- Lede bestaan, onder andere, uit korporatiewe beplanners en -bestuurders, publieke belange-advokate, staatsbeplanners en -administrateurs, privaatkonsultante en beleidsanaliste, universiteits- en kollegadosente en hulle studente.
- *Members include corporate planners and managers, public interest advocates, government planners and administrators, private consultants and policy analysts, university and college teachers and their students.*



Wat en wie is IAIAAsa / What and who is IAIAAsa



- Die hoofdoel van IAIAAsa is om 'n "tuiste" te skep vir diegene wat inligting oor impakstudies en omgewingsbestuur wil uitruil of meer daaroor te wil leer.
- *The primary objective of IAIAAsa is to create a "home" for those people who wish to exchange information on, or learn more about, impact assessment.*



Organisasies deel van IAIA NW / Organisations in IAIA NW



- Fraser Alexander Tailings
- North West Parks and Tourism Board
- K2M Technologies (Pty) Limited
- Environamics
- Impala Platinum
- Northwest Dept of Agriculture, Conservation, Environmental and Rural Development
- Meiros Greenscapes
- AB Enviro-Consult
- Beacon Environmental Consultants cc
- Rustenburg Local Municipality
- EnviroNgaka
- Cashan Environmental Services cc
- Contour Project Managers cc
- VC Management Services cc
- Dept of Agriculture Conservation and Environment

NWU:

- Faculty of Law
- Centre for Environmental Management
- School of Environmental Sciences and Development
- Environmental Management Unit



Professionele liggame en organisasies / *Professional membership*

IAIA



EAPSA (Environmental Assessment Practitioners Association of South Africa)



Environmental Education Association of Southern Africa (EEASA)]



Environmental Law Association (ELA)



Southern African Auditor & Training Certification Association (SAATCA)



The South African Council for Scientific Professions



IAIAnw Takkomitee / *Branch committee*



- Carli Steenkamp – Voorsitter
- Francois Retief – Ondervoorsitter
- Percy Shoale – Sekretaresse
- Charlotte Cilliers - Penningmeester
- Jurie Moolman – Potchefstroom verteenwoordiger
- Danie Labuschagne – Bemarking en kommunikasie

- Studentekomitee / *Student committee:*
 - Hermien Slabbert – Voorsitter
 - Reinhardt Hauptfleish – Ondervoorsitter
 - Thalita Botha - Lidmaatskap
 - Marius Theron – Kommunikasie met Studente
 - Ruan Calitz – Werksgeleenthede
 - Mandré Joubert - Events
 - Danitza Janse van Rensburg- Bemarking



Hoekom aansluit by IAIA / Why join the IAIA

- Inligting aangaande werksgeleenthede op webblad / *Information regarding job opportunities on webpage*
- Word op hoogte gehou van die nuutste omgewingsnuus en gebeurtenisse / *Stay on top of the latest environmental news and events*
- Direkte interaksie met omgewingswêreld d.m.v werkswinkels, voorligtingssessies en ekskursies / *Direct interaction with environmental world through workshops, introductory sessions and excursions.*
- Attend all branch events for free.
Non-members pay.



Hoekom aansluit by IAIA / Why join the IAIA

- Fasiliteer geleenthede vir internskap / *Facilitation of internship opportunities (being rolled out)*
- Geleenthede vir mentorskap deur IAIA's lede / *Opportunities for mentorship by IAIA's members (being rolled out)*
- Borggeleenthede om konferensie by te woon / *Sponsorship options for students to attend the conference*



Aktiwiteite / Activities -

Potchefstroom afval en water uitstappie (Maart 2012)



FOCUS ON AFFILIATES: IAIAsa

IAIASa SETS THE BAR WITH STUDENT PARTICIPATION

On 18 May, the Student Committee of the IMA North West Student Branch of the IMA South Africa Affiliates (IAIASa) organized and hosted a technical visit on Potchefstroom Water and Waste Issues.

Accompanied by Dr Ben Nel and Ms Leandrie Bothma, all processes of water purifications were discussed related to Potchefstroom's water supply from the extraction to the purification and distribution.

The Mool River Mall was visited and accompanied by Mr Jan-Albert Wessels and Mr Marra Stander. Discussions varied from the intensive planning which was required for the establishment of the Mall, the specific design required for Go Ahead, environmental legislation and policies and the general management of the Mool River Mall.

The last stop was Potchefstroom's Pick-up-Waste remain site, accompanied by Mr Mahesh Rappa and Mr David Mann. Discussions related to waste management and recycling were included.

PHOTOS AND STORY PROVIDED BY TERRY BAKER

IAIASA PRESIDENT-ELECT - TERRY@IUISO.COM

TECHNICAL VISIT TO POTCHEFSTROOM WATER AND WASTE ISSUES



17th Annual IAIAsa Conference
27-29 August 2012
NH The Lord Charles, Somerset West
Cape Town, South Africa



Dr Ben Nel (Thabane Municipality) explains the Thabane Blue and Green Drop Award received in May—being 30th best in South Africa.



Dr Ben Nel (Thabane Municipality) explains water treatment process to the students.



Aktiwiteite / Activities

- IAIA en Environmental Law Association joint session (July 2012)



NORTH-WEST BRANCHES OF THE ENVIRONMENTAL LAW AND INTERNATIONAL ASSOCIATION OF IMPACT ASSESSMENT

PROVIDING AMMUNITION FOR CURBING MINING? – PLANNING AND LEGAL PERSPECTIVES ON THE 2012 MACCSAND JUDGEMENT

Friday, 27 July 2012

You are kindly invited to attend a joint seminar of the ELA and IAIAsa North-West branches. The seminar is aimed at the interactive sharing of information and ideas about the recent Maccsand-judgement of the Constitutional Court on granting an interdict to stop mining operations until such time as the necessary zoning authorisation has been obtained.

PROGRAMME

- 13:00-14:00 IAIAsa Branch AGM
- 14:00-14:15 Opening and Welcome
Prof. Anél du Plessis and Mr. Jan-Albert Wessels (ELA and IAIAsa NW Branch Chairs)
- 14:15-14:45 Contextualising environmental planning in different governance spheres (DMR; Municipal; Regional Agriculture; DWA and DEA)
Presenters: Prof. Francois Retief and Mr. Dirk Cilliers (NWU, Dept. Geography and Environmental Management)
- 14:45-15:15 Legal perspectives on the implications of the Maccsand-judgement
Presenter: Mr. Lloyd Christie (Director, Edward Nathan Sonnenbergs) and Prof. Jeannie van Wyk (UNISA, Faculty of Law)
- 15:15-16:15 Panel discussion
Panel members: Dr. Ernst Driewas (Panel Chair); Prof. Jeannie van Wyk; Adv. Lloyd Christie; Prof. Francois Retief; Prof. Anél du Plessis; Mr. David Klein (Dept. Agriculture); Mr. Jan-Albert Wessels.
- 16:15-17:00 Informal function at the JS vd Merwe venue

Aktiwiteite / Activities –

Eskom Ingula Ekskursie KZN



Aktiwiteite / Activities

- IAIA en Environmental Law Association joint session (July 2013)



NORTH-WEST BRANCHES OF THE ENVIRONMENTAL LAW AND INTERNATIONAL ASSOCIATION OF IMPACT ASSESSMENT

ROUNDTABLE DISCUSSION:
RELEVANCE AND IMPLICATIONS OF RECENT
ENVIRONMENTAL AND PLANNING RELATED CASE LAW
Friday, 19 July 2013

Faculty of Law, NWU (Potchefstroom Campus) Room H120

You are kindly invited to attend a joint Roundtable Discussion of the ELA and IAIA North-West branches. The Roundtable is aimed at the interactive sharing of information and ideas on a number of environmental and planning related court cases decided in 2012 and 2013.

Some of the cases to be discussed include:

Le Sueur and Another v Ethekwini Municipality and Others (9714/11) [2013] ZAKZPHC 6 (30 January 2013)

Superize Investments 11 CC v Mac of Economic Development Environment and Tourism Limpopo Provincial Government and Another (70623/2011) [2013] ZAGPPHC 86 (11 April 2013)

Interwaste (Pty) Ltd and Others v Coalwae and Others (23921/2012) [2013] ZAGPPHC 89 (22 April 2013)

Sephoku Tin (Pty) Ltd v Kranskoppe Boarders (NGHC case no 47561/2010, dated 7 May 2012, unreported)

PROGRAMME

13:00-13:30	Light lunch
13:30	Opening and welcome <i>Mr. Jan-Albert Wassels and Prof. Anél du Plessis</i> (ELA and IAIA NW Branch Chairs)
13:45-15:30	Introduction of cases – facts, judgments and implications <i>Presenters: Prof. Francois Retief, Ms. Olivia Rumbie, Mr. Jan-Albert Wassels, Mr. Reece Alberts, Prof. Anél du Plessis & Mr. Chris De Bruyn</i>
15:30-16:30	Roundtable discussion
16:30	Closure

Aansluiting / Membership



















- Web / online registration
<http://www.iaia.co.za/Members/default.asp>
- R175 per jaar vir studente / *p.a. for students*
- Kontak Thalita Botha 22301240@nwu.ac.za vir meer inligting


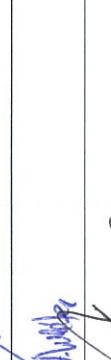









Vrae / Questions

















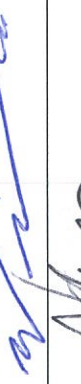

**IAIANw - INTRODUCTION TO IAIA:
ATTENDANCE REGISTER 17 FEBRUARY 2014**

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ANNEXURE B: IAIAsa/ELA: “Transboundary Aquifer Management and the Role of International Law”



REGIONAL MEETING (NORTH-WEST PROVINCE)

INVITATION TO LUNCH SEMINAR

Dear ELA and IAIA members and other interested parties.

The North-West Branches of the ELA and IAIA are pleased to announce that it will be hosting a lunch seminar on:

“Transboundary Aquifer Management and the Role of International Law”

The speaker is Prof. Dr. Francesco Sindico from the University of Strathclyde, Scotland, who is currently on a research visit to South Africa. See the abstract of the talk on page 2 below. His CV is available at:

<http://www.strath.ac.uk/humanities/courses/law/staff/sindicofrancescodr/>

DATE: 13:00-14:00, Tuesday, 20 May 2014

VENUE: Room 102, Centre for Environmental Management, Building D1, Corner Borchard and Hoffman streets, Potchefstroom.

RSVP: If you wish to attend the meeting please confirm by email to Saritha Marais (enviro.association@gmail.com) by Friday, 15 May 2014 before 16:00. Please note that numbers are restricted to 38 people.

For more information please contact Carli Steenkamp at carli.steenkamp@nwu.ac.za or Louis Kotzé at louis.kotze@nwu.ac.za or Saritha Marais at 018 2991568.

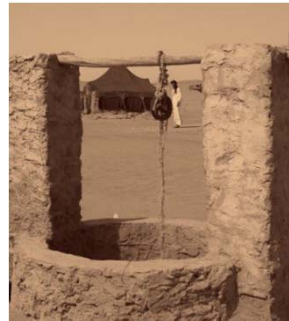
Abstract:

The goal of this lecture is to critically assess the role that international law plays in the field of transboundary aquifer management. The lecture will begin by explaining briefly what a transboundary aquifer is and the relevance of groundwater, more generally, for global water security. It will then move on to discuss the development of international law in the field of transboundary aquifer management with special emphasis on the United Nations International Law Commission Draft Articles on the Law of Transboundary Aquifers. The final part of the presentation will discuss the “guiding role” that such Draft Articles may play in the future. What this guiding role may look like and how it can be operationalised will be explored in the context of the Guarani Aquifer System in Latin America and of transboundary aquifer systems throughout the Southern African Development Community region.

20 May 2014
ELA/IAIA Regional Meeting (North West Province)



Transboundary Aquifers and the Role of International Law



Francesco Sindico
Reader in International Environmental Law, School of Law,
University of Strathclyde, Glasgow

Outline

- Background and context of the research
- Groundwater vs Transboundary Aquifers (TBAs)
- International Law and TBAs
- The “role” of International Law in the management of TBAs
 - ✓ Guarani Aquifer System
 - ✓ TBA in the SADC
- Conclusions and areas of future research



Background and context of the research

- 2010: Seminar @ the University of Surrey, Guildford, UK; 2011: Conference @ the University of Sao Paulo, Brazil; 2013 Conference in Glasgow
- Special issue of the International Community Law Review, special issue of the Boletín Geológico y Minero & the Glasgow Statement on International Water Cooperation and Transboundary Aquifers



Background and context of the research

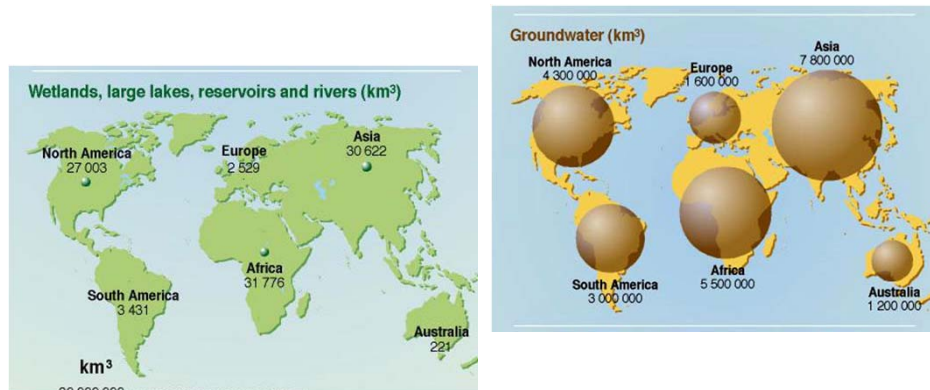
- F. Sindico, "The Guarani Aquifer System and the Law on Transboundary Aquifers", 13 *International Community Law Review* (2011), pp. 255-272
- G. Eckstein and F. Sindico, "The Law of Transboundary Aquifers: Many Ways of Going Forward, but Only One Way of Standing Still", 23.1 *Review of European, Comparative and International Environmental Law* (2014), pp. 32-42



Groundwater vs Transboundary Aquifers



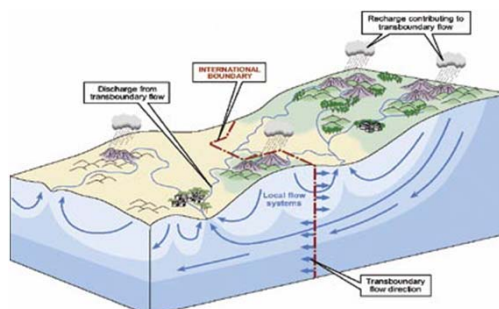
■ Groundwater and global water security



Groundwater vs Transboundary Aquifers



- Aquifers: “a permeable water bearing geological formation underlain by a less permeable layer and the water contained in the saturated zone of the formation”, *UN ILC Draft Articles*, art. 2a).



Groundwater vs Transboundary Aquifers



- An aquifer consists of two elements:
 - ✓ Underground geological formation (container / the rock)
 - ✓ Natural resources stored underground in the container (groundwater)

- An aquifer can be renewable or non-renewable (fossil aquifer)



Groundwater vs Transboundary Aquifers



- Uses of aquifers
 - ✓ Extraction of water
 - ✓ Extraction of heat
 - ✓ Extraction of minerals
 - ✓ Storage and disposal of any substance (CCS)

- Challenges to aquifers
 - ✓ Overexploitation
 - ✓ Challenges over different uses
 - ✓ Pollution



Groundwater vs Transboundary Aquifers



- 445 Transboundary aquifers in 2012 (380 in 2009)

http://www.un-igrac.org/dynamics/modules/SFIL0100/view.php?file_id=213



International Law and transboundary aquifers



- UNWC
- UNILC 1994 Resolution on Confined Transboundary Groundwater
- **UNILC Draft Articles**
- Post 2009 debates at the UNGA



International Law and transboundary aquifers



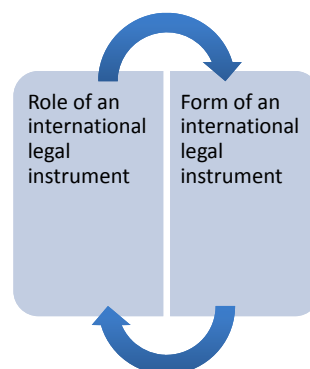
- UNILC Draft Articles
 - Scope (art. 1)
 - General principles (Part 2)
 - ✓ Sovereignty (art. 3)
 - ✓ Equitable and reasonable utilization (art. 4-5)
 - ✓ Obligation not to cause significant harm (art. 6)
 - ✓ General obligation to cooperate (art. 7)
 - Protection, preservation and management (Part 3)
 - ✓ Protection and preservation of ecosystems (art. 10)
 - ✓ Recharge and discharge zones (art. 11)
 - ✓ Prevention and reduction and control of pollution (art. 12)

The “role” of International Law in the management of TBAs



UN GA RES 63/124 (2008), para 6: “Decides to include in the provisional agenda of its sixty-sixth session an item entitled “The law of transboundary aquifers” with a view to examining, inter alia, the question of the form that might be given to the draft articles.”

- Independent international treaty
- Declaration of principles
- Status Quo
- Protocol option



The “role” of International Law in the management of TBAs



- A/RES/66/104, The Law of Transboundary Aquifers (2011)
 - Further encourages the States concerned to make appropriate bilateral or regional arrangements for the proper management of their transboundary aquifers, **taking into account** the provisions of the draft articles annexed to its resolution 63/124 (para 1);
 - Decides to include in the provisional agenda of its 68th session the item entitled “The law of transboundary aquifers” and... **to continue to examine the question of the final form** that might be given to the draft articles (para 3).
- A/RES/68/470, The Law of Transboundary Aquifers (2013)
 - Commends to the attention of Governments the Draft Articles on the law of transboundary aquifers annexed to the present resolution **as guidance** for bilateral or regional agreements and arrangements for the proper management of transboundary aquifers (para 1);
 - Decides to include in the provisional agenda of its 71st session the item entitled “The law of transboundary aquifers” (para 3).

The “role” of International Law in the management of TBAs



A/66/104

Draft Articles will be “taken into account”

The final form of the Draft Articles will be discussed

A/68/470

Draft Articles will “guide”

The final form of the Draft Articles is not on the agenda

The “role” of International Law in the management of TBAs



■ Guarani Aquifer System

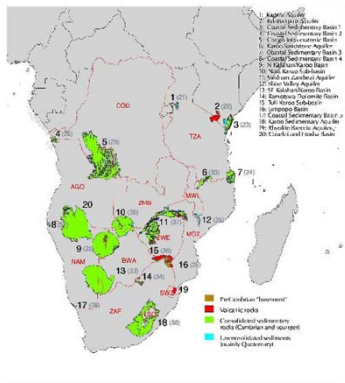


- Lack of adequate understanding of the natural resource (1990s – 2003)
- International project bridges that gap and builds confidence amongst stakeholders and policymakers
- The Guarani Aquifer Agreement is signed in 2010 (not yet in force)

The “role” of International Law in the management of TBAs



■ TBAs in the SADC region

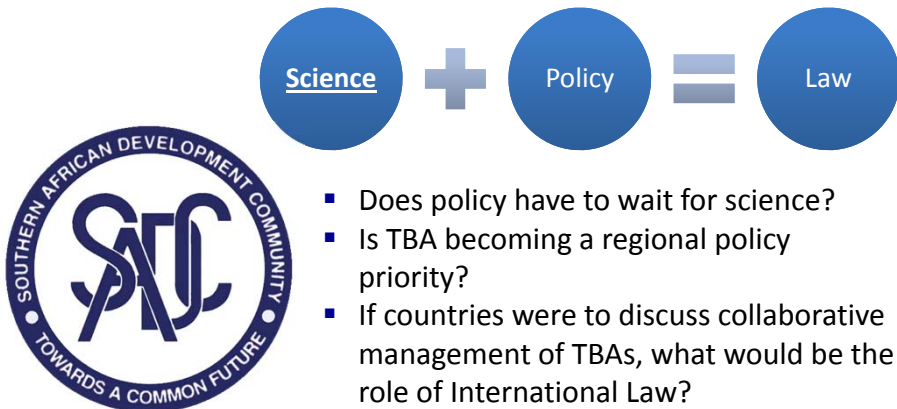


- Groundwater for poverty eradication
- Groundwater for local communities (small scale farmers)
- Groundwater resources threatened by climate change, economic development (commercial farming, extractive industry, etc...) and increase in population

The “role” of International Law in the management of TBAs



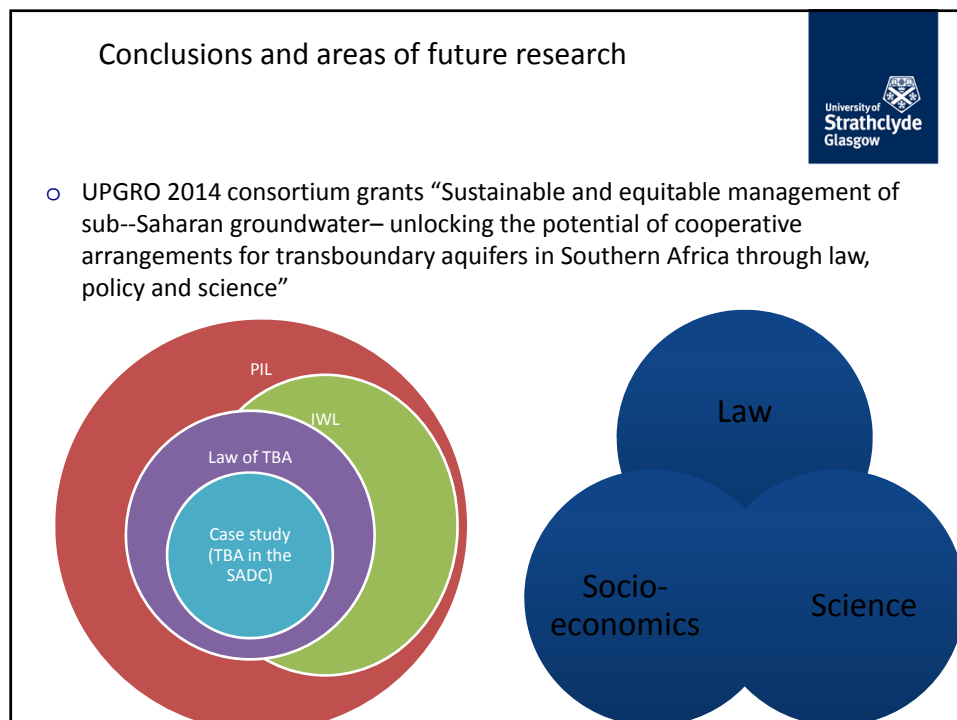
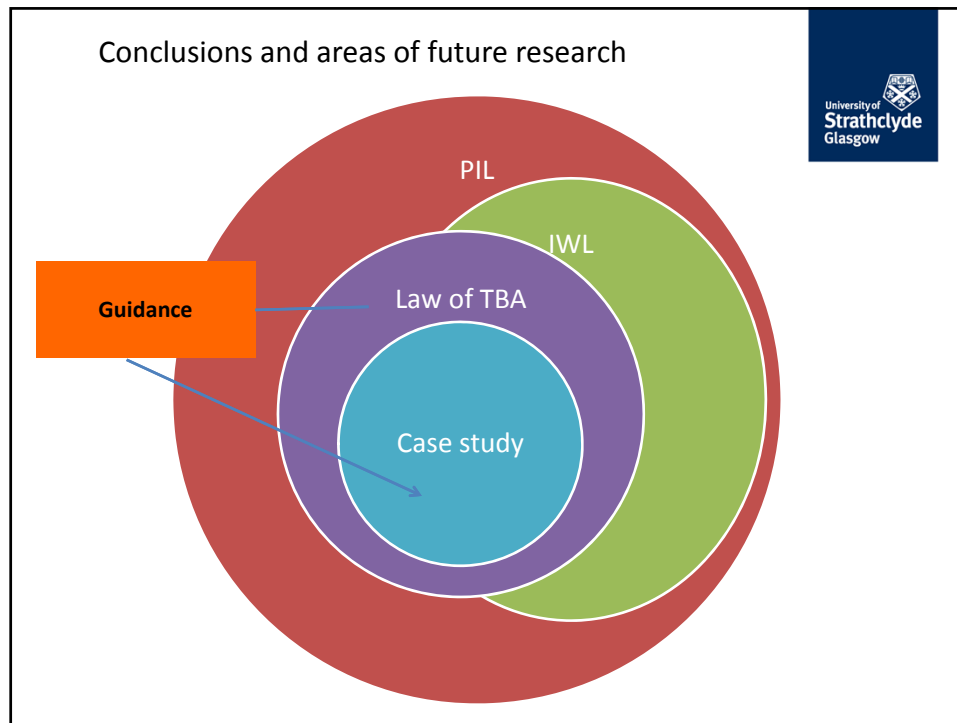
- TBAs in the SADC region



The “role” of International Law in the management of TBAs



- If countries were to discuss collaborative management of TBAs (in the SADC), what would be the role of International Law?
 - International Law (mainly the Draft Articles but not only)
 - Role (guidance in terms of normative propositions, despite its soft law nature)
 - Countries to discuss collaborative management of TBAs (strategically put TBA on the political map)



Thank you!



- Francesco Sindico

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The Law of Transboundary Aquifers: Many Ways of Going Forward, but Only One Way of Standing Still

Gabriel Eckstein and Francesco Sindico

The international community has been considering international legal norms and policies for the management of transboundary aquifers for more than ten years. In 2008, the International Law Commission provided a framework with the adoption of the Draft Articles on the Law of Transboundary Aquifers, which are now formally annexed to a United Nations General Assembly (UNGA) Resolution. Since 2008, the topic of the law of transboundary aquifers has thrice been placed on the agenda of the UNGA Sixth Committee with a specific mandate to discuss the future form of the Draft Articles. This article explores the options before the international community regarding the future form of the Draft Articles and considers the possible advantages and disadvantages of each option. The article also discusses the extent to which the actual form of the Draft Articles matters in itself, or whether their impact ultimately will depend on other factors.

INTRODUCTION

Groundwater resources play a critical role in providing fresh water for people, industries, nations and the environment worldwide. Globally, groundwater provides approximately 45% of humanity's freshwater needs for everyday domestic uses, such as drinking, cooking and hygiene, as well as 24% of water used in irrigated agriculture.¹ In many cases, groundwater is found in aquifers that are transboundary.² While 276 international watercourses traverse the world's land areas,³ an ongoing study has identified, to date, 448 aquifers and aquifer bodies traversing international political bound-

aries.⁴ In places like the Middle East, North Africa and the Mexico-United States border, transboundary aquifers serve as the primary or sole source of available freshwater for human and environmental sustenance.

Recognizing the particular importance of transboundary aquifers, nations and international agencies around the world have begun exploring mechanisms for governing these hidden resources. This includes formal efforts to manage and regulate transboundary aquifers, such as the rigorous scheme implemented on the Genevise Aquifer along the French-Swiss border,⁵ to more general cooperative regimes, such as the Guarani Aquifer Agreement in South America,⁶ to instruments aimed mainly at an initial exchange of scientific data, as developed for the Nubian Sandstone and North Western Sahara aquifer systems in Northern Africa.⁷ It also includes informal efforts forged by subnational political entities, like the unofficial arrangements crafted for the Hueco Bolson aquifer underlying the cities of Juárez and El Paso on the Mexico-United States border,⁸ and for the

¹ J. Margat and J. van der Gun, *Groundwater around the World: A Geographic Synopsis* (CRC Press, 2013), at 149.

² It is important to highlight that groundwater is just one component of an aquifer; an aquifer is the geological formation that contains the groundwater. According to the International Law Commission Draft Articles on the Law of Transboundary Aquifers, an aquifer is 'a permeable water bearing geological formation underlain by a less permeable layer and the water contained in the saturated zone of the formation'. The Law of Transboundary Aquifers (UNGA Resolution A/RES/63/124, 11 December 2008), Article 2a.

³ P. Wouters and R. Moynihan, 'Benefit Sharing in the UN Watercourses Convention and under International Water Law', in: F. Rocha Loures and A. Rieu-Clarke (eds.), *The UN Watercourses Convention in Force: Strengthening International Law for Transboundary Water Management* (Routledge, 2013), 336.

⁴ See International Groundwater Assessment Centre (IGRAC), 'Transboundary Aquifers of the World: Update 2012, Special Edition for the 6th World Water Forum, Marseille', found at: <http://www.unigrac.org/dynamics/modules/SFIL0100/view.php?fil_id=213>.

⁵ Convention Relative a la Protection, a l'Utilisation, a la Realimentation et au Suivi de la Nappe Souterraine Franco-Suisse du Genevois (18 December 2007; in force 1 January 2008).

⁶ Acuerdo Sobre el Acuífero Guarani (San Juan, Argentina, 2 August 2010; not yet in force), ('Guarani Aquifer Agreement'). An English version of the Agreement can be found at: <http://www.internationalwaterlaw.org/documents/regionaldocs/Guarani_Aquifer_Agreement-English.pdf>.

⁷ The Nubian Sandstone Aquifer System underlies the territories of Chad, Egypt, Libya and Sudan. See Programme for the Development of a Regional Strategy for the Utilisation of the Nubian Sandstone Aquifer System (NSAS): Terms of Reference for the Monitoring and Exchange of Groundwater Information of the Nubian Sandstone Aquifer System (Tripoli, 5 October 2000), found at: <<http://www.fao.org/docrep/008/y5739e/y5739e05.htm>>. The North Western Sahara Aquifer System underlies Algeria, Libya and Tunisia. See Establishment of a Consultation Mechanism for the Northwestern Sahara Aquifer System (SASS) (Rome, 19–20 December; endorsed 6 January 2003 (Algeria), 15 February 2003 (Tunisia), 23 February 2003 (Libya)), found at: <<http://www.fao.org/docrep/008/y5739e/y5739e05.htm#bm05.2.1>>.

⁸ Memorandum of Understanding between City of Juárez, Mexico Utilities and the El Paso Water Utilities Public Services Board of the City of El Paso, Texas (6 December 1999), found at: <http://internationalwaterlaw.org/documents/regionaldocs/Local-GW-Agreements/El_Paso-Juarez_MoU.pdf>.

Abbotsford-Sumas Aquifer between the American state of Washington and the Canadian province of British Columbia.⁹

Possibly the most significant global effort to address the governance of transboundary aquifers is that undertaken by the United Nations (UN) International Law Commission (ILC). In December 2008, following six years of intense research and debate, the UN General Assembly (UNGA) adopted Resolution 63/124, which contains 19 Draft Articles on the Law of Transboundary Aquifers.¹⁰ Prepared by the ILC, the Draft Articles were modelled largely on the 1997 UN Watercourses Convention (UNWC).¹¹ Since 2008, the Draft Articles have thrice been on the agenda of the UNGA for the purpose of discussing the future form of the principles and norms articulated in the ILC's work product. In 2008 and 2011, the topic was tabled for consideration at subsequent meetings. In October and November 2013, the Draft Articles were again raised at the UNGA and their status and final form considered. While the member States gave the topic considerable attention, they again failed to form a consensus on whether and how to move the topic forward.

This article explores the options available for the future form of the Draft Articles and considers the advantages and disadvantages of each possibility. It also considers the extent to which that final form may matter for the development or codification of international law, and whether the impact of the Draft Articles could depend on other factors. The article begins by reviewing the work of the ILC in developing the Draft Articles. It then analyzes the various options for their future form that have been proffered by various governments, scholars and international organizations, including as an independent treaty, a protocol to the UNWC and a statement of guidelines. In this context, it also considers the impact of maintaining the *status quo*, meaning no action by the UNGA. Finally, the article assesses the relationship between the future form of the Draft Articles and their relevance to the future development and codification of international law for transboundary aquifers.

⁹ Memorandum of Agreement Related to Referral of Water Right Applications Related to the Transboundary Abbotsford-Sumas Aquifer between the State of Washington as Represented by the Department of Ecology and the Province of British Columbia as Represented by the Minister of Environment, Lands and Parks (10 October 1996), found at: <<http://internationalwaterlaw.org/documents/regionaldocs/Local-GW-Agreements/1996-BC-WA-Water-Right-Referral-Agreement.pdf>>.

¹⁰ UNGA Resolution A/RES/63/124, n. 2 above.

¹¹ Convention on the Law of the Non-navigational Uses of International Watercourses (New York, 21 May 1997; not yet in force) ('UNWC').

THE LAW OF TRANSBOUNDARY AQUIFERS

Historically, groundwater resources were treated by nations, water law scholars and practitioners akin to an unwanted stepchild. They were either ignored, cursorily misunderstood or intentionally disregarded, resulting in their omission from public and political discourse and consideration. This was especially true in the international transboundary context, where the number of international agreements for transboundary rivers and lakes continues to vastly outnumber those applicable to transboundary aquifers.¹²

The earliest articulation of an international legal regime specifically applicable to these transboundary groundwater resources is found in the work of the International Law Association (ILA) in its so-called 'Helsinki Rules' of 1966 and 'Seoul Rules' of 1986.¹³ While the product of an unofficial, nongovernmental organization, the norms articulated in its instruments have been recognized as foundational for subsequent efforts. More recently, the UNWC indirectly adopted some of the notions put forward by the ILA, when it applied its proposed regime to transboundary aquifers that were hydraulically connected to transboundary rivers or lakes.¹⁴ That latter effort, though, was not comprehensive and left numerous gaps in the management and regulatory regime applicable to transboundary aquifers.¹⁵

¹² G. Eckstein and Y. Eckstein, 'A Hydrogeological Approach to Transboundary Ground Water Resources and International Law', 19:2 *American University International Law Review* (2003), 222. In contrast to the handful of transboundary aquifer agreements currently in force (all of which were forged in the past 35 years), more than 3,600 treaties governing transboundary rivers and lakes have been implemented over the past 1,200 years. United Nations Environment Programme (UNEP), *Atlas of International Freshwater Agreements*, United Nations Environment Programme (UNEP, 2002), at 6.

¹³ International Law Association, 'The Helsinki Rules on the Uses of the Waters of International Rivers', in: Report of the 52nd Conference (August 1966), 484, Article II; and International Law Association, 'The Seoul Rules on International Groundwaters', in: Report of the 62nd Conference (August 1986).

¹⁴ UNWC, n. 11 above, Article 2(a).

¹⁵ Gaps in the UNWC, as it applies to ground water resources, include the Convention's non-applicability to transboundary fossil aquifers and, more generally, to transboundary aquifers without a hydraulic link to a transboundary surface water body. See G. Eckstein, 'A Hydrogeological Perspective of the Status of Ground Water Resources under the UN Watercourse Convention', 30:3 *Columbia Journal of Environmental Law* (2005), 529. The ILC sought, at least, to partly bridge this gap through the adoption of the 1994 ILC Resolution on Confined Transboundary Groundwater, which can be found in: Yearbook of the International Law Commission 1994, Volume II, Part 2 (UN Doc. A/CN.4/SER.A/1994/Add.I, 1994), 135. This effort, though, has been criticized as both inadequate and technically imprecise. See C. Yamada, Shared Natural Resources: Addendum to the First Report on Outlines (UN Doc. A/CN.4/533/Add.1, 30 June 2003), at paragraph 5; and G. Eckstein and Y. Eckstein, n. 12 above, 251.

In 2002, at the request of the UNGA, the ILC began working on the topic of 'shared natural resources'. While the effort was conceptualized to encompass water, oil, gas and other natural resources that traversed international political boundaries, in 2003 the ILC decided to confine its initial work to the subject of transboundary groundwater resources. Its objective was to build on its prior work on transboundary watercourses (which resulted in the UNWC), and to address those transboundary aquifers that were excluded under the UNWC. Under this mandate, the ILC elected Ambassador Chusei Yamada of Japan as its Special Rapporteur for the topic and embarked on a rigorous study of the law, science and policy of transboundary aquifers globally.¹⁶

In late 2008, following six years of intense research and debate, and five reports and supplements prepared by Ambassador Yamada, the UNGA adopted a Resolution containing 19 Draft Articles on transboundary aquifers.¹⁷ The Resolution recognized the work of the ILC, and commended the Draft Articles 'to the attention of Governments without prejudice to the question of their future adoption or other appropriate action'.¹⁸ It also expressed its appreciation to the UN Educational, Scientific and Cultural Organization International Hydrological Programme (UNESCO-IHP), which had been instrumental in providing scientific and technical assistance to the ILC and the Special Rapporteur.¹⁹ In addition, it encouraged 'the States concerned to make appropriate bilateral or regional arrangements for the proper management of their transboundary aquifers, *taking into account* the provisions of these draft articles'.²⁰ Finally, it placed the topic of the law of transboundary aquifers on its provisional meeting agenda three years hence.²¹

Since that initial consideration, the law of transboundary aquifers has been discussed by the UNGA's Sixth Committee on two occasions, in 2011 and 2013. In both sessions, while some delegates offered substantive comments on the Draft Articles, the primary focus was on their final form. Some delegates favoured commence-

ing deliberation on a binding treaty, either immediately or in a stepped fashion. Others argued that codification was premature because of a lack of State practice evidencing the status of the international law of transboundary aquifers. Still others, while sceptical of the state of international law on the subject, suggested adopting the Draft Articles in the form of a Resolution or declaration of principles that could serve as guidelines as States explore their applicability in bilateral or regional agreements.²²

In 2011, the UNGA took note of the importance of 'the need for reasonable and proper management of transboundary aquifers', further encouraged the member States 'to make appropriate bilateral or regional arrangements for the proper management of their transboundary aquifers, *taking into account* the provisions of the draft articles',²³ and tabled consideration of the final form of the Draft Articles to its meeting in 2013.²⁴ UNESCO-IHP was referred to specifically and encouraged 'to offer further scientific and technical assistance to the States concerned'.²⁵

The discussions before the UNGA in late 2013 did not differ significantly from those of prior deliberations. Countries continued to disagree over the status to be given to the Draft Articles and over their future form. Despite the discord, the UNGA agreed, once more, to postpone further consideration of the law of transboundary aquifers until 2016.²⁶ It also encouraged UNESCO-IHP to continue its valuable work.²⁷ Where the outcome did change is in the relationship put forward between States interested in taking forward more cooperative approaches in the management of transboundary aquifers and the Draft Articles. Significantly, the latest Resolution makes no reference to the final form of the Draft Articles. The Resolution, however, commends: 'to the attention of Governments the draft articles on the law of transboundary aquifers annexed to the present resolution as *guidance* for bilat-

¹⁶ On the process at the ILC and its work on the law of transboundary aquifers, see R.M. Stephan, 'The Draft Articles on the Law of Transboundary Aquifers: The Process at the UN ILC', 13:3 *International Community Law Review* (2011), 223.

¹⁷ On the Draft Articles, see K. Mechlem, 'Moving Ahead in Protecting Freshwater Resources: The International Law Commission's Draft Articles on Transboundary Aquifers', 22:4 *Leiden Journal of International Law* (2009), 801; S. McCaffrey, 'The International Law Commission Adopts Draft Articles on Transboundary Aquifers', 103:2 *American Journal of International Law* (2009), 72; and G. Eckstein, 'Commentary on the UN International Law Commission's Draft Articles on the Law of Transboundary Aquifers', 18:3 *Colorado Journal of International Environmental Law and Policy* (2007), 537.

¹⁸ UNGA Resolution A/RES/63/124, n. 2 above, paragraph 4.

¹⁹ *Ibid.*, at paragraph 3.

²⁰ *Ibid.*, at paragraph 5 (emphasis added).

²¹ *Ibid.*, at paragraph 6.

²² For a review of the 2013 session, see below. See also UNGA Sixth Committee: Summary Record of the 16th meeting (UN Doc. A/C.6/66/SR.16, 14 February 2012); UNGA Department of Public Information, News and Media Division, Sixth Committee, 16th Meeting: Praising Draft Texts on Transboundary Harm, Aquifers, Allocation of Loss, Delegates Disagree Over Final Forms, Seek Further Examination (UN Doc. GA/L/3464, 22 October 2013).

²³ The Law of Transboundary Aquifers (UNGA Resolution A/RES/66/104, 13 January 2012), at paragraph 1.

²⁴ *Ibid.*, at paragraph 3.

²⁵ *Ibid.*, at paragraph 2.

²⁶ Report of the Sixth Committee, The Law of Transboundary Aquifers (UN Doc. A/68/470, 19 November 2013), at paragraph 3. The UNGA adopted the Report without a vote. UNGA Department of Public Information, News and Media Division, 68th General Assembly, Plenary, 68th Meeting: Adoption 21 Sixth Committee Resolutions, General Assembly Highlights Significant Achievements in Development of International Law (UN Doc. GA/11473, 16 December 2013).

²⁷ See Report of the Sixth Committee, n. 26 above, at paragraph 2.

eral or regional agreements and arrangements for the proper management of transboundary aquifers'.²⁸

Until this Resolution, countries were only commended to 'take into account' the Draft Articles when discussing bilateral or regional agreements. This latest Resolution, however, appears to elevate the Draft Articles to the status of 'guidance' in the negotiation of future bilateral and regional transboundary aquifer agreements. This is not simply a change in language or use of synonymous wording. Rather, use of the term 'guidance' suggests both a stronger recognition of the Draft Articles by the international community and a more assertive admonition to States to abide by the norms contained therein.

Notwithstanding the 'guidance' language, what started out as a relatively quick process in terms of the development of international law, has now slowed down to a crawl. While the Draft Articles were drafted in only six years, since 2009 there have been no amendments to the proposed norms and there has been little progress toward a consensus on next steps. This is particularly evident with respect to the legal form that the Draft Articles should take. The international community in 2014 has before it exactly what it had at the beginning of 2009: a set of ILC Draft Articles annexed to an UNGA Resolution, all of which remain in limbo.

Does this lack of progress on the final form of the Draft Articles suggest that their content is premature or ill-conceived? Might it portend the demise of the effort to formulate legal norms for the management of transboundary aquifers? Or, does the continued postponement intimate an alternative route toward international recognition? The next section of this article considers the various options contemplated and deferred by the UNGA in its successive debates as to the possible forms that the Draft Articles might take. It also assesses those options in the context of transboundary aquifer management.

THE FUTURE FORM OF THE LAW OF TRANSBOUNDARY AQUIFERS

Despite the apparent lack of progress on the Draft Articles, the debate on their future form is far from over and will continue, at least, into the 2016 session of the UNGA Sixth Committee. This is because the form that an international legal instrument may take is not just a theoretical issue where advocates of soft law versus hard law spend time and effort to justify their position.²⁹ Rather, the form can have significant practical

relevance and often can dictate or direct the extent to which the general principles (both substantive and procedural) present therein can be used, applied and even enforced.

Against this background, the debates before the UNGA have generated a panoply of options for the possible future form of the Draft Articles. Some nations have advocated developing the Articles into an independent framework treaty, while others prefer to present the principals in the form of guidelines or non-binding recommendations.³⁰ Finally, there are some countries that prefer maintaining the *status quo*, which is effectively what has happened until now. Each of these options will now be discussed in turn based, in particular, on the most recent discussions that took place before the UNGA Sixth Committee in October and November 2013.³¹

INDEPENDENT INTERNATIONAL TREATY

The Draft Articles could serve as a basis to negotiate an independent international convention on the topic of the law of transboundary aquifers. Similarly to what happened with the UNWC, an intergovernmental process could be launched where countries would use the text of the Draft Articles as a starting point to negotiate a final agreement. The resulting convention would then be signed at an international conference and enter into force once the relevant number of ratifications is accrued.

While this option enjoyed several followers in the initial debates on the form of the Draft Articles – even during the drafting of the Articles themselves – more and more States appear to have abandoned this position, albeit for different reasons. These reasons can be broadly divided into three categories: legal, political and socio-economic.

Legal Reasons

Legal reasons not to back the independent convention option include: disagreement over whether the Draft Articles actually reflect current law and practice applicable to transboundary aquifers; disagreement over whether the Draft Articles collide with other applicable

context of international environmental law has been discussed by F. Sindico, 'Soft Law and the Elusive Quest for Sustainable Global Governance', 19:3 *Leiden Journal of International Law* (2006), 829; and P.M. Dupuy, 'Soft Law and the International Law of the Environment', 12:2 *Michigan Journal of International Law* (1991), 420.

³⁰ See also C. Yamada, 5th Report on Shared Natural Resources: Transboundary Aquifers (UN Doc. A/CN.4/59121, 21 February 2008), at paragraphs 7–8.

³¹ A total of 17 countries presented written submissions, which can be found at: <<https://papersmart.unmeetings.org/ga/sixth/68th-session/statements/?cv=1&agenda=7581>>.

²⁸ *Ibid.*, at paragraph 1 (emphasis added).

²⁹ On the debate between hard law and soft law see, e.g., S.I. Karlsson-Vinkhuyzen and A. Vihma, 'Comparing the Legitimacy and Effectiveness of Global Hard and Soft Law: An Analytical Framework', 3:4 *Regulation and Governance* (2009), 400. Soft law in the

international legal instruments; and disagreement over specific provisions of the Draft Articles.

With regard to the Draft Articles and the state of the law and the practice of States, the positions of Portugal and the United States are instructive. While the former argued that 'the Draft Articles are in line with already existing legal regimes governing water and natural resources in general',³² the latter considered that 'many aspects of the draft articles clearly go beyond current law and practice'.³³ In its most recent submission, the United States also cautioned against moving toward an independent convention because of the possible overlap of authority and proposed norms between the Draft Articles and UNWC. According to the United States, some of the provisions of the Draft Articles would be incompatible with those of the UNWC, thereby creating conflicting obligations and fragmenting international water law.³⁴

Raising the possibility that discord over the Draft Articles may spread from its final form to its substance, many nations have raised concerns over specific provisions of the Draft Articles, questioning their merits, appropriateness and interpretation. Palestine, for example, suggested that it would be unwise to push toward an independent convention when the starting point (the Draft Articles) contain a provision on national sovereignty that, in its opinion, would take the international community back more than a hundred years to the Harmon Doctrine approach to transboundary water management.³⁵ In a different vein,

Ukraine raised serious concerns with the obligation to not cause significant harm. It questioned the interpretation of the descriptor 'significant' and urged further work and clarification before taking any steps toward an independent convention. More specifically, it questioned the absence of a compensation mechanism for financial losses related to aquifer depletion.³⁶

The challenges raised over substantive provisions of the Draft Articles raise a further issue that apparently has not been addressed in the discussions before the UNGA and its Sixth Committee. If an intergovernmental process were launched toward an independent convention, it is by no means certain that the current content of the Draft Articles would be retained. On the contrary, considering the questions and concerns presented in the most recent discussions over certain core areas (i.e., national sovereignty and significant harm) an intergovernmental process could open a Pandora's box of substantive dissent that might lead either to a watering down of the existing Draft Articles or an impasse in achieving consensus, rather than enhancing or adding greater precision to the proposed norms.

Political Reasons

Two other reasons against moving towards an independent convention can loosely fall under the category of political constraints and can be framed as a question of political support and scale. According to the American delegation, a future convention on the law of transboundary aquifers 'would [not] garner sufficient support'.³⁷ The point raised here goes beyond the question of support needed in the negotiation process of a possible convention, and moves toward the necessary number of ratifications for the possible treaty to enter into force. Given that 16 years since its passage by the UNGA the UNWC is only now barely on the verge of garnering the requisite number of ratifications,³⁸ the question of international political support for a convention on transboundary aquifers may be particularly valid.³⁹ Certainly, if a country strongly believes in the value of an international legal instrument and in an independent convention as its form, the lack of support

³² Statement by Portugal, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703105/portugal-87.pdf>>, at 3.

³³ Statement by the United States of America, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703097/us-87.pdf>>, at 2.

³⁴ *Ibid.*, at 1. On this point, see also O. McIntyre, 'International Water Resources Law and the International Law Commission Draft Articles on Transboundary Aquifers: A Missed Opportunity for Cross-fertilisation?', 13:3 *International Community Law Review* (2011), 237.

³⁵ Statement by the State of Palestine, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703060/palestine-87.pdf>>, at 1. Interestingly, many countries actually refer to the principle of national sovereignty as one of the cornerstones of the Draft Articles. See, e.g., Statement by Uruguay, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703071/uruguay-87.pdf>>, at 3; and Statement by Peru, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703110/peru-87.pdf>>, at 1. National sovereignty in the context of the law of transboundary aquifers has led to very different positions, with S. McCaffrey, n. 17 above, making the same point raised by Palestine, and L. Del Castillo Laborde, 'The Law of Transboundary Aquifers and the Berlin Rules on Water Resources (ILA): Interpretive Complementarity' in: UNESCO-IAH-UNEP, *Pre-proceedings: ISARM 2010 Inter-*

national Conference Transboundary Aquifers: Challenges and New Directions (UNESCO-IAH-UNEP, 2010), taking a position more close to the ones presented by the two above-mentioned Latin American countries.

³⁶ Statement by Ukraine, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703119/ukraine-87.pdf>>.

³⁷ See Statement by the United States of America, n. 33 above, 1.

³⁸ International Water Law Project, 'Status of the Watercourses Convention', found at: <http://internationalwaterlaw.org/documents/intldocs/watercourse_status.html>.

³⁹ On the current international political support for the UNWC, see A. Rieu-Clarke and F. Loures, 'Still Not in Force: Should States Support the 1997 UN Watercourses Convention?', 18:2 *Review of European Community and International Environmental Law* (2009), 185, at 190–191.

should not prevent that country from considering this form altogether. Nevertheless, the lack of support definitely stands out as a political challenge that needs to be carefully considered when deciding what strategies are pursued.

A second political challenge to an independent convention pertains to a question of scale. There is some disagreement as to whether rules on transboundary aquifer management should be developed at the global level, or if they would be more effective if developed at the level of specific aquifers. Israel advocates this position and argues that local context must be taken into account to the greatest extent, with particular regard given to local hydrogeological and political relationships between the countries overlying a transboundary aquifer.⁴⁰ Similarly, Guatemala supports a 'local solutions' approach.⁴¹

In response to this latter political challenge, the idiom that all politics are local is apropos. Moreover, the fact that the politics and law of transboundary aquifers are very much intertwined can be readily acknowledged. Nevertheless, there is evidence that international legal frameworks can accommodate local decision making and provide for tailored solutions to local problems. Multilateral environmental agreements are often referred to as '*framework treaties*',⁴² precisely because they provide a common platform upon which to build at the bi-national or regional level.⁴³ Portugal acknowledges this option and argues that a future convention should be flexible enough to allow States to establish specific regimes suitable to their contexts.⁴⁴

Socio-economic Reasons

The final type of reasons against moving toward a convention can be categorized as 'socio-economic'. Japan hints at this when explaining that despite its past approach favouring a Convention, it now sees this option losing momentum due to the 'sensitivity' of

certain countries to 'particular issues'.⁴⁵ Guatemala uses clearer language when it asserts that it finds itself against moving toward an independent convention because of the panoply of economic, political and environmental interests related to the management of transboundary aquifers. Fundamentally, Guatemala argues that, because of socio-economic problems related to the use of groundwater resources in a transboundary aquifer context, their management does not warrant a global treaty.⁴⁶

To paraphrase the idiom related to politics, all socio-economic problems also are local problems. But just as in the political context, an international approach does not necessarily negate recognition of unique local challenges and opportunities for local solutions. Nevertheless, these socio-economic concerns further suggest that there is little appetite for the Draft Articles to be translated into a global independent convention. When taken one at a time, there may be ways to discuss and overcome the various legal, political and socio-economic challenges raised. Taken together, though, these challenges have created a formidable obstacle that is driving countries away from this form. It is therefore necessary and advisable to move on and consider the other available options regarding the future form of the Draft Articles: their adoption as a declaration of principles or retaining them in their current form.

DECLARATION OF PRINCIPLES

In his final report, Ambassador Yamada noted: 'While the positions of Governments remain divided, the Special Rapporteur has noticed that some Governments have shifted from supporting a legally binding convention to a non-binding document.'⁴⁷ A second option regarding the future form of the Draft Articles therefore is for them to be presented as a declaration of principles. The one immediate difference that such a form would have from their adoption as an independent convention would be their legal nature. While a declaration endorsed by a UNGA Resolution would not be legally binding on the member States, a convention would be obligatory under international law. In addition, as a declaration of principles, it would be far easier for an instrument to reflect the current content of the Draft Articles. As noted earlier, if countries were to open an intergovernmental process to negotiate an international convention based on the Draft Articles, it is possible that the content of the Draft Article could be watered down. This risk would likely be lessened if a

⁴⁰ Statement by Israel, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703122/israel-87.pdf>>, at 2.

⁴¹ Statement by Guatemala, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703107/guatemala-87.pdf>>, at 2.

⁴² Two examples are the United Nations Framework Convention on Climate Change (Rio de Janeiro, 9 May 1992, in force 21 March 1994), and the Convention on Biological Diversity (Rio de Janeiro, 5 June 1992, in force 29 December 1993).

⁴³ Even within the few specific treaties on transboundary aquifers, an example can be found. Article 13 of the Guarani Aquifer Agreement, n. 6 above, provides clear legal grounds for specific measures to be adopted in case actions need to take place at a local level in the management of the transboundary aquifer.

⁴⁴ See Statement by Portugal, n. 32 above, at 3.

⁴⁵ Statement by Japan, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/1267523/japan.pdf>>, at 3.

⁴⁶ See Statement by Guatemala, n. 41 above, at 2.

⁴⁷ See C. Yamada, n. 30 above, at paragraph 8.

declaration were adopted. To some extent, there is a political reason for this. Many countries who have objected to the Draft Articles becoming an independent convention have done so because they oppose certain provisions becoming *hardened* or obligatory by being incorporated in a global convention. It may well be that these countries would soften their objections if the final form is aspirational and imposes no direct liability or obligation. Finally, in contrast to those who frame the declaration approach as a defensive strategy intended to prevent the Draft Articles from becoming binding under a global convention, many advocates for a declaration see it as a constructive first step in the process toward a future convention.⁴⁸ This latter group appears to recognize the challenge of achieving consensus while maintaining their objective of an independent, global convention.

Recognizing the need for compromise, Uruguay, on behalf of the Guarani Aquifer Agreement countries, considered a declaration of principles as the best option for the future form of the draft articles.⁴⁹ Similarly recognizing 'that some member states showed unwillingness to negotiate for a future convention based on the text of the draft articles with their own legitimate interests', Japan shares this position.⁵⁰ However, what is not entirely clear is whether using the Draft Articles as principles and guidelines even requires a new declaration. This takes us to the last of the three options regarding the form of the future draft articles: maintaining the *status quo*.

MAINTAINING THE STATUS QUO

A *status quo* approach suggests no action whatsoever. As seen earlier, the language found in the most recent UNGA Resolution on the law of transboundary aquifers has experienced a mild but potentially significant change as compared to the two prior Resolutions. States are encouraged not merely to *take into account* the Draft Articles when negotiating a bilateral or regional agreement for the management of a transboundary aquifer, they are now commended to use them as *guidance* in their negotiation. Accordingly, it is arguable that the *status quo* has already changed. Nevertheless, while most of the countries engaged in the recent debates at the UNGA seem favourable to this language modification,⁵¹ a considerable number of

States appeared to oppose any further action, including the adoption of a non-legally binding declaration of principles.

A few of the arguments repeated by some of the countries justifying the *status quo* include concerns about the 'maturity' of the Draft Articles. Guatemala and Malaysia, for example, both argue that States should be given more time to familiarize themselves with the Draft Articles before having to decide whether the provisions therein are worthy to be taken into account in possible future negotiations.⁵² This argument raises the question of awareness and understanding of the Draft Articles. As important as groundwater governance and transboundary aquifer management may be, it is still a rather complex and often invisible matter for many governments. The two prior UNGA Resolutions referenced the capacity building work of UNESCO-IHP in the field of transboundary aquifer management. That effort has not been limited to increasing the scientific knowledge of transboundary aquifers, which is still referred to by some countries as insufficient,⁵³ but also has focused on the legal and institutional options available to countries. The role of UNESCO-IHP is, therefore, crucial for the UNGA process since the organization is called upon to clarify the Draft Articles and make them more visible. Accordingly, a discussion about the relevance of the future form of the Draft Articles is strongly allied with the work of UNESCO-IHP.

A second reason put forward by States to advocate for the *status quo* is that the current form of the Draft Articles, as annexed to a UNGA Resolution, provides the necessary flexibility for the Draft Articles to accommodate the local needs and characteristics of different transboundary aquifers.⁵⁴ For example, the United States argued that locally unique hydrological, climatic, economic, social, cultural and other factors will require a tailored approach to transboundary aquifer management.⁵⁵ Since this argument is akin to the one considered in the political objection context above, it suffices to say that such concerns do not fully rationalize maintaining the *status quo*.

THE PROTOCOL OPTION

Before concluding the discussion of options for the final form of the Draft Articles, it is noteworthy to at least mention a fourth possibility that, while promoted by

⁴⁸ See, e.g., Statement by Portugal, n. 32 above, at 3.

⁴⁹ See Statement by Uruguay, n. 35 above, at 5.

⁵⁰ See Statement by Japan, n. 45 above, at 3.

⁵¹ Statement by Malaysia, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703081/malaysia-87.pdf>>; Statement from India, 68th Session of the UN General Assembly Sixth Committee: Agenda Item 87: The Law of Transboundary Aquifers (22 October 2013), found at: <<https://papersmart.unmeetings.org/media2/703192/india-87.pdf>>; Statement by Guatemala, n. 41 above; Statement by Peru, n. 35

above; Statement by Israel, n. 40 above; Statement by Palestine, n. 35 above; and Statement from the United States of America, n. 33 above.

⁵² See Statement by Guatemala, n. 41 above, at 2; Statement by Malaysia, n. 51 above, at 1.

⁵³ See, e.g., Statement by the United States of America, n. 33 above, at 1; Statement by India, n. 51 above, at 2.

⁵⁴ See Statement by the United States of America, n. 33 above, 1.

⁵⁵ Ibid.

some organizations, never seemed to gain any traction at the UN. In some circles, the final form of the Draft Articles has been proposed as a protocol to the UNWC.⁵⁶ The chief justifications proffered for this option include the need for a holistic approach to the codification and development of international water law, as well as a coordinated effort for the management of interrelated related surface and ground water resources.⁵⁷ It is unclear why this option did not garner much attention at the UN. Nevertheless, given the current antipathy of the UN member State representatives in the UNGA Sixth Committee to a formal treaty, it is unlikely that this approach could gain any support.

SUMMARY OF THE FUTURE FORM

In the grand scheme of the development of international law, the first three options all can be regarded as reasonable possibilities. They are not, however, equally realistic or likely to result from the UNGA's deliberations. Legal, political and socio-economic hurdles make the success of the first option highly improbable with most countries favouring either the declaration or the *status quo* approach. This reality brings into question whether the form that the Draft Articles may finally take could have an impact on their future relevance. This is the focus of the following section.

THE RELATIONSHIP BETWEEN THE FUTURE FORM AND THE FUTURE RELEVANCE OF THE DRAFT ARTICLES

METHODICAL DEVELOPMENT

While the UNGA's approach in assessing the Draft Articles on the Law of Transboundary Aquifers may be frustratingly sluggish, it is possible that, to some extent, the pace of development is intentional. Although the Draft Articles were composed with relative speed – in contrast to the 25 years it took to craft the draft articles leading to the UNWC, the Draft Articles were prepared in less than six years – they were not achieved without controversy.⁵⁸

Accordingly, in order to prevent the wholesale rejection of the Draft Articles, some, like Ambassador Yamada, counselled that the UNGA should take a slow but methodical approach to the development of global standards and norms for managing transboundary groundwater resources. To generate eventual acceptance and support for the principles incorporated in the Draft Articles, Ambassador Yamada suggested that they be tabled by the UNGA so as to minimize the pressure that binding norms would engender and allow countries to test run the norms proposed in the Draft Articles. It was Ambassador Yamada's hope that the norms articulated in the Draft Articles might eventually rise to the level of custom, regardless of whether they would ever be codified in a binding legal instrument.⁵⁹ This is the tactic that, while not intentionally, has been successfully pursued by proponents of the UN Draft Articles on the Responsibility of States for Internationally Wrongful Acts.⁶⁰ This is also the option that most countries in the recent 2013 debate on the law of transboundary aquifers at the UN Sixth Committee appeared to favour.

Given the dearth of experience with managing transboundary aquifers, such an organic and measured approach may be justified. On the one hand, it would provide nations the opportunity to experiment with the norms and adapt them to locally specific or unique circumstances. More importantly, as aquifer riparians begin to utilize, abide by and modify these principles, it would create the space in which their actions could evolve into demonstrable State practice and thereby help create customary international legal norms.

While it is still too early to assess the outcome definitively, the Draft Articles have already begun to influence State practice and the development of international law. For example, the Guarani Aquifer Agreement explicitly references Resolution 63/124 in its preamble.⁶¹ It also adopts a number of the concepts and norms contained in the Draft Articles, including the principles of sovereignty, cooperation, no significant harm, exchange of data and information, and prior notification of planned works with transboundary implications.⁶²

and prioritization of the rules of no significant harm and equitable and reasonable utilization. See generally G. Eckstein, n. 17 above.

⁵⁹ See C. Yamada, n. 30 above, at paragraph 9; and G. Eckstein, 'Notes from the Meeting of Ground Water Experts Group with His Excellency Ambassador Chusei Yamada' (28–31 January 2008, Tokyo), at paragraph 74 (on file with author).

⁶⁰ J. Crawford, 'Articles on Responsibility of States for Internationally Wrongful Acts' (United Nations Audiovisual Library of International Law, 2012), found at: <http://legal.un.org/avl/pdf/ha/rsiwa/rsiwa_e.pdf>, at 2.

⁶¹ On the relationship between the Guarani Aquifer Agreement and the Draft Articles, see F. Sindico, 'The Guarani Aquifer System and the Law on Transboundary Aquifers', 13:3 *International Community Law Review* (2011), 256.

⁶² Guarani Aquifer Agreement, n. 6 above.

⁵⁶ See, e.g., Sixth Committee, Summary Record of the 21st Meeting (UN Doc. A/C.6/59/SR.21, 5 Nov. 2004), at 7; World Wildlife Fund, 'Position Paper: The ILC Draft Articles on the Law of Transboundary Aquifers' (October 2011), found at: <http://www.solutionsforwater.org/wp-content/uploads/2012/01/PP-ILC-draft-articles_Oct2011_final.pdf>.

⁵⁷ See World Wildlife Fund, n. 56 above, at 4–5.

⁵⁸ Some of the more contentious issues before the UN Sixth Committee included the scope of the Draft Articles and their applicability to activities unrelated to the exploitation of an aquifer but which can have a direct impact on the aquifer, the question of sovereignty over portions of a transboundary aquifer found within a State's territory,

Likewise, the 2009 Bamako Declaration for the Iullemeden Aquifer System directly acknowledges Resolution 63/124,⁶³ while the related Memorandum of Understanding implementing the Declaration adopts the principles of equitable and reasonable use, exchange of data and information and prior notification of planned works with transboundary implications, as well as other more progressive norms focusing on human welfare and environmental protection.⁶⁴

Possibly the most significant reference to the Draft Articles can be found in the UNECE Model Provisions on Transboundary Groundwaters, which were adopted by the Meeting of the Parties to the 1992 UN Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes.⁶⁵ In the commentary appended to the Model Provisions, the UNECE states that:

The present exercise [the Model Provisions on Transboundary Groundwaters] builds on that instrument [the Draft Articles] with a view to providing concrete guidance for implementing, with regard to groundwater, the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes ([UNECE] Water Convention) in the light of the lessons learnt and the experience gained from the implementation of the Convention.⁶⁶

It is significant that the Model Provisions constitute an instrument intended to provide guidance on the subject of transboundary aquifers. Hence, the preamble to Decision VI/2, in which the UNECE adopted the Model Provisions, explicitly '[r]ecogniz[es] the need for providing specific non-binding *guidance* for the implementation of the Convention with regard to groundwa-

ter and facilitating the application of the principles of the Convention to transboundary groundwaters'.⁶⁷ Moreover, one of the stated goals of the Model Provisions is to assist

States sharing transboundary groundwaters intersected by State boundaries or sharing transboundary surface waters linked with groundwaters in drawing up specific agreements addressing the sustainable use, management and protection of those groundwaters through cooperation.⁶⁸

It is interesting to note that the UNECE Water Convention is now open to all UN member States.⁶⁹ This effectively means that a legal instrument stemming from such a Convention, albeit in the form of a decision of the Meeting of the Parties, could be relevant for a wider group of countries than those that currently enjoy UNECE membership. The close relationship between the Draft Articles and the Model Provisions implies that, were the latter to be followed by more countries, the Draft Articles themselves could be deemed to have a broader impact. However, the real point is once again whether the current (and any future) form of the Draft Articles requires such sophisticated linkages to enhance its legal effects.

NORMATIVE PROPOSITIONS, LEGAL EFFECTS, LEGALLY BINDING INSTRUMENTS AND CUSTOMARY INTERNATIONAL LAW

As noted above, the Draft Articles in their current form have already had some influence on the development of a number of international instruments. In addition, they have also been referred to by a number of national courts, including the Supreme Court of Justice in Costa Rica.⁷⁰ As such, the Draft Articles already have had

⁶³ Bamako Declaration for the Iullemeden Aquifer System (Bamako, 20 June 2009), found at: <http://www.internationalwaterlaw.org/documents/regionaldocs/lullemeden_Bamako_Declaration-2009.pdf>.

⁶⁴ Memorandum of Understanding Relating to the Setting up of a Consultative Mechanism for the Management of the Iullemeden Aquifer System (Bamako, 20 June 2009), found at: <http://www.internationalwaterlaw.org/documents/regionaldocs/lullemeden_MoU-2009.pdf>.

⁶⁵ Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 17 March 1992; in force 6 October 1996) ('UNECE Water Convention'). The Economic Commission for Europe adopted a decision on Model Provisions on Transboundary Groundwaters at the Meeting of the Parties to the Water Convention on 28–30 November 2012. See UNECE, Decision VI/2, Model Provisions on Transboundary Groundwaters, in: Report of the Meeting of the Parties on its Sixth Session – Addendum: Decisions and Vision for the Future of the Convention (UN Doc. ECE/MP.WAT/37/Add.2, 19 September 2013). Decision VI/2 refers to the Draft Articles in the preamble and adopts, in its operating part, 'the Model Provisions on Transboundary Groundwaters and their commentary as contained in document ECE/MP.WAT/2012/L.5'. *Ibid.*, at 11. For the Model Provisions themselves, see: Draft Model Provisions on Transboundary Groundwaters (UN Doc. ECE/MP.WAT/2012/L.5, 14 September 2012).

⁶⁶ See Model Provisions on Transboundary Groundwaters, n. 65 above, at 4.

⁶⁷ UNECE Decision VI/2, n. 65 above, preamble

⁶⁸ See Model Provisions on Transboundary Groundwaters, n. 65 above, at 6.

⁶⁹ UNECE Water Convention, n. 65 above, Article 25.3 enables '[a]ny other State, not referred to in paragraph 2, that is a Member of the United Nations . . . [to] accede to the Convention upon approval by the Meeting of the Parties'. Article 25.3 has been added to the UNECE Water Convention by means of an amendment in 2004. See UNECE, Amendment to Articles 25 and 26 of the Convention (UN Doc. ECE/MP.WAT/14, 12 January 2004), which has entered into force on 6 February 2013. See also S. McCaffrey, 'International Water Cooperation in the 21st Century: Recent Developments in the Law of International Watercourses', 23:1 *Review of European, Comparative and International Environmental Law* (2014); and A. Rieu-Clarke and R. Kinna, 'Can Two Global UN Water Conventions Effectively Co-exist? Making the Case for a "Package Approach" to Support Institutional Coordination', 23:1 *Review of European, Comparative and International Environmental Law* (2014).

⁷⁰ Decision of the Supreme Court of Justice of Costa Rica, Constitutional Chamber, Voto N. 10-006922 (16 April 2010), at paragraph LXVIII; as discussed by N. Boeglin, 'Acuíferos Transfronterizos: Respuestas Desde el Derecho Internacional y Vacíos en Centroamérica', 123:3 *Boletín Geológico y Minero* (2012), 240.

some impact on State practice. Uruguay, speaking at the 2013 UN deliberations on behalf of the signatories to the Guarani Aquifer Agreement, made a compelling point that the Draft Articles in their current form constitute 'normative propositions'.⁷¹ This contention would not contradict the position of those countries that, quite rightly, assert that in their current form, the Draft Articles are not legally binding.⁷² Regardless, given how international law can emerge and evolve, it is reasonable to ask whether a non-legally binding international instrument can, nonetheless, have legal effects. Practice in the field of international environmental law, especially the decisions taken by conferences of the parties (COPs) to multilateral environmental agreements, suggests that this question can be answered in the affirmative.⁷³

The logical questions resulting from this assessment would then be: What is meant by *legal effects*, and what does Uruguay mean when it refers to the Draft Articles as being *normative propositions*? It can be argued that the Draft Articles provide a platform of substantive and procedural rules that States can use as *guidance* when negotiating an agreement to manage their transboundary aquifers. The effects are *legal* insofar as what is suggested in the Draft Articles, as well as in the Model Provisions, constitutes a normative framework. The legal effects are not legally *binding* because they are not enforceable before any court. If a country does not use the Draft Articles as guidance or does not take them into account when negotiating a transboundary aquifer agreement, it would not be acting contrary to international law. Moreover, its actions would not trigger or impose any State responsibility or liability. In other words, legal effects can arise from an UNGA Resolution that provides for a declaration of principles, in a way similar to COP decisions.

Considering the above, it is appropriate to question whether the relevance and legal impact of the Draft Articles would be any different if they were translated into a fully-fledged treaty. On the one hand, according to the principle of *pacta sunt servanda*, the answer would be affirmative where a convention is in force and imposes obligations upon ratifying States.⁷⁴ It is clear that substantive and procedural obligations present in a treaty are binding upon the States party to that treaty

and that breaching them would constitute a violation of international law. On the other hand, the legal nature of an obligation under international law depends also on two other considerations. First, the wording of that obligation can determine whether it is legally binding only in principle, or also in practice. If a treaty obligation is drafted in very general or ambiguous terms, it may make a breach very difficult to prove and State responsibility almost impossible to establish before a court. Second, and more relevant to the management of transboundary aquifers, obligations are legally binding where they reflect customary international law.⁷⁵ Where an obligation reflects customary international law, it does not matter whether the provision embodying the obligation is found in a legally binding instrument, a non-binding UNGA Resolution, or a non-binding COP Decision. That obligation will have legally significant consequences. Accordingly, the question is whether the norms contained in the Draft Articles reflect customary international law in the field of transboundary aquifer management. This is where the debate is probably most heated and evident, for example, in the diverging opinions of Portugal and the United States discussed above.⁷⁶

The Draft Articles, however, contain at least one key obligation that is widely acknowledged as a customary norm of international law: the obligation not to cause significant harm to neighbouring countries.⁷⁷ While it has never been specifically applied in the context of a transboundary aquifer dispute, the principle is widely accepted as part of international water law and appears in some form in every transboundary aquifer agreement to date.⁷⁸

In addition, the Draft Articles contain a number of principles that appear to be emerging customary international legal norms applicable to the management of transboundary aquifers. In particular, the obligation to regularly exchange data and information,⁷⁹ and the corollary duty to monitor and, where possible, generate

⁷¹ See Statement by Uruguay, n. 35 above, at 3.

⁷² See Statement by Japan, n. 45 above, at 3; Statement by India, n. 51 above, at 3.

⁷³ See J. Brunnée, 'COPing with Consent: Law-making Under Multilateral Environmental Agreements', 15:1 *Leiden Journal of International Law* (2002), 1; F. Romanin Jacur, 'Les Conférences des Parties des Conventions Internationales de Protection de l'Environnement en Droit International Général' in: L. Rajamani and S. Maljean Dubois (eds.), *Implementation of International Environmental Law* (Nijhoff, 2011), 251.

⁷⁴ Vienna Convention on the Law of Treaties (Vienna, 22 May 1969, in force 27 January 1980), Article 26.

⁷⁵ 'Customary international law' refers to international law that is grounded in States' conduct rather than codified rules. It emerges from the practice of States that is both broad and consistent, and justified by a sense that such conduct is legally appropriate and mandated, rather than simply morally proper or imposed under threat of reprisal. See M. Shaw, *International Law*, 6th edn (Cambridge University Press, 2008), at 72; and I. Brownlie, *Principles of Public International Law*, 7th edn (Oxford University Press, 2008), at 6.

⁷⁶ See Statement by Portugal, n. 32 above, and Statement by the United States of America, n. 33 above.

⁷⁷ See UNGA Resolution A/RES/63/124, n. 2 above, Article 6. See also *Trail Smelter (United States v. Canada) Arbitration*, [1938/1941] 13 RIAA 1905; ICJ 8 July 1996, *Legality of the Use by a State of Nuclear Weapons in Armed Conflict*, Advisory Opinion, [1996] ICJ Rep. 226, at paragraph 29; ICJ 9 April 1949, *The Corfu Channel Case (United Kingdom v. Albania)*, [1949] ICJ Rep. 4, at 22.

⁷⁸ G. Eckstein, 'Managing Buried Treasure across Frontiers: The International Law of Transboundary Aquifers', 36:5 *Water International* (2011), 579.

⁷⁹ See UNGA Resolution A/RES/63/124, n. 2 above, Article 8.

additional data,⁸⁰ are found in a number of contemporary transboundary aquifer arrangements.⁸¹ Similarly, the obligation of prior notification of planned activities⁸² is also found in various relevant agreements.⁸³

Another procedural obligation that seems to have acquired customary international law status in the context of minimizing significant transboundary harm is the obligation to undertake an environmental impact assessment. It is unclear, however, the extent to which this customary norm is obligatory in the context of transboundary aquifers. Recent case law by the International Court of Justice can be interpreted as raising the legal bar of such obligation to the level of customary international law, but only in the context of proposed industrial activities.⁸⁴ Furthermore, the fact that the Draft Articles reference environmental impact assessment in Articles 15 and 18,⁸⁵ but without a clear-cut requirement to undertake such an activity, raises doubts as to the customary nature of this obligation in the context of transboundary aquifer management. The same can be argued when analyzing the provisions of the Guarani Aquifer Agreement, where the possibility of an environmental impact assessment is mentioned without any binding requirements.⁸⁶ Despite the difficulties in determining when an obligation acquires customary international law status, the form of the legal instrument in which they are found does not necessarily impact their applicability, or even enforceability.

and effectiveness of the Draft Articles may not necessarily be dependent on their codification and implementation as a binding legal instrument, or even on agreement as non-binding guidelines. Rather their true impact will be measured in relation to the degree to which States embrace the various principles and norms contained in the Draft Articles as their practice. In addition, it will depend on the ability and desire of States to accept and employ them as a framework for more detailed bilateral and regional aquifer agreements. In the words of Franklin D. Roosevelt: 'There are many ways of going forward, but only one way of standing still.'

Gabriel Eckstein is Professor in Law at Texas A&M University School of Law in Fort Worth, TX, USA. Professor Eckstein also is Director of the International Water Law Project, and serves on the executive boards of the International Water Resources Association and the International Association for Water Law.

Francesco Sindico is Reader in International Environmental Law at the Law School of the University of Strathclyde, Glasgow, UK; Director of the Strathclyde Centre for Environmental Law and Governance; and Programme Leader of the Strathclyde LLM in Climate Change Law and Policy. In his work on transboundary aquifer management Francesco has been collaborating closely with UNESCO-International Hydrological Programme ISARM (International Shared Aquifers Resources Management).

CONCLUSION

The progression of legal development is a dynamic process that often requires years. Hence, the impact

⁸⁰ Ibid., Article 13.

⁸¹ See G. Eckstein, n. 77 above, at 578.

⁸² See UNGA Resolution A/RES/63/124, n. 2 above, Article 15.

⁸³ See G. Eckstein, n. 77 above, at 578–579.

⁸⁴ ICJ 20 April 2010, *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, [2010] ICJ Rep. 14, at paragraph 204. For a different opinion, arguing that the obligation to undertake an environmental impact assessment is now part of general international environmental law, see O. McIntyre, 'The Proceduralization and Growing Maturity of International Water Law: Case Concerning *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*', 22:3 *Journal of Environmental Law* (2010), 475.

⁸⁵ See UNGA Resolution A/RES/63/124, n. 2 above, Articles 15 and 18.

⁸⁶ Guarani Aquifer Agreement, n. 6 above, Articles 9 and 10.

ELA & IAIA LUNCH SEMINAR: ATTENDANCE 20 May 2014

"Transboundary Aquifer Management and the Role of International Law" Prof. Dr. Francesco Sindico

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ANNEXURE C: IAIAsa/NWU: "EIA Follow-up, Compliance monitoring and Enforcement"

EIA follow-up, Compliance Monitoring, & Enforcement

Invitation to attend a guest lecture presentation on EIA Follow-up, Compliance Monitoring, and Enforcement for the Masters Programme in Environmental Management (M.Env.Man)

POTCHEFSTROOM: 25 July 2014 (18h00 – 20h30)

The IAIAsa North-West Branch in collaboration with the Department of Geography and Environmental Management of the North-West University, Potchefstroom Campus, invite all North-West branch members to join the Masters Programme in Environmental Management for a once-off guest lecture by Professor Angus Morrison-Saunders and Mr. Jan-Albert Wessels on Environmental Impact Assessment (EIA) follow-up, Compliance Monitoring, and Enforcement.



Prof. Angus Morrison-Saunders is an Associate Professor in Environmental Assessment at Murdoch University, Australia (75%) and Extraordinary Professor in Environmental Sciences and Management at North West University, South Africa (25%). He is also the Co-Editor of Impact Assessment and Project Appraisal journal. His research focuses on the effectiveness of environmental impact assessment (EIA) and its derivatives such as strategic environmental assessment and sustainability assessment. Angus is especially interested in follow-up studies of EIA to determine its contribution to sustainability. Angus has published over 60 journal papers, edited two books, written 17 book chapters and given over 70 presentations at national and international conferences.

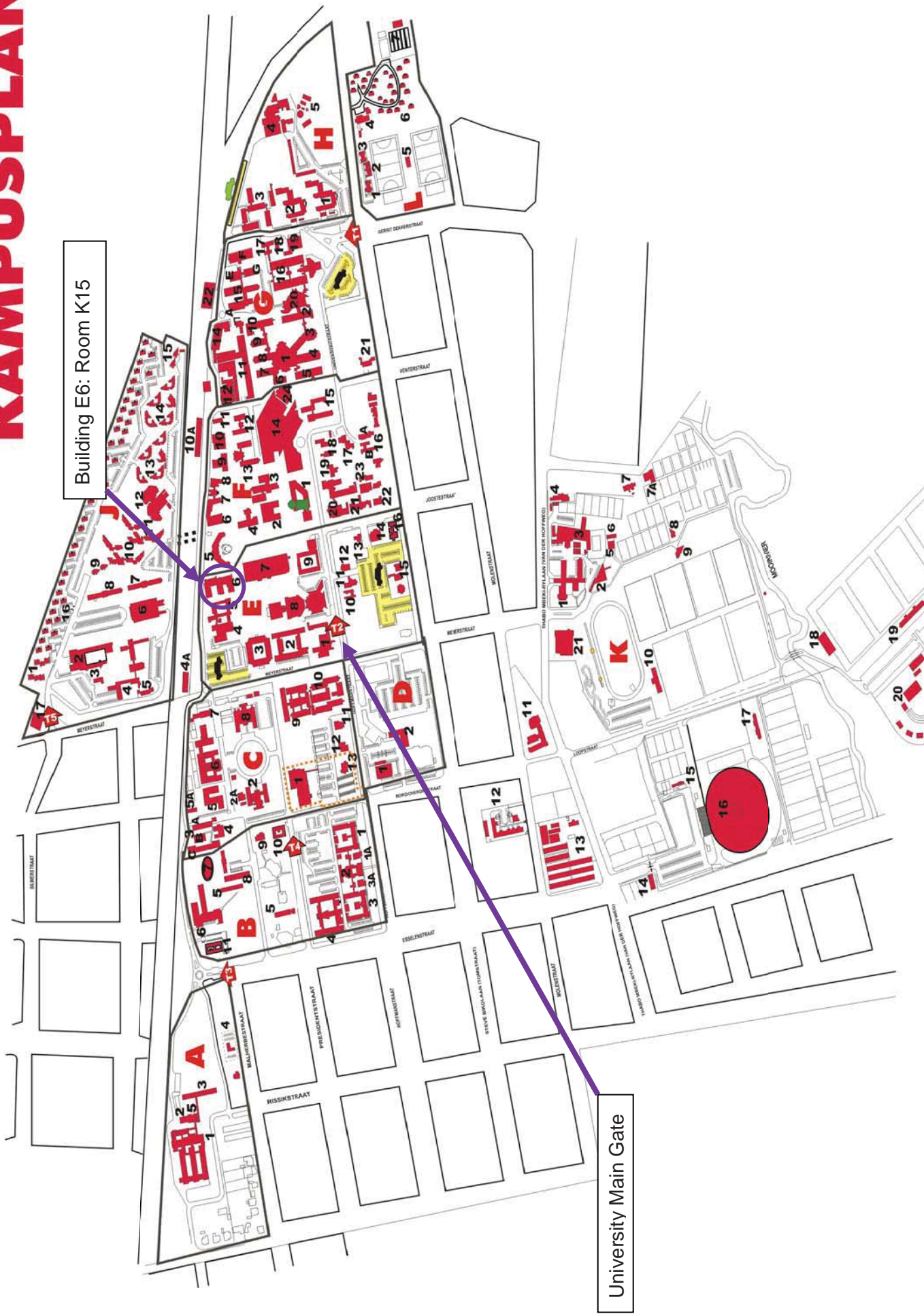


Mr. Jan-Albert Wessels has a Master's degree in Environmental Management and Analysis and is a Lecturer at the Department of Geography and Environmental of the North-West University. Jan-Albert is completing his doctoral studies in environmental management with the focus on the value of Environmental Control Officers (ECOs) in South Africa. Jan-Albert has 13 years' experience in EIA and management and worked on various projects in the public and private sector in fields such as: environmental law and policy development, environmental enforcement, environmental management systems, environmental auditing, and EIA. He has published three journal papers and has given 15 presentations at national and international conferences.

Date:	Friday, 25 July 2014
Time:	Presentation commences at 18:00
Venue:	North-West University, Building E6 (JS van der Merwe), Room K15
RSVP	If you wish to attend the guest lecture please confirm via email to Percy Sehaole (20348819@nwu.ac.za) by Wednesday 23 July 2014 before 16:00
Contacts	Carli Steenkamp carli.steenkamp@nwu.ac.za

IAIANw thanks the Department of Geography and Environmental Management for the opportunity to invite their members to this elite event.

KAMPUSPLAN



Introduction to EIA Follow-up – Overview and international examples

Angus Morrison-Saunders

Masters in Environmental Management
School of Geo and Spatial Sciences
North West University (Potchefstroom campus)
South Africa

25 July 2014

A.Morrison-Saunders@murdoch.edu.au



Objective

Understand importance and role of follow-up for effective environmental impact assessment (EIA) with respect to:

- enhancing proposal implementation (environmental management/sustainability); and
- learning from experience

and the relevance of follow-up to your Masters research...

Outline

1. Background and challenge for follow-up
2. EIA follow-up: What is it all about?
 - theory plus South African arrangements
3. International examples of EIA follow-up

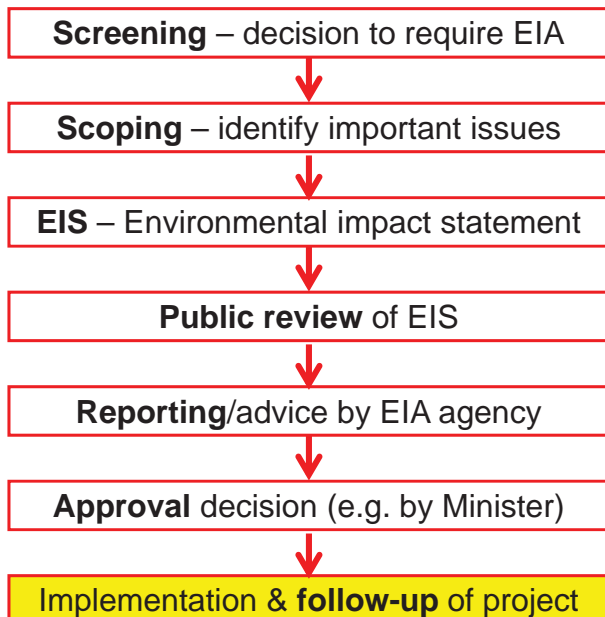
Format

Interactive workshop
Discussion questions interspersed...

1. Background and challenge for follow-up

Generic EIA process...

adapted from: Sadler, B
1996 *International Study of the Effectiveness of EA, Final Report, EA in a Changing World: Evaluating Practice to Improve Performance*, Canadian EA Agency and IAIA, Minister of Supply and Services, Hull, Quebec, p18. [available: www.iaia.org/publicdocuments/EIA/EAE/EAE_10E.PDF (accessed 13/01/12)]



How do we demonstrate the benefits of EIA?

Sustainable Development

How do we demonstrate the benefits of EIA?

Sustainable **Development**



How do we demonstrate the benefits of EIA?

Sustainable Development



How do we demonstrate the benefits of EIA?

Sustainable Development



role for EIA follow-up...

2. EIA follow-up

The monitoring and evaluation of the impacts of a project or plan (that has been subject to EIA) for management of, and communication about, the environmental [sustainability] performance of that project or plan

ASSESSING IMPACT

*Handbook of
EIA and SEA Follow-up*

Morrison-Saunders, A and J Arts 2004 Introduction to EIA Follow-up, in Morrison-Saunders, A. and J. Arts (eds) *Assessing Impact: Handbook of EIA and SEA Follow-up*, Earthscan, London, pp1-21

EIA follow-up definition – 4 elements

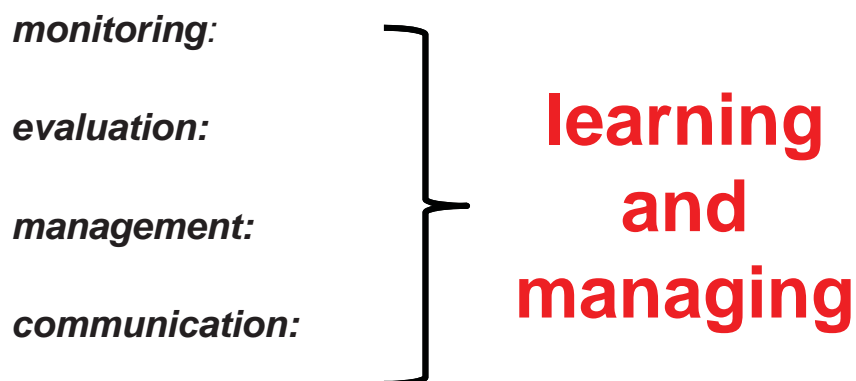
monitoring:	collecting data
evaluation:	interpreting/analysing data
management:	responsive decisions & action
communication:	informing/engaging stakeholders

EIA follow-up definition – 4 elements

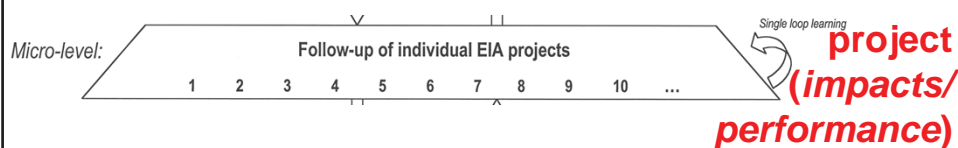
<i>monitoring:</i>	collecting data
<i>evaluation:</i>	interpreting/analysing data
<i>management:</i>	responsive decisions & action
<i>communication:</i>	informing/engaging stakeholders

[= *applied research?*]

EIA follow-up =

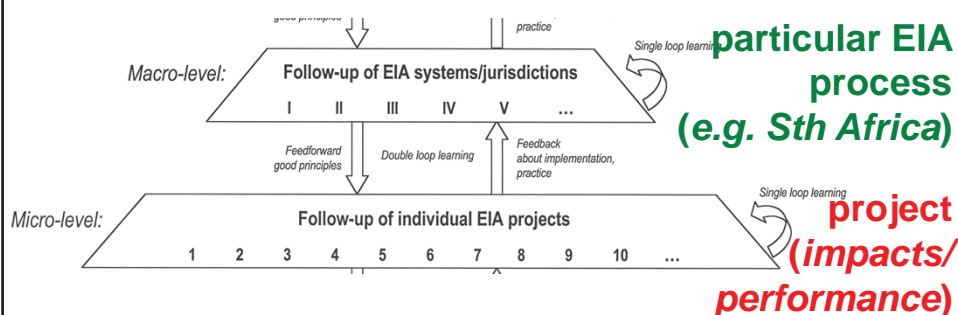


Tiers of learning and managing

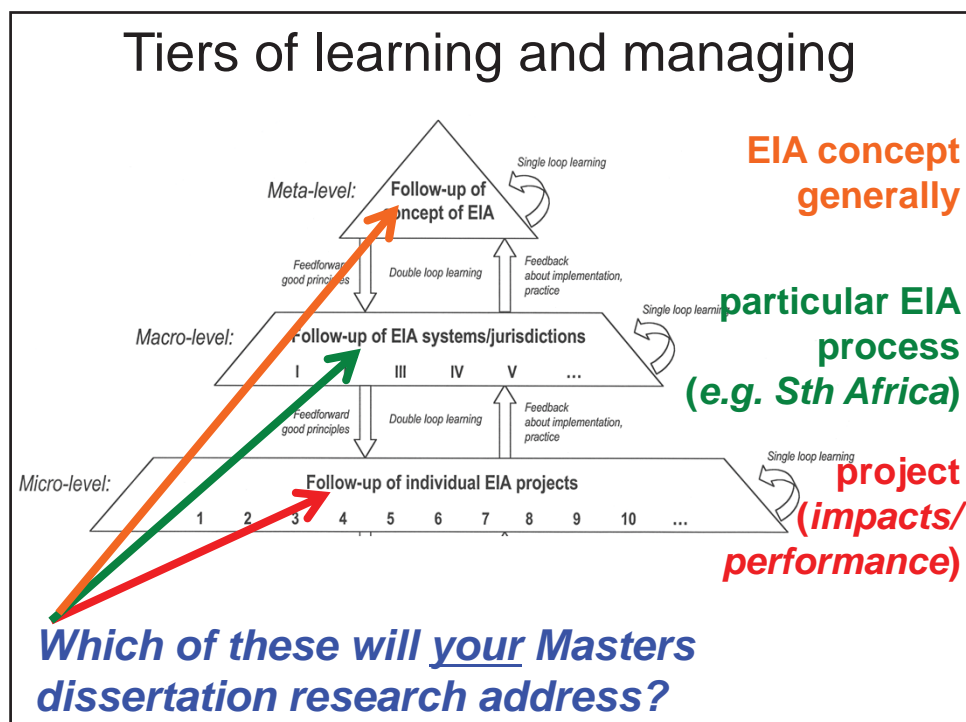
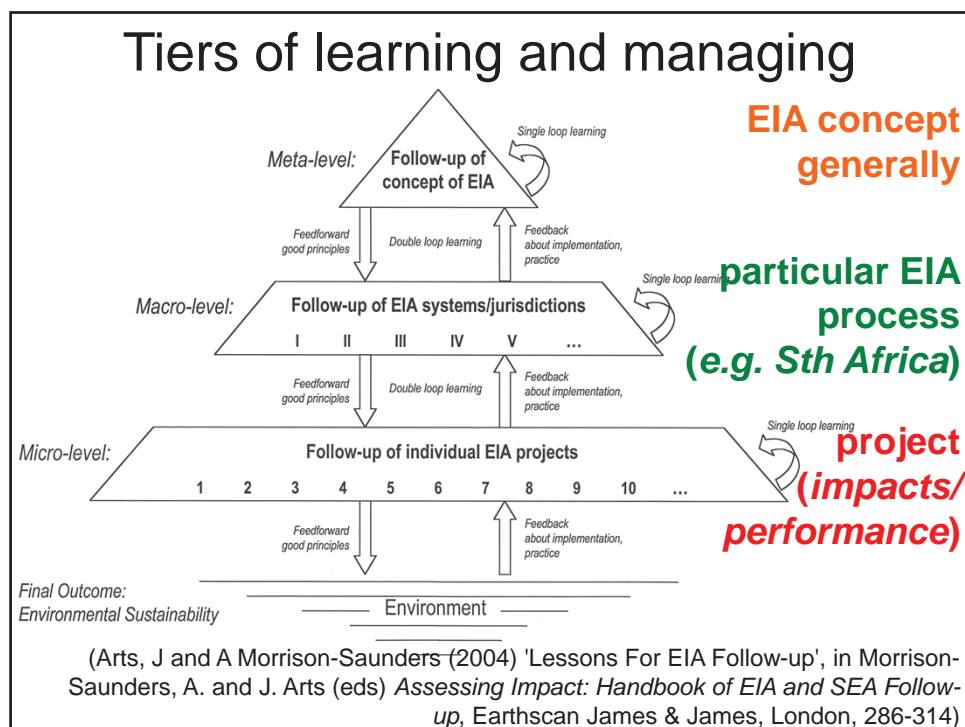


(Arts, J and A Morrison-Saunders (2004) 'Lessons For EIA Follow-up', in Morrison-Saunders, A. and J. Arts (eds) *Assessing Impact: Handbook of EIA and SEA Follow-up*, Earthscan James & James, London, 286-314)

Tiers of learning and managing



(Arts, J and A Morrison-Saunders (2004) 'Lessons For EIA Follow-up', in Morrison-Saunders, A. and J. Arts (eds) *Assessing Impact: Handbook of EIA and SEA Follow-up*, Earthscan James & James, London, 286-314)



Why is follow-up important?

- Without follow-up, consequences will not be known
- Follow-up enables *learning from experience*

Purposes:

- Better project management
- Feedback on EIA outcomes for a project
- Learning about EIA performance generally

Discussion question 1

The concept of EIA follow-up is quite straightforward, but...

(a) *Exactly what do you think should be "followed-up" in EIA in South Africa?*

and

(b) *Who should carry this out?*

Explain...



EIA follow-up theory derived from practice

- model for understanding EIA follow-up potential based on international experience
 - Process versus performance (compliance versus outcome)
 - Scales of EIA follow-up
 - Who is involved in EIA follow-up?
 - Ingredients of EIA follow-up

Process versus performance (compliance versus outcome)

Monitoring of compliance with EIA **process**

– e.g.

- *Were EIA laws followed?*
- *Were stakeholders consulted?*
- *Were EIA approval conditions implemented?*
- *Were mitigation measures implemented?*

Monitoring of **performance** – e.g.

- *What were the environmental outcomes?*
- *Did the mitigation measures work?*
- *Was the environment protected?*

Legal basis for follow-up in Western Australia – *EPA* Act 1986 (i)

47. Duties of proponents after service of statement or notification

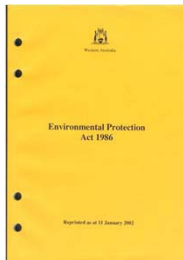
...

(2) If a statement has been served under section 45(5)(a), the proponent is to give the CEO such reports and information about —

- (a) the implementation of the proposal to which the statement relates; and
- (b) **compliance with the implementation conditions**, as are required by written notice given to the proponent by the CEO.

(3) If, without reasonable excuse, the proponent refuses or fails to comply with a requirement made under subsection (2), the proponent commits an offence.

(*EPA* Act s47)



Legal basis for follow-up in Western Australia – *EPA* Act 1986 (ii)

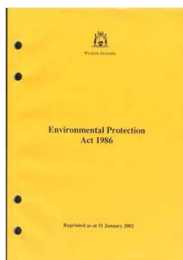
48. Control of implementation of proposals

(1) The CEO [Office of EPA] may monitor the implementation of a proposal, or cause it to be monitored, **for the purpose of determining whether the implementation conditions relating to the proposal are being complied with.**

(1a) If the CEO finds that any of the implementation conditions is not being complied with, the CEO —

- (a) may exercise any power in respect of the non-compliance that is exercisable by the CEO under a written law; and
- (b) in any event, is to report the non-compliance to the Minister

(*EPA* Act s48)



WA - Sample audit conditions (i)

demonstrating difference between compliance reporting and performance review conditions...

Published on: 30 September 2010

Statement No. 840

STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED (PURSUANT TO THE PROVISIONS OF THE ENVIRONMENTAL PROTECTION ACT 1986)

CAPE LAMBERT PORT B DEVELOPMENT - SHIRE OF ROEBOURNE

Proposal: The proposal is to construct and operate a second port (Port B) at Cape Lambert to process and export up to 130 million tonnes of ore per annum.

Proponent: Pilbara Iron Pty Ltd

Proponent Address: Level 22, Central Park, 152 – 158 St George's Terrace, PERTH WA 6000

Assessment Number: 1717

Appeal Determination: 59 to 61 of 2010

Report of the Environmental Protection Authority: Report 1357

[Ministerial
Statement
example...]



WA - Sample audit conditions (ii)

4 Compliance Reporting

Compliance

- 4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the CEO.
- 4-2 The proponent shall submit to the CEO, the compliance assessment plan required by condition 4-1 at least six calendar months prior to the first Compliance Assessment Report required by condition 4-6 or prior to implementation, whichever is sooner. The compliance assessment plan shall indicate:
1. the frequency of compliance reporting;
 2. the approach and timing of compliance assessments;
 3. the retention of compliance assessments;
 4. reporting of potential non-compliance and corrective actions taken;
 5. the table of contents of compliance reports; and
 6. public availability of compliance reports.
- 4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.



WA -
Sample
audit
conditions
(iii)



- 4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the CEO. **Compliance**
- 4-5 The proponent shall advise the CEO of any potential non-compliance within two business days of that non-compliance being known.
- 4-6 The proponent shall submit its first Compliance Assessment Report within 15 months following the date of issue of this statement addressing the twelve-month period from the date of issue of this statement and then annually from the date of submission of the first Compliance Assessment Report. The compliance assessment report shall:
1. be endorsed by the proponent's Managing Director or a person approved in writing by the CEO, delegated to sign on the Managing Director's behalf;
 2. include a statement as to whether the proponent has complied with the conditions;
 3. identify all potential non-compliances and describe corrective and preventative actions taken;
 4. be made publicly available in accordance with the approved compliance assessment plan; and
 5. indicate any proposed changes to the compliance assessment plan required by condition 4-1.

WA - Sample
audit
conditions (iv)

**Performance review
and reporting**



Published on: 17 September 2010

Statement No. 838

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**COOLIMBA POWER STATION PROJECT
SHIRE OF CARNAMAH AND SHIRE OF COOROW**

Proposal:

The proposal is for the construction and operation of a power station comprising of a nominal 450 MW coal-fired base-load generation plant and a nominal 358 MW natural gas-fired peaking-load generation plant on a site located approximately 15 km south-south-west of Eneabba. The proposal also involves the establishment of an approximately 20 km long and 100 m wide infrastructure corridor that will accommodate the construction and operation of a natural gas pipeline lateral to connect the power station to either the Dampier to Bunbury Natural Gas Pipeline or the Parmelia Gas Pipeline, and a 330 kV electricity transmission line to connect the power station to the external electricity network at the proposed Eneabba Substation.

The proposal is further documented in Schedule 1 of this statement.

Proponent:

Coolimba Power Pty Ltd (ACN: 127 468 348)

Proponent Address:

Suite 4, Level 3, The South Shore Centre, 83-85 South Perth Esplanade, SOUTH PERTH WA 6151

Assessment Number:

1697

Report of the Environmental Protection Authority: 1350

WA - Sample audit conditions

(v)

5 Performance Review and Reporting

5-1 The proponent shall submit to the CEO a Performance Review Report at the conclusion of the first, second, fourth, sixth, eighth and tenth years after the start of implementation and then at five yearly intervals which addresses:

1. the major environmental risks and impacts; the performance objectives, standards and criteria related to these; the success of risk reduction/impact mitigation measures and results of monitoring related to management of the major risks and impacts;
2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology; and
3. improvements gained in environmental management which could be applied to this and other similar projects.

5-2 The Performance Review Reports shall be to the satisfaction of the CEO.



Performance review and reporting

International example of outcomes focus...

Towards increasing the utility of follow-up in Canadian EIA

Bram Noble^{a,*}, Keith Storey^{b,1}

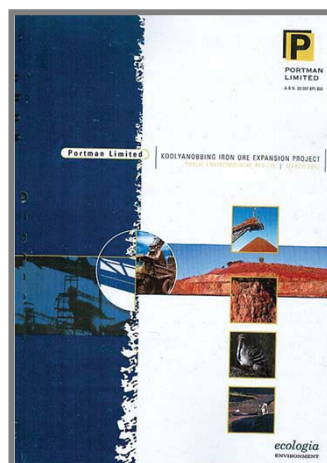
Environmental Impact Assessment Review
25 (2005) 163–180

It is managing the real, rather than the predicted, impacts that matters. Predictive accuracy thus becomes of secondary importance to the effectiveness of management measures. Improving the environmental management role of EA follow-up in Canada requires building values into management and follow-up practice and a broader consideration of 'environment' to include socioeconomic variables, goals, and objectives. Rather than allocating time and resources to address the probability and the likelihood of an impact materializing as predicted, in our view, the primary objective of follow-up should be ensuring whether what were intended as project outcomes were in fact realized.

Scales of EIA follow-up (i)

Micro-scale – individual project (or plan)

- Was project managed in an acceptable way?



Effective EIA follow-up for projects

Screening and Scoping →

- studies needed
(monitoring)



Environmental impact
statement →

- baseline monitoring
- predicted impacts
- mitigation & follow-up commitments



Public review



EIA regulator evaluation



Approval decision →

- approval conditions
(mitigation measures,
compliance reporting)



EIA follow-up

**"Follow-up" is simply
part of good EIA
practice...**

Project follow-up as part of normal EIA
practice - Western Australia (i)



3 Aims of EIA

...

4. ensure that **proponents take primary responsibility for protection of environment** relating to their proposals

EPAAct 1986 EIA (Part IV Div 1 & 2) Admin. Proc. 2012 *Govt Gazette*,
WA 7Dec2012, No. 223: 5939-5959, Perth, (s3)

Project follow-up as part of normal EIA practice - Western Australia (ii)



4 Principles of EIA for the Environmental Protection Authority

...ensure that...:

8. predicted environmental **impacts are monitored**, the results assessed and **feedback provided to improve ongoing environmental management of proposals**

EPA Act 1986 EIA (Part IV Div 1 & 2) Admin. Proc. 2012 Govt Gazette, WA 7Dec2012, No. 223: 5939-5959, Perth, (s4)

Let's now take a look at legal and administrative arrangements for follow-up in South Africa at the project level...



SA audit arrangements– NEMA 1998

NATIONAL ENVIRONMENTAL MANAGEMENT ACT 107 OF 1998

(English text signed by the President)

[Assented To: 19 November 1998]

[Commencement Date: 29 January 1999]



as amended by:

National Environmental Management Act 56 of 2002
 Mineral and Petroleum Resources Development Act 28 of 2002
 National Environmental Management Amendment Act 46 of 2003
 [with effect from 1 May 2005]
 National Environmental Management Amendment Act 8 of 2004
 [with effect from 7 January 2005]
National Environmental Management Amendment Act 62 of 2008
 [with effect from 1 May 2009]

ACT

To provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote cooperative governance and procedures for co-ordinating environmental functions exercised by organs of state; to provide for certain aspects of the administration and enforcement of other environmental management laws; and to provide for matters connected therewith.

[Long title amended by s. 3 of Act 56/2002 and substituted by s. 13 of Act 46/2003]

WHEREAS many inhabitants of South Africa live in an environment that is harmful to their health and wellbeing;

NEMA 1998 – Preamble...

everyone has the right to an environment that is not harmful to his or her health or wellbeing;

the State must respect, protect, promote and fulfill the social, economic and environmental rights of everyone and strive to meet the basic needs of previously disadvantaged communities;

inequality in the distribution of wealth and resources, and the resultant poverty, are among the important causes as well as the results of environmentally harmful practices;

sustainable development requires the integration of social, economic and environmental factors in the planning, implementation and evaluation of decisions to ensure that development serves present and future generations;

everyone has the right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that -

prevent pollution and ecological degradation;

promote conservation; and

secure **ecologically sustainable development** and use of natural resources while promoting justifiable economic and social development;

the environment is a functional area of concurrent national and provincial legislative competence, and all spheres of government and all organs of state must cooperate with, consult and support one another;

NATIONAL ENVIRONMENTAL MANAGEMENT ACT 107 OF 1998



NEMA 1998 – s24N(1)-(1A)

24N. Environmental management programme

- (1) The Minister, the Minister of Minerals and Energy, an MEC or identified competent authority may require the submission of an environmental management programme before considering an application for an environmental authorisation.
- (1A) Where environmental impact assessment has been identified as the environmental instrument to be utilised in informing an application for environmental authorisation, or where such application relates to prospecting, mining, exploration, production and related activities on a prospecting, mining, exploration or production area, the Minister, the Minister of Minerals and Energy, an MEC or identified competent authority must require the submission of an environmental management programme before considering an application for an environmental authorisation.

[Note; yellow highlights here indicate 2008 amendments to NEMA]



NEMA 1998 – s24N(7)(a)-(c)

24N. Environmental management programme

- (7) The holder and any person issued with an environmental authorisation-
- (a) must at all times give effect to the general objectives of integrated environmental management laid down in section 23;
 - (b) must consider, investigate, assess and communicate the impact of his or her prospecting or mining on the environment;
 - (c) must manage all environmental impacts-
 - (i) in accordance with his or her approved environmental management programme, where appropriate; and
 - (ii) as an integral part of the reconnaissance, prospecting or mining, exploration or production operation, unless the Minister of Minerals and Energy directs otherwise;

[Note; yellow highlights here indicate 2008 amendments to NEMA]



NEMA 1998 – s24N(7)(d)-(f)

24N. Environmental management programme



(7) The holder and any person issued with an environmental authorisation-

(d) must monitor and audit compliance with the requirements of the environmental management programme;

(e) must, as far as is reasonably practicable, rehabilitate the environment affected by the prospecting or mining operations to its natural or predetermined state or to a land use which conforms to the generally accepted principle of sustainable development; and

(f) is responsible for any environmental damage, pollution, pumping and treatment of extraneous water or ecological degradation as a result of his or her prospecting or mining operations or related mining activities which may occur inside and outside the boundaries of the prospecting or mining area to which such right or permit relates.

[S. 24N inserted by s. 8 of Act 62/2008]

[Note; yellow highlights here indicate 2008 amendments to NEMA]

46. Model environmental management bylaws **NEMA 1998 – s46(1), (4)-(5)**

(1) The Minister may make model bylaws aimed at establishing measures for the management of environmental impacts of any development within the jurisdiction of a municipality, which may be adopted by a municipality as municipal bylaws.

(4) The purpose of the model bylaws referred to in subsection (1) must be to -

(a) mitigate adverse environmental impacts;

(b) facilitate the implementation of decisions taken, and conditions imposed as a result of the authorisation of new activities and developments, or through the setting of norms and standards in respect of existing activities and developments; and

(c) ensure effective environmental management and conservation of resources and impacts within the jurisdiction of a municipality in cooperation with other organs of state.

(5) The model bylaws referred to in subsection (1) must include measures for environmental management, which may include -

(a) auditing, monitoring and ensuring compliance; and

(b) reporting requirements and the furnishing of information.



Follow-up provisions *NEMA* EIA Regulations 2010

Content of environmental authorisation

37. (1) An environmental authorisation must specify—



...

(d) the conditions subject to which the activity may be undertaken, including conditions determining

...

(ii) **requirements for the management, monitoring and reporting of the impacts of the activity on the environment** throughout the life cycle of the activity as contained in the approved environmental management programme...

GOVERNMENT NOTICE	
No. R.	2010
DEPARTMENT OF ENVIRONMENTAL AFFAIRS	
NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998)	
ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS	

Follow-up provisions *NEMA* EIA Regulations 2010



Content of environmental authorisation

37. (2) An environmental authorisation may—

...

(b) require the holder of the authorisation to furnish the competent authority with reports prepared by the holder of the authorisation or a person **who is independent**, at specified times or intervals—

- (i) indicating the **extent to which the conditions** of the authorisation are or are not being **complied with**;
- (ii) providing details of the nature of, and reasons for, any noncompliance with a condition of the authorisation; and
- (iii) describing any action taken, or to be taken, to mitigate the effects of any non-compliance or to prevent any recurrence of the non-compliance;

Follow-up provisions *NEMA* EIA Regulations 2010



Content of environmental authorisation

37. (2) An environmental authorisation may— ...

- (c) require the holder of the authorisation to furnish the competent authority with **environmental audit reports on the impacts of the authorised activity on the environment**, at specified times or intervals or whenever requested by the competent authority;
- (d) where applicable, require the holder of the authorisation to furnish the competent authority with proof of compliance with the requirements regarding financial provision;
- (e) where applicable, require the holder of the authorisation to furnish the competent authority with proof of compliance with the applicable requirements regarding closure; and
- (f) include any other condition that the competent authority considers necessary for the protection of the environment.

NEMA 1998 – s31G(1)



31D. Mandates

- (1) When designating a person as an environmental management inspector, the Minister or MEC must, subject to subsection (2), determine whether the person concerned is designated for the enforcement of -
 - (a) this Act;
 - (b) a specific environmental management Act;
 - (c) specific provisions of this Act or a specific environmental management Act;
 - (d) this Act and all specific environmental management Acts; or
 - (e) any combination of those Acts or provisions of those Acts.
- (2) An MEC may designate a person as an environmental management inspector for the enforcement of only those provisions of this Act or any specific environmental management Act -
 - (a) which are administered by the MEC or a provincial organ of state; or
 - (b) in respect of which the MEC or a provincial organ of state exercises or performs assigned or delegated powers or duties.
- (3) A person designated as an environmental management inspector may exercise any of the powers given to environmental management inspectors in terms of this Act that are necessary for the inspector's mandate in terms of subsection (1) and that may be specified by the Minister or MEC by notice in writing to the inspector.

i.e. the Green Scorpions



NEMA 1998 – s31G(1)



31G. Functions of inspectors

- (1) An environmental management inspector within his or her mandate in terms of [section 31D](#) -
- (a) must monitor and enforce compliance with a law for which he or she has been designated in terms of that section;
 - (b) may investigate any act or omission in respect of which there is a reasonable suspicion that it might constitute -
 - (i) an offence in terms of such law;
 - (ii) a breach of such law; or
 - (iii) a breach of a term or condition of a permit, authorisation or other instrument issued in terms of such law.

i.e. role of Green Scorpions



Discussion question 2

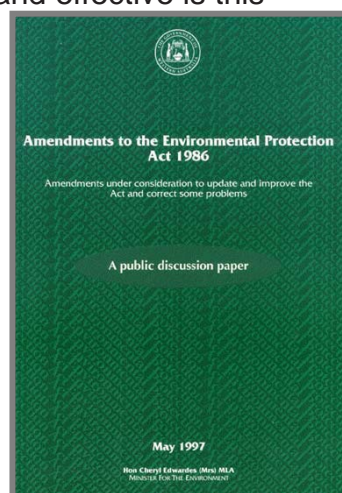
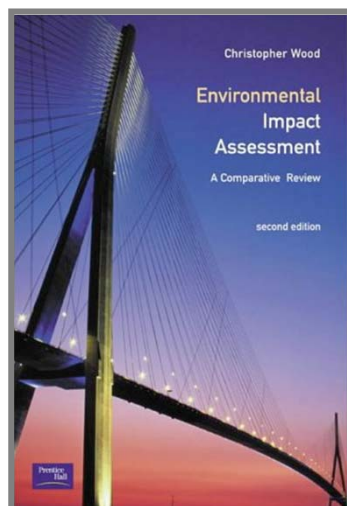
"Compliance" is a major component of the NEMA follow-up requirements...

To what extent (or under what circumstances) can compliance with EIA approval conditions and/or EMPs deliver 'sustainable development'? Explain...

Scales of EIA follow-up (ii)

Macro-scale – jurisdiction/EIA system

- How efficient and effective is this EIA process?



Process follow-up as part of normal EIA practice - Western Australia (i)



3 Aims of EIA

...

5. To promote adaptive environmental management, positive environmental outcomes and continuous improvement through **learning and knowledge gained through the EIA process and project implementation**

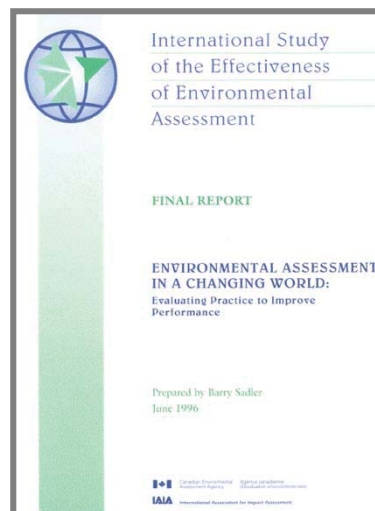
EPA 1986 EIA (Part IV Div 1 & 2) Admin. Proc. 2012 *Govt Gazette*, WA 7Dec2012, No. 223: 5939-5959, Perth, (s3)

Recent reviews of EIA in ZA...

Scales of EIA follow-up (iii)

Meta-scale – EIA concept

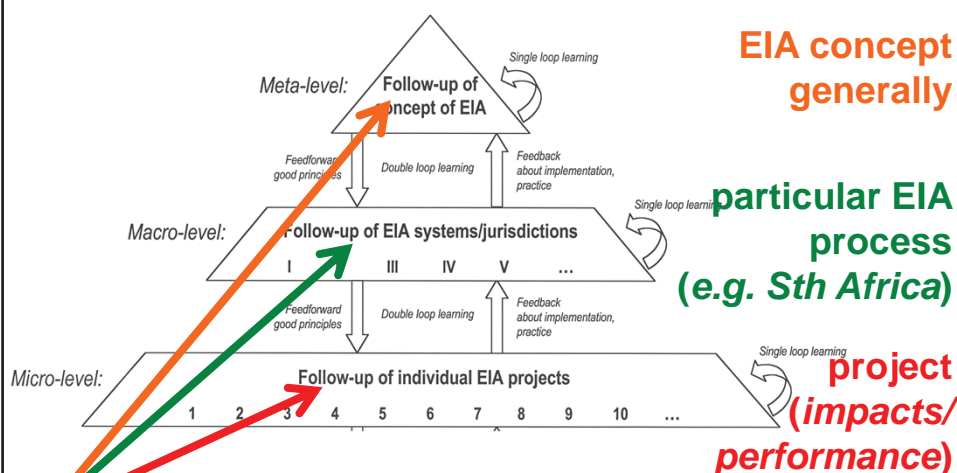
- Does EIA work? Is it useful?



[IAIAsa conferences (indirectly) consider this(?)]

Will your Masters research too?]

Tiers of learning and managing [repeat slide]



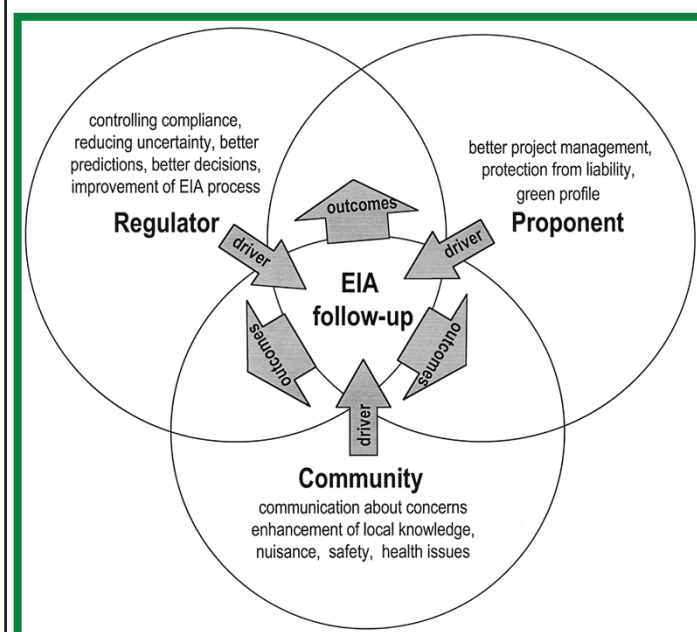
Which of these will your Masters dissertation research address?

Who is involved in EIA follow-up?

- Proponent (*1st party follow-up*)
 - e.g. EMS
 - [proponent systems do play some importance in WA]
- EIA regulator (*2nd party follow-up*)
 - e.g. compliance audits
 - [basis for majority of compliance & performance audits in WA]
- Community (*3rd party follow-up*)
 - e.g. steering committee
 - [increasing emphasis on involving public in WA]

Marshall, R, J Arts and A Morrison-Saunders (2005) International Principles for Best Practice EIA Follow-up, *Impact Assessment and Project Appraisal*, **23**(3): 175-181

What do different stakeholders get from EIA follow-up?



(Morrison-Saunders, A., J. Arts, J. Baker and P. Caldwell 2001. Roles and Stakes in Environmental Impact Assessment Follow-up. *Impact Assessment and Project Appraisal*, **19**(4), 289-296)

Ingredients of EIA follow-up

- Follow-up can be conducted by proponents, regulators & public stakeholders (or combination)
- Practice varies according to:
 - activity type (size, extent, SEA or EIA...)
 - regulations for IA follow-up
 - resources & capacity (money and staff)
 - approaches or techniques employed
 - who is involved

Activity type

- Project type determines *scope & approach*
 - strategic or project level?
 - large or small project?
- Major activities may need greater follow-up effort



industrial area



refinery



service station

Regulations for EIA follow-up

- Growth in EIA follow-up regulations world wide(?)
 - e.g. NEMA amendments 2008
- Approaches vary
 - e.g. self regulation, command & control, adaptive management
- Legal requirement alone is not sufficient to guarantee follow-up
 - commitment from regulators (+ proponents) needed for action to occur
- Self-regulation (voluntary) may fill in gaps

Canadian Environmental Assessment Act

"follow-up program" means a program for

(a) verifying the accuracy of the environmental assessment of a project, and

(b) determining the effectiveness of any measures taken to mitigate the adverse environmental effects of the project;



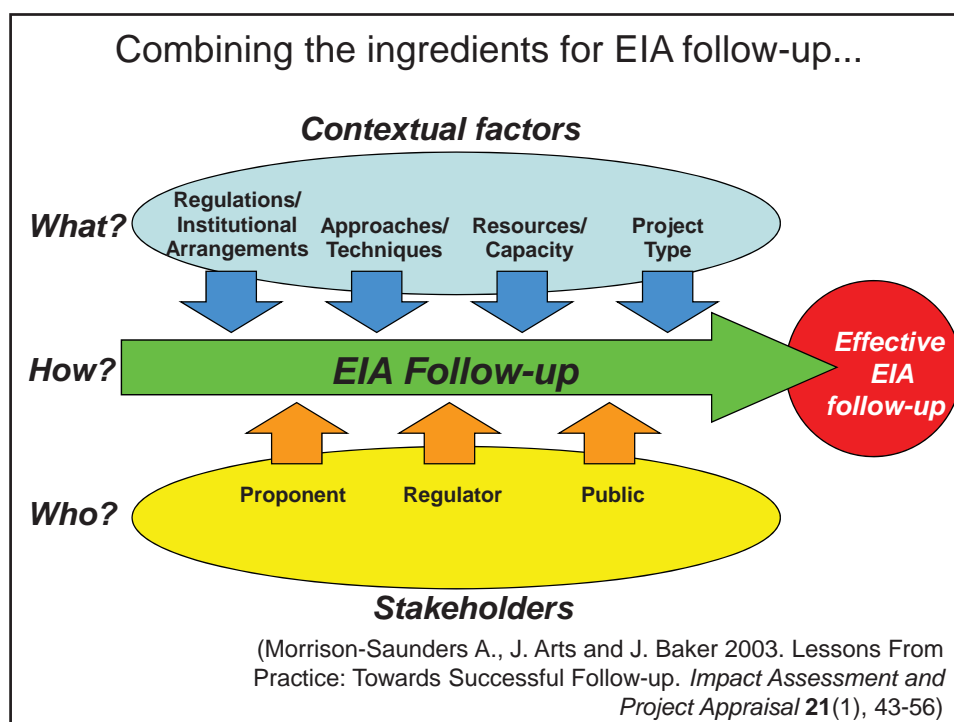
Approaches & techniques

- *Scoping* needed to choose IA follow-up approaches
- Numerous techniques
 - monitoring, auditing, EMS, state of environment reporting...
- Multi-disciplinary, integrated approach
- suitably rigorous & defensible systems needed
 - (not necessarily complicated – simple approaches often work best)

Resources & capacity

- Regulators need adequate resources & capacity
 - expertise, continuity personnel
- Proponents need commitment to follow-up
 - responsibilities can be incorporated into contractor agreements and job functions
- Public involvement can be a resource
 - i.e., local knowledge, traditional knowledge

[Communication of EIA follow-up is vital too]



3. International examples

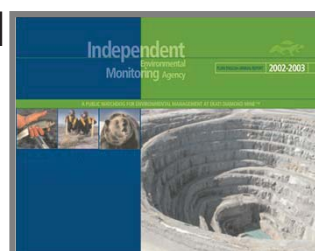
- experience worldwide takes many forms...
- examples from: Europe, South America, Australia, Asia, Canada, Africa...
- examples include: self regulation, community involvement, socio-economic effects, cumulative impacts, SEA...

[personally I find the Hong Kong and Canadian approaches to be especially interesting – but we can learn from all the others too...]

International example 1: Independent follow-up agency – Canada

Independent Environmental Monitoring Agency - Ekati Diamond Mine

- established by Government of Canada EIA approval
- funded by proponent
- reports on both proponent *and* government activities



www.monitoringagency.net/



└─→ [strategic/sustainability actions]

International example 2: Inspection by funding body: World Bank, Chad Cameroon Oilfield



- World Bank Inspection Panel - 3 member body formed in 1993 to provide independent forum for private citizens who believe they may have been harmed by WB funded projects.
- \$3.7B Chad-Cameroon pipeline largest investment in African history
- inspection of environmental, social, health & safety and economic non-compliance of Bank safeguard policies

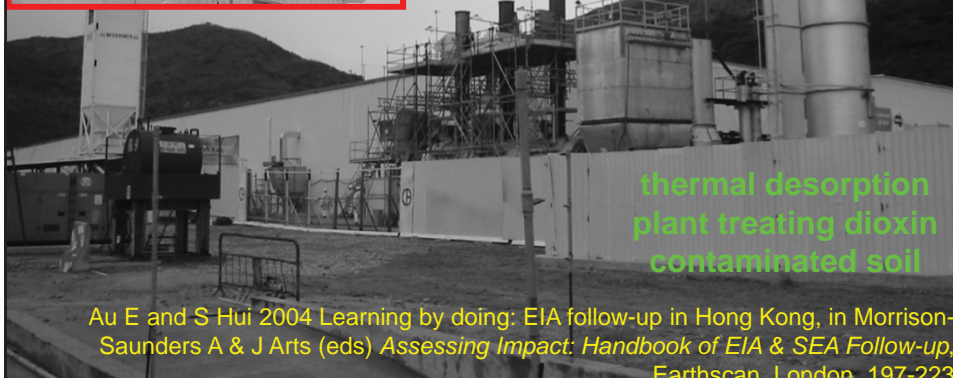


Scott-Brown, M 2004 'The role of project inspection in EA follow-up - A case study of the World Bank Inspection Panel and the Chad Cameroon Oilfield Development Project', Presented at: *IAIA'04 Impact Assessment for Industrial Development Whose Business Is It?*, 24th annual meeting of the *International Association for Impact Assessment*, 24-30 April 2004, Vancouver, Canada

International example 3: Web cameras & online monitoring data streaming – Hong Kong



- proponent does work, public accountability
- set in EIA approval conditions



thermal desorption
plant treating dioxin
contaminated soil

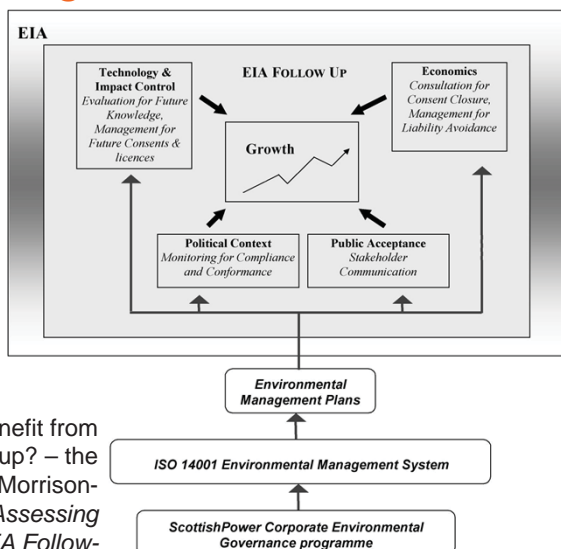
Au E and S Hui 2004 Learning by doing: EIA follow-up in Hong Kong, in Morrison-Saunders A & J Arts (eds) *Assessing Impact: Handbook of EIA & SEA Follow-up*, Earthscan, London, 197-223

International example 4a: Apply EIA follow-up through EMPs and EMS

- ScottishPower – voluntary EIA follow-up is good business sense



Marshall, R 2004 'Can industry benefit from participation in EIA-follow up? – the ScottishPower experience', in Morrison-Saunders, A. and J. Arts (eds) *Assessing Impact: Handbook of EIA and SEA Follow-up*, Earthscan, London, 118-153

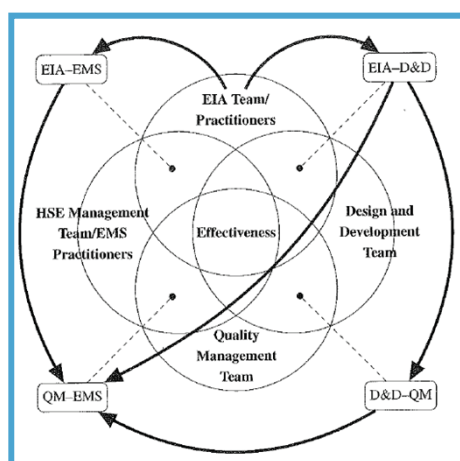


International example 4b: Apply EIA follow-up through EMPs and EMS

- Iran – oil and gas sector integration of EIA and EMS

Figure 7.1 Proposed model for interactions between EIA team, design and development team(s) and HSE Management teams; the 'bridge' areas are detailed in the text

- South Africa – development of EMS is part of EIA approval conditions (also EMPs)



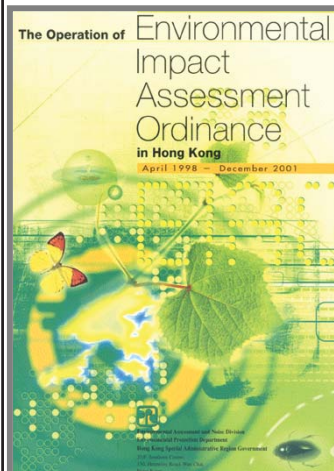
Raissiyan B and J Pope (2012) Linking EIA and EMS in the oil and gas sector: A practitioners' perspective. In Perdicoulis A, B Durning & L Palframan (eds) *Furthering EIA – Towards a Seamless Connection Between EIA & EMS*, Edward Elgar Publishing, Cheltenham, Ch7, 105-130

International example 5: Regulator requirement for proponent follow-up: Hong Kong

EIA Ordinance – Environmental Monitoring & Audit System

- Proponent required to appoint:
 - *Environmental Team* (ET)
 - responsible for EM&A program
 - *Independent Environment Checker* (IEC)
 - audits overall EM&A program (mitigation implementation, verify env. acceptability of works)
- ET leader & IEC must have >7 years experience
- IEC must be independent of proponent & ET

Au, E and S Hui (2004) 'Learning by doing: EIA follow-up in Hong Kong', in Morrison-Saunders, A. and J. Arts (eds) *Assessing Impact: Handbook of EIA and SEA Follow-up*, Earthscan, London, 197-223



International example 6: Multiple projects & cumulative effects: Hong Kong

- follow-up for *multiple projects* and *cumulative impacts*
- ENPO - Environmental Project Office
 - ENPO set up by Civil Engineering Dept.
 - acts like IEC for each project

Au, E and S Hui (2004) 'Learning by doing: EIA follow-up in Hong Kong', in Morrison-Saunders, A. and J. Arts (eds) *Assessing Impact: Handbook of EIA and SEA Follow-up*, Earthscan, London, 197-223

International example 7: Benefits of citizen involvement in follow-up

Citizen involvement in sustainability-centred environmental assessment follow-up

Carol A. Hunsberger, Robert B. Gibson*, Susan K. Wismer

Environmental Impact Assessment Review 25 (2005) 609–627

The main findings are that community involvement in determining the purpose, scope and priorities of environmental assessment follow-up monitoring activities are likely to help produce results that are locally meaningful. Adopting a broad temporal, geographic and topical scope through ongoing monitoring and compliance assurance activities, watershed-based analysis, and integration of social and ecological variables leads to several benefits. Follow-up programs that make use of citizen-based monitoring with these characteristics should be better able to track cumulative effects of multiple projects, assess changes in local quality of life, and respond to detected changes with adaptive design and management strategies. Environmental assessment follow-up in many cases could benefit from adopting a focus that is broader than the effects of a single project and could contribute to more extensive benefits by strengthening the foundation for this broader monitoring.

International example 8: Match follow-up approach to specific circumstances

- 'onion skin' approach for increasing project complexity – **South Africa**

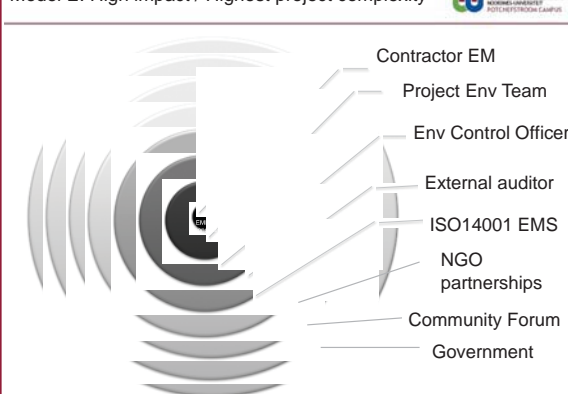
Wessels J 2012 *EIA Follow-up, Environmental Compliance and Enforcement, ECOs and the South African EIA and Management Strategy*, presentation to Geography and Environmental Management, North West University, South Africa, 17 August 2012

- industrial area odour monitoring by smell – Bhuddist monk,

Thailand

Ross, W, Green, J and Croal, P (2001) 'Follow-up studies in cumulative effects: management implications in developing nations', presented at *IA in the Urban Context*, 21st Annual Meeting of IAIA, 26 May-1 June 2001, Cartagena, Colombia

Model E: High impact / Highest project complexity



There is no single 'right way' for doing EIA follow-up

creative solutions need to be found that work in a particular context or 'EIA culture'



you can't make a Mona Lisa with 'painting by numbers'!

Conclusions on effective EIA follow-up

- Be creative – legislation may not be needed
 - Just do it!
- Regulators/consultants/proponents/NGOs can all create effective EIA follow-up through project implementation strategies
- Follow-up warrants attention throughout entire EIA process
 - EIA approval conditions especially important

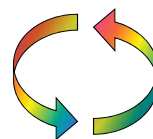
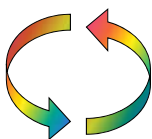
Final discussion question

This lecture has exposed you to different approaches to EIA follow-up from around the world...

- ***Which approaches might be useful to adopt in a South African context? Why?***
- ***How could they be achieved in practice?***



*Thank you and good luck
with EIA follow-up practice
as well as your Masters
research (i.e. follow-up)
activities!*





**EIA FOLLOW-UP, ENVIRONMENTAL COMPLIANCE AND
ENFORCEMENT, ECOS AND THE SOUTH AFRICAN
ENVIRONMENTAL IMPACT ASSESSEMENT AND MANAGEMENT
STRATEGY**

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Content

- Truth: EIA; EIAM challenges & South Africa's future vision
- Government Compliance Monitoring/Enforcement (EMIs & Green Scorpions)
- Private / Partnership / Self-regulatory Compliance monitoring, Enforcement & Follow-up Models.
- ECO's roles, responsibilities & value.
- Conclusion & Jobs




"What is Truth?"

(Pilate, 33AD).

"perhaps the central philosophical notion and is viewed as the core of human morality" (Engel, 2002).

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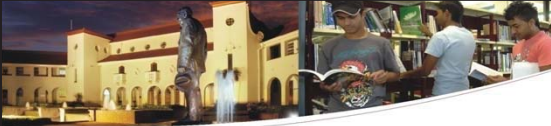
Truth about humans



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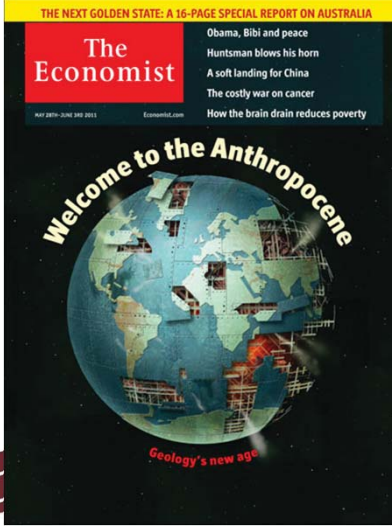
"We are builders, and have been designing and building relationships, our dreams, and structures for millennia to ultimately achieve improvement in the quality of our lives" (Bartuska et al, 2009).






“You know you’ve messed up when your impacts are visible from space!” (Nick King, 2009)

The video is available for your viewing pleasure at <http://vimeo.com/39048998>



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What is our strategic future?

DIAGNOSTIC OVERVIEW




Eliminating poverty and reducing inequality are key strategic objectives

national planning commission
Department of Planning
REPUBLIC OF SOUTH AFRICA


The first jobs driver is infrastructure: laying the basis for higher growth, inclusivity and job creation. Minister of Finance Pravin Gordhan announced in his 2013 Budget Speech that the South African Government **will invest R827 billion over the next three years** in the building of new and the upgrading of existing infrastructure (Government Communications, 2014).



Truth about EIA and EIAM in South Africa

“The focus of pre-decision stages of EIA, and the neglect of monitoring and post-auditing stages, has severely constrained the maturation of EIA systems world-wide”
(Dipper et al, 1998)

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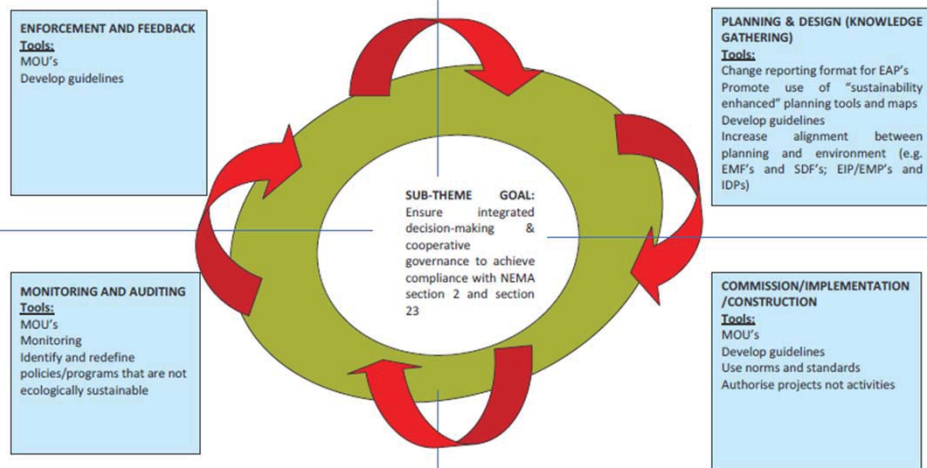


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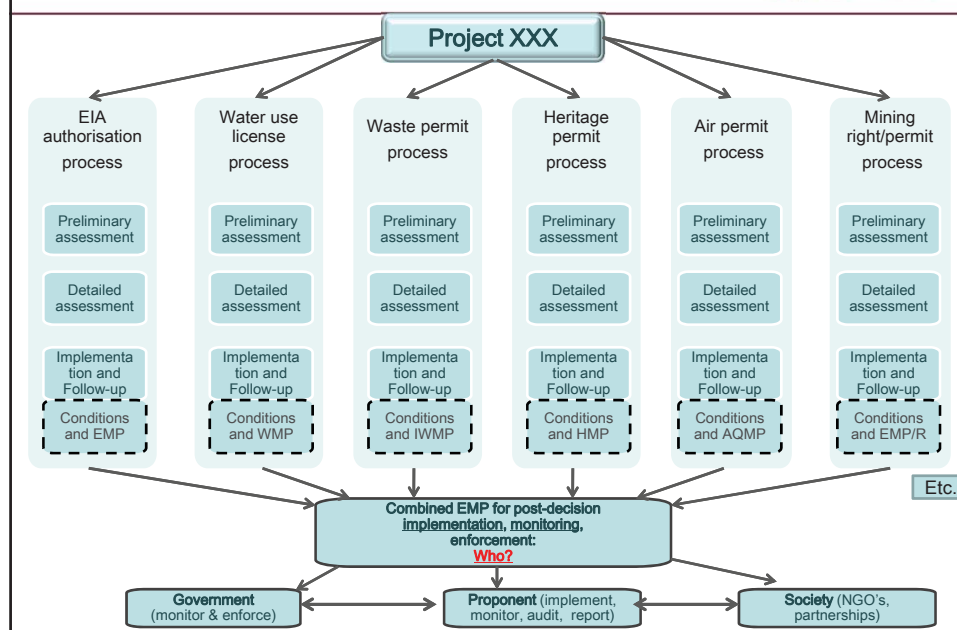
EIAMS (2011: 66)

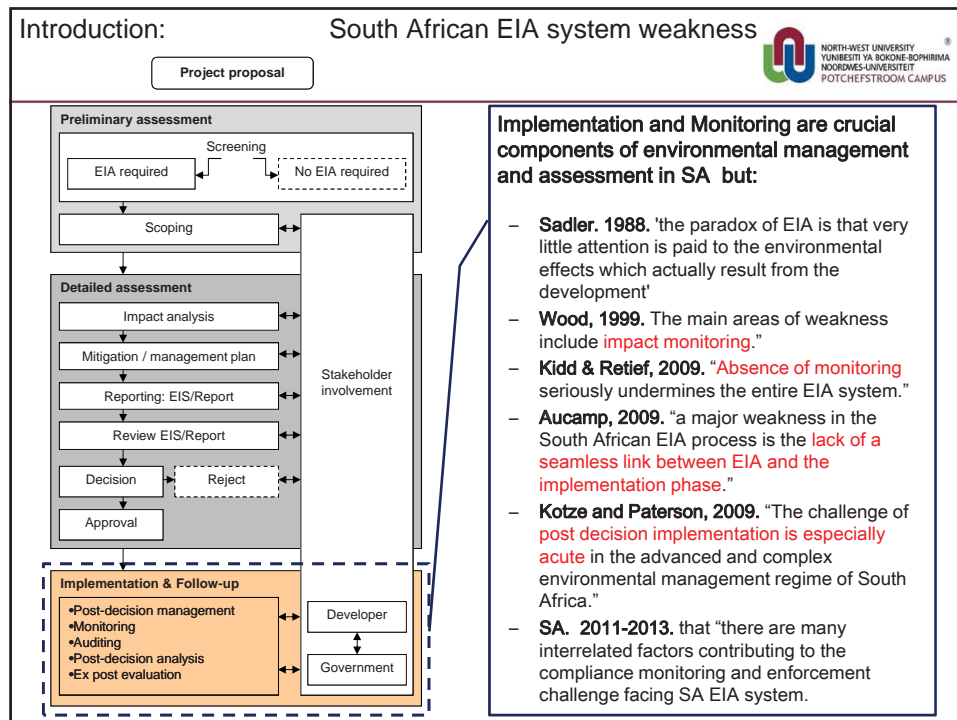
The concept

INTEGRATED ENVIRONMENTAL MANAGEMENT PHASES



The challenge of Follow-up in SA's Environmental legal regime






The Truth:


We suck at Follow-up!!!!!!

DISAPPOINTMENT
Because sometimes when you're expecting something, it just doesn't happen.

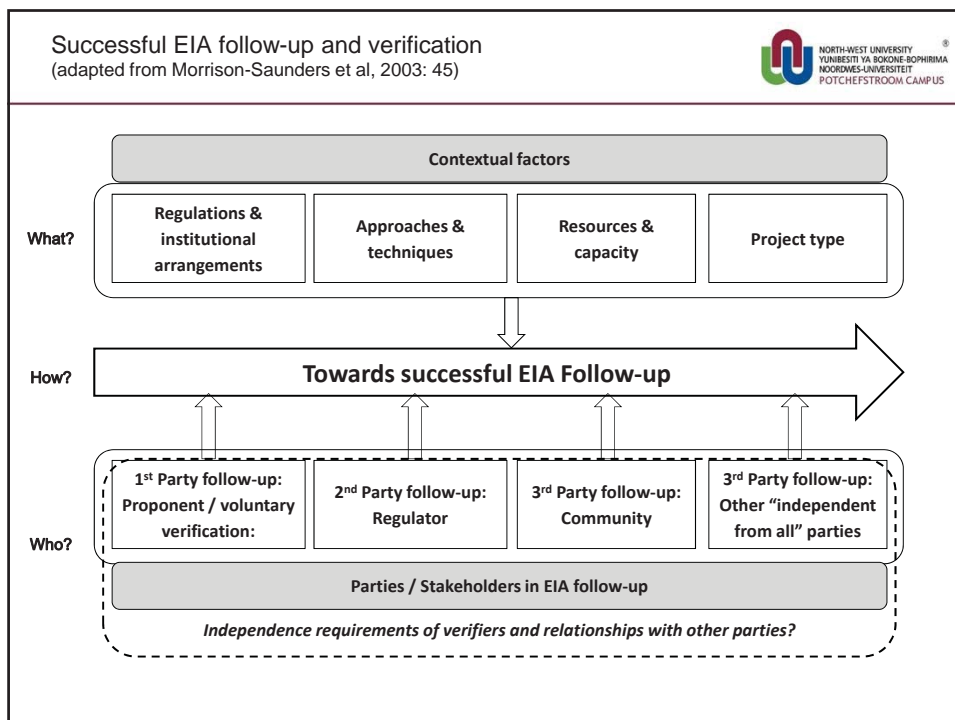
But, there are great examples to learn from...



Learning from EIA Follow-up examples


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**2nd Party Follow-up:
Government Compliance, Enforcement & Follow-up**




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**1st and 3rd Party Follow-up:
Private / Partnership / Self-regulatory Compliance monitoring, Enforcement & Follow-up Models**

COMBINED ECO CASE STUDY RESEARCH ANALYSIS:
Medupi, Ingula, Rolling Hills and Tulbach Trunk Road
Draft Revision 01
16 January 2014 – 28 February 2014



Innovation through diversity [™]

Prepared by
Jan-Albert Weezels – PhD candidate at the North-West University, Potchefstroom
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Different models of EIA follow-up in SA (Hullet *et al* 2002)



Model A:

Lower impact / Lower project governance complexity.

Focus:
Legal based

Model B:

Medium impact / Medium project governance complexity.

Focus:
Incentive or disincentive approach (contracts) (+ A)

Model C:

High impact / Medium governance complexity.

Focus:
Partnership approach (+ A & B)

Model D, E.....????:

High impact / High project governance complexity.

Focus:
Self-regulatory (+ A; B; C)

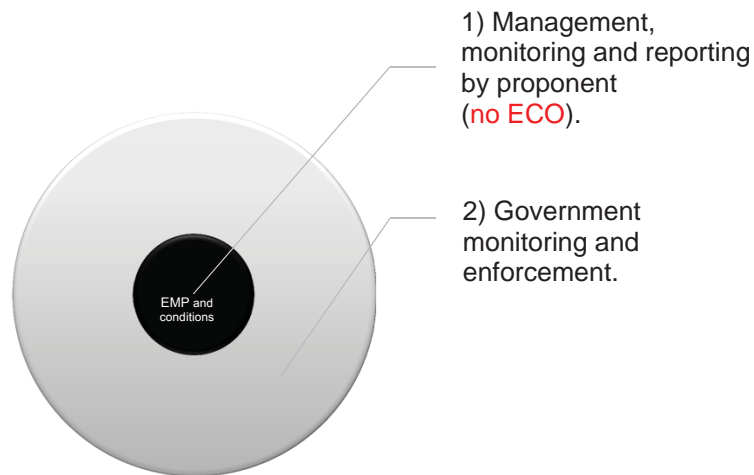
Model A: Low impact / low project complexity: eg. Telecommunication, e-distribution etc. infrastructure



Basic assessment only and 1 x EMP



Model A: Low impact / low project complexity:
eg. Telecommunication infrastructure

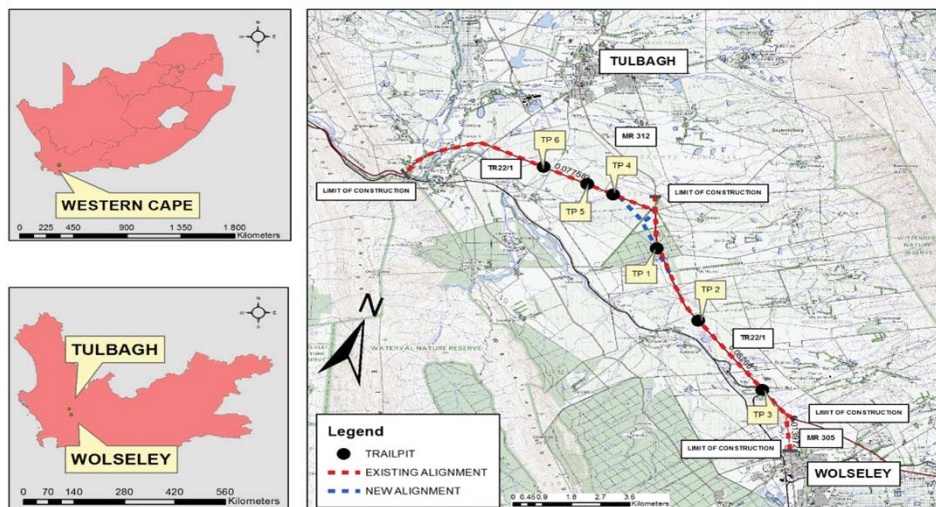


Model B: Low impact / low project complexity:
eg. Telecommunication, e-distribution etc. infrastructure

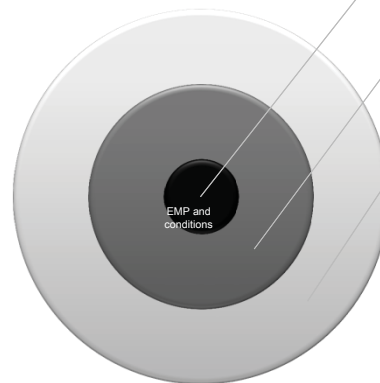


Basic assessment only and 1 x EMP

RECONSTRUCTION OF PORTIONS OF TR22/1 AND MR305 ROUTE MAP



Model B: Medium impact / Medium complexity



1) Management, monitoring and reporting by **ECO** (independence not required, paid by proponent)

2) Independent 3rd party auditing and reporting (paid by proponent)

3) Government monitoring and enforcement.

Model C: Medium impact / Medium complexity

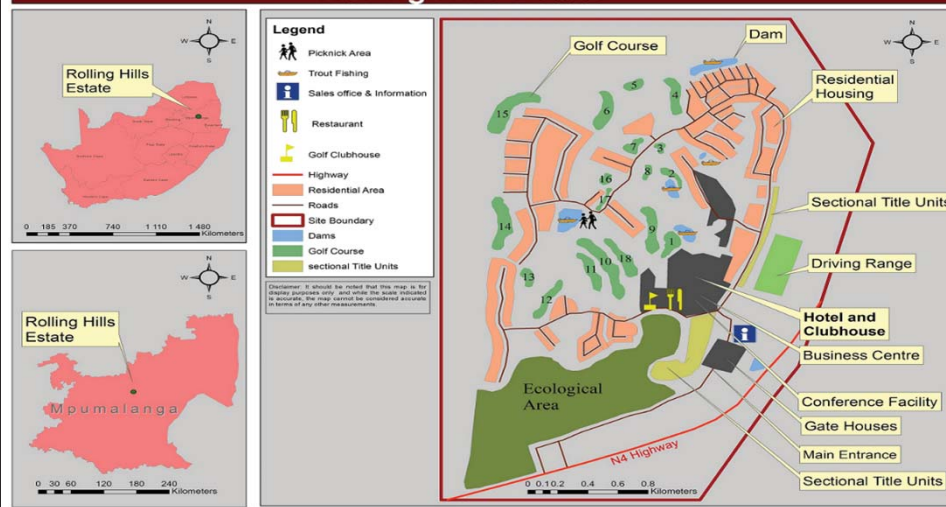
Basic assessments: e.g. Transform & development of land (0-20ha)



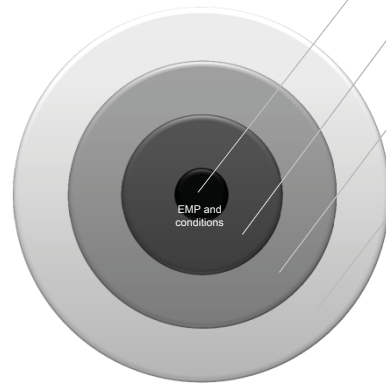
2 legal processes and 1x EMP?

- Basic assessment / or EIA-Full (GNR 544) & maybe another EA or two...

Rolling Hills Estate



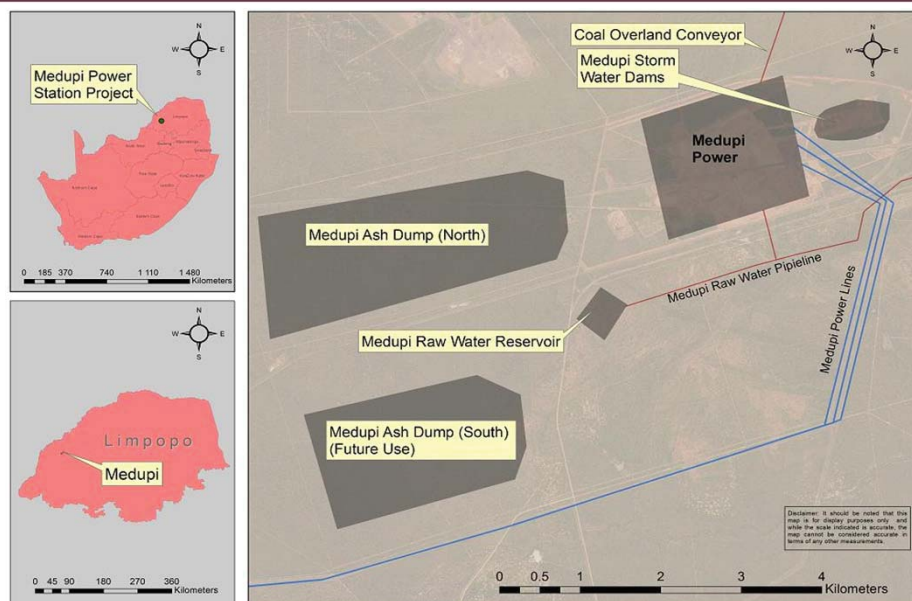
Model C: High impact / Medium complexity



- 1) Management, monitoring and reporting by Env. Manager or **SECO** (not independent, paid by proponent).
- 2) Independent 3rd party auditing and reporting by **ECO** (paid by proponent) (some independence).
- 3) Environment monitoring & auditing by Head Office (Basil Read).
- 4) Government monitoring and enforcement (complete independence)

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Model D: Construction of Medupi coal-fired power station



Model D: High impact/high project complexity

eg: Medupi Power Station Project



Model D: High impact/high project complexity

eg: Medupi Power Project



Multiple authorisations:

- BA's;
- Scoping & EIA's
- WULAs & GAs
- Heritage authorisations
- Waste licenses
- Rezoning applications
- Biodiversity permits

•And EMPs

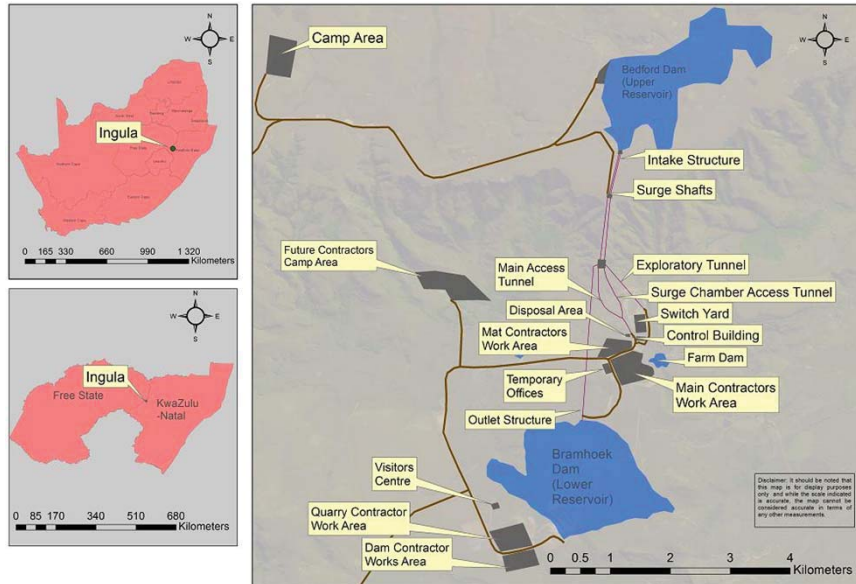
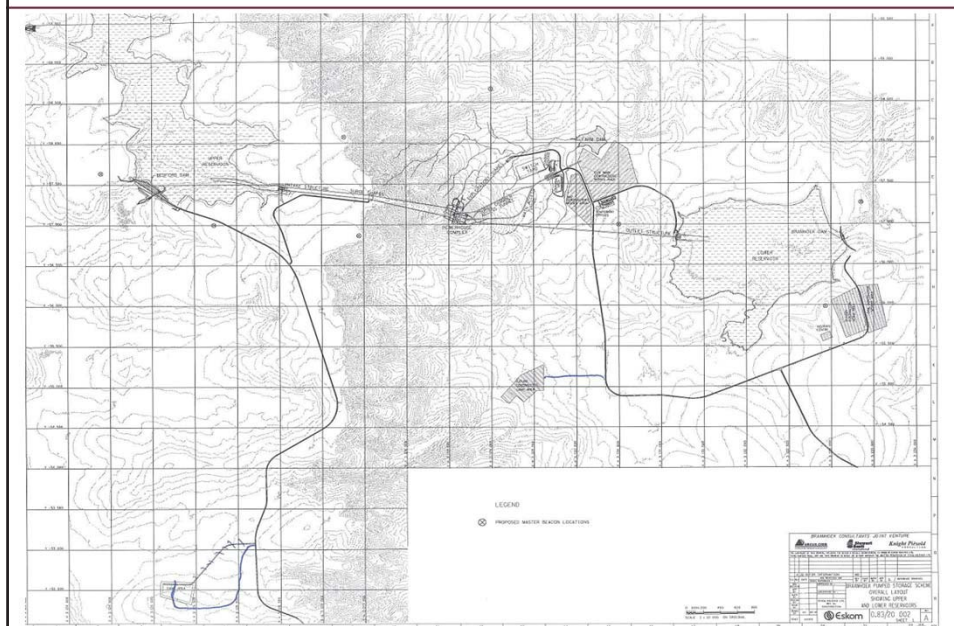


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Model E: ESKOM

Constuction of Ingula pump-storage energy

Model E: High impact / Highest project complexity
Ingula - Eskom

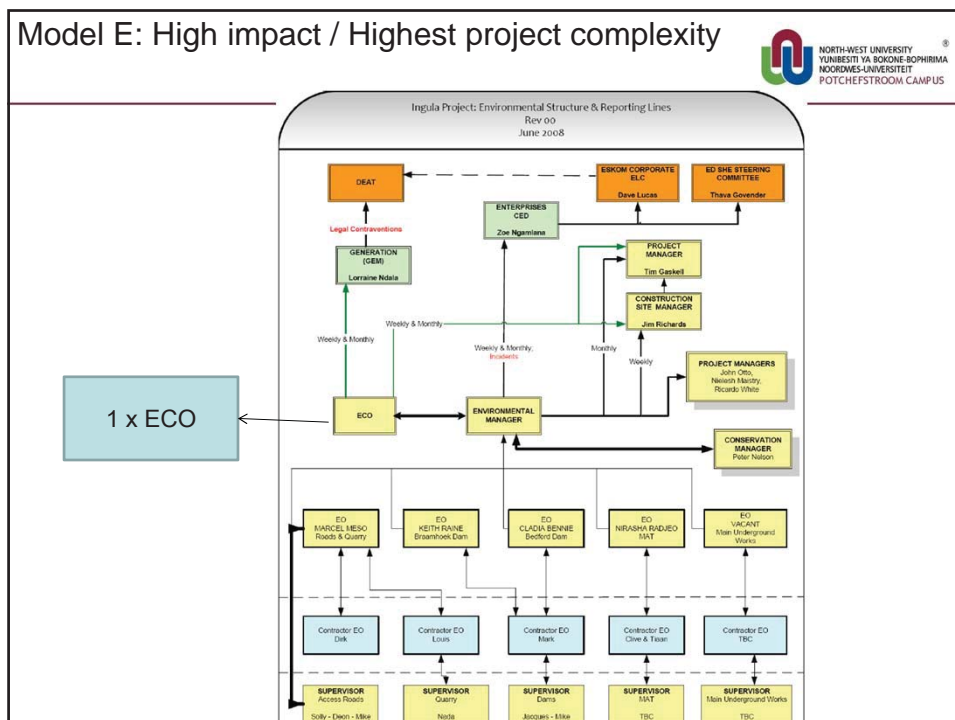
Model E: High impact / Highest project complexity

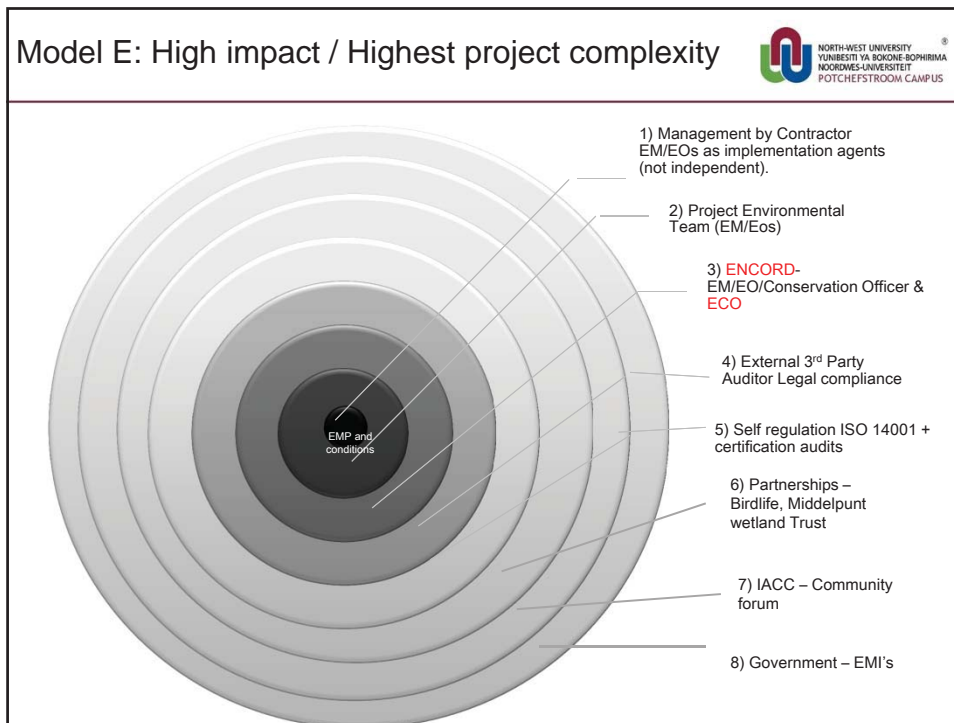


- Many authorisations:
 - 9X BA's & Scoping & EIAs
 - Mining Right
 - Many Water licenses (WULAs)
 - Waste license
 - Heritage
 - And EMPs



Model E: High impact / Highest project complexity





Unpacking ECOs roles/value & definition:

What is an Environmental Control Officer (ECO)?

Independence of ECOs

What is the role and value of an ECO?

Value of ECOs?

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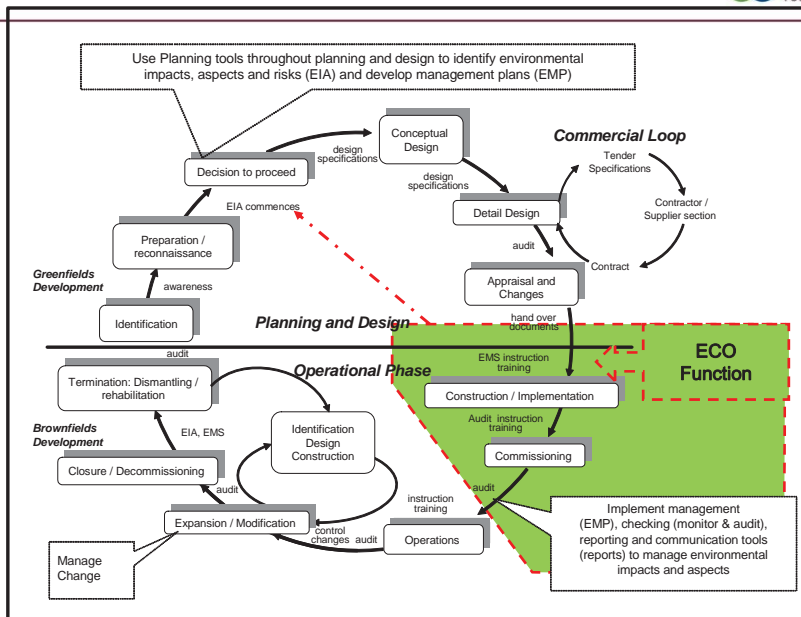
What is an ECO?



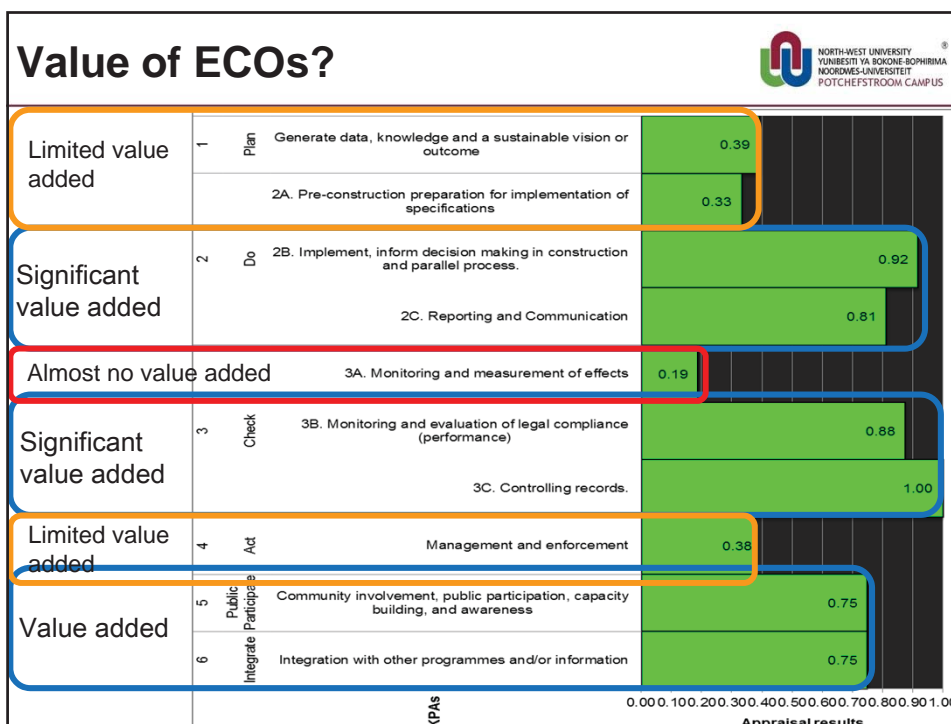
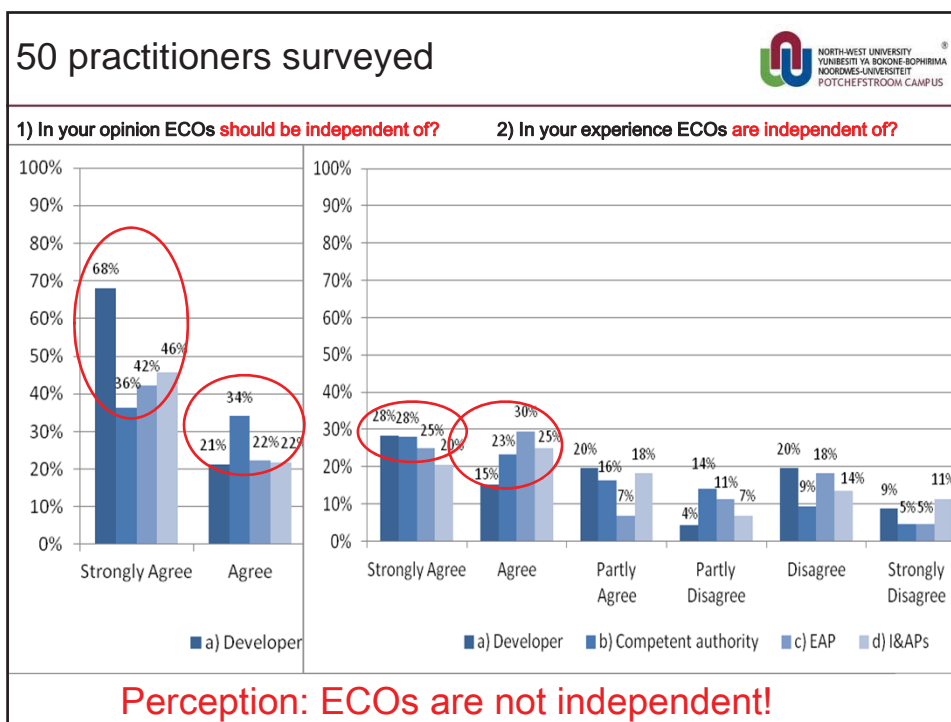
Courtesy of Che Weldon & Trent Garner

- "an **independent**, competent person or body
- in a position to **influence people's behaviour** during the **construction phase** of a project;
- with selected environmental **monitoring instruments**;
- in order to assure and at times to ensure,
- record and communicate compliance to applicable environmental conditions and performance specifications."

Project cycle, tools and the ECO verifiers.



Adapted from Nel & Kotze (2009: 15) & Nel & Wessels (2008).



Conclusion



☹️/😊 **Humans WILL continue to build (more work for us).**

😊 The appraisal results indicate that, **sufficient evidence was found of independent verifiers adding sustainability related value to construction cases** by being involved with key areas of EIA, EIA follow-up and EMS processes.

Recommendations



👉 Related future research focus on the potential **indirect value outputs of verifiers**; and

👉 Performance standards should be formulated within **project specific and country contexts** for future research purposes;

👉 that developers **utilize verifiers and EIA follow-up more creatively** in EIA / EMS (EIAM) processes.

Thank you! NCC; Ecoleges; Eskom; AECOM



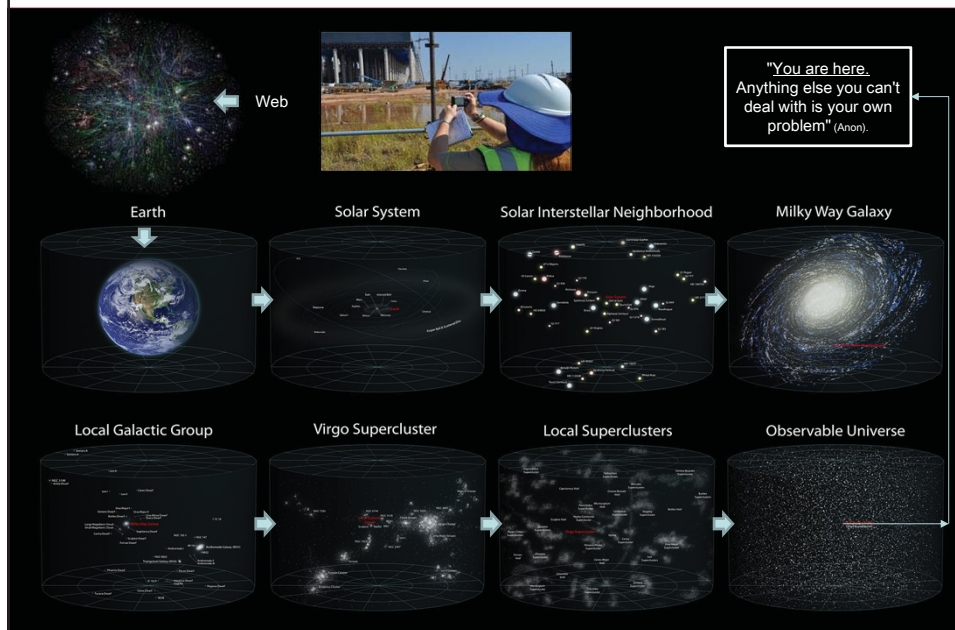
Thank you! Prof. Relief & JENGUS



"Which one is best Jan; a traditional experimental or modern pragmatic approach to the hole?"

What method is the best to evaluate South Africa beer Jan?

“Truth is unbelievable,
unless independently verified” (Wessels, 2014).





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




















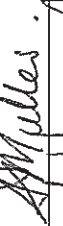








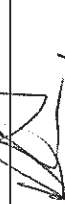


IAIASA GUEST LECTURE: ATTENDANCE REGISTER 25 JULY 2014

"E9A Follow-up, Compliance Monitoring and Enforcement"

Professor Angus Morrison-Saunders and Mr. Jan-Albert Wessels

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1 Sandham	Lurke	0833203576	Lurke.Sandham@nwu.ac.za	
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6 NATHIE	BOETIE	082 072 9790	blmattie@gmail.com	
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15 Harington	Amy	074 190 7902	amy.harington@gmail.com	

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17 Williams	André	072 7804740	williamsandre75@gmail.com	
18 Laven	MARCELM	071 026 8652	marcelm@gmail.com	
19 Van der Merwe	Jakobus	076 791 1477	22846488@nw.ac.za	
20 Rossouw	Christiaan	071 364 2207	22096884@nw.ac.za	
21 Fourie	Armand	084 209 6912	armandfourie898@gmail.com	
22 Opperman	Lisa	084 920 3111	opperman.lisa.12@gmail.com	
23 Van der Schuff	Jandré	012 608 5554	jauvels@gmail.com	
24 Deetjefs	Laetitia	084 4914 5611	22149155@nw.ac.za	
25 Chabalala	Jason	071 0988897	22187936@nw.ac.za	
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27 Siphugu	EDZISANI	076 396 5777	esiphugu@gmail.com	
28 SHIDZUMSH	LUFUYU	083 999 825	1540241814@eskom.co.za	
29 Rabetze	Uolandi	083 763 7922	Uolandi.Rabetze@transnet.net	
30 Schoeman	Biance	0780 99 0369	Biance.schoeman@transnet.net	
31 GOOSEN	CARETH	072 436 4209	careth.gooßen@transnet.net	
32 Janse van Rensburg	Danitza	082 973 9834	22115390@nw.ac.za	
33 Raubenheimer	Barbara	078 0709 04	barbara.raubenheimer@eskom.net	
34 Smith	FH (Eric)	0834 901800	erics@agsa.co.za	

	SURNAME	NAME	CELL NUMBER	EMAIL	SIGNATURE
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37	Howarth	Jennifer	083 380 2987	jhowarth@telkomsa.net	
38	Swanepoel	Felicity	071 355 0266	fswanepoel27@gmail.com	
39	Kotzé	Leonie	079 677 1961	leonie.kotze@yahoo.com	
40	HEKIN	ANTHONY	082 574 2901	tony@sheltonsalibim.co.za	
41	De koker	Charlotte	082 729 4490	charlotte.dekoker@kpmg.co.za	
42	KOEKEMOER	RIAN	076 936 5437	rian.koekemoer1@gmail.com	
43	Smit	Leilani	082 227 6316	leilani.smit1983@gmail.com	
44	MUFAMADI	TENDANI	083 546 4348	vinny2day@gmail.com	
45	Zambunee	Jerry	084 472 0806	jerry@zambunee.co.za	
46	Zaphunee	Nalasha	083 777 2828	nalasha.v.cej@cutca.co.za	
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48					
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51					
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ANNEXURE D: AGM



ANNUAL GENERAL MEETING

Dear IAIAAsa members and other interested parties.

You are kindly invited to attend the AGM of the IAIAAsa North-West branch. The AGM is aimed to: interactively share what has happened at the branch during the 2013/2014 financial year; to select a new representative committee; and to reflect on strategic outputs for the 2014/2015 financial year.

DATE: Friday, 25 July 2014

TIME: 14:00-15:30

VENUE: Department of Geography and Environmental Management, NWU (Potchefstroom Campus), Building E4, Room G39

RSVP: If you wish to attend the meeting please confirm via email to Percy Sehaole (20348819@nwu.ac.za) by Wednesday 23 July 2014 before 16:00. Please note that numbers are restricted to 32 people.

For more information please contact Carli Steenkamp at carli.steenkamp@nwu.ac.za or Percy Sehaole at 083 382 1735.

AGENDA / PROGRAMME

14:00 Opening, welcome, attendance and agenda

1. Apologies

2. Agenda acceptance and changes

14:10-15:30 Meeting commence

3. Feedback on 2013/2014 successes and challenges (Carli Steenkamp & committee)

4. Financial report feedback (Charlotte Cilliers)

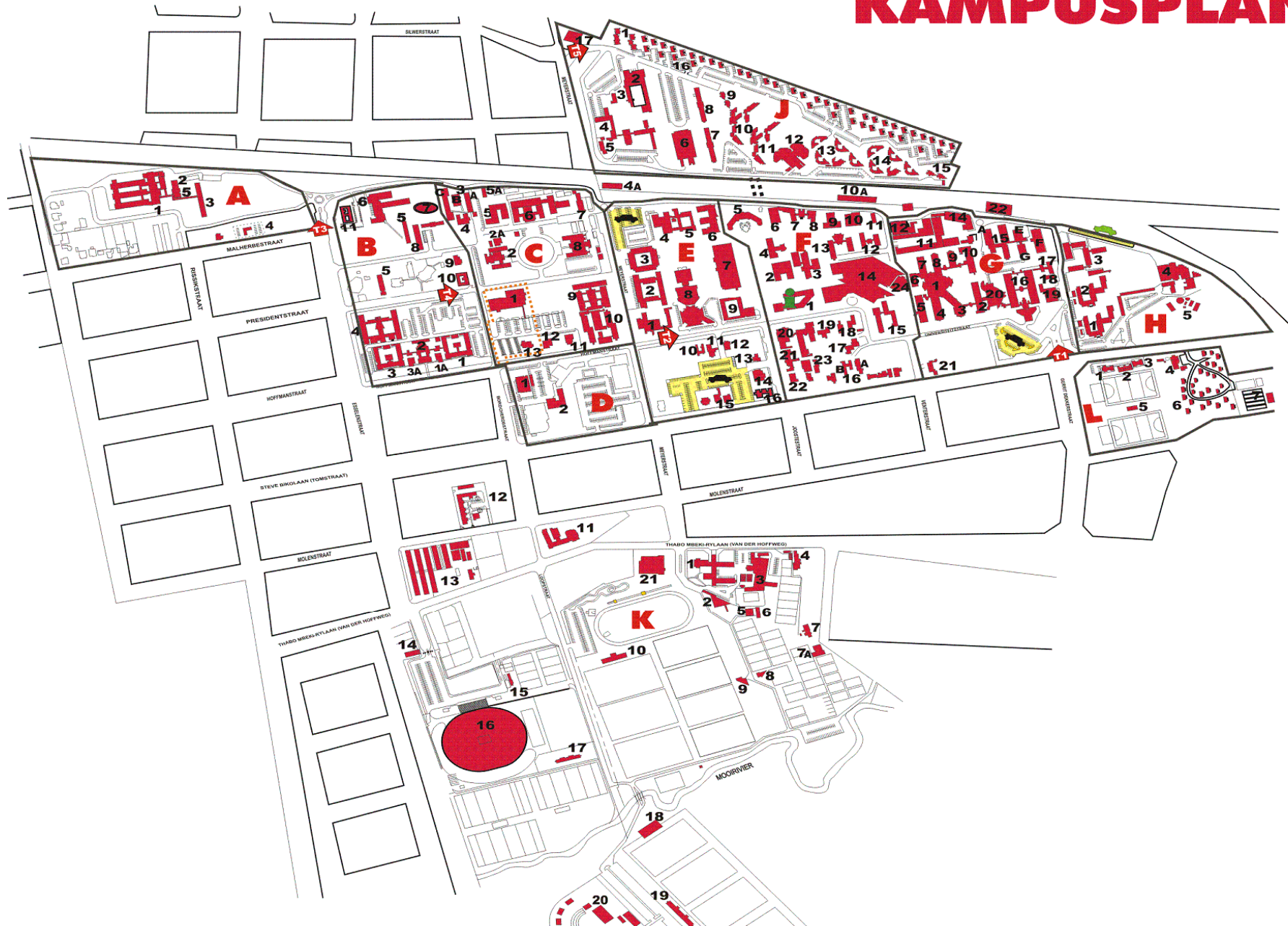
*5. Student committee 2013/2014 feedback and 2014/2015 strategic output expectations
(Reinhardt Hauptfleisch / Hermien Slabbert)*

6. Selection of new committee (Carli Steenkamp)

7. IAIA Conference discussion 27-29 August 2014

15:30 *Closure*

KAMPUSPLAN





South African affiliate of the
IAIA
 International Association
 for Impact Assessment

IAIAsa
 North West student branch

IAIAsa NW AGM


25 July 2014

Ms. Carli Steenkamp: IAIAsa NW Chair & Lecturer
 Geography and Environmental Management, NWU
 E-mail: Carli.Steenkamp@nwu.ac.za

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 POTCHEFSTROOM CAMPUS

2013/14 Successes




• Our committee-

• NW Branch:



• NW Student Branch:



2013/14 Successes



- Event: Introduction to IAIA
- Hermien Slabbert & Reinhardt Hauptfleisch introduced NWU students (3rd and 4th year) to IAIA



- ~150 Students attended.

2013/14 Successes



- Event: IAIA/ELA on “Transboundary Aquifer Management and the Role of International Law
- Prof. Dr. Francesco Sindico from the University of Strathclyde, Scotland



- 38 People attended.

2013/14 Successes



- Event: AIAI/NWU EIA Follow-up, Compliance Monitoring and Enforcement
- Prof. Angus Morrison-Saunders and Mr. Jan-Albert Wessels
- ~50 People RSVP



2013/14 Successes



- Event: Medupi Site Visit scheduled for 5-7 October 2014
- Mr. Jan-Albert Wessels
- ~20 Students/people



2013/14 Successes



- Recruiting more members:
 - Wider marketing and communication
 - Extended invitation to events to consultants as well as government officials
 - Involve people from a wider geographical area, Mahikeng and Rustenburg
 - Marketing pamphlet



2013/14 Challenges




- Recruiting more members:
 - Drop in membership – currently stand at ~44
 - This excludes the majority of the honours students that will still register
- Logistics:
 - Distribution of work between committee members
 - Finances (Closing of bank account)
 - Time constraints




2014/15 Strategic output expectations



- IAIAsa NW Branch endeavour to:
 - To keep current committee structure as is for consistency.
 - To keep membership at above 50.
 - To host at least 4 events per year. 2 x Students; 1 x large, combined event with ELA and an event linked with the Masters in Environmental Management class.
 - To reach more of our members closer to their geographic locations through having at least one event in either Rustenburg or Mahikeng.
 - To have improved communication with our members by:
 - Linking the student website with IAIAsa website, more user-friendly and current.
 - Use social networks such as Linked-In and Facebook as forum to discuss issues with NEC.








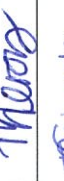










Questions?



Innovation through diversity™



IAIASA AGM: ATTENDANCE REGISTER 25 JULY 2014

SURNAME	NAME	CELL NUMBER	EMAIL	SIGNATURE
1 Tansie van Rensburg	Danitzq	082 973 9834	22115390@nwu.ac.za	
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4 Botha	Thalita	083 686 4538	22301240@nwu.ac.za	
5 Slabbert	hermih	078 335 9550	22118845@nwu.ac.za	
6 Theron	Marius	071 469 7081	22126449@nwu.ac.za	
7 Senhale	Percy	083 382 1735	senhaleperc@gmail.com	
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10 Van der Merwe	Jakobus	076 791 1947	22896988@nwu.ac.za	
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16 Gerdt-Steenkamp	Carli	082 220 8651	Carli.Steenkamp@nwu.ac.za	
17				
18				

ANNEXURE E: Annual financial statements for the year ended 30 June 2014

IAIANw Budget (2013/14)

Activity	Budget 2014	Actual 2014
INCOME	R 19 298.00	R 14 967.78
Balance brought over from September 2013	R 228.01	
Received from NEC		
Interest	-	
Outstanding payment	-	
EXPENSES	R 19 298.00	R 14 967.78
Operating costs	R 200.00	R -
Banking: service fee (R50 p/m @ 12)	R -	
Banking: Monthly management fee (R40p/m @ 12)	R -	
Banking: Cheque banking (average R22 per transaction @ 10)	R -	
Banking: Interest on overdraft	R -	
Printing	R 200.00	R 33.00
Postage	R -	
Stationary	R -	
Internet costs	R -	
Post box / Telephone costs	R -	
Committee meetings in Potchefstroom	R 1 200.00	R 494.50
Committee meetings in Potchefstroom (3x @ R300 each)	R 600.00	R 119.50
Committee meeting with student committee (3x @ R300 each)	R 600.00	R 375.00
Committee meeting/event in Mafikeng/Rustenburg	R 2 938.00	R -
Catering	R 500.00	R -
Travelling (nominal R3.90 /km - 420km)	R 1 638.00	R -
Venue hire	R 800.00	R -
Event: Link with Masters class (Sustainability Assessment)	R 1 500.00	R 3 070.00
Catering	R 1 200.00	R 1 200.00
Speaker cost	R -	R -
Gift for presenter	R 300.00	R 370.00
Videographing the event	R -	R 1 500.00
Accommodation for presenters	R -	R -
Travelling	R -	R -
Venue hire	R -	R -
Event: ELA and IAIAnw (Case Law)	R 2 200.00	R 1 114.98
Planning meeting with ELA	R 100.00	R -
Catering	R 1 000.00	R 1 000.00
Speakers (accommodation, lunch)	R 800.00	R -
Gift for presenter/organiser/host	R 300.00	R 114.98
Accommodation for presenter	R -	R -
Travelling	R -	R -
Venue hire	R -	R -
Special Event: Site visit - Medupi visit	R 2 700.00	R 2 700.00
Catering	R 2 500.00	R 2 500.00
Venue hire	R -	
Gift for presenter/organiser/host	R 200.00	R 200.00
Accommodation for organising committee	R -	
Travelling (nominal R3.90 /km)	R -	
Student Event: Introduction to IAIA	R 1 000.00	R -
Catering	R 1 000.00	R -
Venue hire	R -	
Student Branch T-shirts	R 1 000.00	R 1 316.70
Event: AGM meeting	R 4 500.00	R 1 280.00
Catering	R 2 500.00	R 1 280.00
Venue hire	R 2 000.00	R -
Marketing / public relations (Use of CEM's database x 2 etc)	R 500.00	R 400.00
Chair person sponsorship to National Conference	R -	R -
Use of Secretariat function	R -	R -
Student Committee membership sponsorship (*8)	R 1 560.00	R 545.00
Sponsor student branch chair to attend conference	R -	R 4 013.60
Total budget 2014	R 19 298.00	R 14 967.78

Notes:

- Minimum of 4 meetings/events per year

ANNEXURE F: 2014/15 Budget

IAIANw Budget (2014/15)

Activity	Budget 2014/15	Actual 2014/15
INCOME	R 24 348.00	
Balance brought over from 2014	R -	
Received from NEC	R -	
Interest	R -	
Outstanding payment	R -	
EXPENSES	R 24 348.00	
Operating costs	R 450.00	
Banking: service fee (R50 p/m @ 12)	R -	
Banking: Monthly management fee (R40p/m @ 12)	R -	
Banking: Cheque banking (average R22 per transaction @ 10)	R -	
Banking: Interest on overdraft	R -	
Printing	R 200.00	
Postage	R 250.00	
Stationary	R -	
Internet costs	R -	
Post box / Telephone costs	R -	
Committee meetings in Potchefstroom	R 1 200.00	
Committee meetings in Potchefstroom (3x @ R200 each)	R 600.00	
Committee meeting with student committee (3x @ R200 each)	R 600.00	
Committee meeting/event in Mafikeng/Rustenburg	R 3 438.00	
Catering	R 1 000.00	
Travelling (nominal R3.90 /km - 420km)	R 1 638.00	
Venue hire	R 800.00	
Event 1: Nuclear cost	R 1 150.00	
Catering	R 1 000.00	
Speaker cost	R -	
Gift for presenter	R 150.00	
Accommodation for presenters	R -	
Travelling	R -	
Venue hire	R -	
Event 2: Climate change	R 1 150.00	
Catering	R 1 000.00	
Speaker cost	R -	
Gift for presenter	R 150.00	
Accommodation for presenters	R -	
Travelling	R -	
Venue hire	R -	
Event 3: Introduction to IAIA	R 1 500.00	
Catering	R 1 500.00	
Venue hire	R -	
Event 4: Link with ELA	R 1 250.00	
Planning meeting with ELA	R 100.00	
Catering	R 1 000.00	
Speakers (accommodation, lunch)		
Gift for presenter/organiser/host	R 150.00	
Accommodation for presenter	R -	
Travelling	R -	
Venue hire	R -	
Event 5: Link with NWU	R 2 650.00	
Catering	R 1 000.00	
Speaker cost	R -	
Gift for presenter	R 150.00	
Videographing the event	R 1 500.00	
Accommodation for presenters	R -	
Travelling	R -	
Venue hire	R -	
Special Event: Site visit - Medupi visit	R 3 000.00	
Catering	R 2 750.00	
Venue hire	R -	
Gift for presenter/organiser/host	R 250.00	
Accommodation for organising committee	R -	
Travelling (nominal R3.90 /km)	R -	
Event: AGM meeting	R 3 000.00	
Catering	R 2 000.00	
Venue hire	R 1 000.00	
Student Branch T-shirts	R 1 500.00	
Marketing / public relations (Use of CEM's database x 2 etc)	R 500.00	
Chair person sponsorship to National Conference	R -	
Use of Secretariat function	R -	
Student Committee membership sponsorship (*8)	R 1 560.00	
Sponsor student branch chair to attend conference	R 2 000.00	
Total budget 2014/15	R 24 348.00	

Notes:

- Minimum of 4 meetings/events per year