



## PRE- CONFERENCE TRAINING COURSE 2



**IEM: HOW TO MAKE  
ENVIRONMENTAL  
ASSESSMENT MORE  
EFFECTIVE**

## Course Details

<b>Course title</b>	INTEGRATED ENVIRONMENTAL MANAGEMENT: HOW TO MAKE ENVIRONMENTAL ASSESSMENT MORE EFFECTIVE
<b>Level</b>	Intermediate
<b>Pre-requisites for participants</b>	Participants need to be proficient in English and have a basic knowledge of and experience in undertaking Environmental Assessments.
<b>Language of delivery</b>	English
<b>Duration</b>	1 day
<b>Minimum and maximum number</b>	10-30
<b>Trainer's names and contact details</b>	<p><u>Bryony Walmsley</u> Southern African Institute for Environmental Assessment PO Box 380, Noordhoek, 7979 Cape Town South Africa Cell: +27-(0)83-265-5477 Tel: +27- (0)21-789-0251 E-Mail: <a href="mailto:bwa@saiea.co.za">bwa@saiea.co.za</a> Skype: bryony.walmsley3</p> <p><u>Terry Calmeyer</u> Director: MDT Environmental (Pty) Ltd 1761 Tezula Estate, Uranium Street, Witkoppen ext 107, 2191 T: +27 (0) 11 465 2163 C: +27 (0) 82 455 1157 F:086 242 3117 E: <a href="mailto:terry@mdte.co.za">terry@mdte.co.za</a></p>

## Trainers

### Bryony Walmsley



Bryony has 39 years' experience in environmental consulting, starting in Canada in 1980, but she has lived and worked in southern Africa since 1983. After 24 years as an EA consultant, she now manages the South African office of the Southern African Institute for Environmental Assessment. She has extensive experience in all aspects of EIA practice, including participating and managing large EIAs for infrastructure and mining projects throughout southern Africa. She has participated in multi-disciplinary teams for several Strategic Environmental Assessments on a diverse range of policies, programmes, sector and regional developments. She has developed and conducted many training courses for a wide variety of clients, including the World Bank, UNDP, the governments of Lesotho, Botswana, Swaziland and Nigeria, IAIA (CBBIA project) and other private clients. She developed and presented a course on Managing the EA Process at IAIA08 and co-presented a course on Quality Assurance in EA at IAIA11 and IAIA12. She co-presented a two-day version of this course at the international IAIA conference in 2013, 2014 and 2015.

### Terry Calmeyer



Teresa (Terry) Calmeyer is a Director of MDT Environmental (Pty) Ltd and has an MA in Environment and Society and specialises in Environmental Impact Assessments (EIA), the environmental components of project implementation and compliance monitoring.

Terry has been involved in a variety of different types of EIAs including for substations and powerlines, renewable energy projects, large dams, water supply projects, urban precinct developments, roads, railways, waste water treatment works, industrial processes and airports, in South Africa, Uganda, Lesotho, Botswana, Namibia and Mozambique. She has been involved in water resource management and stakeholder engagement programmes on a number of projects. She has provided strategic environmental input on transportation planning projects. Terry has also been responsible for compiling and updating Environmental Management Programmes, the management of Environmental Control Officers (ECOs) and Environmental Officers (EOs) and providing environmental project implementation advice.

Terry has co-ordinated, lectured for and moderated examinations for several tertiary education courses and presented at external workshops and conferences.

Both trainers are paid up members of IAIA and have signed the Code of Conduct.

## Course Outline

Time	Topic	Presenter
08h00-08h30	Course registration	All
08h30- 08h45	<b>Session 1: Welcome and introduction of all participants</b> <ul style="list-style-type: none"> <li>Names and organisations</li> <li>Expectations</li> </ul>	B Walmsley
08h45-09h00	<ul style="list-style-type: none"> <li>Aims and objectives of the course</li> </ul>	B Walmsley
09h00-09h30	<b>Session 2: Introduction to Integrated Environmental Management</b> <ul style="list-style-type: none"> <li>Definition of IEM</li> <li>Origins and evolution of EA</li> <li>Theory of integration</li> <li>Current state of practice</li> </ul> Discussion	B Walmsley
09h30-10h30	<b>Session 3: Integrate before you start and keep on doing it!</b> <b>Before you start</b> <ul style="list-style-type: none"> <li>ToRs and RfPs</li> <li>Context of the EA</li> <li>Defining the scope of work</li> <li>Choosing the EA manager</li> <li>Identifying specialists</li> </ul> <b>Keep on integrating</b> <ul style="list-style-type: none"> <li>Build a team and facilitate communication</li> <li>Manage specialists</li> <li>Key times for collaboration</li> </ul>	T Calmeyer
10h30-11h00	TEA/COFFEE BREAK	
11h00-13h00	<b>Session 4: Introduction to IEM tools:</b> <ul style="list-style-type: none"> <li>Cumulative impacts</li> <li>Causal chain analysis</li> <li>Interaction matrices</li> <li>Geographic Information Systems</li> <li>Cost-benefit analysis</li> <li>Consideration of alternatives</li> <li>Linkage diagrams</li> <li>Introduction to group work</li> </ul>	B Walmsley
13h00-14h00	LUNCH	
14h00-16h00	<b>Session 5 Group work – construct linkage diagrams for a hypothetical project to demonstrate how to integrate</b> Feedback and discussion (five minutes per group) (working tea)	B Walmsley and T Calmeyer
16h00-17h15	<b>Session 6: Preparing an integrated EA report</b> <ul style="list-style-type: none"> <li>What an Integrated EA Report is not/Is</li> <li>Resources, Challenges and Worries</li> <li>Managing Consultants in the Process</li> <li>Writing to the Outline: Pitfalls and Complexities</li> <li>Judging Significance</li> <li>Integrated EMPr</li> <li>Uncertainties, Conflicts and Trade offs</li> </ul> Discussion	T Calmeyer
17h15-17h30	Course evaluation	T Calmeyer
17h30	Final remarks Hand out of certificates of course completion Closure	B Walmsley & T Calmeyer

## Course Description

While environmental assessments continue to be conducted in large numbers in South Africa and internationally, there are also a plethora of topic-specific Environmental Assessments (EAs)<sup>11</sup> being done as well, such as social impact assessment, health impact assessment, traffic impact assessment, heritage impact assessment. This fact, together with the direct experience of the trainers and feedback from IAIA participants attending international training courses, indicates that the profession is, perhaps, moving away from an integrated approach to environmental management. There may be many reasons for this, but one could be that there are many practitioners (as well as regulatory authorities) who are uncertain as to how integrated impact assessments can be conducted.

The aims of this 1-day course, therefore, are to assist anyone who manages, writes or contributes to an EA to:

- Understand the concept of Integrated Environmental Management (IEM) and motivate why it is essential to improve the effectiveness of EA and to deliver on the sustainable development goals;
- Provide guidance on how to manage the EA process to achieve IEM;
- Provide practical tools to analyse impacts in an holistic manner.

The course will combine lectures delivered by the trainers, general discussions and group work.

The learning outcomes will include:

- Participants will be better able to assemble and manage multi-disciplinary teams of specialists to produce a product useful for decision making;
  - Participants will have a better appreciation and confidence about how to present information to the client, public and decision-makers so that the direct and indirect implications of a project on the environment can be clearly understood;
  - Participants will be provided with tools to conduct integrated analyses; and
  - Participants will be made aware of common pitfalls and how to deal with them.
1. Premises: an EIA is not a collection of specialized studies. An EIA should be an integrated document that is internally coherent and consistent. An EIA should provide sufficient information to inform decision-makers (regulatory authorities, client and the public) about the implications and impacts of the project. This includes, whether the project fits with the prevailing policy and planning context, whether there will be any unintended consequences of the development through secondary and knock-on effects and where interventions (mitigation measures) can be most effectively directed. Indirect impact analysis always requires that one specialist be aware of the impacts of the other disciplines - you cannot do air quality impacts of a highway without knowing a lot about traffic impacts first, or the effects of changes in water quality on the health of downstream populations, etc. An EIA has to be managed – it does not come together by magic. An EIA is based on science, but the art is in making a coherent EIA.
  2. Integrate before you start! Responding to or preparing TORs: which specialists should be included, what are the spatial and temporal scales of their work, how can they best be managed to ensure integration, what are the points of integration, how will the EIA be integrated into the project development lifecycle - show the integrating points and processes in the work plan? These are questions that need to be answered at the outset, so that budgets, timeframes and approaches can be established and agreed.

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<sup>11</sup> The term EA (and EIA below) is used here to cover Environmental Impact Assessment or Environmental and Social Impact Assessment or Integrated Impact Assessment and assumes a broad definition of environment (including social, health, cultural heritage, gender, human rights and economic).

3. Plan to integrate the work by developing procedures that will facilitate communication. Integrate the specialists through various workshops; use some of the tools available in these workshops to establish linkages within and between disciplines and the project. Conduct the alternatives analysis with the team, using various tools to weigh and assess the impact of the options. Hold joint reviews of linked disciplines; have an overall team leader or manager whose role is to integrate the work as it goes along. Liaise with the project design engineers and client. Ensure the footprint is known. Liaise with other companies who may be doing related work e.g., resettlement studies.
4. Build a team attitude. Serendipitous impacts and unintended consequences one did not think of initially will appear as the work progresses. There will be changes in the footprint and design, but if we agree fundamental development outcomes (limits of acceptable change, thresholds, sustainability targets and design criteria to meet legislated standards), we can test these changes against these criteria.
5. Use tools wisely. Scoping is vital. Linkages among impacts are critical. Sharing of information and any changes in assumptions is too easily overlooked, but leads to disaster.
6. Managers need to listen, but also decide. Managers have the final responsibility for ensuring coherence, consistence and quality. They need to listen to the specialists, and they need to require adjustments. There may be conflicts between the recommendations made by the specialists, so how do we address conflicts and trade-offs?
7. Integrating client or public comments into a Final EIA. Comments by different groups and even by one client will contradict each other. How to classify and organize comments so that the range of comments are considered by topic and not responded to one by one.

## Course Materials to be provided

The course participants will receive a hard copy of the course slides, as well as a Memory Stick containing the slides, as well as other reference documents and relevant papers, such as:

- SAIEA (2009). CBBIA Guidance document on integrating biodiversity issues into decision-making;
- SAIEA Good News case Studies;
- UNDP/SAIEA (2017). Guidelines on integrating Health and Gender into Environmental and Social Impact Assessments in Sub-Saharan Africa;
- MCC Gender Integration Guidelines;
- Baines, J and Morgan, B (2009). The challenge of integrated impact assessment: one set of guiding principles – many methods. Australasian Journal of Environmental management, Vol 16, 2009.
- IFC Performance Standards (2012).
- DEAT South Africa: IEM Guidelines series.
- Morrison-Saunders, A, Pope, J et al (2014). Strengthening Impact Assessment: A call for Integration and Focus. Impact Assessment and Project Appraisal (IAPA), 32:1, 2-8.
- Retief, F, Bond, A, Gunn, J Pope, J and Morrison-Saunders, A (2014). International Perspectives on the Strengthening of Impact Assessment through Integration and Focus. IAPA 32:1 27-30