

USING ESIA TO PROMOTE SUSTAINABLE OUTCOMES IN PROJECT DESIGN AND DELIVERY



Claire Gronow



Introduction

- Origins – NEP Act 1969
- (Almost) global uptake of EIA
- Most successful policy innovation ever?
- How effective is EIA in achieving its purpose?
- What exactly is EIA's purpose?

Purpose: Decision Informing

- EIA provides information on the likely environmental consequences of an action before that action is undertaken
- Rational decision making
 - Decision maker will weigh up all available information - then make a decision that best meets the needs of all
 - Better information (more accurate, more comprehensive) = better decision

Purpose: Decision Informing

But:

- Decisions are rarely “rational”
 - Heavily context dependent
 - Decisions about development are highly politicised
 - Driven by societal, organisational and individual values
 - Significant limitations on both the accuracy and comprehensiveness of EIA
- Mismatch between “technical-rational” ideal of EIA and the politics of decision making

Benefit: Informs decision making

- From Sadler 1996:

Table 4.8: Influence on Decision Making

Q: How much does assessment usually influence decision making?

	Very Influential	Moderately Influential	Marginally Influential	No Influence
• Ensuring environmental considerations are fully taken into account	23%	46%	25%	2%
• Ensuring social factors are fully taken into account	10%	30%	43%	12%
• Ensuring risks are fully taken into account	12%	43%	35%	6%
• Redesign of proposals	14%	42%	32%	8%
• Siting of proposals	12%	36%	33%	15%
• Establishing terms and conditions for development approval	27%	45%	20%	4%
• Ensuring appropriate arrangements are in place for:				
- verifying implementation	9%	29%	45%	12%
- monitoring effects	10%	28%	46%	11%
- managing unanticipated impacts	6%	16%	46%	27%

Purpose: Promotes [more] sustainable development

- EIA is founded on the idea of environmental protection
- Public participation is almost always required
- Significant debate about whether EIA is (or should be) a tool to evaluate sustainability
 - Problems with defining sustainable development
 - “Hard” versus “soft” sustainability
 - Allow trade-offs between environment/economic/social dimensions?
 - Trade-offs are almost inevitable – conflicting values
 - How to legislate, or even set guidelines and policies?

Purpose of ESIA

- IAIA objectives:
 - To ensure that environmental considerations are explicitly addressed and incorporated into the development decision making process;
 - To anticipate and avoid, minimize or offset the adverse significant biophysical, social and other relevant effects of development proposals;
 - To protect the productivity and capacity of natural systems and the ecological processes which maintain their functions; and
 - To promote development that is sustainable and optimizes resource use and management opportunities.

Purpose of ESIA

- NEP Act 1969:
 - Incorporation of environmental considerations into all aspects of Federal agency activities and actions – policy development, departmental processes and decision making
 - “informed concern” for environmental consequences
 - Reordering of priorities
 - Concept of “environmental design”
- Visionary, but vague!
- Original intentions have been miscarried - lost in translation

“More sustainable” projects – improved environmental outcomes

- During the EIA process, projects (and policies) may be improved and optimised, for example:
 - relocation of projects and activities to more suitable site/alignment
 - selection of best practicable environmental option
 - redesign of projects to minimize, reduce or avoid environmental impacts
 - changes to operating conditions
 - rescheduling of planned activities
 - mitigation of impacts by measures additional to those above, including rehabilitation, impact compensation

“More sustainable” projects – improved environmental outcomes

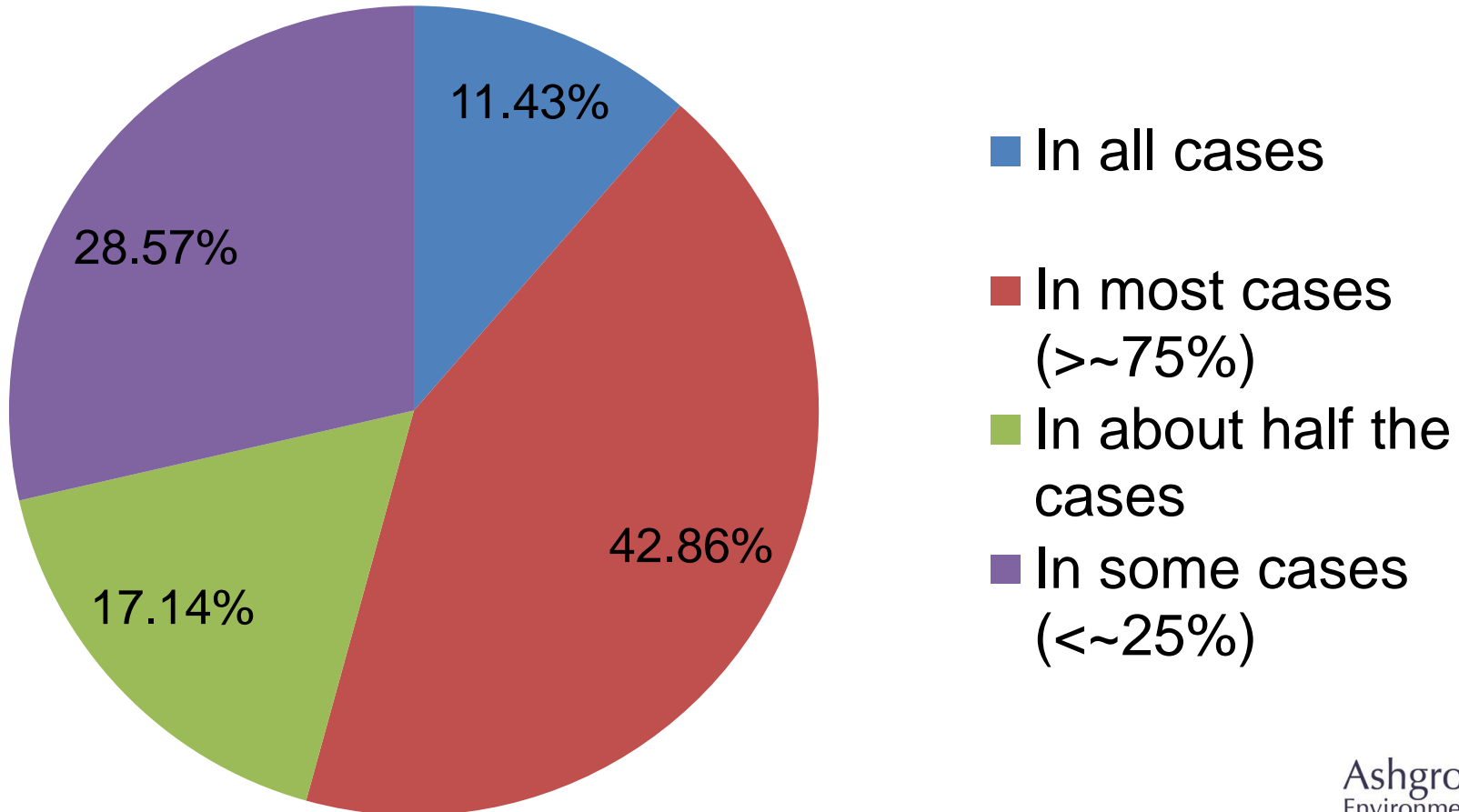
- Alternatives assessment required in most EIA systems
- No formal statutory requirement for proponent to select lowest impact design and delivery method
- Statutory processes may implicitly drive this through:
 - Requirement to analyse alternatives
 - Requirement to ensure that policies and standards are met (or justify if these are not met)
 - Requirements for compensatory measures such as offsets (cost driver)
- However, no guarantee that an EIS will result in a lower impact project

Survey - Factors affecting design optimisation (to reduce environmental impacts)

- Limited sample - practitioners that I know personally and felt would be willing to participate
- Mixture of consultants, regulatory officials, industry environmental advisors, many had held different positions during their careers
- 35 respondents (although a few of these did not respond to every question). About a 50% response rate
- 60% of respondents had more than 15 years experience in ESIA, 37% more than 20 years.
- 40% had played a major role in at least 20 EISs.

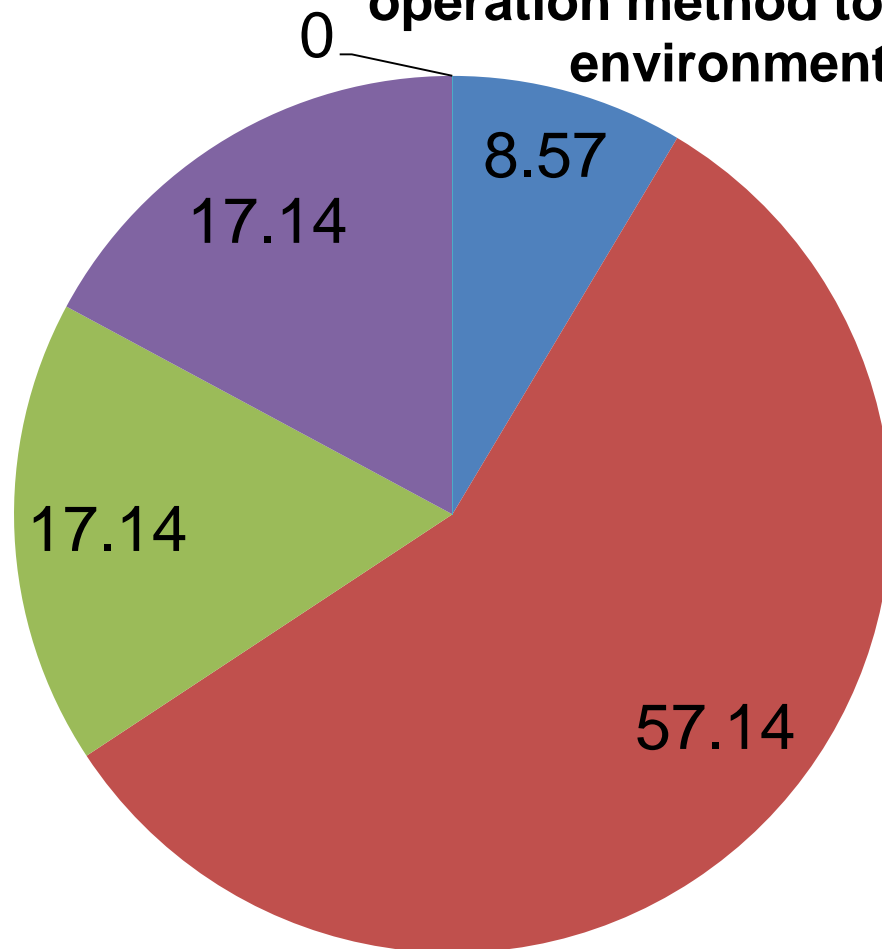
Considering all of the EIS processes that you have been involved in, did the EIS process lead to:

Site/route selection to reduce impacts on important environmental and social values



Considering all of the EIS processes that you have been involved in, did the EIS process lead to:

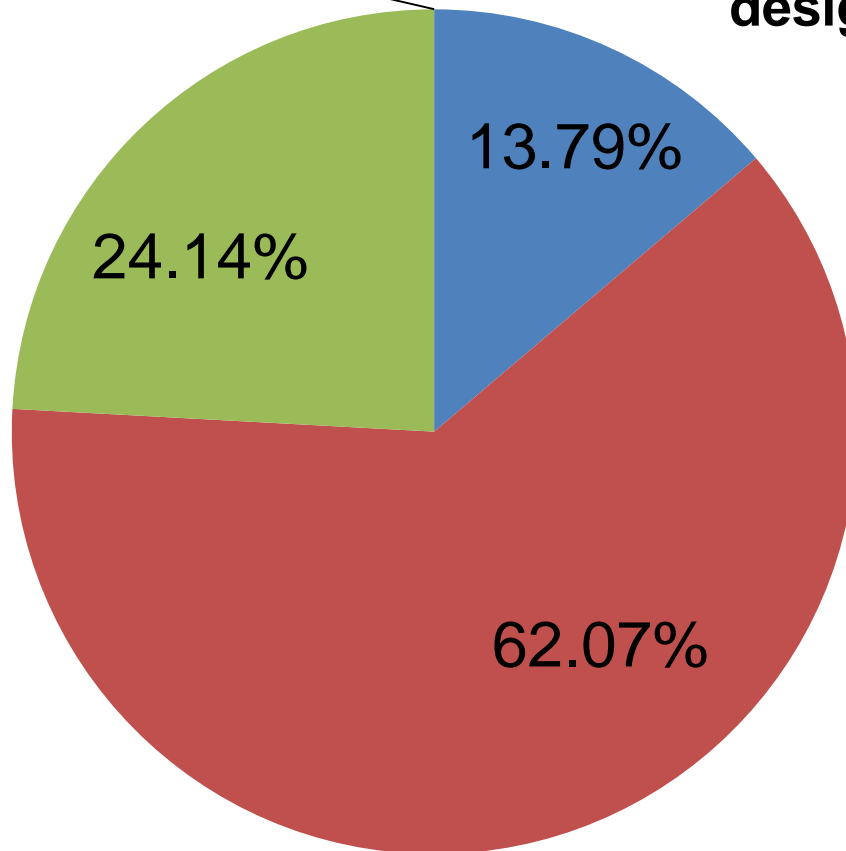
Modification of design, construction method or operation method to avoid or reduce impacts on environmental and social values



- In all cases
- In most cases (>~75%)
- In about half the cases
- In some cases (<~25%)

Overall, to what extent do you think that the EIS process influences the sustainability of project design and delivery

Overall, to what extent do you think that the EIS process influences the sustainability of project design and delivery:



- Very substantial influence
- moderate influence
- minor influence
- little or no influence

Benefit: project improvements

- Studies on EA effectiveness generally conclude:
 - Difficult to establish clear cause-effect relationship between EA process and projects becoming “more sustainable”
 - Most projects do undergo some change as a result of the EA process
 - Typically only minor to moderate changes occur during the EA process
- Greatest potential for significant changes occurs early in the project process – before major “irreversible” decisions have been made

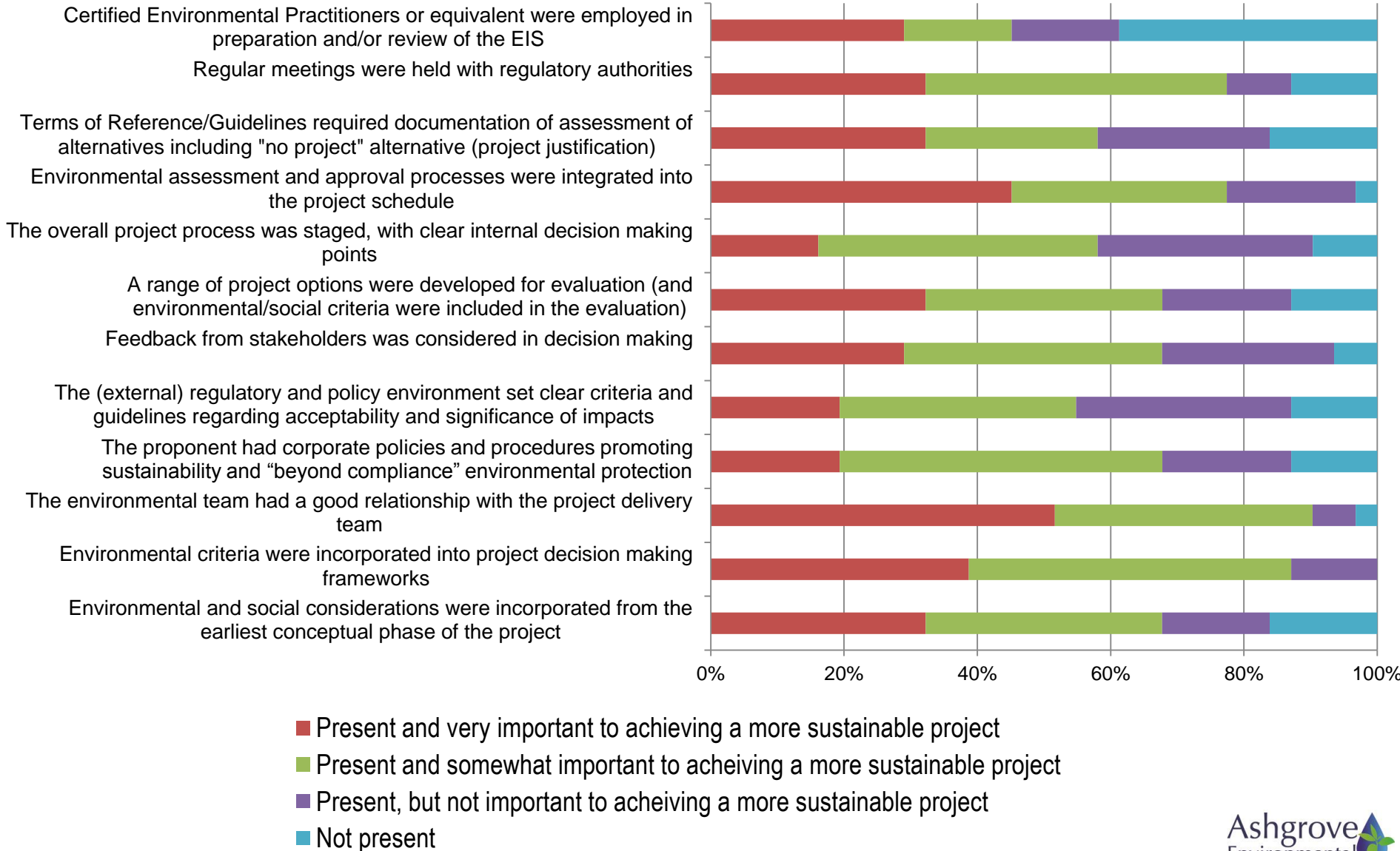
Factors Influencing Sustainability in Design

- Feedback from stakeholders was considered in decision making
- The (external) regulatory and policy environment set clear criteria and guidelines regarding acceptability and significance of impacts
- The proponent had corporate policies and procedures promoting sustainability and “beyond compliance” environmental protection
- The environmental team had a good relationship with the project delivery team
- Environmental criteria were incorporated into project decision making frameworks
- Environmental and social considerations were incorporated from the earliest conceptual phase of the project.

Factors Influencing Sustainability in Design

- Feedback from stakeholders was considered in decision making
- The (external) regulatory and policy environment set clear criteria and guidelines regarding acceptability and significance of impacts
- The proponent had corporate policies and procedures promoting sustainability and “beyond compliance” environmental protection
- The environmental team had a good relationship with the project delivery team
- Environmental criteria were incorporated into project decision making frameworks
- Environmental and social considerations were incorporated from the earliest conceptual phase of the project.

Factors Influencing Sustainability in Design



Factors Influencing Sustainability in Design

Features that seem to contribute most to a more sustainable project (% score in the “present and very important or somewhat important” categories):

- The environmental team had a good relationship with the project delivery team (90%)
- Environmental criteria were incorporated into project decision making frameworks (87%)
- Regular meetings were held with regulatory authorities (77%)
- Environmental assessment and approval processes were integrated into the project schedule (77%)

Factors Influencing Sustainability in Design

Features that seem to contribute most to a more sustainable project (% score in the “present and very important or somewhat important” categories):

- Environmental and social considerations were incorporated from the earliest conceptual phase of the project (68%).
- The proponent had corporate policies and procedures promoting sustainability and “beyond compliance” environmental protection (68%)
- A range of project options were developed for evaluation (and environmental/social criteria were included in the evaluation) (67%)
- Feedback from stakeholders was considered in decision making (67%)

Factors Influencing Sustainability in Design

Features that seem to contribute most to a more sustainable project (% score in the “present and very important or somewhat important” categories):

- Terms of Reference/Guidelines required documentation of assessment of alternatives including "no project" alternative (project justification) (58%)
- The overall project process was staged, with clear internal decision making points (58%)
- The (external) regulatory and policy environment set clear criteria and guidelines regarding acceptability and significance of impacts (55%)
- Certified Environmental Practitioners or equivalent were employed in preparation and/or review of the EIS (45%)

Factors Influencing Sustainability in Design

Factors that were considered “present but not important” - indicates things that may have less influence on sustainable outcomes:

- The overall project process was staged, with clear internal decision making points (32%)
- The (external) regulatory and policy environment set clear criteria and guidelines regarding acceptability and significance of impacts (32%)
- Terms of Reference/Guidelines required documentation of assessment of alternatives including "no project" alternative (project justification) (26%)
- Feedback from stakeholders was considered in decision making (26%)

Discussion

- Some of the key “contributing factors” are those that are hardest to legislate for
- Importance of a “passionate advocate” for the environment
- Comments also highlighted:
 - proponents may be unwilling to adopt options with better environmental outcomes if there is a cost or technical (productivity) penalty
 - Important to highlight costs of compliance (eg costs of offsets)
 - Important to present environmental issues in terms of risk to project delivery.

Other benefits

- Unsound proposals are not put up for scrutiny in the first place or are withdrawn or substantially modified
- Reduced levels of impact due to impact mitigation measures
- Reduced (future) regulatory, compliance and liability risk for proponents
- Increased levels of environmental awareness within an organisation, trends towards more sustainable behaviours
- Proponent reputation

Other benefits

- Impetus for improvement of regulation, policy and standards, policy clarification and refinement
- Impetus for research, for example on environmental and health effects of pollutants
- Empowerment and awareness raising of community stakeholders
- Increased public acceptance of proposals
- Better cooperation between stakeholders
- Skill development, training, university courses, capacity building in public and private sector

Reflection on Conference theme

“Living on the Edge – 21st century solutions to environmental challenges”

- Practitioners need to go beyond the boundaries of legislation and mandatory procedures
- Compliance will not be enough
- Advocate and translate for the environment
- Promote awareness, learning, collaboration

