

ONE REASON WHY THE EIA TOOL IN JAMAICA IS FAILING TO PROTECT THE ENVIRONMENT

Ravidya Burrowes

Environmental Management Consultants (Caribbean) Ltd.

rburrowes@eiacaribbean.com

876-995-2187

THE PROBLEM STATEMENT

- ✘ The goal we set determines the outcome we get
 - + Theory: sustainable development through prediction – EIA = scientifically robust crystal ball
 - + Practice: timely & favourable decision = permitting
- ✘ The difference in goals manifests in a different kind of crystal ball – one that we cannot use to manipulate the future effectively.

EMA CEO JOTH SINGH:

“If potential negative impacts are not assessed accurately, there is a serious challenge in determining mitigation measures.”

This was one of the main reasons why the proposed Claxton Bay Port EIA was not accepted, and port not granted a CEC to construct.

NOT THE ONLY PROBLEM

- ✘ Issue with our goals being mixed up – T/P
- ✘ Inadequacy of the scoping process and the TORs that are being generated.
- ✘ Factors reducing effective implementation of the “recommended impact mitigation measures”
- ✘ **Lack of rigorous scientific analysis – serious factor than can easily be addressed.**

ENVIRONMENTAL IMPACT ASSESSMENT

“Impact analysis is the technical heart of the EIA process”

UNEP (2002, EIA Training Manual)

THE STUDY

- ✘ Dataset: 45 EIAs prepared by > dozen consultants between 2006 and 2010.
- ✘ Assumption: # pages = effort
- ✘ LOE metric = Pages dedicated to impact characterization (excluding summaries) expressed as a percentage of the total number of EIA pages (excluding appendices).

SIMPLE GRADING SYSTEM

- ✘ “A” = LOEs >20%
- ✘ “B” = LOEs 10% to 20%
- ✘ “C” = LOEs <10%

None of the EIAs examined had LOEs greater than 30% of the overall number of pages.

FINDINGS

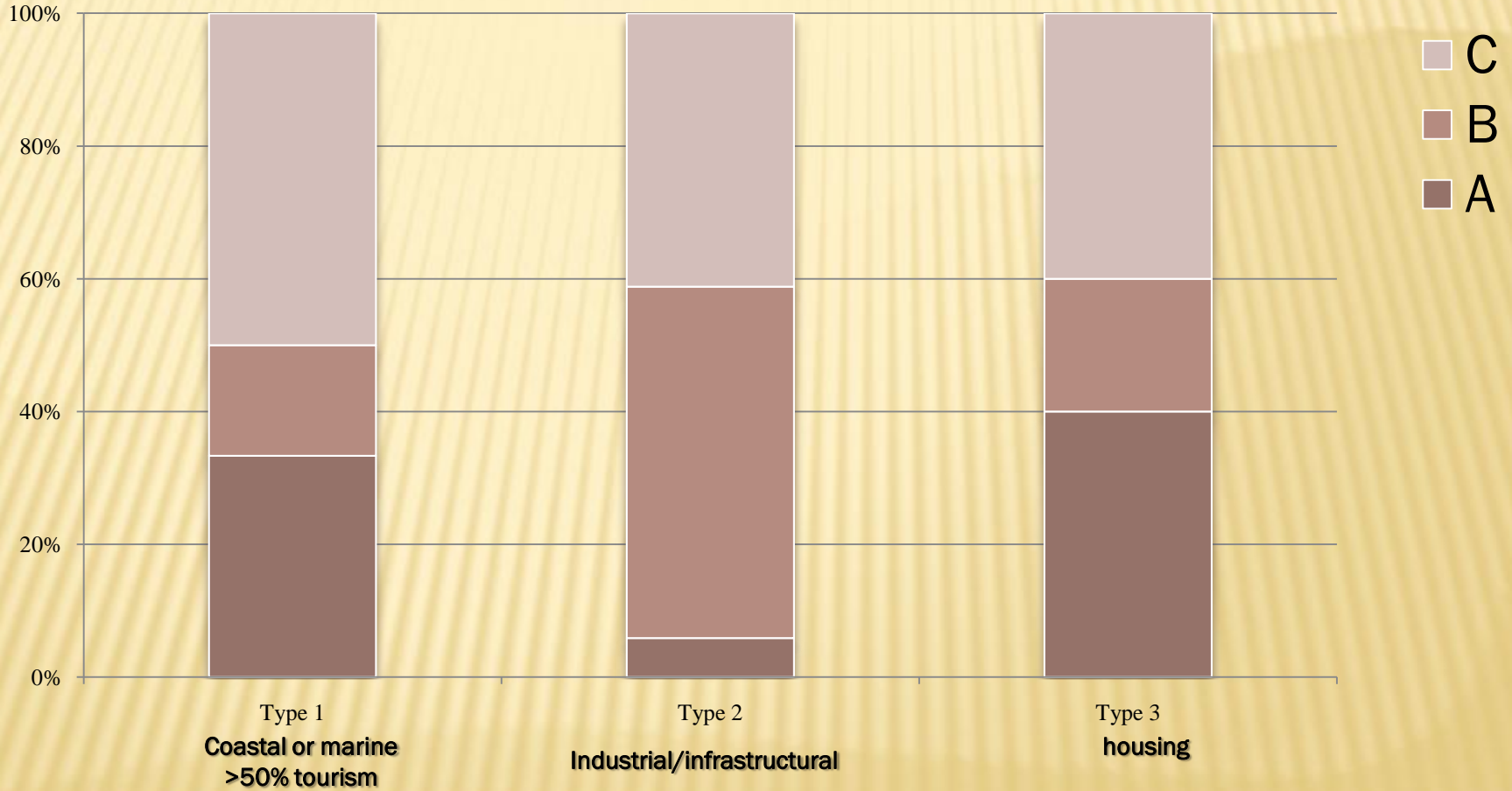
- × 24% A's
- × 33% B's
- × 42% C's: ?C- As many as 9 of the C class EIAs (or 1 in 5 of all EIAs examined) actually had LOEs that were less than 5% of the total number of pages in the document.

PROJECT TYPE

Type 1 N=18

Type 2 N=17

Type 3 N = 10



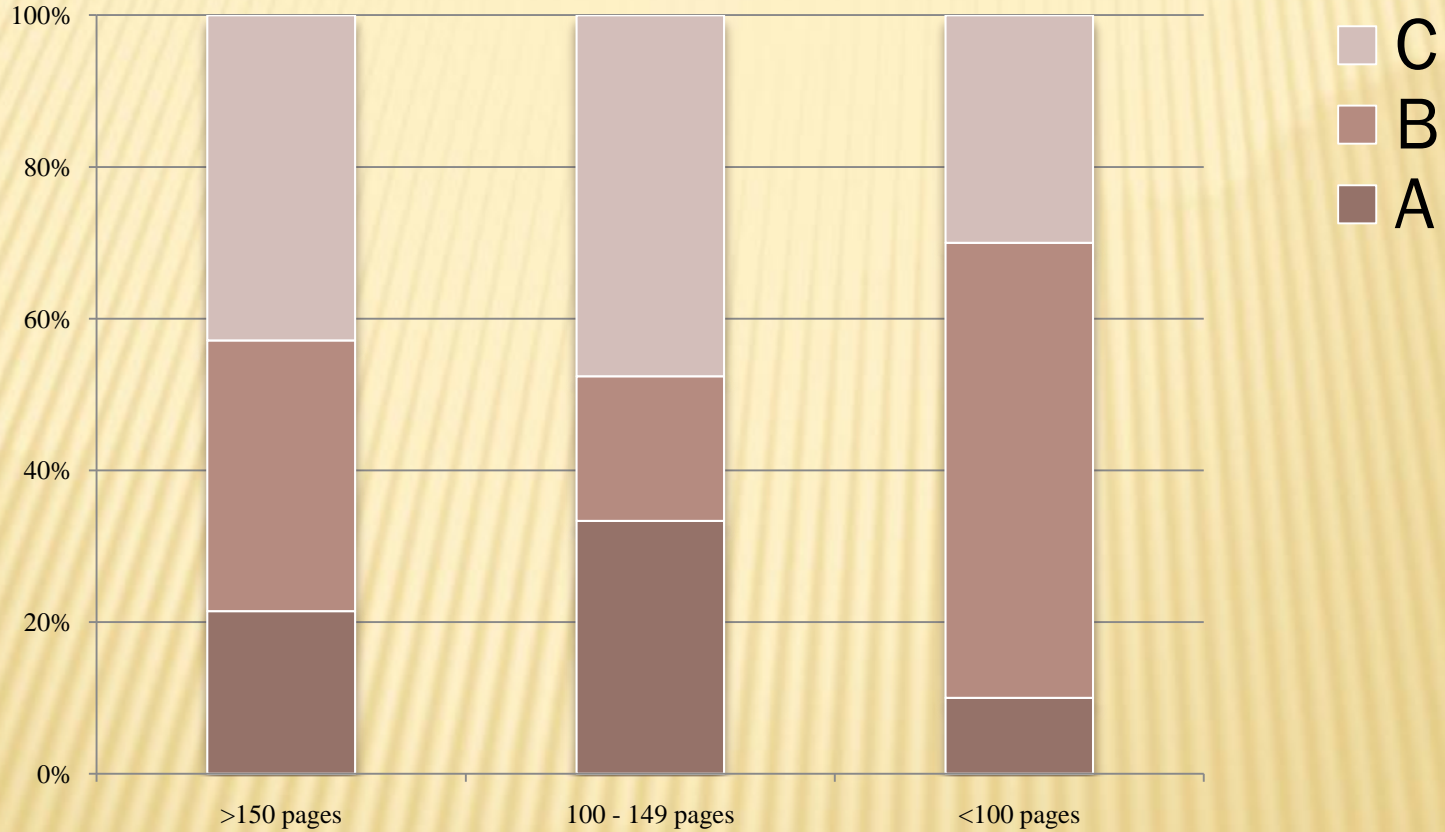
PROJECT TYPE

- ✘ Type 2 (Ind/infr):
 - + <6% of the 17 having A Grades.
 - + >70% of them had LOEs that were <15% (<B-)
- ✘ Type 1 (mar) and Type 3 (housing) EIAs were generally similar,
- ✘ Type 3 had marginally more A Grades and B Grades than the Type 1.

SIZE OF THE EIA

- ✘ Large (>150 pages) N = 14
- ✘ Mid-range (100 to 150 pages) N = 21
- ✘ Small (<100 pages) N = 10
- ✘ (The mid-size EIAs - commonest - average size)

SIZE OF EIAs



SIZE MATTERS

- ✘ The smallest EIAs and the very largest EIAs tended to have the lowest LOEs.
- ✘ The two largest EIAs (>365 p) had LOEs<5%.
- ✘ A third (7/21) of the mid-size EIAs were Grade A's (i.e. LOEs >20%), and none were done for industrial type projects.
- ✘ All of the remainder of the mid-size EIAs had LOEs of less than 12%.

INDEPTH LOOK AT THE C'S

- ✘ Missing a critical EIA stage between impact identification and classification – no impact analysis.
- ✘ No definition of terms: to “minor, moderate or major, short-term” or “long-term”, direct” or “indirect”, “negative or positive”.
- ✘ Did not use information from other sections.
- ✘ Did not use published references or models to analyse or qualitative discuss impacts.
- ✘ Standard cut & paste mitigation measures

BACK TO THE PROBLEM

- ✘ skipping the impact prediction step = insufficient information to develop or customize standard mitigation measures to the specific impact, or to determine whether the suggested mitigation measures are appropriate in scale or even likely to be effective.

LOW FRUIT

- × Adoption of an explicit set of criteria/metrics:
 - × Magnitude: secondary impacts, spatial extent, persistence and numbers of receptors & baseline change
 - × Receptor Vulnerability: resilience and reversibility
 - × Manageability and Validation: cost-effectiveness of mitigation measures, and the general acceptability of the managed impact to stakeholders.
- × Factor in scientific uncertainties,
- × Rigorous scientific writing: greater use of information from the EIA itself, as well as literature and models.

FIGURE IT OUT

- ✘ Figure out what information you need to be able to satisfy the metrics.
- ✘ *“Never collect data unless you know beforehand how you will analyze it (or for sure you will have forgotten to collect that one item you needed to do the proper analysis)”* (Charlotte Bingham, IAIA Past President, IAIA’s 2010 Rose-Hulman award winner, Millennium Challenge Corporation, USA).

A NOTE ON IMPACT CLASSIFICATION

The key is the “**baseline change**” metric. The extent of change can be used as the basis of classification.

Impacts are only classified as minor if the predicted baseline change is less normal fluctuations in the system.

If it is greater – it will be either moderate or significant. There is a lot of material to help distinguish between these two.

PLAYING THE EXPERIENCE CARD

Don't get fixated on the classifications – the important thing is doing the proper analysis.