Anticipating Terrorism: Considering the Role of Impact Assessment
Charles Kelly[1]

Introduction
This paper considers how the process of impact assessment can contribute to anticipating the social, economic, political and environmental impacts of terrorist events. The paper builds on a presentation on the 2013 Boston Bombing made at the IAIA Calgary meeting. Given the complexity of conflict and consequences in terms of impacts, this paper provides an incremental contribution to efforts to understand conflict-impact linkages.

The paper first looks at the nature and impacts of terrorism and then how the process of impact assessment can be applied to understand the impacts of terrorism. The paper closes with a summary of how impact assessment can improve the understanding of impacts but also noted the issues of secrecy and social amplification of risk (Kasperson, et al, 1988) as posing significant challenges to stakeholder engagement in anticipating and addressing impacts.

Nature and Impact of Terrorism
Definitions of terrorism tend to reflect the point of view of who is defining something as terrorism (Terrorism Research, no date a). For instance, definitions by legal organizations focus on defining a law which is broken by specific acts.[2] In contrast, someone accused of terrorism may turn the definition to make the actions cited as terrorism seem clearly justified, as in a fight against overwhelming oppression, where no other means are available.

Hoffman (1998) provides a useful overview of the origins and evolution of the term terrorism, while a broad range of current definitions of terrorism can be found at http://www.terrorism-research.com/. Zaman (no date) sets our four characteristics which define terrorism:
- "Terrorists **violate the rules of modern warfare,** ….; or they are actors (e.g., sub-state groups) who can't declare war legitimately;
- Its goal is to **achieve political change**;
- Its **targets are symbolic** of the political issue in question;
- Acts of terror are **designed to get attention** from the public and media."[3]

Hoffman (1998) provides a more extensive definition of "terrorism as the deliberate creation and exploitation of fear through violence or the threat of violence in the pursuit of political change. All terrorist acts involve violence or the threat of violence. Terrorism is specifically designed to have far-reaching psychological effects beyond the immediate victim(s) or object of the terrorist attack. It is meant to instil (sic) fear within, and thereby intimidate, a wider `target audience' that might include a rival ethnic or religious group, an entire country, a national government or political party, or public opinion in general. Terrorism is designed to create power where there is none or to consolidate power where there is very little. Through the publicity generated by their violence, terrorists seek to obtain the leverage, influence and power they otherwise lack to effect political change on either a local or an international scale." Although the quote is a number of years old, it captures many of the aspects of terrorism which have become evident in the years since.

Based on these definitions and a general review of identified terrorist incidents (e.g., Terrorism Research, no date b), the impacts of terrorism can be divided into five areas:

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[1] Email: havedisastercallkelly@gmail.com
[2] For example, see https://www.fbi.gov/about-us/investigate/terrorism/terrorism-definition.
[3] Bold in the original.

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- Human harm – deaths, injuries, and psychological impacts on humans.
- Physical damage – damage or destruction of goods and property, e.g., buildings, roads, factories, etc.
- Damage to or loss of services – temporary or permanent closure of businesses, disruption of services and changes in how services are delivered increasing cost or inconvenience.
- Policy changes – which can lead to increased costs, social, political and economic changes and changes in the level of security.
- Social change – as a result of attempts to reduce the threat of terrorism, from terrorism events themselves, and from changes to accommodate demands made by terrorists or their opposition.
- Counter terrorism – those psychological, social, service and physical changes implemented officially or unofficially to reduce the impact of terrorism.

Terrorism is often asymmetric in terms of force used. For instance, the hijack of a single aircraft can have a proportionally greater impact on all air travel through the imposition of anti-hijack security procedures for all aircraft. Even the treat of a terrorist attack can lead to significant countering measures, which may eventually be found to be out of proportion to the actual threat. As a result, the impact of a terrorist event, and clearly terrorism in general, are not a simple input-impact equation but one where the asymmetric characteristics of terrorism need to be reflected in the impact assessment process.

The full impacts of terrorism tend to be very dispersed. Thus it can be hard to clearly identify and enumerate these impacts. In some cases, impacts may actually be positive, although most often in ways which are not direct and can be hard to assess.

For instance, terrorist hijacking and attacks against aircraft have resulted in near global introduction of measures to prevent terrorists from boarding aircraft. At the same time, these counter terrorist measures have resulted in funds going to hiring and purchasing which has, at some level, had the impact of improving conditions for individuals and companies receiving these funds. Whether these funds would have comparatively better impacts if spent otherwise is also a question, and one that needs to be considered at different scales.

Not being affected by terrorism can be seen as part of the "right to life, liberty and security of person" under Article 3 of the **Declaration of Human Rights** (United Nations, 1945). Assessing the impacts of terrorism is important because we need to understand:
- The real impacts of what terrorism does,
- The impact of counter terrorist efforts, and,
- The unintended (indirect, cumulative) impacts of terrorism and of counter terrorism efforts.

Understanding these three types of impacts helps define the most appropriate and effective responses to terrorism.

Impact Assessment Process and Terrorism
This paper understands impact assessment to be the "process of identifying the future consequences of a current or proposed action" (http://www.iaia.org/). Drawing from **Principles of Environmental Impact Assessment Best Practice** (International Association of Impact Assessment, 1999), an impact assessment considering terrorism should:
- "… anticipate and avoid, minimize or offset the adverse significant biophysical, social and other relevant effects",

- "ensure that environmental considerations are explicitly addressed",
- "protect the productivity and capacity of natural systems and the ecological processes…", and,
- Focus on results which are "sustainable and optimizes resource use and management opportunities".

Clearly, assessing the impact of terrorism is not an exercise focusing on development per se, although avoiding the impacts of terrorism can be seen as avoiding losses which can reduce developmental outcomes in a broad sense. At the same time, terrorists may justify their methods as ways to right injustice (e.g., as liberation movements), and view terrorism as necessary for the social or political changes needed to enable development. A detailed definition of the how development and terrorism may overlap is beyond the scope of this paper but should be developed.

Assessing the impact of terrorism presents some challenges for the impact assessment steps adapted from **Principles of Environmental Impact Assessment Best Practice** (International Association of Impact Assessment, 1999). *Screening* and *scoping* are relatively easy to do for terror events or threats in that general information (e.g., who, what, where, why, but usually not when) can be fairly easy to collect and review. At the same time, defining some of the indirect and cumulative impacts can be problematic given the ranges of these impacts, from a terror event, terror campaigns and counter terror operations. In short, the devil may be in the detail of defining impacts and their importance, but this is probably no more complicated than assessing the impact of a large multi-faced development project.

Considering alternatives presents some interesting challenges. The alternatives need to include different ways of inflicting terror and well as different counter terror measures. Expertise on terrorism and counter terrorism can be used to refine alternatives to a likely set for which reasonable impacts can be defined. However, an issue may be that the initial plan for terrorism may not be clear, unlike a development project, so a degree of reasonable assumptions will be needed to define the initial terror "project" and alternatives. The rule here would be to focus on alternatives linked to specific terrorist organizations of concern rather than cast the net too wide.

Impact analysis as well as *mitigation measures* are most likely an iterative process of identifying direct, indirect and cumulative impacts and assessing the counter-impact of mitigation measures. These discussions may be dominated by technical assessments of the direct impacts (e.g., human and direct physical impacts of an explosion). But there is also a need to consider the more challenging issues of social and psychological impacts, and broader political and economic issues linked to indirect and cumulative impacts. Again, the rule will likely be to not start too wide and focus on what can be considered reasonable in terms of impacts and counter measures.

Evaluating significance is likely an integral part of the final stages of impact analysis and mitigation measures. How significance will be evaluated needs to be defined before the analysis and mitigation steps as fully defined if these two steps are to generate data and information which can be used to evaluate significance. An important issue is how impact will be measured. If this is in economic terms, consideration will need to be given to how social and psychological impacts, and often fuzzy indirect and cumulative impacts, will be adequately incorporated into the process.

Preparing a report may be one of the most challenging steps in the process. First, it needs to be understandable to the decision makers. But, second, it also can't disclose information which

might give terrorist a leg up on avoiding counter measures. Thus the challenge: how do you make a report which is understandable, but may include large parts which are secret?

Decision making, presuming there is a good report, isn't that hard. Or is it? First, who makes decisions and how are they vetted? Core concepts in environmental impact assessment are that consultations and agreement by those to be affected with the costs and benefits from the proposed actions are core to a successful assessment.

If large parts of a report are secret, how do you do consultations? If only cloistered officials make decisions without even minimal review by those affected, how can you be assured the correct decisions are made from the perspective of those who are directly or indirectly affected?

The same can be said of the *follow up* step. Who does the follow up, how are the results disclosed and how are changes in impacts incorporated into the terrorism-counter terror process?

Critical for these last two steps, and the overall impact assessment process, is the degree to which the persons impacted by terrorism (part of the overall assessment stakeholders) will be part of the process of assessing and understanding possible impacts. A common counter terrorism message is 'see it say it' – if you see something suspicious then say something about it to the authorities. This message was not effective in the case of the 2013 Boston Bombings, where the bombs were left in plain sight, most likely because those at the race were not tuned in to consider possible terrorist actions.

Engagement of those who can be impacted by terrorism has an advantage of expanding considerably those who can act to counter terrorism, presuming knowledge is power. But this engagement ideal, where the public is fully involved in assessment and sharing results, runs up against a strong tendency to treat most aspects of terrorism and counter terrorism as secret (and this secret status can be used to avoid scrutiny of even simple actions).

And where is the environment in the assessment of terrorism? Environmental impacts tend to be sidelined when considering matters of life and death: negative impacts may simply be necessary to defend the human right of "security of person" (United Nations, 1945).

But if these negative impacts are not identified they can't be off-set or mitigated. As a simple example, closing off the street in front of the White House to bus traffic led busses to move onto a smaller, more crowded street, likely burning more fuel. One can accept that this is necessary, but maybe some trees could be planted as well to offset the additional pollution. Not all impacts or mitigation measures are complicated, but if they are not defined, then even simple mitigation measures can't be implemented.

Conclusion
This paper briefly outlined the nature and impact of terrorism and reviewed how the impact assessment steps, adapted from the environmental impact assessment (EIA) process, could be used to better understand these impacts. While there is considerable complexity in understanding the impacts of terror, an EIA-based process would bring specific value to the by considering indirect and cumulative impacts, and identifying how the impacts of terror, and counter terror, can be reduced.

Challenges remain with stakeholder engagement. First, there is a need for some level of secrecy, in conducting an impact assessment and in sharing and using the results, to avoid

providing information which can enable terrorist being more effective. It is unclear where the most effective balance between total secrecy (and thus no public knowledge) and total openness, enabling full public engagement, lies.

Terror events are intended to create terror to influence stakeholder's views and achieve the terrorist's goals. This can lead to a social amplification of risk (Kasperson, et al, 1988), where concerns about terror events create their own dynamic of fear and risk reduction actions which may go beyond the actual physical impacts of specific events. Further work is needed to understand how the social amplification of risk affects stakeholder understanding of terror impacts and threats,[4] and how these concerns can be managed to ensure realistic stakeholder engagement, and a reduction of terrorism.

References

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[4] A point raised by one of the paper reviewers.