

## Policy pointers

**Evaluation of 'what works'** in conservation needs to deliver good evidence of social impacts but there is no single gold standard approach for this. Best practice requires a mix of methods.

**The perceptions of** people affected by conservation matter for both ethical and practical reasons. They need to be captured in impact assessment.

**Rigour in assessing** impacts is important but the needs of field-based conservation managers should be considered: few of them have enough time, resources or training to use complex evaluation methods.

**A two-track approach to** impact assessment can meet the needs of academics and policymakers, as well as practitioners and field managers. Independent in-depth evaluation for a selection of conservation interventions can deliver evidence for policymakers and more regular rapid assessments can inform practice and assist in adaptive management.

## Assessing the social impacts of conservation policies: rigour versus practicality

The last ten years have seen an increasing emphasis on rigorous impact evaluation by the international development community. The conservation community is also using these methods to understand the impacts of conservation policy approaches, such as protected areas and payments for environmental services schemes. But in real life, genuine controls are hard to come by, time and resources are limited and — regardless of what the data say — relationships need to be managed between managers of protected areas (or other interventions) and the people living near them. How can these issues be reconciled? A two-track strategy could be the solution, combining in-depth evaluation for a selection of interventions with increased effort to improve rapid assessment methods at the field level.

### Greater rigour in impact evaluation

The last decade has seen an increasing emphasis on rigorous impact evaluation by the international development community. The UK Department for International Development (DFID), for example, states on its website that "Evaluating the impact and lessons of our aid programmes is a crucial part of DFID's work." Initiatives such as Network of Networks for Impact Evaluation (NONIE)<sup>1</sup> and the International Initiative for Impact Evaluation (3ie) have been set up to promote high-quality impact evaluations and to respond to calls for better evidence.

Similarly, there have been calls from the conservation community to understand the impacts of conservation policy approaches<sup>2</sup> such as protected areas, payments for environmental services schemes (PES), reducing emissions from deforestation and forest degradation schemes (REDD), and community-based natural

resources management. The Center for Evidence-Based Conservation notes that "Despite the growing amount of scientific information produced by the research community, conservation practice and policy remain largely experience-based with limited evaluation of what works and what does not... This needs to be addressed in order to develop an evidence-based framework to support decision making."

People are recognising that conservation works when, among other things, the adverse social impacts it causes are minimal. The Convention on Biological Diversity's (CBD) Programme of Work on Protected Areas, for example, calls on parties to assess the social and economic impacts of establishing and maintaining protected areas particularly for local communities and indigenous peoples.<sup>3</sup>

There have been numerous studies of the social impacts of conservation interventions but a commonly made criticism is that the

demonstration of attribution or causality is insufficiently rigorous.<sup>4</sup>

This raises the question of how the social impacts

## *Conservation managers need evaluation approaches that fit with their time, resources and expertise*

of conservation policy interventions can be assessed in a rigorous way. There has been a proliferation of evaluation studies

of development initiatives that use experimental and quasi-experimental methods; such methods give the most weight to quantitative data derived from controlled experiments and trials, and progressively less weight to other forms of evidence.

People promoting evidence-based conservation favour this approach.<sup>5,6</sup> But it is not easy to apply in situations where it isn't possible to control external influences (politics, climate change, macro-economic pressures). And few field-based conservation managers have the time, expertise or resources to undertake complex evaluation studies.

### **Approaches for assessing social impacts**

Social impact assessment can be boiled down to the following questions: what is the impact of what, on which socioeconomic variables, for which groups, how, and to what extent? Adapting the approach set out in NONIE guidance,<sup>7</sup> assessment involves:

- Defining the scope of the intervention of interest
- Determining what impacts are evaluated — that is, what changes in which socioeconomic variables for which groups
- Developing a 'theory of change' to link the intervention to the impact/outcome, and
- Applying techniques to establish attribution — that is, the extent to which the intervention has led to the outcomes observed as opposed to other factors.

These steps are all interconnected: the theory of change discussion might lead to a reconsideration of the impacts to evaluate and vice versa.

The debate over the merits of different evaluation approaches, and hence their classification usually focuses on the techniques for attribution. Experimental and quasi-experimental methods establish attribution by examining the difference between a 'treatment group' — for example, a group living inside or next to a protected area or participants in a payments for ecosystem services (PES) scheme — with a 'control group'. Statistical/regression-based methods examine the correlation between key social indicators and a range of influencing factors, including the intervention, to isolate the effect of the intervention. Another group of methods can be distinguished by their emphasis on eliciting people's views on what kind of impact the intervention has had on them. But within the group, methods range from opinion and attitude surveys, which can be highly quantitative, to more qualitative approaches, such as in-depth interviews, focus group discussions, participatory observations and narrative analysis.

There are also choices to be made for other steps of the social impact assessment process. To determine which socioeconomic variables are assessed, there is a choice between an investigator-defined selection — based on hypotheses established already — and impacts identified by the affected population through a participatory process. Similarly a theory of change can be formulated with differing degrees of participation from the affected population and the organisation administering the intervention.

In striving for rigour in methods for determining attribution, it is important not to lose sight of the need to apply best practice in these other steps. However well attribution is established for the impacts studied, the results will be of limited use if other impacts considered important by some stakeholders, affected populations in particular, are not included in the analysis.

### **Comparing assessment methods**

There is a widespread perception in donor guidance<sup>8</sup> and academic literature<sup>9</sup> on impact evaluation that experimental and quasi-experimental methods are the most rigorous. The World Bank's Independent Evaluation Group, for example, considers randomised control trial and quasi-experimental matched control and treatment to be rigorous because they are the most reliable for establishing causality.

The main reason these methods are held in high regard is because they have high 'internal validity'. In other words they can establish with high

#### **Impact evaluation**

The International Initiative for Impact Evaluation (3ie) defines impact evaluation as a measure of "the net change in outcomes amongst a particular group, or groups, of people that can be attributed to a specific programme."

Impact assessment or evaluation is thus a process for determining causality between a given intervention or programme and the outcomes that are observed.

Source: [www.3ieimpact.org/strategy/pdfs/principles%20for%20impact%20evaluation.pdf](http://www.3ieimpact.org/strategy/pdfs/principles%20for%20impact%20evaluation.pdf)

accuracy the extent to which the intervention has caused the change in the variables studied. Experimental methods are particularly highly favoured as both the treatment group and the control group are randomly selected, thus dealing with the risk of selection bias.

They are not so strong, however, in dealing with other dimensions of rigour relevant to social impacts — ‘construct’ or ‘measurement validity’, for instance. This refers to the appropriateness of the variables or indicators that are used to measure impacts. When dealing with complex, multi-dimensional social issues such as poverty, wellbeing or livelihoods, it is hard to capture impacts with a limited number of investigator-defined indicators. Here, the NONIE guidance suggests that “in-depth qualitative methods can more adequately capture the complexity and diversity of aspects that define (and determine) poverty...” For this reason it recommends the use of a mixed-methods approach.

The dependence of these experimental and quasi-experimental methods on comparisons with control group communities also has drawbacks. It may be difficult to find appropriate control groups, and it may not be desirable either due to ethical concerns about raising expectations, or about subjecting rural populations to time-consuming surveys that bring no benefit to them. There are also risks of influencing the behaviour of the control group households through the information provided in the questionnaire.

There is a strong view that those affected by an intervention are the best judge of its impact.<sup>10</sup> Proponents of experimental and quasi-experimental evaluation methods argue, however, that taking into account local people’s perceptions may introduce bias where respondents answer strategically rather than truthfully and errors of attribution as the people affected may not be aware of the influence of other factors. But if local people do perceive there is a negative impact associated with the conservation intervention, whether or not their perception is accurate — or the impact can indeed be attributed to the intervention — conservation managers need to be able to address this perception in order to build good social relations, which are necessary for successful long-term conservation.

### A two-track approach

Different stakeholders have different motivations for carrying out a social impact assessment of a conservation intervention. This has implications for the type of evidence needed and the approach. Conservation policymakers in government and international agencies need evidence that the social impacts of the interventions are in line with

development objectives. They also want evidence about what determines the occurrence and magnitude of the impact so that they can make decisions about whether and where to replicate the intervention. Experimental and quasi-experimental approaches may be more appropriate for their needs. They require specialist expertise, but credibility for external audiences may be enhanced if the impact assessment is carried out by independent researchers.

Field-based conservation managers, on the other hand, need to know whether the intervention is working from the perspective of the affected population — they may need to adjust its design and take mitigating measures. With this information they can be better managers and build local support<sup>11</sup> but they will need results to be available quickly. This suggests that approaches based on eliciting people’s perceptions of impact in the intervention area without extending to a control group may be more appropriate.

While the ideal would be to introduce best practice impact assessment that could serve all these purposes, this does not seem practical given the time and resource implications of some approaches and the real or perceived constraints of others. A more practical way forward may lie in a two-track strategy, combining in-depth evaluation for a selection of interventions with increased effort to improve rapid assessment methods at the field level. The in-depth evaluations should adopt a mixed methods approach to ensure rigour and be carried out by independent researchers to ensure credibility. The interventions evaluated should be selected to be broadly representative of certain types of intervention or regions of a country or the different areas within a conservation intervention. This selective approach has been taken by Oxfam.<sup>12</sup>

At the same time rapid assessment approaches that focus on participatory research with local communities to understand perceptions of impact should be strengthened — particularly by cross checking (‘triangulation’) with other methods. This could include:

- Tracking a few indicators of objective wellbeing in a survey over time to compare with perceptions of change
- Exploring alternative explanations for the impacts perceived and the trends observed in objective wellbeing indicators using a combination of secondary data — for example, on trends in socioeconomic indicators in rural areas elsewhere in the country, and key informant interviews.

Formulating a theory of change — that is, tracing the pathways by which the intervention will result in

social impacts — will help to identify the key data required. This will avoid a situation where conservation managers collect information following a standardised list of indicators and then find that little of it is useful to the impact assessment. Reviews of rapid social impact assessment methodologies and practice have found a common weakness to be a focus on primary data collection rather than on clarifying the key questions that need to be addressed.

## Mutual support

The two tracks need to be mutually supportive. Where interventions are selected for both tracks, practitioners engaged in rapid assessments and independent researchers conducting the in-depth evaluation can benefit from sharing ideas on a theory (or theories) of change, although it is important not to compromise the independence of both tracks. Information collected in the rapid assessment can also inform the design of the in-depth assessment, to ensure that the impacts assessed are important from the perspective of the people affected. Finally, comparisons can be made between the practitioner-led rapid assessments and the in-depth assessments, and differences in findings can be explored. Lessons can be learnt from this comparison on how to improve both types of assessment.

There may be a tension though between the adaptive management approach of the field-based conservation managers and the need for the in-depth assessment to examine an intervention design that remains consistent over time.<sup>13</sup> Adjustments in intervention design needed in response to the findings of the rapid assessment should not be constrained by the requirements of the in-depth evaluation, and some compromise will be required.

Where an intervention (or area within an intervention) is subject only to rapid assessment, the conservation practitioners conducting the assessment can benefit from discussing the theory of change with the independent

researchers carrying out the in-depth impact assessments elsewhere in the country.

## Conclusions

The push for evidence-based policymaking runs the risk of privileging experimental and quasi-experimental impact evaluation methods and giving insufficient attention both to participatory approaches that capture the perceptions of local communities and to developing the rapid assessment methods that can be used on a more regular basis by field-based conservation managers.

Conservation managers need evaluation approaches that fit with their time, resources and expertise. In practice, genuine controls are hard to come by, time and resources are limited, and — regardless of what the data say — relationships need to be managed between managers of protected areas (or other interventions) and the people living near them.

Although the call for mixed methods by NONIE and others is a welcome development, the mix of expertise and the resources required mean that in-depth impact evaluations will be possible only for a handful of interventions. And given the need for accountability, these evaluations will be perceived as more credible if conducted by independent experts. At the same time, further work is needed on how rapid assessments can interact in a positive way with these independent, in-depth evaluations without compromising the latter's impartiality.

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## Knowledge Products

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## Notes

- <sup>1</sup> NONIE comprises the Organisation for Economic Co-operation and Development's Development Assistance Committee (OECD/DAC) Evaluation Network, the United Nations Evaluation Group (UNEG), the Evaluation Cooperation Group (ECG), and the International Organization for Cooperation in Evaluation (IOCE) / <sup>2</sup> Ferraro, P., Pattanayak, S.K. 2006. Money for Nothing? A Call for Empirical Evaluations of Biodiversity Conservation Investments. *PLoS Biology* 4(4), e105. / <sup>3</sup> [www.cbd.int/protected/pow/learnmore/intro/](http://www.cbd.int/protected/pow/learnmore/intro/) / <sup>4</sup> Leisher, C. et al. 2010. Does conserving biodiversity work to reduce poverty? In: *Linking Biodiversity Conservation and Poverty Alleviation: A state of knowledge review*. CBD Technical Series No. 55. Secretariat of the Convention on Biological Diversity / <sup>5</sup> Sutherland, W. J., A. S. Pullin, et al. 2004. The need for evidence-based conservation. *Trends In Ecology & Evolution* 19(6), 305-308. / <sup>6</sup> Segan, D. B. et al. 2011. Using Conservation Evidence to Guide Management. *Conservation Biology* 25(1), 200-202. / <sup>7</sup> Leeuw, F., Vaessen, J. *Impact Evaluations and Development: NoNIE guidance on impact evaluation*. See: [http://siteresources.worldbank.org/EXT/OED/Resources/nonie\\_guidance.pdf](http://siteresources.worldbank.org/EXT/OED/Resources/nonie_guidance.pdf) / <sup>8</sup> Stern, E. et al. 2012. *Broadening the range of designs and methods for impact evaluations: Report of a study commissioned by the Department for International Development*. Department for International Development, UK. / <sup>9</sup> Miteva, D.A., Pattanayak, S.K., Ferraro, P. J., 2012. Evaluation of biodiversity policy instruments: what works and what doesn't? *Oxford Review of Economic Policy* 28 (1), 69–92 / <sup>10</sup> ICAI. 2011. *ICAI's Approach to Value for Money and Effectiveness, Report 1*. Independent Commission for Aid Impact / <sup>11</sup> Schreckenber, K. et al. 2010. *Social assessment of conservation initiatives. A review of rapid methodologies*. IIED, London. / <sup>12</sup> Hughes, K., Hutchings, C., 2011. *Can we obtain the required rigour without randomisation? Oxfam GB's non-experimental Global Performance Framework*. International Initiative for Impact Evaluation. / <sup>13</sup> Woolcock, M. 2009. *Towards a Plurality of Methods in Project Evaluation: A Contextualised Approach to Understanding Impact Trajectories and Efficacy*. Brooks World Poverty Institute, University of Manchester.