



SIA guidance for infrastructure and economic development projects

Mike Mackay and Nick Taylor

Social impact assessment (SIA) provides information to decision makers, affected people and communities, when planning for infrastructure and economic development projects (Burdge and Colleagues, 2004). The SIA process (or 'cycle') is analytical and predictive in nature; it helps to identify potential social impacts before an action is taken. Social impacts can be described as changes to peoples' lives, planned or unplanned, positive or negative, that arise either from human activity (an infrastructure development for example) or from naturally occurring events. In instances when negative social impacts are predicted or (after the fact) are evident, social impact assessment practitioners suggest mitigations that will balance economic, social, and environmental outcomes, and promote equitable and sustainable development. SIA was applied in Aotearoa New Zealand from the late 1970s to major projects, such as to the large energy infrastructure projects that utilise and process energy resources, including, for example, the Huntly power station, oil and gas projects in Taranaki and Northland, and the Clyde dam (Taylor and Mackay, 2016), as also discussed further in the article by [Charles Crothers in this issue of *Impact Connector*](#).

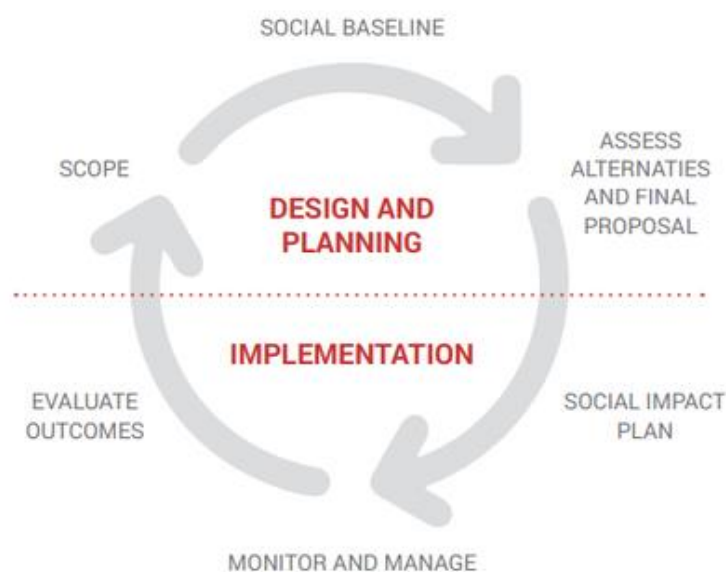
While undertaking research for the [Building Better Homes, Towns and Cities National Science Challenge \("BBHTC"\) Ko ngā wā kaingā hei whakamahorahora](#), the communities and built environment stakeholders we were working with expressed a need for guidelines providing a practical approach to SIA, written for a wide audience with little or no prior experience of SIA, to learn the basics about how to conduct an SIA, contribute to an SIA, use the results of an SIA and judge if an SIA is fit for purpose. This need was especially apparent in our research with regional communities experiencing the social impacts of economic regeneration projects, including tourism infrastructure development, housing, irrigation, and heritage conservation. We took up the challenge of compiling a set of practical guidelines that will be useful for anyone proposing changes that affect people and communities, as well as those experiencing social impacts. In preparing the guidelines we had strong collaboration with the Waitaki District Council, Stronger Waitaki, the Waitaki Housing Task Force and stakeholders in social services and economic regeneration. The guidelines also benefitted from work commissioned by several other organisations including the Ministry for the Environment and AgResearch as they developed strategies for better land and water management, as well as our work on several infrastructure projects including hydro-electricity, wind farms, irrigation, tourism infrastructure, highways, port developments and airport expansions.

In developing the SIA guidelines, we also drew on a wealth of material produced by centres of excellence in the practice of SIA internationally and in Aotearoa New Zealand, and several handbooks (e.g., Vanclay and Esteves, 2011). A key consideration was that there should be consistency in terminology and thinking about the components of an SIA. Two international starting points are commonly used for guidance on SIA. The first is the [International Association for Impact Assessment \(IAIA\) guidelines for assessing and managing the social impacts of projects](#) (Vanclay, et al.,

2015). The IAIA is the principal international body of professional people doing different types of impact assessment, including SIA. The second starting point is the [World Bank Environmental and Social Framework](#) in which the Bank takes an integrated approach to social and environmental safeguards for infrastructure projects.

Recently, the New South Wales (NSW) government (2021) prepared [social impact assessment guidelines for state significant projects](#) and these are useful for developers of infrastructure projects in Aotearoa New Zealand. Every state-significant project in NSW is subject to a proportionate SIA (Parsons, et al., 2019). These guidelines aim to assist project proposers, affected communities and state government work through the preparation of an SIA. Another useful source of ideas from Australia is the [Centre for Social Responsibility in Mining](#) at University of Queensland, which focuses on advice for extractive industries, especially relating to indigenous peoples, corporate social responsibility, and SIA more generally.

As the leading organisation of people practising impact assessment in Aotearoa New Zealand, including SIA, NZAIA held a [conference on SIA](#) in Christchurch in 2020. Development of the SIA guidelines for Aotearoa New Zealand benefitted considerably from discussions with members of the Association. Another important reference point for people planning infrastructure projects is Waka Kotahi, the New Zealand Transport Agency, which developed a [guide for assessing social impacts of state highway projects](#) and applying a sustainability framework to projects.



[Our new guidelines](#) cover the basic steps in an SIA:

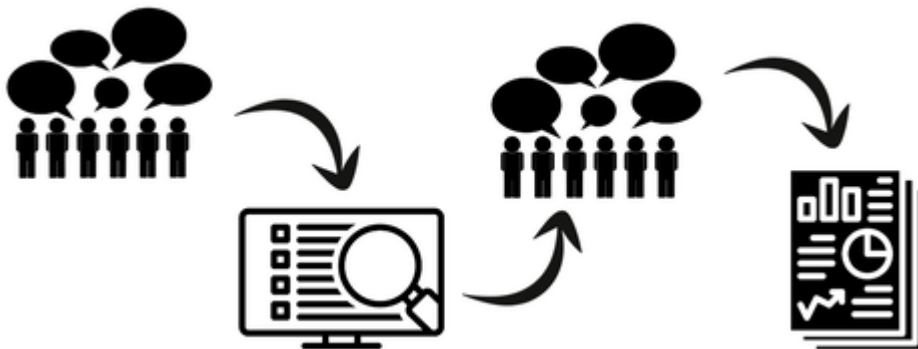
1. Screening of the SIA (usually as part of project feasibility analysis), which establishes the requirements and terms of reference for an SIA.
2. Scoping an SIA so it is focused on the likely impacts and main issues of concern to people and communities and sufficient time and resources are allocated to the SIA.
3. Gathering information about the social baseline – the starting point for understanding what is changing and how social outcomes are affected.

4. Assessment of alternative options or alternatives for planned actions such as sites, routes or construction methods.
5. Monitoring, mitigation, and management of impacts for the optimum social outcomes.
6. Evaluation and auditing of those outcomes.

Throughout the guidelines are examples of how SIA is applied, drawing on our practical experiences doing SIAs.

We emphasise in the guidelines that an SIA should include social data that you can observe and describe, as well as information you can count. Both qualitative and quantitative data are important because social change is often complex and will include positive and negative impacts which are often uncertain and distributed unevenly. The process of doing an SIA must therefore include thinking about the best ways to manage social change so that the most sustainable, positive outcomes are achieved for people and communities.

Activities that constitute an SIA build on each other over the design, planning and construction of a project and then its operation. Some activities necessarily precede others. SIAs therefore follow the common steps or stages of project development in a project cycle (Taylor et al., 2004; Arce-Gomez et al., 2015). Our guidelines show how an SIA can build up a picture of the potential impacts of an infrastructure project as it works through these steps. Social data are gathered, analysed iteratively and used to develop management actions geared toward delivering the best possible outcomes for people and communities in the short, medium, and long term.



Practical early steps in the SIA of a project are, first of all, to screen for social issues and for red flags in particular, and then scope the SIA in more detail. With the broad parameters of the SIA in place, such as a project description, an agreed assessment area, and an initial description of social impacts, the budget for the full SIA can be agreed. A staged budget assists in larger project assessments because of the importance of first defining what must be done through scoping an SIA and allowing for the usual timeline changes as a project evolves. The next steps include development of the social baseline, assessment of alternatives, and the preparation of plans to mitigate and manage predicted social impacts.

Our BBHTC research on the use of SIA in different project settings found, however, that it is often initiated too late, even as late as the point of obtaining the necessary financial, resource consent, and technical approvals. The worst approach is for SIA to start when affected communities begin to raise questions about the project when they first get wind of it. We argue that this reactive approach needs to change, with SIA embedded in project planning and design from the start, when developing a

project concept and considering feasibility of options. Early consideration of social impacts when options are on the table will ensure that ways to avoid or reduce negative impacts on people and communities, and to enhance positive ones, are considered during project design and planning, which is the most practical time to adapt a proposal.

We note in the guidelines that Social Impact Management Plans (SIMPs) play a key part in planning for and constructing a project (Holm et al., 2013). A SIMP is needed when there are significant potential social impacts. They should include all the strategies and actions required to monitor, mitigate or manage negative social impacts and enhance positive ones, looking to maximise outcomes from project construction for social wellbeing. Management plans are most effective when prepared during project planning and design, normally as part of the SIA used to gain project approvals. SIMPs then provide an empirical basis for judging potential residual impacts (those remaining after management measures are implemented).

There are numerous typical topics in a SIMP. In this country they could include, for example:

- Land acquisition and planned resettlement including any relocation of homes or businesses, urupa or sacred sites, and managing effects on rural production activities.
- Management of a construction workforce such as procurement plans, training, accommodation for any incoming workers, and management of associated influxes in population and demand for social services.
- Human resource management, gender issues, health and safety and familiarisation with local practices and sensitivities.
- Management of effects on local movements, access and traffic and any social severance.
- Managing effects on recreation and food gathering, including intrinsic and cultural values.

In pre-construction of many infrastructure projects, when the emphasis in environmental and social management pivots from planning, design and approvals to the management of construction, new project components are often introduced. Some of these changes may indeed result from the knowledge gained by doing impact assessments and plans to mitigate negative impacts. SIAs (including the social baseline) need to be updated to reflect any project changes, or indeed to account for the time that often elapses since the SIA was originally completed. This additional SIA work might require additional resources and further input from affected people and other parties.



Photo by tribesh kayastha on Unsplash

Our SIA guidelines also highlight the importance of engaging directly with interested and affected parties, including local people, groups and communities, from the start. We stress that SIA needs to work closely with affected communities to fully understand the dynamics of the local social environment, account for and consider any local anxieties regarding the proposal, sense check the social impact analysis with the community, understand what they expect or would like to see from the project, and consider the plausibility of proposed management actions from a community perspective. Here collaborative and community-led approaches can empower local leaders, community organisations and public agencies that provide and support social development (Taylor et al., 2021). We also emphasise that quality SIA research and analysis should use more than one source of data (including local knowledge and hard-to-reach groups) and must report results in a balanced way. Ethical practice does not cut corners in facilitating participation of all interested and affected people and communities throughout a project cycle (Vanclay, et al., 2013).

In Aotearoa New Zealand, indigenous Māori world views, rights and interests are integral to Treaty-based decision making and community development. The SIA guidelines we have produced acknowledge Māori protocols and processes and provide observations relating to indigenous peoples and SIAs. Māori often prepare cultural impact assessments that cover social and cultural impacts in their ecological and historical contexts. The SIA guidelines are not for cultural impact assessment, but they do suggest these knowledge and assessment systems can complement each other and help to channel mātauranga Māori into infrastructure planning, construction, and operation.

As a final comment we note that Sara Bice, a recent president of the IAIA, has urged all practitioners of impact assessment, including SIA, to place greater emphasis on approaches that utilise collaboration and empower community-based assessments (Bice, 2020). In a community-led approach to SIA, all participants work together on a proposal and produce knowledge about the impacts in a collaborative and strategic way. Our research has identified this approach as the co-production of knowledge (Taylor, et al., 2021) and this is a fundamental premise of the SIA guidelines. In this context, we align the SIA steps and community processes, engagement methods and analysis of impacts from the early stages of planning through to taking actions and managing social change. Different people can join this sort of community-led approach to planning and managing change: community leaders, organisations and groups, iwi, councils, agency personnel and professional social scientists. A community-based approach is applicable to many aspects of infrastructure planning at different scales, from the planning of community facilities and housing projects to major developments, with the intent of ensuring affected communities share fully in project benefits.

References

- Arce-Gomez, A., Donovan, J. D. and Bedggood, R. E. (2015). Social impact assessments: Developing a consolidated conceptual framework. *Environmental Impact Assessment Review*, 50, 85-94.
- Bice, S. (2020). The future of impact assessment: problems, solutions, and recommendations. *Impact Assessment and Project Appraisal*, 38(2), 104-108
- Burdge, R. and Colleagues (2004). The concepts, process and methods of social impact assessment Social Ecology Press, Wisconsin.
- Holm, D., Ritchie, L., Snyman, K. and Sunderland, C. (2013). Social impact management: a review of current practice in Queensland, Australia. *Impact Assessment and Project Appraisal*, 32(3), 214-219.
- New South Wales Government (2021). [The NSW Social Impact Assessment Guideline for State Significant Projects](#). NSW Department of Planning, Industry and Environment, Sydney.
- Parsons, R., Everingham, J. A. and Kemp, D. (2019). Developing social impact assessment guidelines in a pre-existing policy context. *Impact Assessment and Project Appraisal*, 37(2), 114-123.
- Taylor, C. N., Goodrich, C. G. and Bryan, C. H. (2004). Social Assessment: Theory, Process and Techniques (Third Edition). Social Ecology Press, Middleton, Wisconsin.
- Taylor, C. N. and Mackay, M. (2016). Social Impact Assessment in New Zealand: Legacy and Change. *New Zealand Sociology*, 31(3), pp. 230-246.
- Taylor, N. and Mackay, M. (2022). [Social impact assessment guidelines for thriving regions and communities](#). Building Better Homes Towns and Cities, National Science Challenge.
- Taylor, C. N., Mackay, M. and Perkins, H. C. (2021). Social impact assessment and (realist) evaluation: meeting of the methods. *Impact Assessment and Project Appraisal*, 39(6), 450-462.
- Vanclay, F. and Esteves, A.M. (Eds). (2011). *New Directions in Social Impact Assessment: Conceptual and Methodological Advances*. Cheltenham (UK): Edward Elgar.
- Vanclay, F., Baines J., and Taylor, C. N. (2013). Principles for ethical research involving humans: ethical professional practice in impact assessment Part 1. *Impact Assessment and Project Appraisal*, 32(4), 243-253.
- Vanclay, F., Esteves, A. M. and Franks, D. M. (2015). [Social Impact Assessment: Guidance for assessing and managing the social impacts of projects](#). International Association for Impact Assessment, Fargo, USA.