## Are current impact assessment tools fit for Aotearoa New Zealand's bicultural forest-dependent communities?



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## Key facts

Forestry is a major part of NZ's economy (Forest Owners Association [FOA], 2019):

- Forestry exports: >\$6.32 million (2019)
- Employment: Over 35,000 people (2019)
- Forest plantations provide an option for employment, and economic diversification.

Forestry is also central to NZ's climate change strategy:

- Carbon emissions offsets: 20% (509.8 Mt CO2-e) of NZs's entire carbon emissions budget between 2013-2020 (Ministry for the Environment, 2020).
- Māori are heavily invested in forestry and more vulnerable to climate change-related policy impacts (King et al., 2010).

## Issues and challenges

- 1) 94% of New Zealand's forest owners own small to medium size forests (<1,000 ha)
- Existing inflexible "one size fits all" policy approach to forestry
  - Significant systemic issue across central and local government, `
  - Especially problematic for iwi and Māori communities (Pohatu et al., 2020).
- 3) There are growing concerns around:
  - Increased conversion of agricultural land to monocultural forestry (Rae, 2021),
  - Soil and water pollution,
  - Declining biodiversity,
  - Employment (Harrison & Bruce, 2019),
  - Fire risk (Upton in Gibson, 2019).

## Māori perspectives in social impact assessment frameworks

Despite New Zealand's multicultural society, few impact assessment tools exist that encompass Western and indigenous views. In this context, Belcher (2020) proposes the He Kete Hauroa framework, adapted from a DPSIR framework (Figure 1).

Ariā are perspectives used by Māori to assess environmental health and describe ecological concepts familiar to Māori and mainstream scientists (Belcher, 2020). As such, He Kete Hauora Taiao allows use of established scientific metrics to be used as indices for ariā (Belcher, 2020).

Māori concepts like ariā can enhance the overall impact assessment process, providing an essential linkage between ecological and social impact assessments. Given the Climate Change Commission's (2021) call for "genuine, active and enduring partnership with Māori", development and uptake of more holistic frameworks is crucial.

Driver Drivers of ecological change Pressure Event or activity causing pressure to environment Māori ecological indicators / concepts **Ecological elements** Biotic & abiotic, structures, functions, processes Indicator Measurable ecological aspects Response Changes in ecological state in response to pressures

Figure 1: The He Kete Hauora Taiao ecological assessment framework incorporates the the Māori concept of ariā into a DIPSR framework.

Background image: Law, J. (n.d.). Best of Landscape. New Zealand Geographic.

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