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## ANALYSIS

# Participation of indigenous groups in sustainable development monitoring: Rationale and examples from New Zealand

Nigel Jollands<sup>a,b</sup>, Garth Harmsworth<sup>b,\*</sup>

<sup>a</sup>New Zealand Centre for Ecological Economics, Massey University, New Zealand

<sup>b</sup>Manaaki Whenua-Landcare Research Ltd., Private Bag 11-052, New Zealand

## ARTICLE INFO

## Article history:

Received 30 January 2006

Received in revised form

12 September 2006

Accepted 13 September 2006

Available online 30 October 2006

## ABSTRACT

Over the past decade, many government policies have been aimed at the elusive concept of ‘sustainable development’. Over the same period there has been a growing awareness of the need to evaluate the progress of these policies as well as the need to encourage broad community participation in that monitoring. Unfortunately, it appears the participation of one important group, indigenous communities, in many sustainability programmes (including the selection and use of indicators in their monitoring and evaluation) is limited.

This paper seeks to understand the role of sustainability monitoring and indigenous community participation in that monitoring within ecological economics and transdisciplinary research. We find that there is a strong need for sustainability indicators and a compelling rationale for indigenous community participation, both from ecological economic theory and from international and national policies. We also find that the present level of engagement of indigenous groups and communities in New Zealand in sustainability monitoring remains low, under-resourced, and uncoordinated. To improve the worldwide quality of sustainability indicators there is an urgent need to address this poor participation.

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## 1. Introduction

Over the past decade, many government policies have been aimed at the elusive concept of ‘sustainable development’ (for example, New Zealand’s “Sustainable Development Programme of Action” (Department of Prime Minister and Cabinet, 2003)). Over the same period there has been a growing awareness of the need to evaluate the progress of these policies. One tool increasingly being used for this purpose is the sustainable development indicator. Indeed, such indicators are a pervasive feature of both practical application and research literature (Jollands, 2006).

Interest in monitoring the progress of sustainable development initiatives is not the sole preserve of governments.

Community groups are increasingly interested in becoming involved in the development and implementation of monitoring programmes. This is because awareness is growing that those involved in defining the indicators control what is measured and reported.

Indigenous groups and communities are an important sector of society that have a strong mandate to be involved in sustainable development programmes, monitoring and evaluation. For example, in New Zealand Māori have a strong interest in monitoring a wide range of sustainable development policies and outcomes that impact on their communities. Further, groups such as iwi and hapū (Māori tribes and sub-tribes) are significant owners of natural resources (e.g., through settlement of Treaty claims — see below) and articulate a unique

\* Corresponding author.

E-mail address: [HarmsworthG@LandcareResearch.co.nz](mailto:HarmsworthG@LandcareResearch.co.nz) (G. Harmsworth).

URL: [http://www.landcareresearch.co.nz/research/social/indigenous\\_index.asp](http://www.landcareresearch.co.nz/research/social/indigenous_index.asp).

cultural–historical connection with the natural environment. Unfortunately, like indigenous groups elsewhere, the participation of Māori in many sustainability programmes is limited.

This paper seeks to understand the importance of sustainability reporting within ecological economics research. We begin first by briefly exploring the theory behind sustainability indicators and the important role they play in ecological economics. We then explore the rationale for indigenous community participation in sustainable development monitoring before describing New Zealand's experience in this area. We use specific case studies to illustrate the lessons we have learnt from the cross-cultural tensions involved in indigenous community participation in sustainable development indicators and monitoring projects.

## 2. Sustainable development indicators in ecological economics

Sustainable development indicators have an increasingly important place in ecological economics. Indeed, from a theoretical perspective, the rationale for such indicators derives from three dominant themes within ecological economics — the need for policy relevance, the need for accurate and valid information on sustainability for decision-makers, and the need to link the environment and the economy.

A common theme to emerge from the literature is that ecological economics aims to be policy relevant. For example, Costanza (1991, p. 7) states that ecological economic “research should not be divorced from the policy... process, but rather integrated with it.” In other words, ecological economics is focused on the integration of economic and ecological theory specifically to aid decision-making (Proops, 1989; Edwards-Jones et al., 2000; Ruben and van Ruijen, 2001).

Ecological economics' aim to be policy relevant is achieved, in part, by providing information that can assist the policy decision-making and evaluation process. Increasingly, for policy-makers this information comes in the form of indicators. Such indicators can assist decision-makers by highlighting patterns in underlying data (Cleveland et al., 2000, p. 302). It is no surprise, then, to find a significant amount of interest in sustainable development indices in ecological economics literature.

In ecological economics, indicators are seen as one approach to put into effect the concept of sustainability and to introduce it to the policy-monitoring/evaluation arena (Callens and Tyteca, 1999; Kammerbauer et al., 2001; Button, 2002). As the United Nations Conference on Environment and Development (1992, chapter 40.4) states, “indicators of sustainable development need to be developed to provide a solid basis for decision-making at all levels and to contribute to the self-regulating sustainability of integrated environment and development systems”. Furthermore, according to Gustavson et al. (1999, p. 118), “using sustainable development as a planning goal or tool necessitates the identification of indicators that will assist policy-makers in identifying appropriate policies and in monitoring the effectiveness of policy interventions.”

Indicators are mentioned extensively throughout the ecological economic literature and are applied to a wide range of issues. For example, many recent articles in the journal *Ecological Economics* apply indicators to a range of issues, including

resource depletion (Béné et al., 2001; Herendeen and Wildermuth, 2002), tropical mountain development (Kammerbauer et al., 2001), agriculture (Pannell and Glenn, 2000), eco-efficiency (Jollands et al., 2004), sustainable economic welfare (Cobb and Cobb, 1994; Daly and Cobb, 1994; Max-Neef, 1995; Ackerman, 1997), and sustainable development (Gustavson et al., 1999).

Ecological economic theory is also clear about the criteria used to select indicators (Gallopín, 1997; Jollands, 2006). Paramount among these criteria is the need for indicators to be “formulated in terms of broad philosophical or ethical frameworks” (Jollands, 2006, p. 21). Given this criterion, it would seem ecological economic theory also suggests it is important for participation in indicator development to be as broad as possible. The next section explores this issue of participation with respect to one group of communities in particular — the indigenous communities of the world.

## 3. Sustainable development monitoring and indicators — participation and indigenous groups

A common theme that emerges in the literature is the need for participation by all sectors of society in indicator development and implementation (Gallopín, 1997). Such participation is important for several reasons (as outlined by Elster (1999), Fearon (1999), and Gambetta (1999)), but three relevant to this discussion are that participation:

- a) lessens or overcomes the impact of bounded rationality. That is, according to Fearon (1999, p. 49), faced with a complex problem, individuals or groups might “wish to pool their limited capabilities through discussion and so increase the odds of making a good choice” (of indicators)
- b) legitimises the ultimate choice
- c) makes for better decisions in terms of distributive justice (Gambetta, 1999). That is, participation can improve the allocation of unevenly distributed information leading to better decisions.

In the context of indicators, then, participation can potentially deliver better, more legitimate indicator sets.

Despite the advantages of participation, the involvement of some groups in sustainable development indicator work has been limited. In particular, involvement by indigenous communities in indicators has been extremely poor (Ehrlich et al., 1996; Jollands, 1998).

UNESCO defines indigenous communities as

*peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories or parts of them (United Nations Working Group on Indigenous Populations, 2004).*

Such communities form “non-dominant sectors of society and are determined to preserve, develop, and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and

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