Traditional ecological knowledge: Notes from a conference

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Abstract: This paper offers a commentary on a selected highlight from the recent Environmental and Water Resources Institute congress (EWRI) held in Hawaii (2008). The theme of the conference was "Ahupua'a: Environmental and Water Resources Technology for a Sustainable Future" and the presentations provided important lessons for sustainability practitioners. The work at the conference also provided strong relevance to the Fifth International Conference on Environmental, Cultural, Economic and Social Sustainability to be held in Mauritius in 2009. Particular reference is made to the work of Kumu Ramsay Taum which emphasises the inherent wisdom of Native traditional ecological knowledge and suggests a way forward for our westernised society. Some parallels with Māori traditional knowledge in these areas are briefly drawn.

Keywords: Ecology; environment; traditional knowledge; sustainability, water resources

In a keynote address, Kumu Ramsay Taum spoke on the Hawaiian concept of 'Ahupua'a' and shared his understanding of this Native resource and behaviour management system. He pointed out that Ahupua'a could be considered to be a metaphor for the concept of the 'triple bottom line' that is increasingly used in business and management contexts. However I suggest that it has even more scope. Ahupua'a is a geographic area of an island defined for the purposes of management by the sector enclosed within the lines connecting the top of the mountain and two points on the coast line. In essence it is a conceptual watershed. This approach to geographic definition is not typical of Native practices globally, although it is readily understood given the relative recency of the terrain of the Hawaiian Islands. There are few rivers or streams due to the slope and assimilative capacity of the soil, and the geographic scale of the islands--Hawai'i nui for example, is the largest in the group measuring at least 25 miles from the summit to the ocean.

The conceptual watershed is managed with the understanding that freshwater flows are 'from the mountains to the sea' and it engenders an intuitive approach regarding the impacts of upstream watershed management on downstream water quality. The result is an integrated and holistic management of resources within the Ahupua'a boundaries and an expectation of sustainability.

Kumu Ramsay's reference to the Ahupua'a as a behaviour management system was expanded upon in his presentation and he provided conceptual frameworks from Hawaiian culture that reinforced the behaviours that would lead to sustainability. Kumu Ramsay explained these Native concepts by taking the Hawaiian word for each and giving its genealogical origins extending to the range of ideas embodied in each word or concept.

One concept of particular interest was that of 'mana'. Mana was introduced as the combination of Ma (female) and Na (male), and together these produce mana, which represents life energy, and in the most basic of interpretations, the procreative act. Mana, the contemporary Hawaiian equivalent of mauri, and the older Hawaiian concept 'mauli', are considered the appropriate metric for sustainability assessment and multi-criterion decision making in the Puna district of Hawai'i Nui (2008).

The relevance of the concept, mana, is further understood in terms of the following abbreviated Hawaiian dictionary definition from *Ulukau*, Nā Puke Wehewehe 'Ōlelo Hawai'i; "supernatural or divine power, mana, miraculous power; miraculous, divinely powerful, spiritual; possessed of mana, power" This definition is closer to that understood by Māori, although its extension in Hawai'i to include life energy overlaps with the more pervasive concept of mauri in Aotearoa New Zealand. While the Tangata Whenua of Aotearoa New Zealand have concepts akin to mana related above from the Hawaiian worldview, a stronger distinction is made between the *power* definition of mana and the associated concept mauri which more accurately refers to life force in mātauranga Māori.

These similarities suggest that there are opportunities for application of the Mauri Model Decision Making Framework (DMF) in the Hawaiian context, albeit using mana as the basis for decision making. In this application the DMF might integrate the intrinsic value of ecosystems (environmental), ahupua'a (cultural), ohana (meaning family and representing the economic), and communities (social) using the indigenous concepts of mana / mauli as the performance metric across all four sustainability dimensions. Mana, the contemporary Hawaiian equivalent of mauri, is the likely metric for sustainability assessment and multicriterion decision making in Hawai'i. Developing this idea further, mana could be adopted as the alternative to money, the basis of the western worldview, as an alternative metric for sustainability decision making.

It may be concluded that the inherent wisdom of Native traditional ecological knowledge offers a way forward for our westernised society. Such knowledge offers insights regarding sustainability that are readily available in their specific geographic locations and are already a part of the existing and understood behaviour management systems. Discussion of this theme is invited as future submissions are intended to explore the potential learning opportunities available within traditional ecological knowledge.

References

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