## When common paths of renewable energy create regional success: the case-study of the South Pacific

## Evanthie Michalena<sup>a</sup> and Jeremy M. Hills<sup>b</sup>

<sup>a</sup>Sustainability Research Centre, University of the Sunshine Coast, Maroochydore DC Qld 4558 Australia. Tel:(+679) 9085271, e-mail: michalena@hotmail.com<sup>1</sup>

<sup>b</sup>a. Institute of Marine Resources, Faculty of Science, Technology & Environment, Private Bag, Laucala Campus, Suva, Fiji.

b. Sustainability Research Centre, University of the Sunshine Coast, Maroochydore DC Qld 4558 Australia. Tel: (+679) 323 2995, e-mail: jeremy.hills@usp.ac.fj

## Abstract

Pacific Small Island Developing Countries (PSIDS) are small and remote island economies with limited natural resources, narrow economies and high vulnerability to events such as the global fuel price volatility and cyclones. They are also mainly self-governing nations with a high degree of control over their development trajectory and independence from any "motherland". Renewable energy (RE) has been piloted in PSIDS, but has failed to effectively penetrate the fossil fuel dominated electricity market. This work takes an analytical and functional approach using multiple progress indicators to determine whether there is a consistent route of RE energy development in 12 PSIDS. Surprisingly, findings demonstrate that there is a consistent sequence of progress in governance and financial dimensions, suggesting a common regional development RE model in PSIDS. This conclusion infers that the country-based approaches such as Nationally Determined Contributions are restrictive, but supports the emerging development-focussed regionalism. We show that regionalisation of renewable energy development can help in removing national-dependence on external development finance and in capturing Energy Return on Investment (EROI). Promoting deeper regional bonds among countries could optimise renewable energy investment and deployment and also lead to a trajectory which is more aligned to global climate change targets.

<sup>&</sup>lt;sup>1</sup> Corresponding author

E-mail address: michalena@hotmail.com, Present address: Alkiviadou 186-188, 18536, Piraeus, Greece