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# Small Island Developing States (SIDS) & energy aid: Impacts on the energy sector in the Caribbean and Pacific

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#### ABSTRACT

Small Island Developing States (SIDS) in the Caribbean and Pacific have gone from a place of self-sufficiency and energy independence, during pre-colonial times, to a position, in more recent times, of being (often heavily) dependent on both imported capital (loans and aid) and imported sources of energy. This paper asserts that the current dependence of Caribbean and Pacific SIDS on both development assistance from donor agencies and imported fossil fuels is not coincidental, but rather, it was due to the transition of these islands from subsistence agriculture to export-oriented economies, primarily to serve the interests of more developed metropolitan countries. These interests have included the provision of cheap raw materials and agricultural produce to imperial nations; which has meant that SIDS needed to develop export orientated economies requiring both financial capital and energy supply usually over and above that available locally.

The impact of colonisation on domestic energy use and demand in SIDS is thus briefly outlined so as to make clear how these nations transitioned from self-sufficiency to dependence on foreign capital and energy. It is upon this backdrop that the current dependence of SIDS on international aid, particularly with regards to the energy sector, has been analysed, along with its influence on energy policy in SIDS.

This paper suggests that while imported finance and energy have been crucial to the past development of SIDS, the extent of reliance upon external financial assistance and energy imports at present is a cause for concern not only due to long term energy security issues but also because of the climate change implications of fossil fuel use. The concern is also pressing within the context of long term debt accumulation. It is argued herein that closer attention should be paid to local capacity building, training and institutional strengthening to enable a transition to renewable energy in place of fossil fuel based power. In terms of long term resilience such capacity building could eventually include the means for the production of renewable energy technology components.

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#### Introduction

Small Island Developing States (SIDS) in the Caribbean and Pacific have gone from a place of self-sufficiency and energy independence, during pre-colonial times, to a position, in more recent times, of being (often heavily) dependent on both imported capital (loans and aid) and imported sources of energy. This paper aims to briefly outline the impact of colonisation on domestic energy use and demand in SIDS in order to make clear how these nations transitioned from self-sufficiency to dependence on foreign capital and energy. It is upon this backdrop that the current dependence of SIDS on international aid, particularly with regards to the energy sector, has been analysed, along with the influence of donor entities on energy policy in SIDS.

This paper therefore seeks to examine the degree of the reliance of Caribbean and Pacific SIDS on aid, particularly as it relates to the energy sector. Further, the link, if any, between high oil prices, debt accumulation and resource depletion in SIDS will be investigated. Moreover, the

overall impact of international aid on the energy sector in SIDS will be assessed, particularly as it relates to the deployment of technologies and the formulation of policies. This paper will then conclude with recommendations geared toward improving the efficacy of energy aid to the Caribbean and Pacific regions.

The Caribbean & Pacific: Geography and climate

While the Caribbean and the Pacific are geographically separate these two groups of tropical islands have much in common. The term Caribbean, for the purposes of this paper, is used to refer to the primarily English-speaking archipelago nestled in the Caribbean Sea — see Fig. 1 (approximately 2.7 million square kilometres) that forms the regional grouping known as the Caribbean Community (CARICOM). The region

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According to Article 3 of the Revised Treaty of Chaguaramas, 2001 (establishing the Caribbean Community including the CARICOM Single Market and Economy), the Caribbean Community (CARICOM) comprises Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. Haiti later gained membership in 2002.



Fig. 1. Map of the Caribbean. Source: Open Street Map. © OpenStreetMap contributors (creative commons).

is tropical in nature and experiences two climatic seasons per year; wet and dry. The same is true of Pacific Island States, which for the purposes of this paper refers to those self-governing nations enveloped by the Pacific Ocean that are members, as well as beneficiaries of the programmes of the Secretariat of the Pacific Community  $(SPC)^2$  — see Fig. 2. The two regions are located in relative close proximity to the equator and as a result the climates of the two regions are almost identical. While the island states of the Pacific are far more scattered (and as such isolated) than those of the Caribbean, the topography and geographical character of the two groups of islands are largely homogenous. As such similar flora and fauna can be found in both locations.

## $\label{lem:historical} \begin{tabular}{ll} Historical background and context-energy independence \& self sufficiency \\ \end{tabular}$

The Caribbean and Pacific – prehistoric background

The peoples of the Pacific and the Caribbean first encountered by Europeans were diverse communities. They lived communally within subsistence economies that centred on the production of a few staple foods, supplemented by other, and secondary crops. Access to resources (including land) along with the influence held by persons, was largely determined by their socio-cultural and political rank; as dictated by traditional norms. These indigenous societies had not discovered or learnt of metals until the arrival of Europeans. Tools, fishing equipment and

weapons were therefore fashioned from the resources and raw materials that could be easily acquired from their immediate environments.

In the prehistoric communities of the Pacific and Caribbean, human muscle and wind energy were the only form of energy available for transport; whether via walking or through the use of sailing vessels. In addition, various forms of biomass were used to provide heat and light. There is no evidence, however, of animals being utilised as a mechanical energy source (to contribute to agricultural production, for example) in the prehistoric era. Notwithstanding the energy constraints, the existence of subsistence farming meant that the existing demand for food could be met relatively easily by utilising human labour from within the community. The absence of a need for surplus production, necessary for mass consumption (i.e. exports to larger nations and markets) meant that labour did not need to be imported and the land did not need to be cultivated or resources extracted beyond the limits or carrying capacity of the natural environment. It should also be noted that population growth within the islands was kept in check by natural means (such as the spread of disease) and by acts of war and aggression.

European encounters — the process and impact of colonisation (from subsistence to mass production)

The original motives behind exploration of Pacific and Caribbean were quite similar, if not identical — and they were largely economic in nature. Myths, fables and adventurous tales of gold-laden lands within both regions drove an unquenchable wanderlust in search of precious minerals (Freeman, 2010).

As European familiarity with the Caribbean region increased; "the British, French, Dutch and Danish...turned their attention not to the precious metals but to the sugar industry" (Williams, 1970). Originally (toward the end of 15<sup>th</sup> and start of 16<sup>th</sup> centuries) cotton and tobacco were grown for export to metropolitan markets of the respective colonial nations but these crops were quickly superseded by sugar, which required mainly unskilled labour (Parry and Sherlock, 1971). At that time the demand for sugar in Europe was increasing steadily (Parry and Sherlock, 1971). The transition that took place was therefore, to a

<sup>&</sup>lt;sup>2</sup> The South Pacific Commission, as the SPC was formerly called, was founded in Australia in 1947 under the Canberra Agreement by six 'participating governments' that then administered territories in the Pacific: Australia, France, New Zealand, the Netherlands, the United Kingdom and the United States of America. At present, SPC's membership includes the 22 Pacific Island countries and territories along with four of the original founders (the Netherlands and United Kingdom withdrew in 1962 and 2004 respectively when they relinquished their Pacific interests – see http://www.spc.int/en/about-spc/introduction.html). From among these nations, — from which this study will only focus on those countries that are self-governing, namely; are Cook Islands, Federated States of Micronesia, Fiji Islands, Kiribati, Marshall Islands, Nauru, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

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