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Community teak forestry in Solomon Islands as donor development: When science meets culture

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ABSTRACT

This paper uses a case study of smallholder teak forestry in the Pacific Islands nation of Solomon Islands to evaluate difficulties that can arise when foreign expertise fails to take sufficient account of local epistemology and practices when implementing market based community level development. The planting of community level smallholder teak is widespread in the Solomon Islands and has the potential to address some of the environmental and livelihood damage done by years of indiscriminate logging. Attempts by successive Australian Government aid programs to better manage plantations for maximum yield and marketability have largely failed as competing livelihood priorities; differing philosophies on long term compounding returns and deferred income; and the geographical challenges of accessing markets have all conspired to prevent this high value timber from being grown to its full potential. We use the theories of indigenous epistemology to highlight the ways in which failure to properly integrate economic activity according to the culture and values of communities can mean that initiatives such as this will struggle to succeed.

> *. . ..development dictated from the outside rather than anchored in the knowledge base of the target population is in principle modernization disguised: it will not be fully concerned with local needs.*
> Gegeo (1998)

1. Introduction

The purpose of this paper is to provide an analysis of what can happen when technical knowledge and the efficiencies of scientific best practice related to plantation forestry fail to intersect with local social and cultural norms and needs. To do this we use a case study involving the introduction of smallholder forestry into the Solomon Islands, beginning in the late 1990s, by a succession of Australian donor agencies. This extended project (with a strong foundation in western scientific forestry management) was introduced for the dual purposes of providing villagers with a sustainable long term income stream, and as a way to assist with re-forestation. Our findings demonstrate that this community based plantation forestry project often fails to connect with local communities, despite articulating a commitment to locally sensitive development.

Solomon Islands has been ravaged by indiscriminate primary forest logging throughout much of the 20th and early 21st centuries causing biodiversity loss, soil erosion and water pollution (Scheyvens, 1998; Pauku, 2009). In this context, re-forestation is one of a number of significant environmental management related development interventions occurring across the country. Although re-forestation will not duplicate the primary forest lost to logging, it does have positive effects for soil rehabilitation, the prevention of erosion, some positive biodiversity and carbon effects as well as potential for local income (Feyera et al., 2002; Wassmann and Vlek, 2004). We begin the paper by describing the economic, social and environmental context of this initiative, the project and our methods. We then use our fieldwork findings and existing literature to examine why this project may not have been as successful as anticipated. We review some of the challenges faced by development enterprises generally, and more specifically in Solomon Islands, when there is insufficient attention paid to the importance of local epistemologies and value systems. We conclude by arguing that effective local level development related to smallholder forestry is constrained in Solomon Islands by donor and the state driven top-down promotion of village level economic initiatives.

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2. Logging and the rise of scientifically managed community forestry in Solomon Islands

British colonial interests were responsible for much of the early logging that took place in the Solomon Islands. Since independence from Great Britain in 1978 the industry has come to be dominated by large international, mostly Malaysian, logging companies and their myriad subsidiaries, and often backed by the support of Solomon Islands government and some traditional landowners. This alliance between international and some local actors has been the cause of much conflict within and between communities, a theme to which we return below.

Solomon Islands GDP has historically relied very heavily for export revenue on royalties from the logging of native rainforest hardwood timber across the archipelago. The amount of timber extracted from Solomon Islands over the course of the last century, and similar to other Pacific nations, is massive and environmentally destructive (Katovai et al., 2015). In Solomon Islands, logging has occurred at as much as five times the sustainable rate (Pauku, 2009) yet there has been little to show for it in terms of development, particularly at the village level, for the people who hold customary land title over those areas that have been logged (Foale, 2001; Pauku, 2009). There are a number of reasons for this.

The first is corruption and mismanagement at the national government level, with royalties diverted and misspent by politicians and senior officials in Honiara (Allen, 2011). The second is the related problem of mismanagement of logging permissions and the inability of forestry officials to effectively govern and police the activities of logging companies across remote island locations.[1] The third reason is the complex and sometimes internecine webs of trust and mistrust across tribal groups and village communities. While the consent of traditional owners is required for logging of natural forests, the local trustees appointed for logging projects often do not share these royalties with their tribes (Allen, 2011; Kabutaulaka, 2001). As a result, most village communities in Solomon Islands remain materially impoverished, showing almost no benefit from the years of destructive logging.

Environmentally, logging has been devastating (Katovai et al., 2015). The largely unregulated logging of tropical forests and related infrastructure in Solomon Islands has caused a range of problems such as loss of forest diversity, loss of animal and bird habitat, landslides, erosion, pollution of watersheds and subsequent damage to coral and fish populations (Dauvergne, 2001). In social and economic terms, logging is also directly connected to adverse impacts on livelihoods, nutrition and cultural relationships as well as women's declining access and control over forest resources (Hviding, 2008; McDougall, 2008; Stege et al., 2008). Those most adversely affected by the destructive logging industries also remain largely excluded from industry decision-making (Dauvergne, 2001; Foale, 2001; Pauku, 2009).

According to most estimates, accessible high value tropical hardwood will be exhausted by 2015, after which the nation will lose its principal source of foreign exchange (Katovai et al., 2015). In acknowledgement of this ominous deadline, the Solomon Islands government has attempted to introduce a moratorium on primary forest logging in 2015, although logging remains widespread. For villagers, the opportunity for fair compensation for logging has passed, leaving communities with few options for sustainable cash income and economic development (Katovai et al., 2015).

One attempt to address this problem has been the introduction of plantation timber species at the village level in Solomon Islands. Teak (*Tectona grandis*), the focus of this paper, is an exotic, reasonably fast growing tropical hardwood in demand throughout the world for high value added uses such as furniture and architectural applications (Krishnapillay, 2000). Teak is suitable for cultivation in Solomon Islands' tropical climate and soils and has been cultivated there since the mid 1990s (Montgomery, 2006).

Historically, global plantation forestry has been dominated by industrial scale monoculture plantations. This practice often interrupts local and indigenous connections between land and people, and locks communities into new forms of dependence on external 'experts' for knowledge related to forestry management systems (Gegeo and Watson-Gegeo, 2002; German et al., 2014). In contrast, the majority of teak in Solomon Islands is grown in small plots (one to two hectares) at the village level and only a small number of these large commercial teak plantations have been established. This pattern of village level and community managed teak in the Solomon Islands is part of a global shift towards village or community level forestry management that has occurred over the last three decades. Hajjar et al. (2013) reports community forestry now comprises 22% of forests in tropical countries. In contrast to the large-scale industrial model, community forestry often emphasises locally managed plantations of high-value trees, including teak (the focus of this paper) and mahogany. The growth in community plantation forestry (and other collaborative natural resource management projects – see for example Lowenhaupt et al., 2005) is demonstrative of the potential for 'bottom up' and participatory approaches that have gained salience in contemporary development and environmental management approaches (Gills and Gray, 2012).

However, the bottom up model is not always implemented effectively as a model for development. Projects often face criticism for imposing large scale forestry practices at the community level; including practices such as tree inventories, annual operations plans and scientific management systems, but without providing local communities with the knowledge or resources to implement them (Hajjar et al., 2013). These practices can conflict with views, aspirations and beliefs at the village level. Community forestry has also often been found to be driven by the needs and interests of external actors (Pokorny and Johnson, 2008; Medina et al., 2009), including donor agencies and state institutions, disregarding local knowledge and epistemologies (Gegeo and Watson-Gegeo, 2002; Hoch et al., 2009; Lyons et al., 2016).

In the remainder of the paper we use a case study of the introduction of village level and community managed teak in the Western Province of Solomon Islands to make a contribution to this literature. We focus on village level teak growing in the Western Province using data gained from visits and extensive qualitative fieldwork in conjunction with an Australia donor project over the course of eight years.

The purpose of this paper is to provide a social and cultural (rather a than a silvicultural) evaluation of the potential for the cultivation of teak for socio-economic development at the village level in the Solomon Islands. The paper appraises the aid program that initiated village level teak cultivation and then critically addresses some of the obstacles to teak cultivation at the village level. It provides a commentary on development projects such as growing teak and the role that local and indigenous knowledge and epistemologies might play to ensure greater and more enduring success at the village level in contexts like Solomon Islands.

[1] A report into neighbouring PNG (Oakland Institute, 2016), for example, exposed the misuse of legal mechanisms (including Special Agricultural and Business Leases) that enables logging companies to access new forest resources without free and prior informed consent from local landholders. In response to a 2011 Commission of Inquiry Report into these land deals, the Papua New Guinea Prime Minister Peter O'Neill stated it "revealed a shocking trend of corruption and mismanagement in all stages in the process" (Oakland Institute, 2016, p. 4).