ARTICLE IN PRESS

Marine Policy xxx (xxxx) xxx-xxx



Contents lists available at ScienceDirect

Marine Policy



journal homepage: www.elsevier.com/locate/marpol

Building in-country capacity and expertise to ensure good governance of the deep sea minerals industry within the Pacific region *

Marie Bourrel^{a,*}, Alison Swaddling^b, Vira Atalifo^a, Akuila Tawake^c

^a Geoscience Division, SPC, Mead Road, Private Mail Bag, GPO, Suva, Fiji

^b Geoscience Division, Mead Road, Private Mail Bag, GPO, Suva, Fiji

^c Geo-Survey & Geo-Resources Unit, Geoscience Division, SPC, Mead Road, Private Mail Bag, GPO, Suva, Fiji

ARTICLE INFO

Keywords: Pacific Island countries Capacity building Good governance Sustainable development Deep sea mining SPC-EU DSM Project

ABSTRACT

Since the 1990s, international development assistance has placed increased emphasis on good governance as a means to promote sustainable development. Many aspects of the relationship between good governance and development remain poorly understood and may vary across countries, yet it is recognised that for developing countries, a critical component resides in the ability to respond to their capacity-building needs taking into consideration individual circumstances. The interest for the DSM industry in the Pacific region stemmed from the first surveys undertaken in the 1960s on mineral deposits on the seabed of the Pacific Ocean. Since the 1970s over 100 research cruises have occurred in the Pacific region contributing to the identification of some of the world's most promising DSM resources. Recent renewed interest in commercial DSM exploration, has propelled the need for PICs to be equipped with adequate regulatory frameworks for ocean research and exploration. In 2011, SPC and the EU, initiated the SPC-EU DSM Project which had the overall objective to strengthen governance of the region's DSM. Improving human and technical capacity at a national level was at the core of the Project. This paper draws on the experience of the Project and provides an overview of capacity building needs in the Pacific region regarding DSM with a focus on the needs surrounding science, environmental management and regulatory frameworks and institutional arrangements. It discusses the achievements of the SPC-EU-DSM Project at the institutional, individual and societal levels and highlights challenges affecting the use, retention and continuous upgrading of capacities.

1. Introduction

Since the 1990s, international development assistance has placed increased emphasis on good governance as a means to promote sustainable development. Although there is no unique internationally agreed definition of what 'good governance' [1] is, consensus exists on the main components that characterise the concept. This includes technical and managerial competence, organisational capacity, reliability, predictability and the rule of law, accountability, transparency and open information systems, and participation. The philosophy behind this new paradigm is to direct attention to consideration of the minimal conditions of governance necessary to allow political and economic development to occur (Grindle, 2004) [2] while ensuring that societal conditions are systematically taken into account. In other words, the ability for governments to make 'good' decisions across a spectrum of fundamental areas including in economic, social and environmental areas. Many aspects of the relationship between good governance and development remain poorly understood and may vary across countries [3], yet it is recognised that for developing countries, a critical component resides in the ability to respond to their capacitybuilding needs taking into consideration individual circumstances [4].

Capacity development [5] is traditionally understood to be a two dimensional concept encompassing human resources and institutional building. In the context of sustainable development, the United Nations Environment Programme (UNEP) defines 'capacity building' as "(...) building abilities, relationships and values that will enable organisations, groups and individuals to improve their performance and achieve their development objectives" [6]. As such, the process covers three distinct but complementary aspects dealing respectively with: (i) individual and organisational change, (ii) the importance of building individual capacity and, (iii) the importance of adopting an inclusive approach enabling the participation of all relevant stakeholders [7]. Most development organisations follow such an approach [8] which translates into the design of technical cooperation programmes which

* The opinions contained in this article are expressed by the authors in their personal capacity and do not reflect the views of SPC.

* Corresponding author.

E-mail address: marie.bourrel@hotmail.fr (M. Bourrel).

http://dx.doi.org/10.1016/j.marpol.2017.03.022 Received 23 February 2017; Received in revised form 13 March 2017; Accepted 13 March 2017 0308-597X/ © 2017 Published by Elsevier Ltd. have the main objective of building national capacities to enable countries to manage their own development.

In the Pacific region, this is the foundation of the work undertaken by several, if not all, regional organisations, each established with a specific mandate [9]. The oldest organisation is the Pacific Community (SPC); the principal scientific and technical organisation of the Pacific region. Formerly known as the South Pacific Commission [10], SPC was established in 1947 under the Canberra Agreement [11] to restore stability to a region that had experienced the turbulence of the Second World War (Brierley and Bourrel, 2016) [12]. Although its initial mandate was to coordinate research on economic, health and social development [13], today, SPC provides technical assistance to its twenty-six members in more than twenty-five sectors including geoscience, and accordingly, in the field of deep sea minerals (DSM).

The interest for the DSM industry in the Pacific region stemmed from the first surveys undertaken since the 1960s on mineral deposits on the seabed of the Pacific Ocean [14]. Since the 1970s over 100 research cruises have occurred in the Pacific region contributing to the identification of some of the world's most promising mineral resources [15]. Recent renewed interest in commercial DSM exploration in the Pacific, including the granting of a deep sea mining lease in Papua New Guinea, where operations should start in 2019, has propelled the need for Pacific island countries (PICs) to be equipped with adequate regulatory frameworks for deep ocean research and exploration [16]. In 2011, SPC, in partnership with the European Union (EU), initiated the SPC-EU DSM Project which had the overall objective to strengthen governance of the region's DSM. The SPC-EU DSM Project was the first of its kind in the world to offer assistance to governments on matters pertaining to DSM. Improving human and technical capacity at a national level was at the core of the Project [17].

The aim of this paper is to provide an overview of the capacity building initiatives developed by the SPC-EU DSM Project as well as to analyse how the specific capacity building interventions contributed to increasing good governance for the DSM sector. This will be achieved through, in a first section, the identification of the various needs associated with the development of good governance for the DSM industry in the Pacific region (context); followed by an analysis of the approach adopted by the SPC-EU DSM Project, highlighting the key achievements and the challenges encountered (content). The paper concludes by providing some recommendations for future involvement in this matter.

2. Overview of DSM capacity building needs within the Pacific region

Although over 300 exploration licenses have been issued by PICs so far, no mining activities have started yet in the region, or anywhere in the world. Two main reasons can be suggested for this. First, because the DSM industry is an emerging industry with technology and investment still under development. Second, although many PICs are exploring opportunities to engage further with this industry, many have adopted a precautionary approach, requiring that all environmental safeguards set out in national legislation be met before issuing exploitation licenses. The existing challenges faced by PICs, which are intrinsically linked to their lack of resources and capacities, influence the approach of Pacific Leaders to progress further in the development of the sector. Considering the level of technology and complexity of this new industry, acquiring the necessary capacities to ensure that exploration and exploitation activities are conducted in a sustainable manner, is a prerequisite. It is therefore urgent, in support of national decisions, to address such capacity needs.

Limited resources in time, knowledge, human, and organisational capacity often make it difficult to identify the specific capacity building needs of each country. However, in a DSM context, the dedicated nature of the SPC-EU DSM Project enabled close examination of existing capacities, and identified three distinct sectors requiring specific interventions, namely: scientific research, environment management and regulatory frameworks. All of these are key components for achieving good governance of the DSM sector.

2.1. Science capacity needs

The types of mineral deposits in the exclusive economic zones (EEZs) of PICs that can potentially be commercially developed exist in various forms, at different depths and environments on the seafloor, and are usually associated with variable biological communities [18]. Although there may be interest to engage with the DSM industry, PICs currently have limited capacity with respect to understanding the dynamic setting and characteristics of DSM deposits, deep sea ecosystems and oceanographic circumstances [19], attributable to the technical nature and high cost of conducting deep sea research.

There are limited research institutions in the Pacific Islands Region with funding for and expertise in deep sea research; and indeed the majority of research is conducted by external institutions [20]. PICs have an opportunity to capitalise on these external research expeditions by encouraging local participation on vessels and onshore participation through virtual classrooms [21]. While education in deep sea marine science is difficult without leaving the region for higher education, so too is retention of capacity once built. Often the most talented and experienced personnel choose to leave the region [22].

Clearly, science and knowledge are fundamental to being able to make informed decisions. Therefore, there is a need therefore for dedicated technological expertise at the national level, to ensure that the development of appropriate legislation and environmental guidelines takes into consideration current understandings of science, processes and technology which can keep abreast of new developments as they arise.

2.2. Environment management capacity needs

Concerns have been raised about environmental impacts that will occur as a result of DSM mining. Therefore, it is generally recommended that before exploitation licenses are issued, a prior comprehensive environmental impact assessment (EIA) be conducted to ascertain potential environmental impacts. However, environment departments/agencies in PICs have human resource shortfalls and for the most part do not have the full complement of resources for screening, scoping, reviewing, deciding, monitoring and enforcing EIAs (Bradley and Swaddling, 2016) [23].

In addition to project-specific EIAs, PICs must also consider competing interests of other marine industries and the potential for cumulative impacts. This can be done via a Strategic Environmental Assessment, and incorporating marine spatial planning into development decisions. In particular, the establishment and longevity of marine protected areas by the State to conserve and protect deep sea biodiversity, ecosystem structures and function will be crucial (SPC, 2016) [24]. These high-level management tools require additional competencies and access to research information that are often lacking in PICs.

This is aggravated by the difficulties faced by national agencies to access data and technology innovations that could strongly contribute to develop and/or amend environmental frameworks and existing approaches to reduce, mitigate, and monitor impacts of DSM activities.

2.3. Regulatory framework and institutional arrangement capacity needs

PICs that want to engage with the DSM industry should to have in place proper regulatory frameworks including national policies, legislation and regulations [25] in order to regulate and manage effectively the activities undertaken under their effective control (either within their EEZs or in the international seabed area). However, as of today, few PICs are equipped with such regulatory frameworks [26], or with Download English Version:

https://daneshyari.com/en/article/7487894

Download Persian Version:

https://daneshyari.com/article/7487894

Daneshyari.com