

Abandoned, Lost and Otherwise Discarded Fishing Gear in the Eastern Caribbean: Drivers, Challenges and Opportunities for Improved Governance

Equipos de Pesca Abandonados, Perdidos o Descartados en el Caribe Oriental: Impulsores, desafíos y Oportunidades para una Mejor Gobernanza

Engins de Pêche abandonnés, perdus or rejetés dans les Caraïbes Orientales: Facteurs, Défis et Opportunités pour une Meilleure Gouvernance

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EXTENDED ABSTRACT

INTRODUCTION

Abandoned, lost and otherwise discarded fishing gear (ALDFG) is a global challenge at the nexus of fisheries management, maritime transport, environmental governance and solid waste management. Like other forms of marine litter, ALDFG is transported on ocean currents and may accumulate in ocean gyres, leading to transboundary impacts. Achieving effective governance of this complex challenge requires intersectoral coordination and collaboration, not only at the national level but also regionally and globally.

ALDFG may be caused by a range of drivers, including environmental causes, conflicts at sea, management failures or operational errors (GESAMP, 2021, Gilman et al., 2022, Richardson, Hardesty et. al, 2021). Identifying local drivers of ALDFG is one of the first steps towards designing and implementing effective management interventions.

In this same vein, understanding the governance environment and discerning related challenges and barriers is crucial to creating a responsive, effective, equitable and robust governance regime for this complex threat. As observed by Lubell et al (2021), undertaking analyses of governance barriers may assist managers in developing actionable issues and challenges that can be addressed through planning. In the context of this research, governance has been defined as the institutions, structures and processes that “determine how; power is exercised, citizens are given a voice and decisions are made on issues of public concern” (Graham et al., 2003, p. i). By considering governance through this three-tiered system, associated barriers can be similarly categorised.

METHODOLOGIES

This research was undertaken using a qualitative approach. It included case-study assessments to identify drivers of ALDFG in two Eastern Caribbean jurisdictions, Antigua and Barbuda, and the Commonwealth of Dominica. A total of 56 fishers from Antigua, Barbuda and Dominica were interviewed over two months in summer 2022. The survey instruments utilised for fisher interviews were derived from the FAO Global ALDFG Assessment and used with their permission.

To understand the governance environment including an assessment of barriers and opportunities for improved governance, key informants interviews were conducted with 17 experts representing both national and regional organisations. This included representatives of fisheries management agencies, marine conservation bodies, and regional fisheries and environmental governance organisations. Each of these key informant interviews was conducted via Zoom using semi-structured interview instruments. These interviews were first transcribed utilising Otter AI software before being uploaded to NVIVO for analysis.

RESULTS

In the two case study jurisdictions that were assessed, environmental drivers were the most frequently cited causes of gear loss among both trap and line fishers. Severe weather was the most frequently identified environmental driver in the case of trap fisheries while towing by large animals was the main driver of line loss (Figures 1 and 2). In both instances, operational drivers were among the least identified causes of gear loss.

In considering governance barriers, fisheries and marine conservation experts representing both national and regional bodies identified a range of institutional, structural and procedural barriers to the governance of ALDFG along with several barriers which were considered cross-cutting to the processes, structures and institutional systems of governance (Figure 3).

Policy incoherence and legislative fragmentation were identified as major institutional barriers to effective and robust ALDFG governance in the Eastern Caribbean. Further, there was found to be an overall lack of ALDFG focused regulations within most of the sectoral legislation of Eastern Caribbean jurisdictions. As with other matters of environmental and marine governance, limitations in the human, technical and financial capacity of relevant agencies was thought to be a

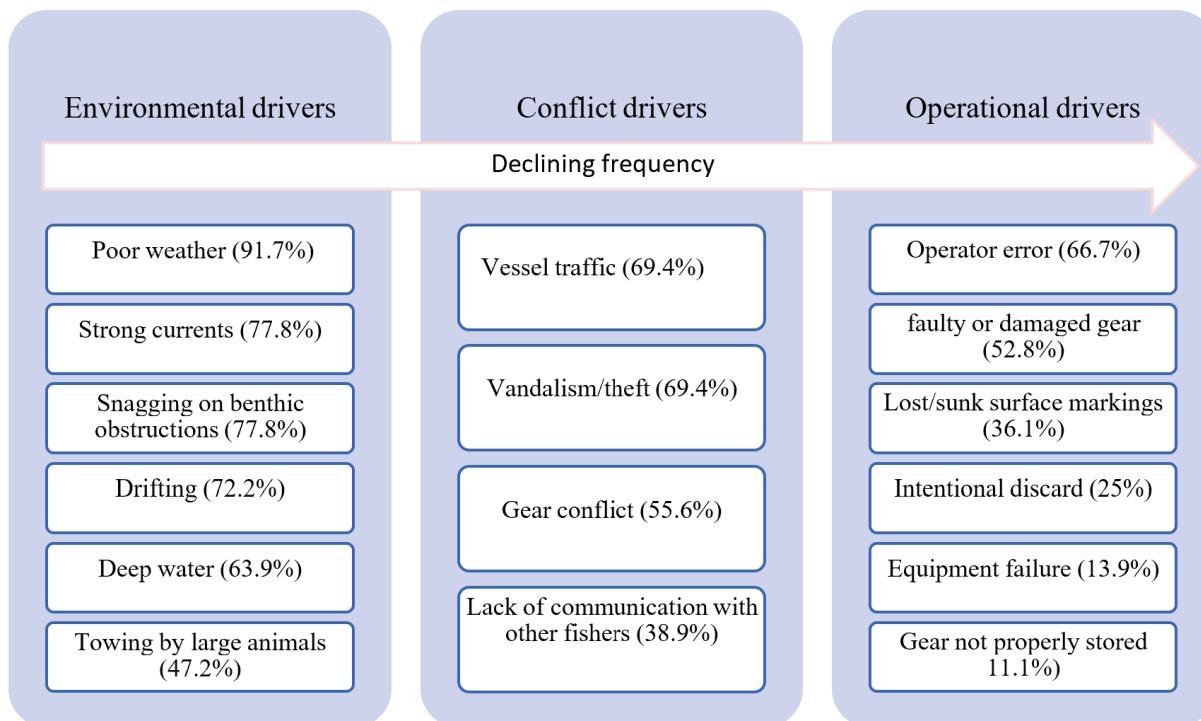


Figure 1. Drivers of fish trap loss in Antigua and Barbuda, and Dominica and frequency with which fishers identified them (Source: Lovell 2023).

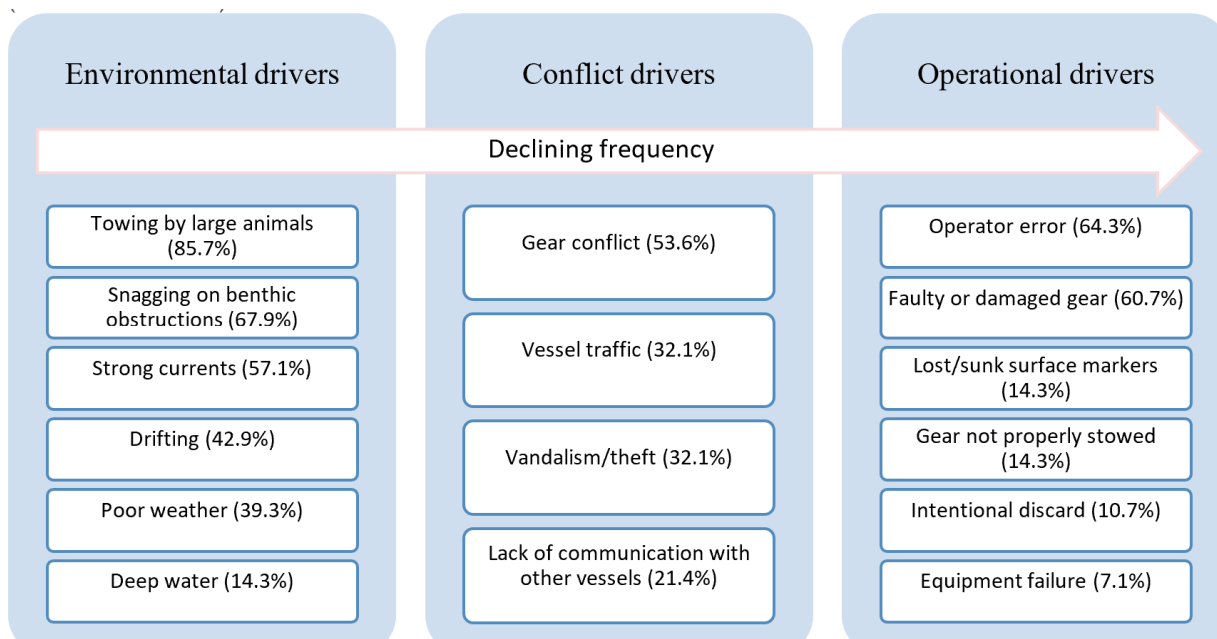


Figure 2. Drivers of line loss in Antigua and Barbuda and Dominica, and frequency with which fishers identified them (Source: Lovell 2023).

contributory factor to the lack of prioritisation of ALDFG governance within the various sectors of government. Such structural weaknesses extend beyond fisheries management agencies to other supporting sectors including the waste

sector, which lack the facilities and resources to effectively manage derelict fishing gear and/or end-of-life fishing gear.

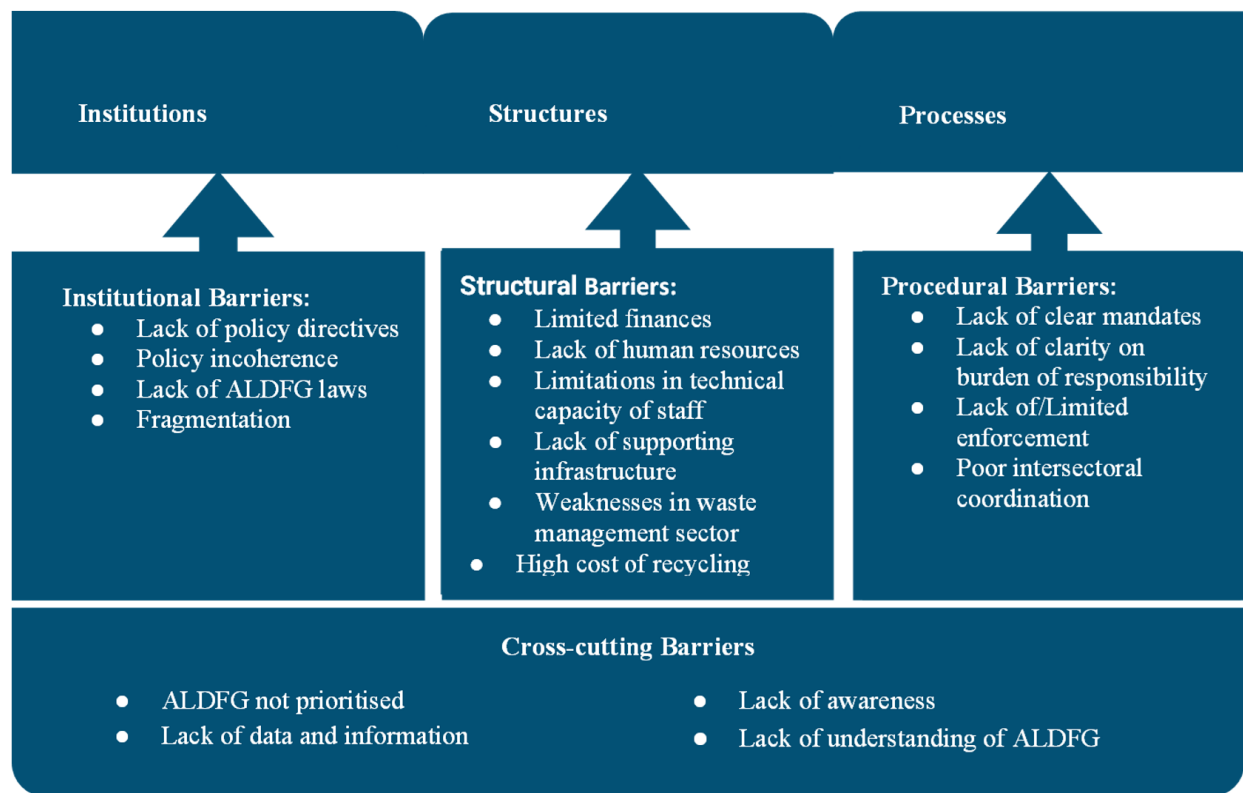


Figure 3. Identified institutional structural, procedural and cross-cutting barriers to the governance of ALDFG (Source: Lovell 2023).

There is an overarching need to establish effective cross-sectoral collaboration, nationally, sub-regionally and throughout Caribbean as a means of addressing the complex challenge of ALDFG. The strong need for policy coherence, not just at national level but also sub-regionally and regionally, while taking account of global strategies, was identified as a priority by several key informants. As observed by one fisheries management expert, there is an overarching need to move away from siloed approaches and to set common targets and goals to achieve effective governance of ALDFG in the Eastern Caribbean. In this regard, the establishment or strengthening of existing mechanisms for intersectoral collaboration at the national and regional levels can create opportunities for improving policy coherence both vertically and horizontally.

Awareness raising was seen as another important element for overcoming both structural and cross-cutting barriers to effective ALDFG governance. Fishers who are engaged and educated are more likely to practise sustainable gear management strategies. As noted by many interviewees, fishers do not wish to lose their gear, as this represents a loss of revenue and time if they are forced to construct new gear. However, understanding the ramifications of ALDFG, including the socioeconomic effects on the fishing sector, may lead fishers to improve their gear management practices to avoid losses during deployment and retrieval.

The need to build trust among the various agencies not only nationally but also regionally was also identified as key to improving ALDFG governance. Trust is essential to achieving the desired interactions and outcomes within governance systems (Klijn et al., 2010) and is also critical promoting legitimacy in governance (Proszowska et al., 2022). Trust among various governance actors can stimulate exchange of information and ideas and facilitate learning (Klijn et al., 2010). Trust can be built in governance systems by ensuring policy development and implementation is undertaken in a transparent and collaborative manner.

Finally, as Caribbean governments and the global community seek to advance measures for tackling the global marine debris challenge, there is a clear need to consider how national and regional actions align with and relate to the global ALDFG governance architecture. Given the inherent vulnerabilities of SIDS including those in the Eastern Caribbean relating to ALDFG governance, weaknesses in their waste management sectors, their exposure to transboundary marine debris, and the severe human, financial and technical constraints experienced by regional governments, it is critical that they remain engaged and play an active role in designing a comprehensive approach to addressing the global plastics challenge, including ALDFG.

KEYWORDS: Protected areas, coastal ecosystems, Environmental Impact Assessment, fisheries management, habitat threats

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