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## Policy Development and implementation of the Ecosystems Approach to Fisheries, Climate Change Adaptation, and Disaster Risk Management in Small-scale Fisheries in Caribbean

## Introduction

Fisheries and aquaculture are important to the lives and livelihoods of most people in the Caribbean region for quality animal protein, essential fatty acids, vitamins and minerals, food security and income (personal and national). Approximately 182,000 per-



sons are directly and indirectly employed in the sector, with the majority from rural coastal communities.

Many fishing communities are located in areas that are prone to natural disasters. Where land and water meet is one of the most environmentally dynamic environments that exist and it is often the hostility of these areas that provides opportunities for the poor. Climate variability and change are leading to generally more frequent extreme weather events and natural disaster hazards. Population growth and demographic changes contribute to increasing the effects of disasters. Growing pressure on land and natural



resources as well as changes in agriculture production systems, are further amplifying risks and impacts. Climate change will also affect livelihoods in fishing communities, in particular in developing countries, as ecosystem productivity in tropical waters is likely to be reduced. This may lead to increased migration of fishers and their traditional knowledge on resources, fishing and processing will become obsolete. The possibilities to effectively address these issues are hampered by the fact that there is often an institutional separation between disaster risk management (DRM), climate change adaptation (CCA) and sectoral agencies, including fisheries. Fishery administrations often lack the mandate, capacity and resources to respond to the changing vulnerability context that surrounds the livelihoods of small-scale fishing communities. The consequences of this are a weak integration of (DRM) and (CCA) into the fisheries

### Development of the Ecosystem Approach to Fisheries



sector and of fisheries into (DRM) and CCA. Consequently, humanitarian interventions in responding to disasters and climate change in fisheries are



not addressing the needs of the sector effectively.

People involved in the sector are, however, vulnerable to hazards and disasters such as hurricanes, floods, earthquakes, tsunamis and disease outbreaks. Vulnerability is partly inherent to the dynamic nature of land-

water interfaces, but it is growing because of increased incidences of hazards and the influences of climate change. Interconnectedness of hazards and climate change suggests the need for an integrated approach to address them simultaneously in disaster risk management (DRM) and climate change adaptation (CCA).

The Ecosystem Approach to Fisheries (EAF) concept strives to balance diverse societal objectives by taking account of the different components of ecosystems and their interactions and applying an integrated approach. EAF provides a framework for integrating planning & decision-making.

The EAF is the realization of sustainable development in fisheries; contributing to food security and human development; maintaining environmental in-



tegrity and enhancing social well being; and reducing intra and inter-sectoral conflict through participatory approaches and stakeholder consultation.

EAF, CCA, and DRM in fisheries and aquaculture are essential. These need to be closely linked to wider development processes and be fully



mainstreamed into sectoral and cross-sectoral development policies and plans. EAF, effective DRM and CCA require coordination, consultation and cooperation among global, regional, sub-regional, national and local stakeholders and partners.

Within the CARICOM region, the Caribbean Regional Fisheries Mechanism (CRFM), the Food and Agriculture Organisation of the United Nations (FAO), the Western Central Atlantic Fishery Commission (WECAFC), the Caribbean Disaster Emergency Management Agency (CDEMA) and the Caribbean Community Climate Change Centre (CCCCC) share interest in comprehensive EAF, DRM and CCA in respect of the fisheries and aquaculture sector. There is increasing awareness of the need for, and a growing movement to, apply EAF and develop sustainable linkages between DRM and CCA. This has resulted in new linkages between DRM and CCA in institutional contexts, including development of a formal relationship between CDEMA, CARICOM Secretariat, and the Caribbean Development Bank (CDB). Since coping measures for climate variability and extremes already exist in the Caribbean, as elsewhere, adaptation to future climate change focuses on identifying gaps in the current capacity for addressing present-day climate variability and extremes. Reducing vulnerability to near-term hazards is also considered to be an effective strategy for reducing long-term climate change risks.

Recently the CCCCC prepared the Regional Framework for Achieving Development Resilient to Climate Change. The strategic vision driving the regional strategy is to lay the ground for a "regional society and economy that is resilient to a changing climate". The Framework envisages that the financing of disaster risk reduction initiatives will be treated as a development priority within the budgeting process, and that all government entities will ad-



vance the goals and objectives of the framework by ensuring that disaster risk reduction is taken into account in the design of development programmes and projects.

The CCCCC, CDEMA, CRFM, FAO, WECAFC and other regional institutions are strategic partners in charting an integrated approach to disaster risk reduction and climate change adaptation. Recently, a strategy, action plan, and programme proposal on DRM, CCA in fisheries and aquaculture in the CARICOM region was formulated. On top of this, the Caribbean has a novel governance mechanism in the form of the Comprehensive Disaster Management Coordination and Harmonization Council. It provides the overall management and technical guidance needed to ensure that comprehensive disaster management implementation activities within and between countries, and across different sectors and disciplines, are coordinated and harmonized. Climate change is recognized as a cross-cutting theme in comprehensive disaster management.

Despite these enormous strides in the region to address EAF, CCA, and DRM in small scale fisheries, there are several issues, and challenges to be addressed for effective mainstreaming. The following sections present and discusses these issues, constraints and recommendations to mainstream EAF, CCA, and DRM in the region's fisheries governance and management. The impacts of CC and disasters and vulnerability context of fisherfolk in CARI-COM fisheries are widely discussed elsewhere (Mahon, 2002, CRFM, 2013). This paper focuses on the issues relevant to development of policy and implementation of EAF, CCA and DRM in small-scale fisheries governance and management in CARI-COM. This paper draws heavily from the strategy, action plan, and programme proposal on DRM, CCA in fisheries and aquaculture in the CARICOM region (CRFM, 2013), and a paper on disaster Risk Management in Fisheries in the WECAFC Region (WECAFC, 2012).

## **Critical Issues**

Fisheries and aquaculture are important to the lives and livelihoods of most people in the Caribbean region for quality animal protein, essential fatty acids, vitamins and minerals, food security and income (personal and national). Approximately 182,000 persons are directly and indirectly employed in the sector, with the majority from rural coastal communities.



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Fishery administrations often lack the mandate, capacity and resources to respond to the changing vulnerability context that surrounds the livelihoods of small-scale fishing communities. The consequences of this are a weak integration of (DRM) and (CCA) into the fisheries sector and of fisheries into (DRM) and CCA. Consequently, humanitarian interventions in responding to disasters and climate change in



fisheries are not addressing the needs of the sector effectively.

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wider development processes and be fully mainstreamed into sectoral and cross-sectoral development policies and plans. EAF, effective DRM and CCA require coordination, consultation and cooperation among global, regional, sub-regional, national and local stakeholders and partners.

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## **Critical Issues**

While there are efforts to address EAF, CCA, and DRM by various organizations and partnerships, development of policy and implementation regarding the EAF, CCA, and DRM in SSF in CARICOM has been slow to say the least. There has been call for stronger policy for integrating and implementing EAF, CCA, and DRM in the region (CRFM, 2013 (c)). In order to make pace in this regard, a few critical issues need to be ironed out.

• EAF/CCA/DRM requires commitment and will at all levels to move it forward. There is the general

feeling among industry stakeholders that there might be insufficient political interest or will and support. The fear is that EAF might not be seen as well aligned with economic growth priorities (including poverty alleviation of fishers) that do not incorporate environment costs or long-term sustainability considerations. It is also worth noting that political timeframes, which may look no further than the next election, may often not match with longer-term EAF timeframes. According to CRFM (2013 a) countries admitted that CCA and DRM were not priority concerns in fisheries and aquaculture.

- Weak policy coherence, institutional structure, and legal-institutional arrangements for EAF, CCA, DRM in fisheries. EAF, CCA, and DRM seem to be generally converging in the region but the benefits of them converging are not reflected in the fishery sector. The reason for this is the institutional separation between DRM, CCA and sectoral agencies, including fisheries. Fishery administrations often lack the mandate, capacity and resources to respond to the changing vulnerability context that surrounds the livelihoods of smallscale fishing communities. The consequence of this are that integration of DRM and CCA in fisheries policies, plans and Strategies, and programmes is weak and that humanitarian interventions in responding to disasters and climate change impact in fisheries are not fully addressing the needs of the sector effectively.
- Weak knowledge and information mobilization reflected in inadequate technical and scientific knowledge and information exchange and communication, and awareness across all levels, but particularly at the local/community level. CRFM (2013 a) highlighted for example the suite of CCA2DRR tools were little known by many industry stakeholders or shared by the few who were familiar with them. Further data and research on how climate change and fisheries are linked and how they change is limited. There is also poor capture and dissemination of local and indigenous knowledge and good practices. There is need for strengthening of information flow at all levels.

• Lack of enabling policy to ensure much needed community strengthening and bottom-up approach to drive integration of EAF, CCA, DRM initiatives with each other and with fisheries and aquaculture at the local and national levels.

# Main Constraints and Challenges

Policy development and implementation of EAF, CCA, and DRM in the region requires careful attention to the following constraints and challenges:

- Limited human, technical, and financial re sources.
- Incomplete and outdated policy and legislative frameworks for fisheries and aquaculture.
- Institutional weaknesses and capacity issues of fisheries authorities and other stake-holders including FFOs.
- Overlapping, competing, and conflicting government agency jurisdiction affecting coordination and collaboration at all levels.
- Poverty is a challenge to building adaptive capacity.
- Insurance



# Recommendations

• Political will for and commitment to implementation of EAF/CCA/DRM be increased in the region.

- Strengthen and maintain momentum for the shared vision and strategic partnership/alliance on integrating EAF/CCA/DRM into fisheries and aquaculture. Formalize and strengthen existing mechanisms to improve interaction between main international, regional, and national stakeholders in CCA/DRM and fisheries, including development banks.
- CRFM to continue to take lead and advocate the inclusion of fisheries into regional and national CCA/DRM mechanisms.
- Coordinate and develop appropriate regional instruments and networks for EAF/CCA/DRM and fisheries and aquaculture.
- Linkages and collaboration be strengthened among fisheries authorities and other government ministries and departments to improve general understanding of EAF/CCA/DRM and facilitate its implementation.
- Fisheries authorities should aim to incorporate EAF.CCA/DRM in management planning of fisheries.
- Improve regional research capacity, data, and information exchange between all stakeholders and at all levels. Raise awareness; develop capacity for EAF/CCA/DRM. Capture and disseminate local and indigenous knowledge and good practices.
- Build public private partnerships at national levels.
- Encourage investment for EAF/CCA/DRM through development of regional programmes to reduce vulnerability of fisherfolk and their communities.

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### CNFO

The Caribbean Network of Fisherfolk Organisations (CNFO) is a non-profit regional network operating in the CARICOM countries. Its mission is to "Improve the quality of life for fisherfolk and develop a sustainable and profitable fishing industry through networking, advocacy, representation and capacity building.

#### CRFM

The CRFM is an inter-governmental organisation whose mission is to "Promote and facilitate the responsible utilisation of the region's fisheries and other aquatic resources for the economic and social benefits of the current and future population of the region". The CRFM consists of three bodies – the Ministerial Council, the Caribbean Fisheries Forum and the CRFM Secretariat.

CRFM members are Anguilla, Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago and the Turks and Caicos Islands.

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