THINK TANK EVENT ON SCIENCE AND POLICY DIALOGUE ON CLIMATE CHANGE AND FISHERIES IN AFRICA

Conference Booklet

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Sun N’ Sand Holiday Resort, Mangochi
CONCEPT NOTE

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1.0 Introduction

Oceans, lake, rivers and floodplains are important sources of fish for millions of people in Africa. Climate change is expected to change future fisheries production patterns, either by shifting production as species move to new habitats (Cheung et al., 2009; Lam et al. 2012); or as a result of changes in the net marine primary production (Brander, 2007; Cheung et al., 2009). The productivity, distribution and seasonality of fisheries, and the quality and availability of the habitats that support them, are sensitive to climate change effects. According to the Intergovernmental Panel on Climate Change (IPCC) these changes in fish production will be as a result of the rise atmospheric temperatures, which will, in return lead to possible rising sea temperatures, changing sea levels, increasing ocean acidification, altering rainfall patterns and river flows, and causing higher incidence of extreme weather events. Climate change and variability is already being felt in many inland fisheries in Africa due to reduction in the size of water bodies, such as Lake Chad. Impact of climate change on aquaculture might be manifested through weakening supply and delivery of such inputs as feed and seeds; as well as the weakening of pond productivity.

1.2 Importance of fisheries to Africans & Vulnerability of fisheries to climate change

Fisheries provide employment for over 4 million Africans, equivalent to about 9% of the total employment of about 45 million people in world fisheries. The total annual fisheries production is estimated to be about 9 million metric tonnes (of which 2.6 million tonnes came from inland fisheries) which represents about 7% of world fisheries production and contribute at least $10 billion dollars to African economies every year (FAO, 2012). On average, fish constitutes over 21 percent of daily protein intake for the region's population, and is the cheapest source of animal protein on
the continent. NEPAD (2005) found that some 200 million Africans rely at least in part on fish for nutrition.

Dulvy and Allison (2009) reported that most African nations, particularly those in the East, Central and West face the double jeopardy of high vulnerability to climate effects on both their fisheries and agriculture sectors.

1.3 Responses of African Policy Makers to climate change in fisheries

While many Africa countries have put in place broad national strategies to either adapt or mitigate against the impact of climate change, fewer have specifically designed strategies which cover fisheries and aquaculture. This is due to a number of reasons including, lack of capacity among national fisheries authorities (Departments and Ministries); lack of scientific information which authorities can use as evidence for policy formulation; and institutional barrier because climate change issues at both national and international levels tend to be championed by the ministries responsible for environment. It is for this reason that the first Conference of African Ministers of Fisheries and Aquaculture (CAMFA), which was held in The Gambia, in September 2010, recommended that:

“Member States, RECs and RFBs mainstream climate change in fisheries policies, development and management programmes”

The African Fisheries Policy Day which was jointly convened by the NEPAD Agency and the University of Dar es Salaam in July 2012 highlighted a number of the policy issues which need to be taken into account by national fisheries authorities. Some of these critical issues included the need to deepen the interaction between fisheries and environment ministries at country level, strengthening regional water management for shared water basins, enhancing the capacity of African scientists to develop location-specific strategies for adaptation; and raise the African Voice on impact of climate change to fisheries during such international discourses as the United Nation’s Framework Convention on Climate Change (UNFCC)’s Conference of Parties (COP).

1.4 The Science and Policy Dialogue on Climate Change and Fisheries in Africa

In response to the above, NEPAD Agency and the Afri-FishNet, the network of African fisheries scientists and the CAADP Expert Pool, and NEPAD Agency’s International Partnership for African Fisheries Governance and Trade (PAF) are spearheading a range of efforts that will help generate knowledge on the impact of climate change in Africa and design specific strategies which can be adopted at all levels to ensure that the benefits of the fisheries resources are secured for current
and future generations. It is on this premise that this science and policy dialogue (Think Tank Event) is being organised in Africa, as a special platform dedicated to the climate change and the African fisheries and aquaculture. The Think Tank Event will build on the outcomes of a study which was conducted by the NEPAD-FAO Fish Programme (NFFP), as well as two regional consultations which were held in 2012 and 2013. It is expected that this Think Tank Event will enable the NEPAD Agency to assist assisting the African member states to improve climate-proofing of their post-CAADP compact National Fisheries and Aquaculture Investment Plans and optimised contribution of fish towards food and nutrition security as well as economic growth.

2.0 Objectives of the dialogue

The Science and Policy Dialogue on Climate Change and Fisheries in Africa (SPDCCFA) will achieve the following objectives:

a) To bring together leading researchers and practitioners who will catalogue scientific work being carried out on climate change and fisheries in Africa and critically review the science-policy gaps that still remain unanswered;

b) To identify to special technical areas pertaining to impact of climate change on fisheries and aquaculture which are required in order for Africa to build a critical mass of climate change scientists;

c) To facilitate information sharing in special technical areas pertaining to impact of climate change on fisheries and aquaculture;

d) To ensure that policy processes on the impact of climate change on fisheries are informed by good-quality science-based work on vulnerability and adaptation;

e) To develop policy pathways on critical mitigation and adaptation strategies in the sector, which will be presented to the second CAMFA in February 2014.

2.1 Theme of the Think-Tank Event

The theme of the Science and Policy Dialogue on Climate Change and Fisheries in African (SPDCCFA) is “Scientific and Policy Options to Safeguard Africa’s Fisheries and Aquaculture Against Climate Change”. Some of the sub-themes to be discussed include:

a. **Vulnerability and Adaptation to Climate Change**: the impacts of climate change and disasters on fisheries including their socio-economic significance and the identification of potential adaptation options

b. **Climate Change Modelling**: forecasting bio-economic changes

c. **Impact of Climate Change on Mobility**: changes in distribution of fisheries and subsequent migration of fishers

d. **Outreach and Advocacy for Climate Change**: communication strategy for policy and change
e. **National and regional initiatives on climate change and fisheries**: Review of current practices and innovations and linkage to the Regional Flagship Programmes (RFPs).

### 2.2 Expected outcomes of the Think-Tank Event

It is expected that at the end of the think-tank, African academics will:

(a) Deepen the understanding about the impacts of climate change on fisheries and aquaculture in African marine and freshwater ecosystems

(b) Outline the urgently needed technical adaptation capacity for Africa’s coastal and riparian areas, necessary to implement adequate adaptation measures and disaster risk management.

(c) Promote decisions on appropriate adaptation measures that are based on adequate observations and monitoring, and pragmatic policy options for adaptive management that fully recognize and incorporate national and regional priorities, such as CAADP and Millennium Development Goals as well as sustainable livelihoods.

(d) Devise partnership and leadership mechanisms (including public, private sector, civil society organisations, international donors and agencies) necessary to achieve effective science-based climate proofing of African fisheries and aquaculture.

(e) Prepare a set of policy pathways (recommendations) which will be presented to the second Conference of African Ministers of fisheries and aquaculture (CAMFA) in February 2014.

### 3.0 Venue and date of the Dialogue

The Think Tank Event will be held from 27th to 29th November, 2013 at **Sun n Sand Holiday Resort** in Mangochi, on Lake. The venue will enable delegates to review the indigenous coping strategies which fishing communities in the Lake Malawi area are using to adapt to climate change.