

THE PAN-AFRICAN FISHERIES AND AQUACULTURE
POLICY FRAMEWORK AND REFORM
STRATEGY: IMPROVING OF FISHERIES AND
AQUACULTURE DATA COLLECTION AND ANALYSIS

BETTER INFORMATION FOR EFFECTIVE
DECISION MAKING PROCESS





Executive Summary



To provide countries with the necessary framework and methodology, a “Pan-African Strategy on improvement of fisheries and aquaculture data collection, analyses and dissemination” has been developed collaboratively by the NEPAD Agency and the Inter African Bureau for Animal Resources (AU-IBAR) of the African Union.

The Strategy:



(i) Outlines that national commitment and consideration are required to ensure that adequate funding and support is provided to institutions in charge of gathering information on the fisheries and aquaculture sector.



(ii) Promotes the integration of fisheries data into the National Statistical Systems and the National Strategy for the Development of Statistics (NSDS) to increase the role of fisheries in the agriculture framework.



(iii) Urges Member States and stakeholders to use modern technology in data collection, analysis and dissemination - include Geographic Information Systems (GIS), Personal Digital Assistants, smartphones, tablets, etc.;

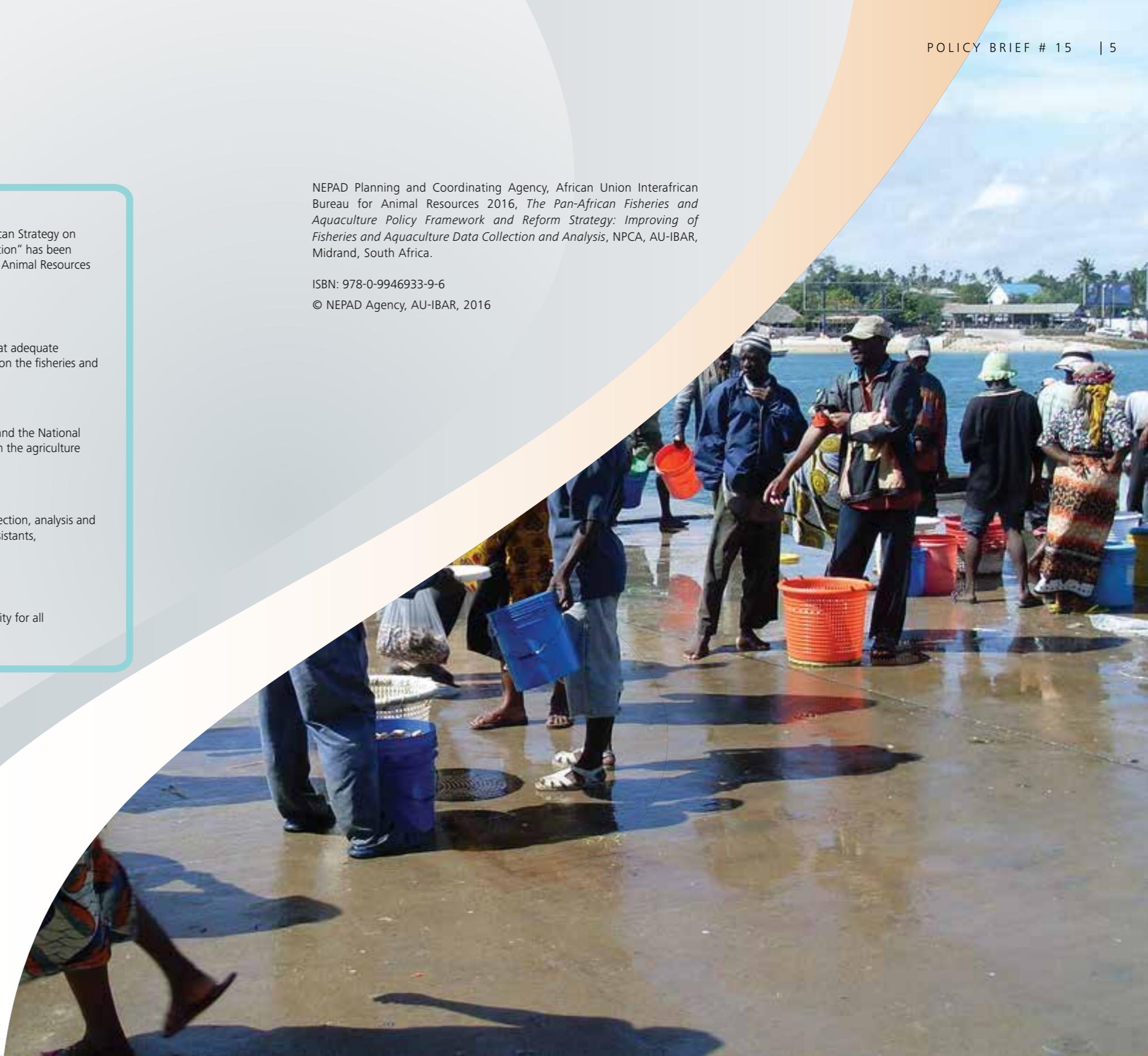


(iv) Encourages Member States to give consideration to the development of capacity for all stakeholders in data collection.

NEPAD Planning and Coordinating Agency, African Union Interafrican Bureau for Animal Resources 2016, *The Pan-African Fisheries and Aquaculture Policy Framework and Reform Strategy: Improving of Fisheries and Aquaculture Data Collection and Analysis*, NPCA, AU-IBAR, Midrand, South Africa.

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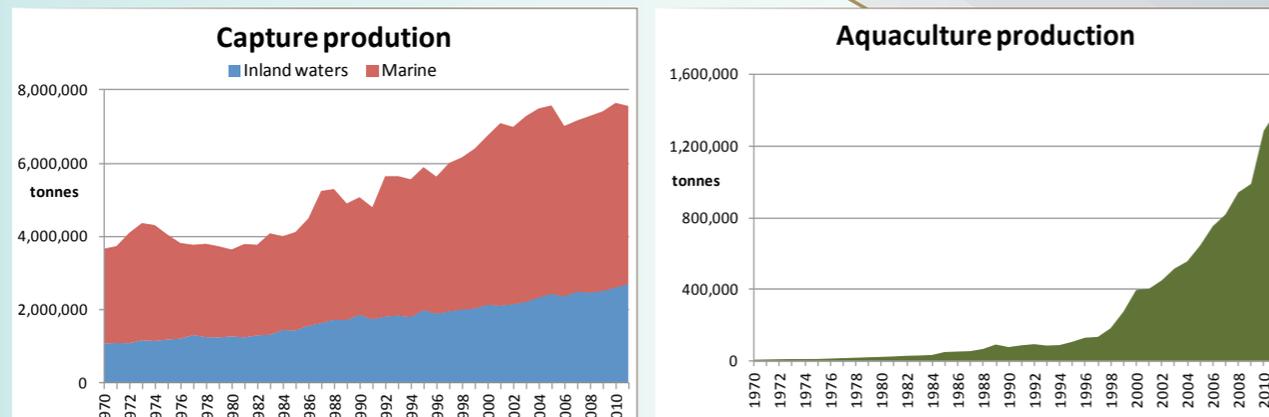
Introduction & Background

Regular information on minimum core indicators on fisheries and aquaculture is essential to manage and develop the sector at the national and continental level. Knowledge of the status and trends of fisheries, including socio-economic aspects, is key to the development of sound policy, better decision-making, and responsible fishery management. It is necessary at a national level to determine the social and economic benefits of fisheries and aquaculture, including food and nutrition security. Such information is also essential for assessing the appropriateness of fisheries policy, for tracking the status of exploitation of fishery resources and the overall performance of existing fishery management measures.

In several African countries, national data collection systems have to be established, revised or improved. However, due to poor collection and dissemination of fisheries and aquaculture production and socio-economic data, the sector does not receive adequate support by policy makers and financial institutions to address institutional and production challenges, and for the private sector to seize market and investment opportunities that could lead to increased sectoral growth.

Therefore, there was the need to review the current methodology African Member States are using for data collection and analysis in order to develop a common strategic framework for improvement.

Trends of African fisheries production



(Source: FAO global capture and aquaculture production databases)

In the last three years (2009-11) total capture production by African states has been stable around 7.6 million tonnes. Over one third (2.7 million tonnes) of this production comes from inland waters. Aquaculture production has been dramatically increasing since the late 1990s and in 2011 almost reached 1.4 million tonnes (about 15% of total fish produced in Africa) but bulk of production is still concentrated in a few countries.

Problem Statement

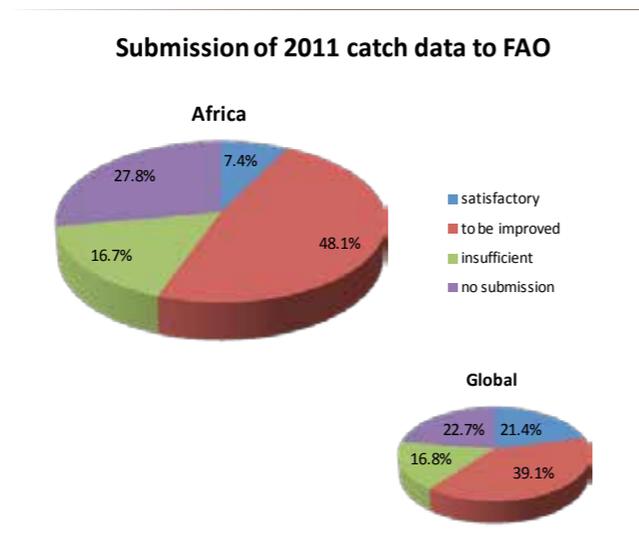
The collection of fisheries and aquaculture data is a costly exercise and needs allocation of human resources by the national administrations. Unfortunately, chronic problems of insufficient human and financial resources for data collection, or inefficient data collection schemes, have often resulted in poor quality information that has led to no or limited use of statistics for fishery management and policy development.

The quality of the annual official catch data submitted to the UN Food and Agriculture Organization (FAO) for its global database was considered as an indicator of the status of data collection and reporting. As shown by the pie charts besides, there is a considerable number of African countries which would need to improve their national data collection system for fishery statistics.

The constraints related to Fisheries and aquaculture data collection, analysis and dissemination in Africa are the following:

- 1 The level of funding and staff allocation provided by national governments are limited or even lacking.
- 2 Knowledge of and capacity available for the design and implementation of sample-based surveys and their statistical requirements are limited; sample-based surveys are essential for small-scale fisheries.
- 3 Weak institutional arrangement at national level, for instance, the fisheries line institutes, responsible for fisheries and aquaculture data collection, are not well linked to national statistics bureaus, and, at the regional level, the institutional arrangements for exchange of information between fisheries and economic organisations are not well established.
- 4 Reported figures on employment often do not include gender disaggregated data, neither subsistence or occasional fishers who, during parts of the year, often depend on the fisheries resources as part-time fishers.
- 5 For aquaculture, a major constraint is the limited sampling frame, providing information on the number of aquaculture units, culture characteristics, area coverage and geographical positions.
- 6 Funds for fisheries-independent data collection through scientific surveys are limited and often donor dependent.





Policy Recommendations

Following a think tank meeting (between 8 to 9 July 2013, Nairobi, Kenya) organized by the NEPAD Agency and the Inter African Bureau for Animal Resources (AU-IBAR) of the African Union, a “Pan-African Strategy on improvement of fisheries and aquaculture data collection, analyses and dissemination” has been developed and will be presented to the Second Conference of African Ministers of Fisheries & Aquaculture (CAMFA). The strategy aims to:

Provide a framework and methodology for improving the quality of national fisheries and aquaculture statistics to guide policy analysis and decision making;

Identify a minimum list of core indicators agreed upon by the different institutions collecting data at the national level;

Promote the integration of fisheries data into the National Statistical Systems and the National Strategy for the Development of Statistics (NSDS) to increase the role of fisheries in the agriculture framework;

Harmonize data collection system among countries to facilitate data exchange and comparability as much as possible.



Particular attention should be given to small scale and inland fisheries which are inadequately covered in most countries, resulting in underestimation of the production by these sectors. When aquaculture operations start in a country for the first time, it should be ensured that the institution responsible for collecting aquaculture statistics and monitoring the sector is readily identified. For those countries where aquaculture activities are already in place, there is instead the need of having sampling frames to provide information on the number of aquaculture units.

Therefore, the overall objective of the pan-African Strategy is: *to provide a framework and guidelines that should lead to improvements in the availability and quality of national and regional data to support fisheries management, aquaculture development and policy development in Africa.*

The strategy should ensure that accuracy, sustainability, relevance, timeliness, comparability, availability, and accessibility of fisheries and aquaculture collected data are included in the design of the system and implemented.

It is due to be implemented in a five year period from 2014 to 2019 with a mid term-review in 2017 and will focus on keys areas of actions as (i) capacity building including storage and exchange of information systems, (ii) coherence and coordination, (iii) ownership and funding and (iv) monitoring and reporting. The goal is that the information available as outcomes of this strategy will provide an accurate picture of fisheries and aquaculture in Africa, thereby helping decision makers to make more informed decisions on the sustainable development of the sector.

Table 1. Core variables to be collected at the national level, indicating the sector covered and the data-collection strategy¹

VARIABLE TO BE COLLECTED	SECTOR COVERED	DATA COLLECTION STRATEGY
Fleet structure by fishing units, numbers and characteristics	semi-industrial/industrial/artisanal/inland	census, registration
Fishing effort by fishing unit/gear type	semi-industrial/industrial/artisanal/inland	sample based, census
CPUE by major species and fishing unit/gear type	semi-industrial/industrial/artisanal/inland	sample based, census
Total catch by major species and fishing unit/gear type	semi-industrial/industrial	census, reporting
Fish price by species (vessel/landing site/farm gate/processing)	semi-industrial/industrial/artisanal/inland/aquaculture/processing	sample based
Annual production cost by sector and unit	semi-industrial/industrial/artisanal/inland/aquaculture/processing	sample based
Employment by gender and sector	semi-industrial/industrial/artisanal/inland/aquaculture/processing	sample based
Total quantity of Processed fish produced by type of product and type of processing	processing/trade	sample based
Quantity and value of aquatic products exported by type	processing/trade	census, reporting
Quantity and value of aquatic products imported by type	trade	census, reporting
Production rates by aquaculture-production type and species	aquaculture	sample based
Number and unit area by aquaculture-production type (e.g. pond and cages)	aquaculture	census, registration

In order to mainstream fisheries and aquaculture statistics, and improve capacity building for fisheries and aquaculture data collection, analysis and dissemination, African Union Members States and Regional Bodies (Economic Integration, Fishery, etc.) are requested, according to their respective mandates to:

¹ Semi-industrial is included to reflect the use of this term for classification purposes in certain Member States

1. Update the statistical legal and regulatory framework;
2. Incorporate national fisheries and aquaculture data collection, analysis and dissemination into the NSS and NSDS;
3. Strengthen the role of fisheries and aquaculture extension services for the collection of data;
4. Assess and prioritize information user needs and tailor date to these needs;
5. Foster coordination, collaboration, and partnerships among stakeholders;
6. Enhance the statistical infrastructure, including human capacity development and strengthened institutions;
7. Develop appropriate curricula on fisheries and aquaculture data collection and statistics and establish regional/continental training centers;
8. Develop archiving and disseminating tools which should include reporting channels system from national to regional, continental to international institutions;
9. Promote the use of modern technology in data collection, analysis and dissemination - including GIS, Personal Digital Assistants, smart phones, tablets, etc.;
10. Give consideration to the development of capacity for all stakeholders in data collection.

Conclusion or Implications

Sound policy decisions on a productive sector cannot be taken without reliable information on the current situation and historical trends. This applies in particular to the fisheries and aquaculture sector which entangles biological, socio-economic, international regulations, and market aspects and that is peculiar in many senses (e.g. fishery is the last human hunting activity on a large scale). Given that routinely data collection on the fisheries sector is a costly and complex task to be performed by national institutions, there is the need to identify a minimum set of core data, promote the integration of fisheries data into the National Statistical System, and harmonize the data collection systems to gather continuous and reliable information on the sector in the most efficient way. This will also require a renewed commitment from the countries to ensure that collection of national fisheries and aquaculture data by the relevant institutions is constantly supported. Therefore policy makers are hereby called upon to access and use the **“Pan-African Strategy on improvement of fisheries and aquaculture data collection, analyses and dissemination”**.

References

FAO global capture and aquaculture production databases. <http://www.fao.org/fishery/topic/16140/en>

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