

September 2019



منظمة الأغذية
والزراعة
للأمم المتحدة

联合国
粮食及
农业组织

Food
and
Agriculture
Organization
of
the
United
Nations

Organisation
des
Nations
Unies
pour
l'alimentation
et
l'agriculture

Organización
de las
Naciones
Unidas
para la
Agricultura
y la
Alimentación

FISHERY COMMITTEE FOR THE EASTERN CENTRAL ATLANTIC

Twenty-second Session

Libreville, Gabon, 17-19 September 2019

EAF-Nansen Programme: Report on Activities

SUMMARY

This document provides a brief summary of the new EAF-Nansen Programme activities for 2017-2021.



Food and Agriculture
Organization of the
United Nations



Norad



1. INTRODUCTION

- **Historical background**

The **Nansen Programme** began in 1975 as a joint initiative of Norway and the Food and Agriculture Organization of the United Nations (FAO). Its objective was to help newly independent states improve food security by identifying resources in their seas and oceans to support the development of their fisheries. A research vessel, *Dr Fridtjof Nansen* was built for the programme, serving as a laboratory for research, training and the exchange of knowledge. For over 40 years, the Nansen Programme has assisted developing countries in fisheries research and management and has been acclaimed as a unique mechanism for cooperation, knowledge generation and exchange in developing regions, particularly in Africa. The Nansen Programme has journeyed through various phases, adapting and evolving to address new ocean issues and challenges that have come to light.

In the last decade the programme operated as the **EAF-Nansen Project** and supported knowledge generation for and the implementation of the Ecosystem Approach to Fisheries (EAF) management in Africa. As such, the programme supported the piloting of the implementation of EAF for fisheries management in selected fisheries through the development of fisheries management plans. Through this orientation, the programme has furthered its emphasis on tackling transboundary ecosystem issues, fostering cooperation and collaboration, and harmonizing approaches towards a sustainable management of fisheries. Working with 31 coastal countries in four regional groupings around Africa, the programme has strengthened national and regional fisheries management bodies, providing each with the necessary skills and knowledge to implement EAF.

The **EAF-Nansen Programme** started in May 2017, carrying forward the objectives of the EAF-Nansen Project, with attention to issues of sustainability and threats to marine ecosystems, broadening its scope to also consider pollution and climate change besides fisheries impacts. The vision for the new Programme is to “Partner with developing countries, other international organizations and programmes to advance knowledge on impacts of multiple stressors on marine ecosystems, fisheries and biodiversity in tropical/subtropical regions, and to support the countries to be better prepared to address these through improved management and adequate policies”.

It will continue to support the implementation of EAF, while also broadening the scope of its scientific research to incorporate research and survey work that extends beyond pure fisheries concerns. The new programme builds on the paradigm of participatory knowledge-based decision-making, and therefore aims to strengthen the link between knowledge generation, including the research activities of the *Dr Fridtjof Nansen* research vessel, and policy, legislation and decision-making at regional and national levels.

A new state-of-the-art research vessel – the third *Dr Fridtjof Nansen* – was made available to the programme and started its work in May 2017 to continue the work of its two predecessors. It has been equipped with the latest technologies to further its research and data collection capacity and tackle new and emerging challenges in marine research and fisheries management. The vessel will also provide a reliable platform for national and international partners to gather data on the oceans and play a key role in providing knowledge necessary to understand the effect of pollution and climate-related changes on marine resources.

2. PROGRAMME OVERVIEW

The long-term objective or impact of the Programme is that “*Sustainable fisheries improve food and nutrition security for people in partner countries*”.

To contribute to this long-term objective, the Programme works towards three mutually reinforcing Outcomes:

Outcome 1: Fishery research institutions provide relevant and timely scientific advice for management

Outcome 2: Fisheries management institutions manage fisheries according to the EAF principles

Outcome 3: Fisheries research and management institutions have appropriate human and organizational capacity to manage fisheries sustainably

These three Outcomes represent the three pillars of the EAF-Nansen Programme, provide overall direction and serve to group the outputs and activities into the following three categories: science and science-based advice, fisheries management and capacity development. The outputs related to each outcome are presented in Figure 1 below.

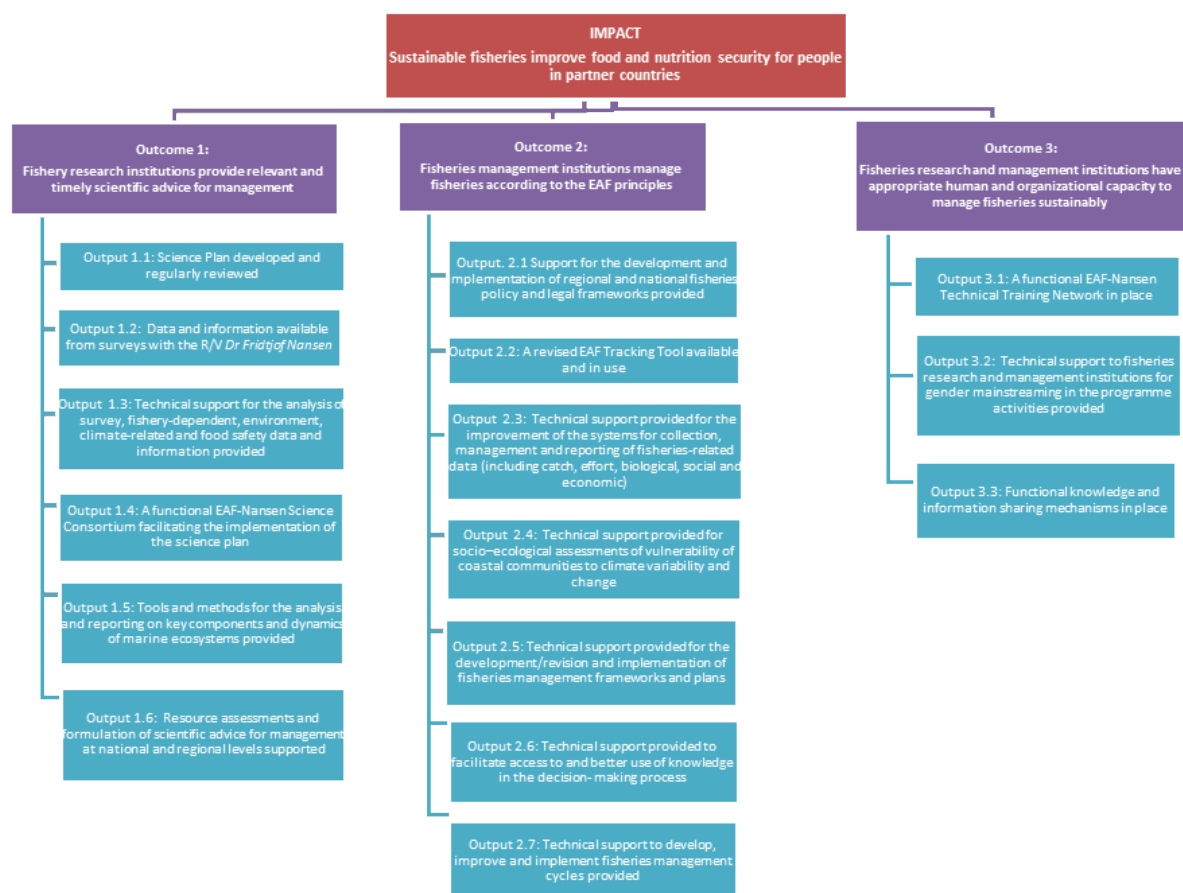


Figure 1: EAF-Nansen Programme: Impact, Outcomes and Outputs.

In total the Programme has 16 expected outputs, six in relation to science and delivery of scientific advice (15 activities), seven in relation to fisheries management (23 activities), and three in relation to capacity development -including gender and communication (15 activities). The research vessel *Dr Fridtjof Nansen*, owned by the Norwegian Agency for Development Cooperation (Norad), is an integral tool in the Programme and the vessel flies the UN flag as the house flag. The vessel is operated by IMR, who provides scientific services to the running of the survey programme and to the implementation of the associated science plan. A science plan has been developed that outlines the research themes to be addressed by the Programme. This was developed in consultation with international, regional and national partners and includes three main topics: (i) sustainable fisheries, (ii) oil/gas/pollution/habitat mapping and (iii) climate change. The science plan is further subdivided into 11 research themes.

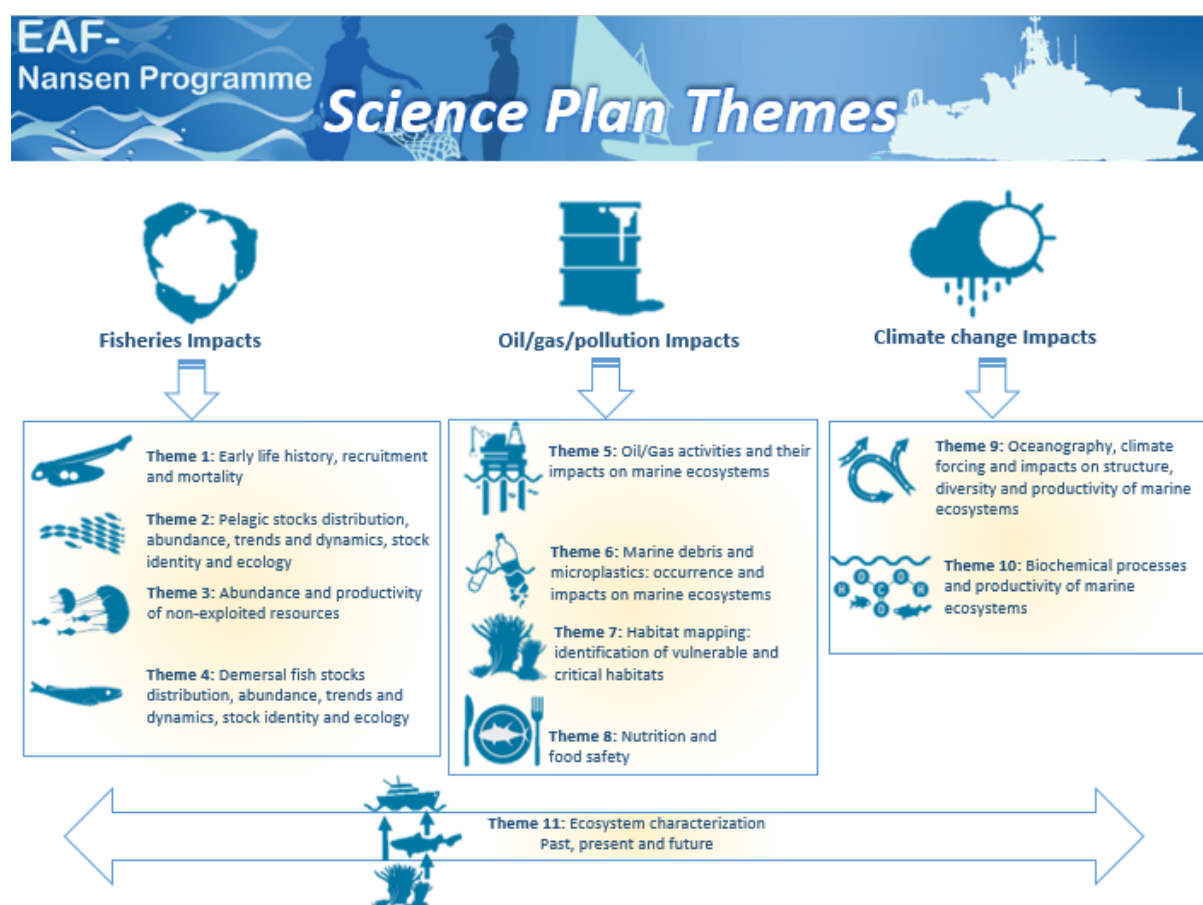


Figure 2: EAF-Nansen Programme science plan themes

- **Programme implementation structure**

The Programme Consultative Structure is depicted below (Figure 3). This structure was based on the one used with success in the EAF-Nansen Project, with some modifications. During programme preparation, two of the Regional Fisheries Bodies (RFBs) in Africa namely the Fishery Committee for the Eastern Central Atlantic (CECAF) and the South West Indian Ocean Fisheries Commission (SWIOFC) and the Benguela Current Convention (BCC) were approached to see if they would play the role of Regional Steering Committees (RSCs) for the EAF-Nansen Programme.

An additional Steering Committee for global issues and other regions has also been added. These regional steering committees provide input to the Programme on planning, reporting and advice purposes, and they also assist in the coordination of the Programme activities with other initiatives going on in the region, to maximise synergies and minimize potential overlaps. The RSC is intended as a mechanism to strengthen ownership of the Programme's interventions at regional level and an opportunity to reinforce the inter-linkages between the EAF-Nansen Programme and the RFBs or multi-sectoral Commissions, as well as with related projects and programmes in the regions. It will be responsible for assessing progress in programme delivery and formulating recommendations to the Programme Coordination Unit (PCU) regarding requirements, priorities and work-plans for programme implementation in the respective region.

Specifically, each RSC will:

- Provide overall guidance to the Programme Coordination Unit (PCU) on the implementation of the Programme in the given region.
- Review Programme progress and provide recommendations to the PCU on priorities for the annual work plans of the Programme in the respective region.
- Facilitate the “mainstreaming” of Programme's findings and recommendations into regional and national processes, as appropriate.
- Support the inter-linkages between the EAF-Nansen Programme, and related projects and programmes in the corresponding region.

Appendix I provides the terms of reference for the RSC.

A Programme Forum has been maintained for broader dissemination and sharing of experiences between all partners to the Programme.

The structure clearly is meant to facilitate consultation at various levels. Based on the outcomes of the consultation process with the RSCs and the countries, a work programme will be prepared by the PCU for discussion and endorsement at the Norad/FAO/IMR annual meetings. In addition to what is shown in the diagram, the programme document also foresees consultative processes at the national level through the EAF National Task groups¹ and with the support of a national focal point.

¹ These will only be established in countries where national or shared stocks fisheries management activities take place

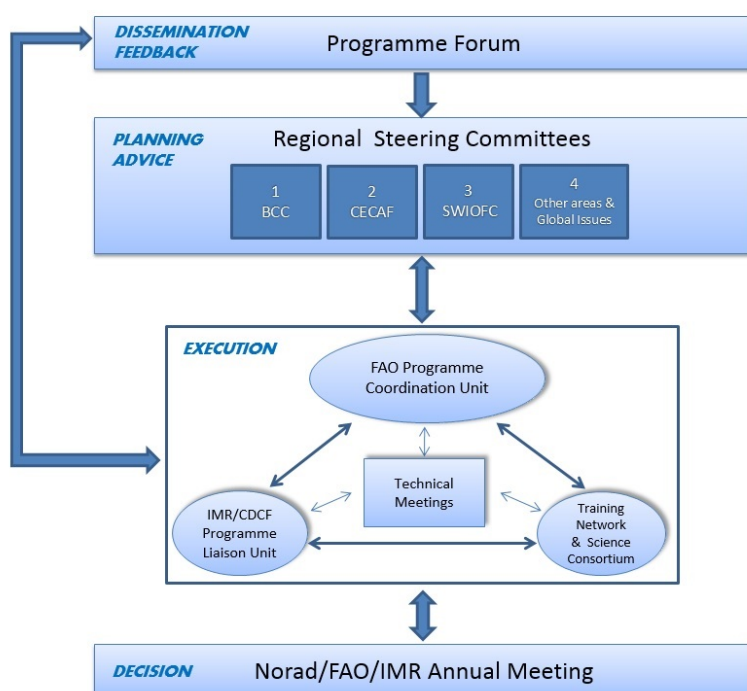


Figure 3: The Programme consultative and strategic planning structure

3. REVIEW OF THE ACTIVITIES CARRIED OUT IN THE CECAF AREA IN THE FRAMEWORK OF THE EAF-NANSEN PROGRAMME- 2017 to date

Outcome 1: Fishery research institutions provide relevant and timely scientific advice for management

- **Planning meetings and pre-survey meetings**

In 2017, two planning meetings were organized for the CECAF area, one in Casablanca (Morocco) and one in Accra (Ghana), to discuss the Programme, and to receive feedback on the content of the science plan, identify regional research priorities and to plan the surveys with the R/V “Dr Fridtjof Nansen”. The meetings also served to introduce and discuss the management and capacity development components of the programme, highlighting the interlinkages between the three components. Based on the discussions at these meetings the draft survey plan for 2017 was prepared, which was later endorsed by Norad. Outline sailing orders were also developed, which were then detailed in collaboration with the countries either through email exchange or through dedicated meetings, as required.

In 2018, and in connection with the Eight Session of CECAF SSC in Abidjan, the survey programme for 2019 was discussed and inputs received by participating countries. In particular, it was proposed that in 2019 the surveys with the RV *Dr Fridtjof Nansen* should address distribution and abundance of demersal resources in the Gulf of Guinea. Countries from North West Africa proposed to have a pelagic coverage given that the vessel would be available at the same time historical coverages took place. Furthermore, it was proposed that a survey of the

demersal resources of North West Africa would be organized to take place in the first half of 2020 (see Appendix 2 for proposed survey programme in 2020).

In 2019 a pre-survey meeting for North West Africa was held in Casablanca back to back with the FAO CECAF Working group on the assessment of small pelagic fish in July 2019. Two pre-survey meetings were held just prior to the start of leg 3.1 (Ghana and Cote d'Ivoire, July 2019), and Leg 3.2 (Liberia to Guinea Bissau, August 2019).

A meeting of the acoustic survey planning working group for North West Africa took place in Agadir in June 2019. A decision was made to change the working group name to the Acoustic Working group of Northwest Africa. (AWG) to better reflect its work.

- **Surveys**

The Programme continues to provide data, information and knowledge in support of sustainable fisheries in an ecosystem context using the R/V *Dr Fridtjof Nansen*.

In 2017, the R/V *Dr Fridtjof Nansen* surveys were mainly dedicated to pelagic resources and ecosystems in continental shelf and slope areas of the West Coast of Africa. Three main survey legs, subdivided in several sub legs (see table below), were carried out between 8 May and 12 December 2017 for a total of 208 survey days with the main objective of assessing the abundance and distribution of pelagic resources, environmental conditions within which they are encountered, and aspects of their early life history. Two transects, dedicated to research on mesopelagic fish, were also conducted in the North and in the South. The survey covered the area from Morocco in the North to Ghana in the Gulf of Guinea and from Gabon to South Africa. 175 scientists from the region participated in the surveys and received on-the-job training. The results of the surveys feed into the science plan as well as into stock or ecosystems assessments and special analyses, as relevant and required. Table 1 shows the survey programme for 2017.

Table 1: R/V *Dr Fridtjof Nansen* survey programme 2017

Survey	Leg	Arrival	Departure	Days of survey	Number of participants	M	F
2017401							
	leg 1.1	8/05 Casablanca, Morocco	26/05 Las Palmas, Spain	18	9	6	3
	leg 1.2	27/05 Las Palmas, Spain	05/06 Las Palmas, Spain	9	12	10	2
	leg 1.3	8/06 Las Palmas, Spain	04/07 Dakar, Senegal	26	24	23	1
2017402	Leg1.4	5/7 Dakar, Senegal	18/7 Conakry, Guinée	13	19	17	2
	Leg 2.1	21/07 Dakar, Senegal	20 /08 Monrovia, Liberia	30	12	9	3
	Leg 2.2	22 /08 Monrovia, Liberia	13/09 Tema, Ghana	22	14	12	2
2017403	Leg 3.1	21/09 Pointe Noire, Gabon	11/10 Luanda, Angola	22	20	13	7
	Leg 3.2	14 /10 Luanda, Angola	14/11 Walvis Bay, Namibia	31	22	9	13
	Leg 3.3	16/11 Walvis Bay, Namibia	24/11 Walvis Bay, Namibia	8	15	9	6
	Leg 3.4	26 /11 Walvis Bay, Namibia	17/12 Cape Town, South Africa	21	18	8	10

In 2018 the vessel was used to survey the waters of the Indian Ocean, and the Bay of Bengal and was therefore not available to the CECAF region.

In 2019, the vessel has been used to survey the west coast of Africa from South Africa to Morocco, broken up into four main legs (and 14 sub-legs). Three main survey legs with 9 sub-legs have been carried out so far. In 2019, 235 scientists will be involved over 299 survey days total. Table 2 shows the surveys relevant to the CECAF area.

The results of the surveys feed into the science plan as well as into stock or ecosystems assessments and special analyses, as relevant and required.

Table 2: RV *Dr Fridtjof Nansen* survey programme 2019 relevant to the CECAF area

Survey	Leg	Arrival	Departure	Days of survey	Number of participants	M	F
2019402	Transboundary demersal resources, South-West Africa						
	Leg 2.4 Angola (South and Central)	11/05 Walvis Bay, Namibia	10/06 Luanda, Angola	31	21	14	7
	Leg 2.5 Angola (north)	13/06 Luanda, Angola	27/06 Pointe Noire, Gabon	15	18	10	8
	Leg 2.6	29/06 Luanda, Angola	16/07 Tema Ghana	17	17	12	5
2019403	Transboundary resources and ecosystems, Western Gulf of Guinea						
	Leg 3.1 Ghana and Côte d'Ivoire	20/07 Tema, Ghana	18/08 Abidjan, Côte d'Ivoire	30	22	16	6
	Leg 3.2 Liberia, Sierra Leone, Guinée, Guinea Bissau	22/08 Abidjan, Côte d'Ivoire	23/09 Dakar, Sénégal	33	21	19	2
2019404	Transboundary pelagic resources and ecosystems North-West Africa						
	Leg 4.1 Senegal	26/09 Dakar, Senegal	07/10 Dakar, Senegal	12			
	Leg 4.2 Mauritania	09/10 Dakar, Senegal	20/10 Las Palmas, Spain	12			
	Leg 4.3 Cap Blanc – Cap Cantin	24/10 Las Palmas, Spain	19/11 Casablanca, Morocco	27			
	Leg 4.4 Cap Cantin – Tanger	21/11 Casablanca, Morocco	01/12 Casablanca, Morocco	11			
	Leg 4.5 Mesopelagic transect	03/12 Casablanca, Morocco	16/12 Las Palmas, Spain	14			

- **Post-survey meetings**

The main purpose of the post-survey meetings is to finalize the survey report, discuss follow-up activities, including processing of the samples and data collected during the survey, review possible research projects, including deliverables to EAF-Nansen Programme and regional authorities and discuss needs for capacity development (as appropriate).

From the beginning of the programme, the following post-survey meetings were organised in the CECAF area:

2017

- A post-survey meeting in Dakar, Senegal in December to discuss the results for leg 1. This meeting also provided for a meeting of the working group for the planning of acoustic surveys, back to back.

2018

- A post-survey meeting for leg 2 of 2017 in Accra, Ghana in April 2018
- A post-survey meeting in Cape Town, South Africa in August 2018, to discuss the results of leg 3 2018.
- A post-survey meeting on mesopelagics was organized in Rome, Italy from 6-8 November 2018 to review the work in all mesopelagic and oceanographic transects that have been conducted so far, and also discuss the future work on Theme 3 of the science plan (mesopelagics). Participants were survey participants, experts in mesopelagics, oceanography or plankton research.

2019

- Mesopelagic meeting 8-9 May 2019 in Swakopmund, Namibia
- Post-survey meetings for the 2019 surveys are planned for September (Leg 2), December (Leg 3, Gulf of Guinea). As regards leg 4 (Northwest Africa) the post-survey meeting is scheduled to take place in March 2020.

- **Port call events**

The Programme in collaboration with the Norwegian Embassies, the national authorities and the national FAO offices organized four port call events in 2017 in conjunction with the port calls of the R/V Dr Fridtjof Nansen in order to raise the profile of the Programme, introduce the research vessel and to flag the longstanding collaboration between FAO, Norad, and IMR on ocean issues and the work with the partner countries. For the CECAF region these events were organized in Casablanca (Morocco), Dakar (Senegal), and Tema (Ghana) in 2017.

In 2019, a port call event was organized in Abidjan, Cote d' Ivoire in August. All the events were well received and, in some cases, saw the participation of high-ranking national dignitaries.

- **Science plan implementation**

The EAF-Nansen Science Plan has been substantially detailed during the reporting period, and more complete theme descriptions were made available in December 2017. including an overview of possible contributing institutions by theme. In order to further develop the science themes and the partnerships for each of these, a number of events were organized in 2018 mainly focused on follow up activities for the 2017 surveys in Western Africa.

An example is the workshop on “Pelagic resources and ecosystems of the Atlantic coast of Africa” organised in Cape Town in February 2018 to further plan the work of four inter-related themes relevant to pelagic resources and ecosystems, i.e.:

- Theme 1 Early life history, recruitment and mortality
- Theme 2 Pelagic stocks distribution, abundance, trends and dynamics, stock identity, and ecology
- Theme 9 Impacts of climate variability and change on structure, diversity and productivity of marine ecosystems.
- Theme 10 Climate Change (CC) and biogeochemical processes

The main objectives of the workshop were to bring together resource persons from partner institutions, set up research teams, develop specific research projects and review the data/samples collected by the RV Dr F. Nansen in 2017. The workshop was attended by more than 60 scientists from 10 West African countries, agreeing on key research projects to be implemented jointly by the scientific partners to the EAF-Nansen Programme.

A training workshop on identification of egg and larvae (Theme 1) was held in Casablanca in April 2018 for countries in North West Africa based on the 2017 pelagic surveys. A similar one was held in September 2018 in Swakopmund, Namibia, for countries of the BCC region.

In October 2018 a workshop on stock identification of pelagic resources in west Africa was held in Bergen (Theme 2), with participation of scientists from several countries of the CECAF region. As a result, a detailed work plan for necessary research activities to stock identification of priority pelagic species was agreed.

In November 2018, and in connection with Theme 3, an expert meeting was held on Mesopelagics in Rome, Italy.

Two meetings were hosted by IMR, Norway in November 2018. One addressed Nutrition and Food Security (Theme 8) to plan scientific papers based on the samples collected with the RV *Dr Fridtjof Nansen* in relation to nutrition, food safety and biosecurity. The second one was on Marine Debris and Micro Plastics (Theme 6), also based on the observations made through the RV *Dr Fridtjof Nansen* surveys.

In April 2019, a workshop was organized in Cape Town on Acoustic Survey Methodology (Theme 2) with special emphasis on the use of sonar data for improved biomass estimation of pelagic fish using the acoustic method.

Theme 8 (nutrition and food safety) organized a meeting in Rome to in July to continue progress on the preparation of planned publications.

In planning research activities under the science plan, management needs and requirements with respect to fisheries, but also with respect to environment and energy sectors are considered, depending on the theme. Key management questions in relation to the different themes are discussed and information needs and gaps are identified. More strategic (long-term) questions are also addressed in some cases.

A key issue is the need for additional support (human and financial). The needs vary between projects, but mostly what is required is travel funds to facilitate co-operative post-processing,

either in the region or in IMR, Norway. In some instances, funds for analyses are requested. Not all of these requests are fundable through the EAF-Nansen Programme, and specific partnerships need to be established.

- **Support to stock assessment working groups**

With respect to fish resource assessments and formulation of scientific advice to management, the Programme supported specific workshops to analyze the results of the 2017 Dr. Fridtjof Nansen surveys with the objective to prepare working papers for use by the FAO Working group on the assessment of small pelagic fish off Northwest Africa that took place in Banjul, The Gambia, 26 June–1 July 2018 and the FAO CECAF FAO/CECAF Working Group on the Assessment of Small Pelagic Fish – Subgroup South that was held in Accra, Ghana, from 12-20 September 2018.

Technical support and financial support were also provided to both of the CECAF pelagic working groups, the latter being financed through the EAF-Nansen Programme. Overall it is expected that the results of the work under the science plan themes will contribute to address specific selected scientific knowledge gaps identified by the working groups and the scientific committee.

- **Other science-related activities**

An expert workshop on ecosystem characterization was held in August 2018 at the FAO HQs, with participation of representatives from the regions that the EAF-Nansen Programme operate including one expert from the CECAF region. The objective was to build a common approach to ecosystem characterization. Similarly, an international expert workshop on bottom habitat mapping was held in Rome in December 2019.

Outcome 2: Fisheries management institutions manage fisheries according to the EAF principles

The outputs under outcome 2 relate to technical support to improve fisheries management, encompassing policy, legal and operational management support, the collection and analysis of relevant fisheries data (including biological, ecological as well as social and economic data) and support to the development of science-based decision-making through the implementation of the ecosystem approach to fisheries (EAF) including the development of fisheries management plans using the EAF framework and support to setting up a functional fisheries management cycle.

The implementation of the Ecosystem Approach to Fisheries and supporting the management of fisheries on shared stocks are two key mutually reinforcing objectives of the EAF-Nansen Programme. The work under this component build on the work of the earlier phase of the programme, and particularly the support provided to prepare and formalize fisheries management plans developed following an Ecosystem Approach to Fisheries. For the CECAF area, the development of 10 such plans were supported (see Appendix III).

Furthermore in 2017 in the context of the EAF-Nansen Programme, assessments of data and capacity needs for the implementation of selected EAF management plans were conducted,

hence needs and gaps were identified, including data needs to support implementation of the set goals in the management plans.

- **Development and implementation of regional and national fisheries policy, legal and management frameworks and plans**

A Legal assessment tool/checklist has been developed that can be applied to check for the consistency with EAF of national policies and legislation. A preliminary gap assessment has been conducted applying the checklist for to 32 countries, including CECAF countries.

- **Support to the implementation of fisheries management plans and the setting up of a fisheries management cycle**

Provisions are made within the new Programme to support implementation of selected fisheries management plans, focusing on those that have been prioritized for implementation by the respective countries. A framework document for small projects to support this implementation was developed and small projects, together with umbrella activities, have been developed for three countries in the Gulf of Guinea to work to support the implementation of the beach seine management plans in Cote d' Ivoire, Benin and Togo. A regional inception meeting, combined with training on EAF, the EAF implementation monitoring tool and gender was organized in Abidjan, Cote d' Ivoire in July 2019, and follow up national inception meetings were organized in Benin and Togo in August.

Furthermore, a key objective of the programme is support to the management of fisheries on shared stocks and in this context specific assistance will be provided to support the management of shared stocks in the Northwest African region. An interregional workshop on the management of shared stocks and implementation of an ecosystem approach to fisheries within the framework of the EAF-Nansen Programme was held in Dakar (Senegal) from 24 to 26 April 2018. The objective of the workshop was to examine with the representatives of partner institutions and principal initiatives the current situation and related activities pertaining to shared stocks by identifying the needs and opportunities to support the management of fisheries exploiting shared stocks within the framework of the EAF-Nansen Programme. The main issues to be considered in the management of shared stocks were outlined. Then the legal, political, management and scientific considerations in the management of shared resources were reviewed. The States also shared their experiences regarding the management of shared stocks. Sub-regional and national initiatives were presented and discussed. The Northwest African region identified Small pelagics as a priority and specifically sardinella. Work on developing a small project that contains both regional and national dimensions to support implementation of activities identified with the partner countries was undertaken in 2018, and in December 2018 a regional consultation on the activities were held in Banjul, The Gambia, back to back with the Canary Current Large Marine Ecosystem Steering Committee. Consultation on the regional document continued in 2019, followed with consultation on the preparation of linked national documents. The countries concerned are Morocco, Mauritania, Senegal and The Gambia. A final draft regional project document is available, and an inception meeting is planned in 2019

- **EAF-Implementation Monitoring Tool**

A revised tool has been developed to track EAF-implementation and also the EAF-process. There were a number of important stages in the development of the tool. Two consultations were held in Rome in January and February 2019 that brought together international experts to deliberate on the form, functioning and presentation of the tool. It was agreed that a completely new tool be developed instead of the revising the existing ‘Tracking Tool’. The version that was agreed on after at these meetings was then tested in Tanzania in April 2019. A training workshop was organized on this tool in Cote d’ Ivoire in July 2019 for three Gulf of Guinea countries (Benin, Cote d’ Ivoire and Togo). The tool is important as it supports the Outcome indicator for Outcome 2, and hence all partner countries of the EAF-Nansen Programme needs to be familiarized with this tool.

- **Socio-ecological assessments of vulnerability of coastal communities to climate variability and change.**

The EAF-Nansen Programme is contributing to develop a common approach to vulnerability assessments, building on a toolkit that was produced in the Eastern Caribbean.

Outcome 3: Fisheries research and management institutions have appropriate human and organizational capacity to manage fisheries sustainably

The outputs under outcome 3 relate to capacity development across the thematic themes of the Programme, technical support to research and management institutions for gender mainstreaming in the Programme activities, and the establishment of a functional knowledge and information sharing mechanism.

- **Capacity development and the Technical training Network**

A capacity development strategy has been developed. Resource people in partner countries were asked to provide inputs to the capacity need assessment in order to provide their inputs to the strategy development and to highlight national and regional priorities to be taken into account.

The Technical Training Network has been identified in the Programme document as instrumental to implement capacity development activities in Africa and work on making this functional has also been initiated, building on past experiences with working with selected institutions under the EAF-Nansen project. The Technical Training Network can include universities and other training institutions dealing with fisheries management and research in partner countries and the intention is that the network will be set up to provide short- and medium-term courses in a number of disciplines. Network members can also support the development of courses and training support materials and actual running of courses covering different aspects of fisheries research and development. Specific University courses (or modules) and related curricula could also be developed on an incremental basis, mainly focused on EAF. Table 2 below highlights the type of courses that were identified during Programme development.

Table 2: Proposed thematic areas for short term capacity development

Fisheries research	Fisheries management
<ul style="list-style-type: none"> • Fish stock assessment 	<ul style="list-style-type: none"> • Basic fisheries management
<ul style="list-style-type: none"> • Survey planning and reporting (both trawling and hydro-acoustics) 	<ul style="list-style-type: none"> • EAF management and elaboration of management plans
<ul style="list-style-type: none"> • Fish and invertebrate taxonomy 	<ul style="list-style-type: none"> • Legislating for EAF
<ul style="list-style-type: none"> • Data handling and management (e.g. in Nansis) 	<ul style="list-style-type: none"> • Shared stocks
<ul style="list-style-type: none"> • Scientific instrumentation - functioning, maintenance and calibration 	<ul style="list-style-type: none"> • Fisheries monitoring statistics, including socio economics
<ul style="list-style-type: none"> • Laboratory analyses of plankton, benthos, sediments, nutrients and pollution. 	<ul style="list-style-type: none"> • Social and economic dimensions of fisheries management, including gender
<ul style="list-style-type: none"> • Others that would be identified as necessary. 	<ul style="list-style-type: none"> • Others that would be identified as necessary.

While the capacity strategy provides overall guidance on capacity development under the Programme, there is still a need to get specific feedback from partner countries on the short-term courses and the thematic areas of highest priority that would support building the required capacity within the partner institutions as well as further information on potential partner institutions in relation to their areas of competence in the different sub-regions where the EAF-Nansen Programme is operating. Feedback from the partner countries in CECAF is therefore sought on this issue.

Meanwhile some capacity development activities have been organized mainly in relation to the analysis of the samples from the 2017 surveys. For example, two capacity development workshops for biological analysis and introduction to stock identification techniques using samples collected onboard the R/V *Dr. Fridtjof Nansen* were organized in Dakar, Senegal and in Accra, Ghana and workshops and study tours to analyze ichthyoplankton data were organized in the context of Theme 1: egg and larvae in Namibia and Morocco. Training has also been provided in oceanography and nutrition and food safety in Bergen. A training course was conducted on mesopelagic fish taxonomy in June 2019.

So far, CECAF countries have benefited mostly from on-the-job training through the survey work, however this is expected to change as the research work under the science plan is picking up and the technical training network becomes fully operational.

The programme also has the ambition to provide opportunities to support researchers from partner countries to pursue higher degree programmes in fisheries research and management, however currently funding is not available. The EAF-Nansen programme is actively seeking partnerships that can facilitate such a support. One such initiative is the partnership with the University of Western Cape, where some scholarships can be offered for studies on jellyfish, mesopelagics and neuston, using available information from the *Dr Fridtjof Nansen* surveys (as appropriate). Scientists from partner countries have been encouraged to apply.

- **Gender Strategy**

A gender strategy, to provide a framework on how the Programme can assist fisheries research and management institutions for gender mainstreaming in the programme activities, was prepared and shared with partners in early 2018. The strategy suggests three priority areas for mainstreaming:

- Programme management, with the overarching objective of raising the profile of gender throughout the EAF-Nansen Programme and increasing awareness of gender issues among all those involved in the management and oversight of the Programme;
- Programme activities, with the overarching objective of enhancing the sensitivity and responsiveness of all programme activities to gender issues, and pave the way to overcome gender inequalities in fisheries in member countries, and
- Programme Communication, with the overarching objective of showcasing the commitment and actions of the EAF-Nansen Programme towards mainstreaming gender in fisheries management and governance and addressing gender inequalities in fisheries.

Building on the existing good practices developed by FAO and other partners, the programme will integrate gender sensitive needs assessment and planning into training and other capacity development activities. The strategy has now incorporated specific indicators into the Programme work plan to aid in the monitoring of the achievement of gender mainstreaming in every aspect of the Programme's work.

Two training workshops on gender mainstreaming generally, and specifically on the Programme's Gender Strategy have been conducted in July and August for the Programme's National Focal Points and some members of the national fisheries working groups of Benin, Ivory Coast, Tanzania, and Togo.

- **Communication**

The EAF-Nansen Communication Strategy was also rolled out in March 2019. This strategy clearly spells out how the Programme's communication and visibility is to be handled. Under this strategy, the Programme's newsletter has been re-formatted and needed human resources obtained to ensure that both the newsletter and website are regularly updated.

- **Upcoming activities in 2019 of relevance to CECAF area**

November:

- 5-7 November 2019, Cotonou, Benin, Semi-annual meeting and Forum of the EAF-Nansen Programme
- TBC, Ecosystem characterization workshops with the CCLME

December:

- 1-10 December, CECAF Demersal Working group North
- 10-12 December, 2019, Bissau, Guinea Bissau, Post-survey meeting for 2019 survey leg 3.

4. 2019 SURVEY WORKPLAN AND ACTIVITIES

In 2019 and likely in 2020, the survey work will focus on the Atlantic coast of Africa. Hence, the main science activities for the CECAF region will be linked to the surveys, to the follow up of the research work from the 2017 and 2019 surveys and the research projects identified in the science plan as well as the assessment work, nationally or through CECAF. Support can also be provided to facilitate science-management policy dialogues and the EAF-Nansen Programme is likely to part with the PESCAO project on this work.

For the fisheries management output, the on the ground work to support implementation of EAF in the three Gulf of Guinea countries will be initiated. Countries were selected based on their commitment to engage in the EAF process in the earlier phase, but renewed commitment needs to be expressed. The work on supporting shared stocks management, including through the EAF-process will continue in the Northwest Africa region and on the selected sardinella case study. The work will be conducted in close consultation with CECAF, the CCLME and other relevant bodies.

Global work on Legislating for EAF, development of policy, bringing fisheries into cross sectoral dialogues and support to track EAF implementation (including the use of the EAF Implementation Monitoring Tool) will continue and expand. The same is the case for the capacity development component, and it is expected that the technical training Network will become operational during the course of 2019.

5. ACTIONS REQUESTED BY THE COMMITTEE

The Committee is invited to:

- Provide feedback on the overall implementation of the programme in the CECAF region based on this report
- Provide inputs for the workplan in 2020 in relation to:
 - Research activities, including surveys
 - Fisheries management at national and regional levels
 - Capacity development priorities
- Comment on possible inter-linkages between the EAF-Nansen Programme, and related projects and programmes in the CECAF region as well as pertinence from a national perspective.

Appendix I.

EAF-Nansen Programme Regional consultative process in the EAF-Nansen Programme

Terms of Reference for the Regional Steering Committees

Two of the Regional Fisheries Bodies (RFBs) in Africa namely the Fishery Committee for the Eastern Central Atlantic (CECAF) and the South West Indian Ocean Fisheries Commission (SWIOFC) and the Benguela Current Convention (BCC) have been requested to play the role of Regional Steering Committees (RSCs) for the EAF-Nansen Programme.

The RSC is intended as a mechanism to strengthen ownership of the Programme's interventions at regional level and an opportunity to reinforce the inter-linkages between the EAF-Nansen Programme and the RFBs or multi-sectoral Commissions, as well as with related projects and programmes in the regions. It will be responsible for assessing progress in programme delivery and formulating recommendations to the Programme Coordination Unit (PCU) regarding requirements, priorities and work-plans for programme implementation in the respective region.

Specifically, each RSC will:

- Provide overall guidance to the Programme Coordination Unit (PCU) on the implementation of the Programme in a given region
- Review Programme progress and provide recommendations on priorities for the annual work plans of the Programme in the respective region to the PCU.
- Facilitate the “mainstreaming” of Programme's findings and recommendations into regional and national processes, as appropriate.
- Support the inter-linkages between the EAF-Nansen Programme, and related projects and programmes in each region.

Composition of the Regional Steering Committee

Each RSC will be comprised of:

- One representative from each member country of the RFB, particularly coastal countries,
- One representative of each key partner of the EAF-Nansen Programme as may be determined from time to time,
- The National Focal Points of the EAF-Nansen Programme in the member countries of the respective RFB/Commission
- Representatives of FAO and IMR

Rules of Procedure

- i. The RSC will be chaired on a rotational basis by country representatives of the RFB/ the acting chair of the RFB;
- ii. Meetings of the RSC will take place in connection with the RFB Committee/Commission sessions, or at another agreed occasion should the Committee/Commission not meet on an annual basis ;

The EAF-Nansen Programme PCU will provide the secretariat for the RSC.

Appendix II Preliminary survey programme for the RV *Dr Fridtjof Nansen* in 2020

Survey	Start	End	Duration	From	To
1. Bottom habitat studies					
Leg 1. Bottom habitat studies Morocco	29.jan	20.feb	23	Las Palmas	Casablanca
Leg 2. Transboundary demersal, Northwest Africa					
Leg 2.1. Tanger-Cap Blanc	27.feb	31.mar	33	Casablanca	Las Palmas
Leg 2.2. Mauritania-Senegal	04.apr	24.apr	21	Las Palmas	Dakar
Leg 2.3. Mesopelagic transect/process studies?	27.apr	05.mai	9	Dakar	Dakar
Leg 3. ABNJ CECAF					
Leg 3.1. Sierra Leone Ridge	11.mai	10.jun	31	Dakar	Dakar
<i>Transfer</i>	<i>13.jun</i>	<i>20.jun</i>	<i>8</i>	<i>Dakar</i>	<i>Tema</i>
Leg 4. Environmental monitoring oil/gas					
Leg 4.1. Ghana environmental survey	24.jun	14.jul	21	Tema	Tema
Leg 4. cont.	16.jul	26.jul	11	Tema	Tema
demobilisation/mobilisation	27.jul	29.jul	3		
Leg 5. ABNJ SEAFO					
Leg 5.1. SEAFO Seamounts (North)	30.jul	18.aug	20	Tema	Luanda
Leg 6. Demersal Transboundary BCC					
Leg 6.1. Angola	22.aug	22.sep	32	Luanda	Walvis Bay
Leg 6.2. Namibia North	26.sep	16.okt	21	Walvis Bay	Walvis Bay
Leg 6.3. Namibia South	22.okt	15.nov	25	Walvis Bay	Walvis Bay
Leg 6.4. South Africa West Coast	19.nov	15.des	27	Walvis Bay	Cape Town

Appendix III: EAF Management plans developed with the support of the EAF-Nansen project

The management plans approved and endorsed are as follows:

Benin:

- Direction de la Production Halieutique, Benin, 2013. Plan de Gestion de la pêche à la senne de plage

Cameroon:

- Ministère de l’Elevage, des Pêches et des Industries Animales, 2013. Plan de gestion de la pêche crevette industrielle au Cameroun

Côte d’Ivoire:

- Ministère des Ressources Animales et Halieutiques, 2013. Plan de gestion de la pêcherie de la senne de plage du littoral de la Côte d’Ivoire

Gabon:

- Ministère de l'Agriculture de la Pêche de l'Elevage et du Développement Rural, 2013. Plan d’aménagement pêcherie crevette industrielle du Gabon

Ghana:

- Ministry of Fisheries and Aquaculture Development, 2013. a management plan for the beach seine fishery in Ghana

Liberia:

- Bureau of National Fisheries, Liberia, 2012. A Sector Plan for the Marine Small-Scale Fisheries of the Republic of Liberia

Nigeria:

- Federal Ministry of Agriculture and Rural Development, 2013. A management plan for the industrial shrimp fishery of Nigeria

Sierra Leone:

- Ministry of Fisheries, Marine Resources and Aquaculture, Sierra Leone, 2012. A management plan for the marine small-scale fisheries of Sierra Leone

Togo:

- Ministère de l’Agriculture, de l’Elevage et de la Pêche, 2013. Plan d’aménagement de la pêcherie de la senne de plage au Togo

Regional plans

- CCLME/EAF-Nansen, 2014. Regional management framework for the shared small pelagic fishery of Northwest Africa (Morocco, Mauritania, Senegal and the Gambia)