Independent Mid-Term Evaluation

Republic of Sudan

Building institutional capacities for the sustainable management of the marine fishery in the Red Sea State

SAP ID 130130

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO INDEPENDENT EVALUATION DIVISION

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Shukran!

Contents

Acronyms and abbreviations

AGR	Agrobusiness Unit
BRUVs	Baited Remote Underwater Video Systems
CPUE	Catch per Unit Effort
CDCF	Centre for Development Cooperation
CIDA	Canadian International Development Organisation
CTD	Conductivity, temperature, density measuring device
EEZ	Extended Economic Zone
EU	European Union
EVA	Evaluation Unit
FAO	Food and Agriculture Organisation
GEF	Global Environment Facility
ILS	Improved Landing Site
IMPS	Industrial Modernisation Programme of the Republic of the Sudan
IMR	Institute of Marine Research
ISID	Inclusive Sustainable Industrial Development
LS	Landing site
LSM	Landing site manager
MSY	Maximum Sustainable Yield
MDG	Millennium Development Goal
MFA	Marine Fishery Administration
MOSS	Minimum Operating Security Standards
NOK	Norwegian Krone
NORAD	Norwegian Agency for Development Cooperation
OFID	OPEC Development Fund
OPEC	Organisation of Petrol Exporting Countries
PSC	Project Steering Committee
RBM	Results Based Management
RSRC	Red Sea Research Centre Port Sudan
RSS	Red Sea State
SDG	Sudanese Pound

SWOT	Strengths, Weaknesses, Opportunities, Threats
TA	Technical assistance
TORs	Terms of Reference
TRTA	Trade Related Technical Assistance
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
URS-FMSF	University of the Red Sea State-Faculty of Marine Sciences and Fisheries

Glossary of evaluation terms

Term	Definition
Baseline	The situation, prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change due directly or indirectly to an intervention.
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved.
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.
Impact	Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention.
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention.
Lessons learned	Generalizations based on evaluation experiences that abstract from the specific circumstances to broader situations.
Logframe (logical framework approach)	Management tool used to facilitate the planning, implementation and evaluation of an intervention. It involves identifying strategic elements (activities, outputs, outcome, impact) and their causal relationships, indicators, and assumptions that may affect success or failure. Based on RBM (results based management) principles.
Outcome	The likely or achieved (short-term and/or medium-term) effects of an intervention's outputs.
Outputs	The products, capital goods and services which result from an intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes.
Relevance	The extent to which the objectives of an intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donor's policies.
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives.
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed.
Target groups	The specific individuals or organizations for whose benefit an intervention is undertaken.

Executive summary

The objective of the MTE was to review the project achievements in terms of outputs and outcomes, and progress made towards contributing to the long-term objective (impact), as well as any factor affecting performance, positively or negatively; and to formulate recommendations on the thrust, scope, duration and approach of the second phase of the Project. The MTE is a forward looking exercise aimed at identifying best practices, and areas for improvement, based on the assessment of a set of internationally accepted evaluation criteria; namely ownership/relevance, effectiveness as regards delivery of results, efficiency as regards costs and if possible at this stage of implementation, sustainability and eventual impact.

The evaluation team was comprised of two senior evaluators, Cristóbal Vignal (International evaluator and team leader) and Salih Suliman (National evaluator). The evaluation mission took place from 8 to 22 August and the team had the opportunity to meet with government representatives, stakeholders and beneficiaries in the capital city of Khartoum and Port Sudan, traveling as well to the improved landing sites of Osief and Mohammed Qol, in the Red Sea State. Meetings also took place with the donor, as well as with UNIDO, both in Sudan and in Vienna.

The evaluators consider that the sources of information were representative and sufficient to verify and document progress, as well as constraints encountered during the implementation of the project; data and information derived from interviews are considered qualitatively satisfactory. This was verified through comparison from different sources and through crosschecked interviews with relevant actors in an independent way, confirming that respondent's views and contributions were fully aligned. Overall there was sufficient evidence to allow the evaluators to establish a verifiable baseline for the project and support the validity of the findings. The MTA will present results of this assessment and respond to the specific questions presented in the ToRs.

The preliminary conclusions indicate that overall implementation of the project is satisfactory, and no major shortcomings were identified.

The project was designed following a participatory approach, and the level of ownership is considered high and was demonstrated at all levels. Goals are clearly articulated and understood by stakeholders and beneficiaries; and the evaluation team did not identify any design related issues. All stakeholders involved assessed relevance of the intervention as high; this was strongly supported by the fact that the project is considered to be responsive to marine resources sustainable management issues faced by the country. The overall rating for ownership and relevance is Highly Satisfactory

As regards effectiveness and efficiency, at mid-term, the project is delivering outputs as expected in a timely manner and cost effectively. Although the evaluation evidenced minor shortcomings and challenges (administrative), these have been resolved and based on the assurances provided by the country are not expected to represent future obstacles. At this stage it appears highly likely that project outputs will be achieved within the proposed timeline and as per available funding.

Prospects for sustainability are considered high. This is supported by a number of elements, including for example the fact that the project is considered a priority intervention area for the country, and outputs are considered key for the achievement of national food security and poverty targets. In addition the MFA is currently financing project related staff and has committed to include additional staff in the budget starting from next fiscal year (2017) and onwards. At the federal level, support was also provided to rebuild one of the ILS (damaged by a storm).

Coordination and management are considered Highly Satisfactory by and at all levels. UNIDO role is highly appreciated and considered essential both from HQ and at field level. Scheduled meetings of the Steering Committee have taken place (2 SC meetings completed, 3rd scheduled for 21 September), experts from the IMR are providing on an ongoing basis the agreed upon and expected technical backstopping often in an adaptive and flexible manner. Overall project oversight is very positively considered.

Overall, the project review did not indicate that there are currently any major foreseeable risks that would hinder the sustainability of this intervention. However, to ensure its longer-term success it is considered important to continue building on efforts deployed, in particular as regards continued awareness raising.

The table (next page) presents the main recommendations and main conclusions, and the respective supportive elements. These build on the evidence presented in the report.

CONCLUSION 1	Supporting Achievement of Results
	Recommendation 1
Although long term sustainability of project is positively rated, this could further be strengthened at low/no cost by tapping into existing capacities/knowledge already in place	The GoS, prior to project completion, should establish an inter-ministerial follow up group/committee (or similar mechanism) to monitor, advise and ensure opportunities are not missed
Contributing Conclusions	**Supportive Recommendations**
Interceding with government entities to mobilize financing and ensure project results are not lost would benefit from the creation of an agile and adaptive structure, tailored to meet project needs	Regular meetings between currently involved and/or seconded staff should be supported by the GoS and UNIDO to review activities and issues
CONCLUSION 2	**Building on Success**
	Recommendation 2
Monitoring of fish stocks, and of captures are indispensable to ensure the sustainable use and management of living marine resources in Sudan The country has acquired data from the 2015 trawling season (15 permits were granted) Additional data will be provided by the 2016 campaign (Oct 2016 to April 2017 - 20 permits granted)	The project should ensure and support mainstreaming of data intra and inter-institutionally • Local/local • Local/state • Local/Federal • Federal/Project – linking for example the Training Department of the Ministry of Animal Resources and Fisheries, with training activities taking place under the project
Contributing Conclusions	**Supportive Recommendations**
This trawling data is currently not of use as FSS does not include trawling specific data entry forms	In addition to ensuring trawling data is included, the project should continue to build on the existing weighing system (i.e. build on what traders and fishermen currently use), ensuring the usability of data for FSS, to quantify overall fishing effort (breaking this down by sp., numbers, days at sea, size of boat, number of fishermen etc.) – if possible camera sampling methods should be included, to accelerate the process Information related to tonnage at all landing sites should be centralized, to be used as comparative reference, with tonnage entering Sigala

1. Objectives, methodology and process

As outlined in the Terms of Reference (ToR)[1], the Independent Mid Term Evaluation (MTE) of the UNIDO Project "Building institutional capacities for the sustainable management of the marine fishery in the Red Sea State" covers the project from its starting date in October of 2014 to August 2016; It aims to review project implementation and processes as well as the review issues of identification and formulation, design and implementation performance (ownership and relevance, effectiveness, efficiency, likelihood of impact, likelihood and risk to sustainability, project management and M&E) and gender.

The MTE was conducted in the course of the 2nd year of implementation, from 8 to 24 August 2016, in Sudan (Khartoum, Port Sudan, Marsa Osief, Mohamad Q'ol) and Austria (Vienna). The Evaluation Team (ET) was comprised of 2 Senior Evaluators, Mr. Cristóbal Vignal (International Evaluation Consultant and Team Leader) and Mr. Salih Suliman (National Evaluation Consultant). Presentation of preliminary conclusions and recommendations took place in Sudan (Port Sudan – 18 August, and Khartoum – 21 August) and at UNIDO HQ (Vienna - 23 August).

1.1 Scope and objectives

An MTE is largely a management tool designed to provide the project team and stakeholders with an analysis of the attainment of the main objective and specific objectives under the four core project components, and to guide for the remaining period of the project.

The main purpose of this review was to enable the Government counterparts, the Royal Norwegian Embassy Khartoum, UNIDO and other stakeholders to enhance project relevance, effectiveness, efficiency and sustainability, by proposing a set of recommendations with a view to ongoing and future activities until the end of project implementation.

1.2 Information sources and availability of information

The ET was provided with project documents and information by the UNIDO Project Manager in Vienna, and by the UNIDO project team in Port Sudan. Complementary information was obtained on-line, from relevant sources. The complete list of documents is included under Annex 5 In addition to interview data from UNIDO staff in Vienna and Sudan, stakeholders and beneficiaries also provided interview data in the field.

The information is considered to have been sufficient and provided in a timely manner—supporting the assessment of causality through qualitative means—required to understand whether results were achieved or not. This was triangulated to ensure the highest possible reliability of the findings through comparison of data from different sources, and was verified and complemented

[1] See ToR (Annex 5.4)

during individual and/or group interviews. The list of interviewees is provided in Annex 5.1.

1.3 Methodological remarks, limitations encountered and validity of the findings

In order to build on the evidence provided by the desk review, a combination of methods was used to ensure that data gathering and analysis would deliver qualitative evidence-based information. To ensure that findings were verified in support of conclusions and assumptions the methodology for the evaluation included:

- A review of project documents; and,
- Interviews with stakeholders, beneficiaries and the Royal Norwegian Embassy (including at UNIDO Headquarters, UNIDO field office and in both the capital city and Red Sea State of Sudan during the mission).

Interviews were carried out with the UNIDO HQ project manager and provided information of the origin, design and implementation of the project as well as on level of implication of stakeholders, institutional arrangements in place, achieved and/or expected results. This also provided valuable insight with regards to delays and difficulties encountered, perceived strengths/weaknesses and potential lessons learned. The interviews were carried out satisfactorily and information and analysis were triangulated against the documentary evidence. This ensured that the views and experiences of all relevant stakeholder categories (men/women, project staff/participants, beneficiaries and non-beneficiaries) were appropriately included.

The participatory approach adopted to verify the information obtained allowed the ET to confirm that progress to date corresponded to the activities, outputs and outcomes set out in the logical framework of the project and that they could be measured by the indicators therein.

The ET considers that the sources of information were representative and sufficient to verify and document the progress, as well as the constraints encountered during the implementation of the project; data and information derived from interviews is considered qualitatively satisfactory. This was verified through comparison from different sources and through crosschecked interviews with relevant actors in an independent way, confirming that respondent's views and contributions were fully aligned.

Overall there was sufficient evidence to allow the ET to establish a verifiable baseline for the project and support the validity of the findings. These have been assessed as per the specific questions presented in the ToRs and referencing the higher-level criteria, whenever one was used (was the project design adequate, was the project relevant, etc.).

2. Country and project background

2.1 Brief country context

With an area of 1,880,000 Km^2, a population of 33,419,625, and borders with seven countries[2], Sudan is one of the largest African countries. It is situated in northern Africa, between Longitude 35 to 37 East and Latitude 16 to 22 North, and embraces different vegetation patterns reflecting various climatic zones where rainfall ranges from 25 to 1,000mm/year. The Red Sea coastline is 720 Km long, with an EEZ of 91,600 Km^2, including a shelf area of 22,300Km^2 800 of which are deep water, considered suitable for trawling. Population of the Red Sea State (RSS) is estimated at around 800,000 (UNDP, 2005).

Sudan sits at the crossroads of Sub-Saharan Africa and the Middle East, with fertile lands, abundant livestock, and manufacturing, however, the country has been beset by conflict for most of its independent history; and in July 2011, under the terms of the 2005 Comprehensive Peace Agreement, the southern states seceded to form the Republic of South Sudan (RSS).

Agriculture and livestock are essential to Sudan's economic diversification (moving it away from oil, which is now mostly located in the RSS) and could contribute to medium-term macroeconomic stability. While these sectors presently contribute approximately 35-40% of gross domestic product (GDP), they could contribute significantly more with greater investment and better governance. This said, Sudan now recognizes the need for greater attention to agriculture and livestock, as reflected in its Interim Poverty Reduction Strategy Paper (I-PRSP) and the Five-year Program for Economic Reforms approved by its parliament in December 2014.

The animal sector in Sudan contributes substantially to food security with provision of red and white meats and more than 60% of milk supply. Its percentage contribution to GDP is approximately 20%, which in turn represents 20% of total export earnings. In comparison, the contribution of fisheries to GDP is currently marginal (estimated to be below 1% of GDP), even though Sudan is endowed with water resources and lands that can support vigorous capture fisheries and aquaculture. At present, fish resources have a limited contribution to food security and their share in exports is still quite limited[3] due to traditional utilization methods, among other problems. The country is in fact still largely dependent on imports of fish and fishery products (USD 5.2 million in 2012).

2.2 Fisheries

The institutions directly involved in fisheries management are the Federal Ministry of Animal Resources and Fisheries, and its Fisheries Administration, the Fisheries Training Institute (Ministry of Animal Resources and Fisheries); at the Red Sea State level are the Ministry of Agriculture, Animal Resources and Fisheries, Marine Fisheries Administration, the Marine Research Station, and the

[2] Egypt, Eritrea, Ethiopia, South Sudan, Central African Republic, Chad and Libya

[3] Valued at USD 0.2 million in 2012

Faculty of Marine Science. Sudan is also a member of the Committee on Fisheries (COFI) and participates in INFOSAMAK, the Centre for Marketing Information and Advisory Services for Fishery Products in the Arab Region. A set of Laws and By-laws regulate and organize fishing activities[4], which are practiced by an estimated 7,000 fishers, of which 1,500 are involved in marine fisheries. Approximately 4,000 fishing boats are operated, of which 500 in the Red Sea area.[5] A large majority of these boats are currently equipped with out-board engines.

It has been estimated (Abdulla, FRS) that the per capita consumption of fish in the world is 34 Kg /year while it is about 6.5 kg/ year in Sudan; considered low when compared with other regional African countries (average of 13 Kg /person/ year). It is important to point out that this is in part due to the fact that many tribes and tribal sub-sectors do not like eating fish or shellfish of any kind, or getting involved in any sort of fish-related activities. Examples of these are pastoralists such as the Arabian Bedouins, Rashaiyda and some Beja groups[6]. This said, fishing, as a profession is an old one and has been practiced to secure food needs or for income-generation to secure other needs. Although utilization methods remain largely traditional, some limited efforts have been exerted recently in the direction of commercial utilization of fish reserves in the Red Sea by the Sudanese private sector and foreign companies.

Sudan depends on fresh water fisheries where the Maximum Sustainable Yield (MSY) is about 110,000 tons. In comparison marine fisheries MSY stands at around 10,000 metric tons/annum. [7]

Total fisheries potential of Sudan has been estimated at 74,550 tons annually with capture fisheries production estimated at about 34,000 tons (2012) —29,000 tons from inland water catches and 5,600 from marine catches.[8] The aquaculture sector is still incipient and the annual production was estimated at 2,000 tons (2012).[9] Capture fisheries activities are centred around the Nile River and its tributaries, seasonal flood plains and four major reservoirs[10] as well as the territorial waters of Sudan on the Red Sea.

2.2.1 Processing

Fish processing is generally practiced in two main forms:

- Dry salted fish (Kajaik)
- Wet-salted / fermented fish (Faseekh)

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[4] The overarching legal instrument governing the fisheries of the Sudan is the Constitution of the Republic of the Sudan, 1998. It is supported by the Freshwater & Marine Fishing Law of 1954, as amended first in 1960 and again in 1995

[5] Arab Organization for Agricultural Development - 1996

[6] Current statistics from the Ministry of Livestock, Fisheries and Rangelands (MLFR)

[7] Ministry of Livestock, Fisheries and Range' statistics

[8] Marine finfish account for 29% of total catches - Ministry of Livestock, Fisheries and Range' statistics

[9] Primarily based on pond culture of Nile tilapia

[10] Lake Nubia-Merowe dam, Jebel Aulia, Sennar, Rosaries, Upper Atbara and Sitate, Khash el Girba

The first type is cleaned, salted, sun-dried, stacked and packed into sacks for transportation and marketing. Faseekh processing starts with fish cleaning, salting, dipping in troughs, keeping for 7-10 days till it is fully fermented and at last put in tins/plastic buckets for transport and marketing.

Fresh fish and Faseekh are mostly consumed in urban areas. Kajaik (dry fish) consumption is confined to agricultural labor in irrigated and rain-fed areas such as Gezira, Gedarif, Southern Blue Nile areas, South Kordofan and Upper Nile states.

2.2.2 Market and distribution

The fish market is a free market and prices are set according to supply and demand. Market information is available and there are no barriers to get into the market or to pull out of it. Trading of fish is conducted in a traditional manner by using primitive types of weighing and measuring ('Koam', Sack, basket). The kilogram, as a measurement unit, is only used in larger towns. Prices depend on bargaining between sellers and buyers whose bargaining power is determined by the need for liquidity and the possibility of damage incurred due to lack of transportation or adequate storage facilities. In adverse conditions, the seller finds himself/herself obliged to accept an unfavourable deal i.e. to sell at lower-than-market price. In larger towns, selling is involves standard weight measurements, and selling prices are high and generally favour the seller - who is in most cases a middleman - not the real producer.

The distribution channels pass in general through a chain of middlemen (between the producer and consumer), which sometimes negatively affect the producers' net return and consumer prices. In markets that are closer to production areas, fishermen try to sell their products independently in order to obtain a better return rate. In reality, this may not always be the case as sometimes producers sell in a limited market or lack adequate storage and transport means. Good potential returns are often to be found in distant markets where demand is high and fish is iced and safely transported by trucks to those markets. In the Red Sea State, where fish is landed in 3 Improved Landing Sites (Swakin, Osife and Mohamed Gol) as well as in several artisanal landing sites; fishing trips are pre-financed by traders who also arrange transport to the Sigala market, through where most of the capture of the region goes through. Exports are very small (mainly Nagil) and were valued at USD 0.2 million in 2012.

2.3 Sector specific issues of concern

The Sudanese Red Sea houses quite a great number of commercial finfish species. Available data indicates that at least 450 species are now recognized in the Red Sea.[11] Of these 450 species about 93 fish species have been identified from commercial fish catch in Sudan, and of these, approximately 65 are considered of economic importance.

[11] Abu Gideiri, 1997

No reliable stock assessment studies have been conducted regarding the marine fisheries of Sudan. However surveys were carried out under an Overseas Development Assistance (ODA) Project in the period 1975-1990, and an FAO/ UNDP Project in 1979-1985. The resulting total MSYs were highly discordant ranging from 6,000-10,000 tons/year [12] and 35,000 tons /year (ODA) but the MSY for reef fisheries were similar (6,000 tons/year by ODA and 6,600 tons/year by FAO).

Given that the average annual production is 1,377 tons/year, and taking only the lower value for the MSY (6,000 tons/year), about 4,623 tons/year of fish potential is unexploited (approximately 77%). This seems to be a low number when compared to neighbouring countries; for example Yemen where fish resources come in second to petroleum in contribution to GDP, or Kenya where fishing activity is regulated by the government and requires that no one be allowed to engage in fishing, without receiving training and obtaining a license.

Incipient efforts are being undertaken by the Red Sea State government to draw up strategies related to food security in the state including promotion of fishing (Ministry of Agriculture). In this sense, the low levels of pollution, compared to other seas present an untapped opportunity for the expansion of fish exports, as there is a growing demand, worldwide, for pollution- free and 'organic' foods. This potential is not without constraints including for example those referenced in a Russian study, which confirmed that the level of salinity of the Red Sea comes second to the Dead Sea. This is due to the high average temperatures (and resulting evaporation which concentrates the salts), and the fact that the Red Sea is surrounded by desert and no rivers flow into it. The Red Sea is highly saline and nutrient poor — an "ultra-oligotrophic" environment. Organisms such as corals and photosynthetic plankton have adapted to thrive under these extreme conditions.[13] This affects the amount of fish present, which is believed to be lower than the amount in other seas, and lower North of Port Sudan than in the southern part of the Red Sea State.

With surface water temperature ranging from 32°C in winter to 34°C during summer, and a salinity of around 42/1000, Sudanese territorial waters have a good potential for oyster breeding and fisheries.[14] The statistics published by the Arab Organization for Agricultural Development in 1996 [15] show that the MSY from marine fisheries is about 10,000 tons. The annual catch was 4,000 tons/annum and the under-fished stocks were about 7,000 tons/annum. The marine fisheries catch represents about 30% of the MSY. According to both fisheries, marine and fresh water, the total annual catch is approximately 50,000 tons. This represents about 40% of the total MSY.

At present, the total fish catch for both slat and freshwater species in Sudan is estimated at 50,000 tons per annum with a total MSY of about 120,000 tons per annum. There remain, therefore, about 70,000 potential tons to be fished every year. Although at present the total demand for fish is roughly equal to the total

[12] Ministry of livestock Fisheries and Range' Statistics
[13] https://discovery.kaust.edu.sa/en/article/157/the-red-sea-models-the-future
[14] Animal Resources Research Department - 1998
[15] Statistics published by the Arab Organization for Agricultural Development

actual supply, it is considered that an opportunity for demand to increase exists (local consumption and exports) in parallel to increase in total supply. In this sense, the fisheries resources in the coastal region of the Red Sea State are under-utilized. The present harvest of Marine fish by artisanal fisheries is very low compared to the resources available.

According to the Marine Fisheries Administration (MFA), Ministry of Agriculture, Red Sea State, the current fish production, by artisanal fishermen and very limited trawling fishery, is about 6,000 tons, harvested in the Red Sea coastal area; this even though the artisanal annual fish potential yield for fish in the sheltered coastal zone is estimated to be at least 10,000 MT of various fish varieties.. Despite all these resources, the current production is around 2,000 MT per annum and the fishing is mostly done with simple equipment. Fishers have limited knowledge of large-scale capture methods and poor access to finance and equipment. The following table shows the recorded artisanal and commercial fish production. This is according to data collected from the Marine Fisheries Administration

Other Trawling Fishery	Shrimp (Egyptian Trawlers)	Shrimp Culture For Saudia Arabia	Cucumber	Fin Fish	Sardines + Tuna fish	Fresh Water Yields	Pearl shell	Trochus	Artisanal fishery	Year
31.000	-	-	36.700	400	-	39.965	-	378	369.391	2001
-	3.949	-	44.920	180	-	70.250	-	367	373.137	2002
-	14.400	-	30.630	-	717	102.400	1	364	371.229	2003
-	60.540	4.425	19.000	-	1638	153.210	-	336	452.563	2004
-	46.220	-	20.009	-	1466	65.200	-	385	506.957	2005
-	-	-	9.750	-	-	37.200	-	301	616.931	2006
-	5.950	-	1.4961	-	-	1.200	-	280	497.132	2007
-	53.300	-	17.690	1200	-	592	14	319	387.952	2008
-	17.950	-	-	-	335	5.190	-	56	592.327	2009
-	-	-	1.060	-	-	-	2.5	137.5	486.853	2010

Recorded artisanal and commercial production

2.4 Project summary

2.4.1 Fact sheet

Project Title	Building institutional capacities for the sustainable management of the marine fishery in the Red Sea State
UNIDO project Number	SAP130130
Region / Country	Republic of Sudan, Red Sea State
Thematic area code	EC31 Programme Direction and RBM
Implementing agency	UNIDO
Executing partner	Institute of Marine Research, Norway
Project starting date	October 2014
Project duration	39 months
Expected implementation end date	January 2018
Norwegian contribution (including 13% support costs)	€ 4,239,054.67
UNIDO contribution	€ 323,078.76
Counterpart contribution	€ 255,100.89
Total project inputs	€ 4,817,234.32
Mid-term Evaluation date	September 2016
Planned terminal evaluation date	End 2017

2.4.2 Project description

The project seeks to establish the knowledge base for the sustainable management and further development of artisanal and semi-industrial fisheries in the Red Sea Sate (RSS) of the Republic of Sudan. This is to be done through strengthening of the institutional capacities of the Marine Fisheries Administration the Red Sea Fisheries research Station and the Faculty of Marine Sciences and Fisheries, Red Sea University, in Port Sudan, for development and maintenance of a database on fish stocks and fish landings.

The three main components of the project are:

1. The provision of technical assistance, building of capacities and facilitation of the implementation of one annual monitoring survey of the fisheries resources along the Red Sea State coast throughout the project implementation period;
2. The provision of technical assistance, building of capacities and facilitation of the development of a database of fish delivered at the Sigala market and catch and effort data from fish landed at the three improved fish landing sites (ILS);
3. The continued provision of limited technical assistance and building of managerial capacities targeted towards enabling the three ILS sites to become financially self-sustaining entities as a pre-condition for cost effective collection of data on catch per unit effort and other fisheries dependent data that cannot be obtained at the Sigala market.

2.5 Project implementation

The key institutions in charge of managing the marine fishery sector in the Red Sea State are the:

- Marine Fisheries Administration in the Ministry of Agriculture, Animal Resources and Fisheries;
- Faculty of Marine Sciences and Fisheries in the Red Sea University; and,
- Red Sea Fisheries Research Centre, Port Sudan.

The Marine Fisheries Administration (MFA) has the mandate to collect data on fish landings, develop regulatory instruments (quota, areas and seasons), to issue licences for all fishing activities (artisanal, semi-industrial, industrial) and to enforce laws and regulatory instruments.

The Faculty of Marine Sciences and Fisheries in the Red Sea University and the Red Sea Fisheries Research Centre, Port Sudan are tasked with the implementation of scientific fishery related research and contribute to the control of hygienic standards[16], to create awareness on marine issues amongst stakeholders and to provide the MFA with advice and scientific data for the development of regulatory instruments.

These three institutions lack the institutional capacities and infrastructure required to plan and manage the implementation of fisheries independent surveys, and to obtain catch statistics from the fisheries, through collection, storage and data analyses. They are the direct beneficiaries of the trainings to be provided under the project.

As for the pilot project TE/SUD/12/004 “Surveys of renewable marine resources in the Red Sea State, Republic of the Sudan” it was agreed that the project should be implemented by UNIDO with the Norwegian Institute of Marine Research as the sole provider of substance matter expertise. This will allow the

[16] Although this cross cutting issue is the task of all institutions it is primarily the task of the Public Health Department of the Ministry of Health, Red Sea State

project to benefit from the subject matter expertise of the Institute of Marine Research (IMR) as well as to make full use of the UNIDO structures already established in the Republic of the Sudan. All the training sessions (except for the strengthening of the managerial capacities of the Improved Landing sites) will thus be provided by IMR experts under a subcontract with UNIDO, whereas UNIDO will provide the logistical support, procure, transport and import into the Republic of the Sudan equipment identified by IMR as a requirement for project implementation, facilitate the process to obtain visa for the IMR experts and maintain a Project Office in Port Sudan as required for the continuous and on-going support, technical backstopping and contact keeping with the key counterpart institutions.

Source: Project Document

2.6 Positioning of the UNIDO project

The absence of reliable data on the status of fish stocks and the quantity of fish harvested combined with weak institutional capacities have been identified as the main barriers for the development of strategic plans, policy recommendations and/or regulatory instruments for the sustainable use and management of living marine resources in the RSS. For the development of strategic plans, the estimation of the economic potential of the marine fishery and the development of policy recommendations, management plans and regulatory instruments require monitoring of both the state of stocks by means of fisheries independent surveys and of the quantity of fish landed be collected, stored and analysed.

UNIDO is involved in fishery and fisheries related projects in multiple countries [17] and, with the technical backstopping from the IMR it is uniquely positioned to successfully deliver results. Furthermore this project complements and builds on achievements of projects previously implemented by UNIDO in the RSS for promotion of sustainable marine fisheries. In particular the implementation of the CIDA funded UNIDO project (TF/SUD/09/002 “Recovery of coastal livelihoods in the Red Sea State through the modernization of artisanal fisheries and creation of new market opportunities”) by UNIDO’s Agribusiness Development Branch, and project (TE/SUD/12/004 “Surveys of renewable marine resources in the Red Sea State, Republic of the Sudan”) funded by the Norwegian Embassy Khartoum (€ 1,053,358 Norwegian contribution) and jointly implemented by the Norwegian IMR and UNIDO’s Water Management Unit, will allow UNIDO to further consolidate its leading role in the development of the potential of the Republic of the Sudan’s marine fisheries.

The Technical Assistance to be provided by UNIDO will build the institutional capacities for the establishment and sustainable operations of a database on fish

[17] To name a few, the establishment of a Fisheries and Marine Training Institute in Sierra Leone; implementation of GEF funded projects in the Large Marine Ecosystems of the Gulf of Guinea and the Gulf of Mexico, which include the establishment of the knowledge base for restoration of depleted LMEs; technical assistance programme to increase Indonesia’s trade capacity in selected value chains in the fisheries sector, etc.

stocks and fish landings. In line with this institution's mandate, the database will be established in the Marine Fisheries Administration (MFA).

2.7 Counterpart organization(s)

UNIDO is the implementing agency for the project and the government-coordinating agency is the Ministry of Agriculture, Animal Resources and Fisheries. The project counterparts are the Marine Fisheries Administration of the Red Sea State, Red Sea State University – Faculty of Marine Sciences and Fisheries, Red Sea Research Station, Port Sudan. The executing partner is the Institute of Marine Research of Norway (IMR).

3. Project assessment

A. Ownership and relevance

The project's outputs and resulting outcomes are considered to be highly relevant for, and by, all stakeholders and beneficiaries (from State Minister to fishermen), as well as for government partners, for the Norwegian government and for UNIDO. The outputs as presented in the project document are considered to be relevant and are clearly articulated and understood by all stakeholders; they are considered sufficient to achieve the planned outcomes in support of the expected impact.

The project is relevant to and in line with outcome two of pillar one (poverty reduction, inclusive growth, sustainable livelihoods) of the UNDAF 2013-2016 for the Republic of the Sudan and will contribute to improving the effectiveness of relevant institutions in support of sustainable management of natural resources. The project is also in line with outcome five of pillar three (governance and rule of law) as it supports strengthening of government institutions at all levels to effectively plan, deliver and monitor their services.

The project is also contributing to achieve MDG 1: Eradicate extreme poverty and hunger and MDG 7: Ensure environmental sustainability. Although the project was conceived prior to the adoption of the 2015 Sustainable Development Agenda's Goals (SDG), the project directly contributes to 1- No Poverty; 2 – No Hunger; 9 – Industry, Innovation and Infrastructure; 12 – Responsible Production and Consumption; 14 – Life Below Water; 16 – Peace Justice and Strong Institutions; and, 17 – Partnerships for the Goals.

As regards the country, the project is in line with the Five Year National Development Plan 2012-2016 to promote sustainable economic development by encouraging a competitive private sector, supporting key infrastructure and agriculture projects, and building a knowledge-based economy.

The project is also aligned with the goals of Norwegian Development policy; Fish for Development was announced as a new initiative in October 2013 for the 2014 aid budget. The Fish for Development Initiative is intended to support sustainable resource management and institutional development. Furthermore the project — by contributing to develop the knowledge base for the modernisation of the artisanal marine fisheries and development of a sustainable semi-industrial marine fishery sector— is aligned with the strategy of the Norwegian Embassy in Khartoum; this supports the sustainable management of natural resources and economic diversification, both major challenges in light of the severe economic effects stemming from the secession of South Sudan.

Overall the project is considered relevant and was designed[18] in an inclusive manner to be responsive to marine resources sustainable management issues.

[18] Design is described as having followed "a bottom up" participatory approach, involving all relevant stakeholders; this in turn was a "highly appreciated" approach

The early and inclusive design process contributed to the strong ownership, which was demonstrated at all levels. In particular the ET was able to document numerous instances of strongly voiced support for this and ensuing projects ("phase 2", as described by high-level government officials[19]). In addition, the ET was witness to a rapid decision making process that led to the long term financial commitment of the government of the RSS who informed us of the fact that the salaries of staff responsible for data acquisition at the Improved Landing Sites (ILS) will be included in the fiscal budget starting from 2017 onwards.

Also in support of ownership is the fact that the government of the RSS intervened at the federal level to secure the resources necessary to rebuild the roof of the ILS at Mohammed Q'ol, which had been blown away during a storm.

The overall rating for **Ownership and relevance** is **Highly Satisfactory**

B. Effectiveness: Attainment of objectives and results

The project, at midterm is delivering outputs as expected, in a timely manner, and cost effectively. These are being not only used by target beneficiaries, but also further refined to provide the required results. This contributes both to demonstrate a high sense of ownership (see above) and to ensure effectiveness and attainment of results.

Although consequences could have been more severe, leading for example to delays and/or postponement of a monitoring survey —had they not been addressed effectively by the Project Manager in UNIDO— these are now considered minor shortcomings and challenges of an administrative nature. They have been resolved (visa issuances) and the government provided assurances that effective immediately, this would no longer be an obstacle for rapid implementation progress.

No procurement related issues were attributed to UNIDO, however mislabelled equipment (Otolith saw reportedly described as a "metallographic saw" by the shipping company contracted by the supplier of the saw to deliver this equipment to Khartoum) is considered in part responsible for contributing to a resulting and avoidable administrative delay. This is considered a lesson learned.

The assistance provided to build national capacities for development and deployment of EMS are a precondition for establishment of sustainable semi-industrial or industrial fisheries. In this sense, the project is assessed as currently contributing to ISID, in particular as it is building the capacity for the development of sustainable fisheries and fish based value chains. This is considered likely to continue, as the projects activities and outcomes are completed.

In addition, and although at this stage it is too early to assess impact, it is expected the project will contribute to food security and to the diversification of

[19] Interview data

the economy of the Republic of Sudan through the sustainable management of fish stocks in the Red Sea State. In this way, it is fully aligned and supports the achievement of MDG 1: Eradicate extreme poverty and hunger; and to MDG 7: Ensure environmental sustainability.

Overarching activities

2 Steering Committee Meetings have taken place and at the time of the MTR, a third one was scheduled (21 September 2016).

The ET was provided with ample evidence supporting the delivery of ongoing backstopping by IMR experts, including exchanges via skype and electronically transmitted correspondence. No issues were raised regarding deficiencies or shortcomings as regards this.

Output 1 - Surveys and related activities

Data collection activities (surveys, etc.) and identification of fish species related activities are all ongoing and results are satisfactory. The ET was able to verify the veracity of the following statement —which was presented to, and validated by the SC[20]— "Capabilities of key institutions (in terms of hardware, software and institutional capacities) for planning scientific surveys have been strengthened". In support of the above, evidence provided confirmed that in particular the following has taken place:

2015

- Inception Mission;
- Pilot survey/method verification survey (11 days – 28 Jul -11 Aug);
- 45 day at sea survey completed (1 – 15 April). This included the second training in setting up underwater video surveys, processing and analysing data collected, as well as transects
- Training in Bergen – 6 participants (31 Aug-11 Sep) training on age determination methods

2016

- Training in Bergen (fishing gear);
- 45 day at sea survey Oct/Dec. The MS Don Questo was secured for the period 20 Oct – 03 Dec)

Output 2 – Fishery Statistics System and related activities

Training related activities are all ongoing and results are satisfactory. The ET was able to ascertain that —as reported to the SC— "Capabilities of key institutions (in terms of hardware, software and institutional capacities) for the establishment

[20] Progress Report No 2, 2015 – 12 – 09

of a fisheries statistics system (FSS) have been strengthened, first series of data sets has been collected at Sigala market and [at] the three ILS". Completion of the following was reported and verified:

2015

- 8-9 June – First Fisheries Statistics Training
- 1-13 May - Business development training for the ILS'
- 8-19 June (establishment of FSS)
- 7-12 September (preparatory mission)
- A 4th training is scheduled for December 2016
- 5-16 October (FSS Training - Taxonomy)

2016

- 11-18 Jan - 2nd FSS training. Although initially planned for 4 experts, agreement was reached to train 2 experts in January and 2 others in May, at the IMR
- 1-15 Apr - Underwater video surveys training on the analysis of the underwater video data collected during the 2015 surveys
- 19-30 May – 3rd FSS training
- 2nd training in Bergen is scheduled in September (12-25)

Interview data shows that there is a sense of impatience and even urgency regarding the desire to access training related equipment on a daily basis (computers and Passgear software), and in the Institutes own settings. This was discussed with the project team in RSS and the ET considers that under the present conditions the equipment is more aptly located on their premises. This said, as project closure approaches, arrangements will have to be made to transfer equipment (and ownership of equipment) to national stakeholders; this includes the licence keys for the Event Measuring software for video analysis and high end computers to operate this on).

Finally, and as a result of these trainings and technical backstopping, a new university syllabus is ready to be rolled out starting from next semester onwards (October 2016).

The overall rating for **Effectiveness** is **Satisfactory**

C. Efficiency

The ET did not gather any evidences demonstrating that inputs were not being provided as agreed, nor regarding cost-effectiveness and at this stage it appears likely that revised project outputs will be achieved within the available funding and timeline.

One issue affecting the overall efficiency, which was not in the purview of the project management and which, arguably could be considered a "risk", is the fact that the Norwegian Krone, used as the basis for the initial calculation of the Euro

equivalent based project budget suffered a devaluation. This was due to reasons beyond the scope of this evaluation, but affected project efficiency, and implementation. Although measures have been taken to decrease some of the expected results —which have been validated by the Steering Committee— this is not expected to affect achievement of the main outputs. Furthermore interview data confirms that this will not penalize the overall assessment of the intervention by the Royal Norwegian Embassy, which would even favorably look upon implementation of a follow up phase.

As can be seen from the table below, at this stage (mid-term) approximately 78% of donor funds (received up to the time the evaluation was carried out), and 100% of UNIDO contribution have been realized. This is considered very high and contributes to raise the rating for efficiency, even in light of the above-mentioned issue regarding devaluation of the currency affecting the overall contribution from the donor country.

Financing plan summary

Project No.	**Total Allotment**[21]	**Total Expenditure**	**% Implementation**	**Donor**
SAP ID 130130 Grant No 2000002943	EUR 1,929,924.30	EUR 1,499,299.89	78%	Norway
SAP ID 130130 Grant No 2000002790	EUR 35,000	EUR 34,969.83	100%	UNIDO

Source: UNIDO ToR (modified by ET to update corrected implementation rate)

The overall rating for **Efficiency** is **Satisfactory**

D. Coordination and management

Overall the ET considers that coordination and management have been efficient and effective at all levels. Project management is positively and highly regarded by all interviewed stakeholders, both at the level of UNIDO, and of the country. Relationships are described generally as “excellent” and “fluid”, information channels are described as being “very good” and information availability and quality is described as “very good” (see below). This is supported by interview data and a desk review of available documentation, which validates the

[21] Total Allotment = total amount of contributions received so far (for the Norwegian contribution this is exclusive the 13% UNIDO support cost contribution

statement made by one interviewee whom described the project as being “very tidily run”. Is essence coordination and management are considered “positive at all levels”.

In addition, UNIDO role is highly appreciated and considered essential both from HQ and in the field (Country office and RSS office). This said, the ET was provided with comments (which were triangulated and verified) indicating that providing first-hand experience of the field to the logistics officer of the project could be beneficial and would further contribute to streamlining implementation (first-hand experience of the project realities in the field).

Finally, as regards quality of information produced, this is highly regarded and document circulation is looked forward to and anticipated. The ET was able to verify that all project related documentation was in general “eagerly” awaited and was contributing to the ongoing streamlining and strengthening of communications, at the country level.

The overall rating for **Project management** is **Highly Satisfactory**

E. Impact and sustainability

Overall, the project review did not indicate that there are currently any major foreseeable risks that would hinder the sustainability of this intervention; at this stage, and although it is not possible to assess impact, there are strong elements that allow the ET to consider that prospects for achievement of outputs and eventual sustainability of the project are likely. The following, while in no way exhaustive, present the main factors supporting this conclusion:

- The project is considered a priority intervention area for the country (Federal, State and Local levels) and the outputs are considered key for the achievement of National food security and poverty reduction targets;
- The project is in line with UN-wide priorities as well as those of the Government of Norway;
- The country is currently financing project related staff (via the MFA) and is committed to include additional staff in the budget starting from fiscal year 2017 onwards;
- Finally, as was pointed out above, the ILS —Mohamed Q’ol— was rebuilt with the support of the Finance Ministry (Federal level); further to the mobilization (request and intervention) of the Investment and Industry Administration of the RSS. This was verified by the ET on the ground and allows us to confirm that funds were effectively mobilized and repairs have been conducted.[22]

[22] At the time of the field visit the reconstruction was almost complete, with only some cabinet doors to be replaced, and a general clean up to completed the also “eagerly awaited” reopening of the ILS (interview data)

UNIDO has evidently fostered and nurtured a strong relationship with the government and the donor, and there is evident support for continued collaboration; this is considered an additional factor that significantly contributes to raising the prospects of sustainability.

However, to ensure the longer term success of this strategic intervention it will be necessary to continue to build on the achievements of earlier phases of the project, in particular those undertaken to raise the awareness of all national stakeholders; at the governmental level in particular (both federal and in the RSS) these efforts will support the notion of the inclusive —and eventually industrial— development of the economic potential of the Sudanese Red Sea and most importantly will help to guide it towards becoming a reality.

These efforts to continue raising and maintaining a high level of awareness will contribute and facilitate the development of a well-managed and monitored fishery, one that can harvest natural resources in a sustainable way and support livelihoods (nutrition, employment and revenue) while preserving the development potential of the Red Sea (resources and tourism). It is evident however that for this to succeed, lessons learned from other projects in the region (i.e. Egypt, etc.) will have to be taken into consideration, and funding will be required, both to undertake the next logical development phases, and to ensure that while this gets underway the trained human capital and resources stay in the sector.

The overall rating for **Likelihood of impact** is **Likely to Highly Likely**

F. Gender

Gender considerations are taken into account in the project document and the ET was able to verify that these have effectively been taken into account, when and as possible. This was observed as regards the project team composition in the RSS, for example, as well as for women researchers. Although balance has not been achieved, the ET was informed that at least three students have expressed their desire to take part in the surveys.

However, as can be expected, in the field, the achievement of gender balance in the fisher community is not likely. This will likely only be addressed in subsequent phases of the project, and in particular if/when fish processing related activities commence. It is likely that at that stage women will play an active role and will contribute to improving this indicator.

The overall rating for **Gender** is **2** (somewhat addresses gender)

G. Overall project achievement rating

Review issue	Evaluator's summary comments	Evaluator's rating
Attainment of project objectives and results (overall rating), sub criteria (below)		**S**
Ownership and relevance	Demonstrated ownership and relevance for all sectors	**HS**
Effectiveness	Minor delays affect this rating	**S**
Efficiency	Rating affected by devaluation of the Norwegian Krone	**S**
Coordination and management	No shortcomings identified	**HS**
Impact and sustainability	No major shortcomings noted at this stage of implementation	**L-HL**
Gender	Somewhat addresses gender	**2**
Overall rating	Although with shortcomings in Efficiency, as Relevance and Effectiveness are critical criteria, overall the project is assessed as Satisfactory	**S**

4. Conclusions and recommendations

The table below presents the main recommendations and main conclusions, and the respective supportive elements. These build on the evidence presented in the report.

CONCLUSION 1	**Supporting Achievement of Results**
	Recommendation 1
Although long term sustainability of project is positively rated, this could further be strengthened at low/no cost by tapping into existing capacities/knowledge already in place	The GoS, prior to project completion, should establish an inter-ministerial follow up group/committee (or similar mechanism) to monitor, advise and ensure opportunities are not missed
Contributing Conclusions	**Supportive Recommendations**
Interceding with government entities to mobilize financing and ensure project results are not lost would benefit from the creation of an agile and adaptive structure, tailored to meet project needs	Regular meetings between currently involved and/or seconded staff should be supported by the GoS and UNIDO to review activities and issues
CONCLUSION 2	**Building on Success**
	Recommendation 2
Monitoring of fish stocks, and of captures are indispensable to ensure the sustainable use and management of living marine resources in Sudan The country has acquired data from the 2015 trawling season (15 permits were granted) Additional data will be provided by the 2016 campaign (Oct 2016 to April 2017 - 20 permits granted)	The project should ensure and support mainstreaming of data intra and inter-institutionally • Local/local • Local/state • Local/Federal • Federal/Project – linking for example the Training Department of the Ministry of Animal Resources and Fisheries, with training activities taking place under the project
Contributing Conclusions	**Supportive Recommendations**
This trawling data is currently not of use as FSS does not include trawling specific data entry forms	In addition to ensuring trawling data is included, the project should continue to build on the existing weighing system (i.e. build on what traders and fishermen currently use), ensuring the usability of

	data for FSS, to quantify overall fishing effort (breaking this down by sp., numbers, days at sea, size of boat, number of fishermen etc.) – if possible camera sampling methods should be included, to accelerate the process Information related to tonnage at all landing sites should be centralized, to be used as comparative reference, with tonnage entering Sigala

4.1 Lessons learned

In support of the delivery of results and sustainability, efforts should not be spared to support the establishment and/or strengthening of inter-institutional linkages.

The support provided by the project has linked institutions that were not cooperating with each other prior to the intervention. This has contributed to the successes achieved. As was mentioned during the interviews, “the linkage between institutions only really started with this project” and this has effectively resulted in creation of what is considered to be “a joint group now!”

5. Annexes

5.1 List of persons interviewed

	Position
Ministry of Industry - Khartoum	
Batoul Abbas Adlan	Director General of the Dep. External Relations
Huida Abdulbagy Ali	Assistant to the DG External Relations.
Limia Alnour Mohamed Saied	Director Regional, International Organizations & Technical Cooperation
Ministry of Agriculture Animal Resource and Fisheries - Khartoum	
Dr. Gaffar Ahmed Abdallah	State Minister
Dr. Kamal Tagelsir Elshiekh	Under-Secretary
Mr. Hammad Shanto Salih	Director General/ General Fisheries Administration
Dr. Nafisa Mahjoub	Chief Technical Advisor
Dr. Randa Altyeb	Technical officer
Ms. Fatima Yousif Mohamed	Inspector of fisheries
Ministry of agriculture animal resources and fisheries - Red sea state	
Mohamed Abdallah Tahir	Deputy- Director General
Saied Gumaa Fadul	Director of Marine Fisheries Administration
Marine Fisheries Administration	
Mr Saeed Guma Fadul	Director of Marine Fisheries Administration
Mr Hamad Tokoluia Augan	Senior Inspector, MFA
Mr Adam Idris Ahmed	Senior Inspector, MFA
Mr Adam Idris Abdelrasoul	Senior Inspector, MFA
Mr Ahmed Adam Babikir	Senior Inspector, MFA
Mr Dia Aldin Abdulsalam	Senior Inspector, MFA
Mr Hussain Mohammed Ibrahim	Senior Inspector, MFA
Mr Saeed Altahir	Senior Inspector, MFA
Mr Mahdi Abdalla	Senior Inspector, MFA
Faculty of Marine Science	
Mr. Adil Mohamed Salih Adam	Lecturer
Mr. Abdel Mohsin Suliman	Technician
Hala Khidir	Teaching Assistant

Majda Mustafa Mahmoud	Technician
Marine Research Station	
Alamin Mohamed Alamin	Assistant Researcher
Hala Gindeel Abubacker	Assistant Research Professor
Hadeel Fadol Ali	Technician
Amani Hammad Tukolia	Assistant Researcher
Osief Improved Landing Sites	
Omer Hamid Eisa	Administrative Officer
Husain Eisa Omer	Employee
Omer Ali	Fish Trader
Ismaiel Mohamed Husain	Fisher
Hamad Ali Ahmed	Secretary General of the Fishermen Cooperative
Ministry of Investment and Industry **Ministry of Finance**	
Mr. Mohamed Taha Osman	State Minister of Investment and Industry and Acting Minister of Finance
Ms. Nadia Nasir Mohamed	Director General of the Ministry of Investment and Industry
Mr. Ahmed Mohamed Tahir	Advisor to Minster
Mr. Salah Fateh Alrahman	Acting director of Industry
UNIDO **Head Office and Port-sudan**	
Mr. Khalid Elmekwad	UNIDO Representative Djibouti, Yemen and Sudan
Mr. Haider Khamis	Logistic Officer
Mr. El Thair Hassan M. Salih	National Project Coordinator
Ms. Nagwa Mohamed Osman	Administration and finance officer
Mr. Ahmed Mohamed Adam	Swakin landing site manager

5.2 Reference Documents

- Project Document, Half yearly project progress reports and self-assessments
- Back-to-office reports
- UNIDO Programme and Budget
- Economist Intelligence Unit documents: country profile and country reports
- CIA: Intelligence Fact Book
- Information (various forms) provided by stakeholders

Please note sources are referenced throughout the MTR, as well as possible and as often as reasonable.

5.3 Evaluation Matrix and Interview Guidelines

Evaluation Criteria	Guiding evaluation questions	Source of Information					Evaluation Tools		
		Counterpart	Donor	Project Manager	Beneficiaries	Experts	Doc Review	Interview	Field Obs.
Relevance	• How is the project aligned to a national development priority?	x		x			x	x	
	• Why/how were government agency and/or company selected to partner with UNIDO?	x	x	x				x	
	• To what extent are the problems that originated the project still relevant today? • Have there been changes in the context that affected the project significantly?	x		x	x	x		x	x
	• To what extent the project is relevant to intended target groups/beneficiaries?	x		x	x			x	x
	• IMPACT: To what extent is the project contributing to international development priorities? • IMPACT: How these contributions (if any) can be measured?	x	x	x			x	x	x
Effectiveness	• What are the main results of the project so far?	x		x	x	x	x	x	x
	• To what extent outputs established in the project document are			x	x	x		x	x

Evaluation Criteria	Guiding evaluation questions	Source of Information					Evaluation Tools		
		Counterpart	Donor	Project Manager	Beneficiaries	Experts	Doc Review	Interview	Field Obs.
	delivered?								
	• To what extent outcomes established in the project document are being achieved (or likely to be)?			x	x	x		x	x
	• To what extent outputs are/were sufficient to achieve the outcome?			x		x	x	x	x
	• To what extent were SMART performance indicators established and measured?			x		x	x	x	x
	• To what extent has the project reached the intended beneficiaries?			x	x	x		x	x
Efficiency	• To what extend UNIDO services were adequate (expertise, training, equipment, methodologies..)?	x			x	x		x	x
	• To what extend were resources/inputs converted into outputs in a timely and cost-effective way?			x	x	x		x	x
	• What were the main factors influencing the delivery of outputs? (Issues / context that facilitated implementation?)			x	x	x		x	x
	• What were the main barriers, if any, encountered during project implementation?	x		x	x	x		x	x

Evaluation Criteria	Guiding evaluation questions	Source of Information					Evaluation Tools		
		Counterpart	Donor	Project Manager	Beneficiaries	Experts	Doc Review	Interview	Field Obs.
	• How has the project management addressed barriers / challenges?			x	x	x		x	x
	• How was the project monitoring conducted?			x		x	x	x	x
	• To what extent were project progress reports updated/recorded systematically?	x	x	x			x	x	x
	• Has the in-country presence improved project monitoring and supervision?	x	x	x		x		x	x
	• To what extent is the UR involved in supervising and monitoring projects?	x		x				x	x
Sustainability/ Ownership	• To what extent were government counterparts and key stakeholders involved in the project design?	x	x	x	x	x		x	x
	• What is the level of local/national funding/financing?	x	x	x			x	x	
	• What has been the involvement of government counterparts / private sector in implementation?	x		x				x	x
	• Are the main stakeholders taking effective leadership in the project implementation? Why or why not?	x	x	x	x	x		x	x

Evaluation Criteria	Guiding evaluation questions	Source of Information					Evaluation Tools		
		Counterpart	Donor	Project Manager	Beneficiaries	Experts	Doc Review	Interview	Field Obs.
	• What plans have been made to ensure sustainability of project results / benefits?	x		x	x		x	x	x
Project Design Process (Situation, gap, problem analysis, objectives analysis, formulation process, LFA and RBM approach)	• What do you see as strengths / weaknesses of the project design?		x	x	x		x	x	x
	• How was the consultation process during the project design?	x	x	x	x			x	x
	• What would you change of the project design if you had the chance of starting all over again?	x	x	x	x			x	x
	• To what extent project has been designed using the LFA?	x	x	x	x		x	x	
	• To what extent have evaluations been used and drawn on in the design of projects and / or to learn lessons?	x	x	x	x		x	x	x
	• Overall quality of project design (clarity, consistency and logic. Results chain, SMART indicators, Realistic and meaningful outputs and outcome)						x		
Overall / Cross-cutting	• What have been in your view the strengths and weaknesses of UNIDO with respect to this project?	x	x	x	x	x		x	X
	• To what extent the project has contributed to empowerment of	x	x	x	x	x	x	x	X

Evaluation Criteria	Guiding evaluation questions	Source of Information					Evaluation Tools		
		Counterpart	Donor	Project Manager	Beneficiaries	Experts	Doc Review	Interview	Field Obs.
	women and gender equality?								
	• To what extent the project has contributed (positively or negatively) to environmental sustainability?;	x	x	x	x	x	x	x	x
	• How was coordination/synergies among UNIDO activities at the national level?	x		x	x			x	x
	• How projects/programmes were integrated/coordinated with other UN project/programmes?. Have synergies with other initiatives been developed and exploited by UNIDO?	x	x	x	x		x	x	x
	• What could be learned from the experiences of other UN agencies in the country?	x	x	x	x			x	x
	• To what extent UNIDO financing or co-funding was part of the budget and what the UNIDO financing was used for?	x	x	x	x		x	x	x
	• To what extent has the management structure and procedures adequate (structure, information flows, decision making, procurement) and contributed to generate the planned outputs and achievement of outcome?	x		x	x	x	x	x	x
	• What could be improved (if any) on UNIDO's model of intervention?	x	x	x	x	x		x	x

Evaluation Criteria	Guiding evaluation questions	Source of Information					Evaluation Tools		
		Counterpart	Donor	Project Manager	Beneficiaries	Experts	Doc Review	Interview	Field Obs.
	• To what extent UNIDO GF activities nurtured national knowledge and dialogue globally and with regard to industrial development in the country?	x	x	x	x	x	x	x	x
Additional Comments / Observations	e.g project sites, contacts, issues…..								

5.4 Terms of Reference for the MTE

TERMS OF REFERENCE

FOR MID-TERM INDEPENDENT EVALUATION

OF UNIDO PROJECT:

Building institutional capacities for the sustainable management of the marine fishery in the Red Sea State

SAP ID 130130

May 2016

BACKGROUND AND CONTEXT

BACKGROUND

The Red Sea State is located in the northeast of the Republic of the Sudan (latitude 16 to 22 North, longitude 35 to 37 East), with international borders to Egypt in the North, and Eritrea in the South. The Red Sea State (RSS) is the only state in Republic of the Sudan bordering the ocean (Red Sea). RSS has a coastline of 750 km and an Exclusive Economic Zone (EEZ) of 91.600 km^2 including a shelf area of 22.300 km².

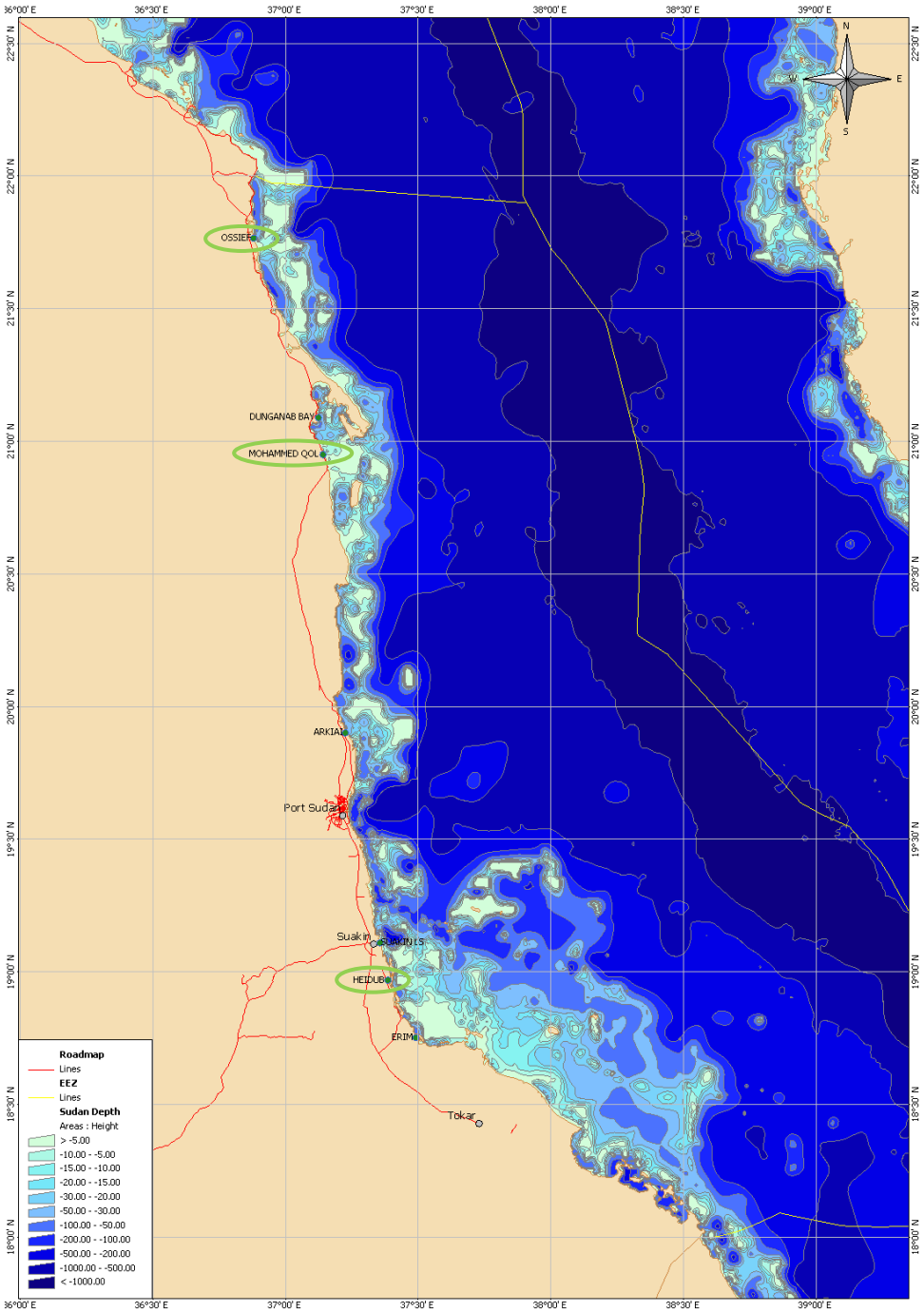

Figure 1 Bathymetric map of the Red Sea State Coast showing most important towns and improved fishing landing sites

The total population of the State is officially estimated at 846,113 people although other sources put it at between 728,000 and 800,000 people (UNDP, 2005) with an annual growth rate of 2.9%, slightly above the national rate. The area is primarily inhabited by Beja pastoralists and agro-pastoralists, although a wide variety of ethnic groups from across the Sudan can be found in the state capital Port Sudan, especially Hausa, Fallata, Nubaand other northern and southern Sudanese. Some 61.2% of the State population are estimated to be living in Port Sudan.

The rural economy is predominantly land-based with core activities being primarily pastoral and agro-pastoral. Petty trading, the provision of casual labour also provide sections of the population with an important means of economic sustenance. According to several sources, the RSS has one of the lowest socio-economic indicators in the entire country.

While fishery has the potential to contribute to food security as well as to the diversification of the economy in the RSS, the marine fishery is still considered to be underdeveloped, while there are some indications that certain key commercial species might be over utilized. The finfish potential is estimated at 10.000 tons/year, while the reported yield amounts to 5.000 tons/year[23]. Average price of the three commercial fish groups that are presently distinguished on Suakin market in mid-2014 was SGP 80 (€ 10,4) per kilo for Najl Najil (Roving Coral Grouper, *Plectropomus pessuliferus)*, SGP 50 (€ 6,5 per kilo for Rishal (Lyretail Grouper, *Variola louti*) and SGP 20 (€ 2.6) per kilo for Kedaban (others, including a number of species). Using some short time series on catch distribution reported from the three Improved Landing Sites Najil constituted some 27%, Rishal some 7% and Kedaban 66% of the total catch. With these figures the value of the reported yield of 5.000 tons/year can be estimate to be in the range of € 24,7 mio and the value of the so far unrealized finfish potential would constitute between € 13 mio (assuming the unrealized finfish potential is entirely made up of Kedaban only or up to € 24,7 mio if the species composition in the landings reported is representative for the unrealized finfish potential. Notwithstanding this economic potential Sudanese marine fisheries are small-scale and artisanal in nature. The artisanal fishery is defined as a labour intensive conducted by artisanal craftsmen whose level of income, mechanical sophistication, quantity of production, fishing range, political influence, market outlets, employment and social mobility and financial dependence keep them subservient to the economic decisions and operating constraints placed upon them by those who buy their production. Artisanal fishermen mainly target fish species living on coral reefs using hand lines and to some extent gill nets. The fisheries in the Red Sea State are characterized by a near absence of semi-industrial and industrial fishing activities.

PROJECT CONTEXT

Over the last years the government of the Red Sea State has become increasingly aware of the marine fishery's potential to contribute to livelihoods and food security and has started to seek assistance and advice for the sustainable development of this potential. In order to raise public awareness the Government of the Red Sea State has invested Sudanese Pounds 500.000 (€ 86.500) in early 2014 for the establishment of an aquarium in which tropical fish is exposed and the importance of sustainable fisheries for livelihoods and food security is conveyed to the public. In parallel the government has sought support for the sustainable development of the marine fishery in the Red Sea State. The absence of reliable data on the status of fish stocks and the quantity of fish

[23] FAO Fishery Country Profile

harvested and weak institutional capacities have been identified as the main barriers for the development of strategic plans, policy recommendations and/or regulatory instruments for the sustainable use and management of living marine resources in the Red Sea State. For the development of strategic plans, the estimation of the economic potential of the marine fishery and the development of policy recommendations, management plans and regulatory instruments require monitoring of both the state of stocks by means of fisheries independent surveys and of the quantity of fish landed be collected, stored and analysed.

As in most other Red Sea riparian countries applied fisheries research and stock assessments have been neglected in the past two decades in the RSS. No stock assessments have been undertaken since the cessation of collaborative research programmes under-taken during the 1970s and 1980s by the former Soviet Union. The 3 surveys undertaken in 2012 and 2013 under the project "Surveys of renewable marine resources in the Red Sea State" funded by the Norwegian Embassy Khartoum and jointly implemented by the Norwegian Institute for Marine Research and UNIDO constituted the first consolidated effort to collect fisheries independent data on the status of coral fish stocks in the coastal waters of the Red Sea State since the 1980. These surveys have provided a valuable data- and experience basis for this follow-up project in terms of establishing more comprehensive time series on the state of the marine fish resources required for fisheries management. The main weakness of the pilot was the lack of an holistic approach, with all focus on the survey activities. Long periods without hands-on collaboration and direct contact between the international experts and the national counterparts between surveys, and technical training being restricted to the survey activities considerably limited support, guidance and competence building that could be provided to the Sudanese counterparts. The interlinked work packages, comprehensive training and continued backstopping for activities to be undertaken by Sudanese counterparts under the follow-up project will allow more holistic framework, underpinned by a much closer and uninterrupted collaboration.

The ongoing cooperation between the RSS/federal Universities and the University of Bergen/ Bjerknes Centre in Norway on physical oceanography and climate may be useful in providing supporting data. The continuation of both projects also offers considerable potential synergy in terms of data collection/-sharing, training and supervision of students (the ongoing cooperation commenced in 2006 and has produced 13 Sudanese MSc candidates in physical and chemical oceanography, and has started the training of one PhD. They have also established a time series on physical hydrography and inorganic carbon between Port Sudan and Sanganeb. There are also many biological studies in existence on e.g. distribution and growth of important species at the federal University in cooperation with the University of Bergen that represent vital input parameters in e.g. stock assessment models. These will no doubt be valuable assets for the overall goal of the project. There are some regional data in existence from previous surveys that may be explored further, but none that may be linked directly to the near-coast reef communities in the RSS. Regional data may, however, still represent valuable additional information. Trawl survey data are not relevant for the project outputs.

In the Red Sea State fish is landed at several artisanal landing sites along the coast and since 2011 also at three improved landing sites in Osief, Mohammed Qol (North of Port Sudan) and Suakin (South of Port Sudan). The three improved fish landing sites (ILS) were constructed in 2011 by UNIDO with support provided by the Canadian International Development Agency (CIDA). Each site is monitored by an oversight committee, known locally as a *Liginal Al Ishraf* (LAI). The LAI is composed of both private and public actors, including state government officials, municipal officials, and representatives from the fishery cooperatives and the fish traders (total of 8 members). A Landing Site Manager (LSM) is responsible for the daily management of the site and reports regularly to the LAI. The LSM is currently training a local official on management duties. While all operational costs of the ILS are covered by the LAI from revenues generated for the services provided by the ILS the revenues of the ILS are not yet sufficient to cover the costs of the LSMs' salaries (€ 1.300 per month). These costs are budgeted under outcome 2 position 2.4 national staff.

The ILSs are a considerable advance for the RSS fishery sector. At the ILSs, fish is sorted, washed, stored and (sometimes) filleted. This service is provided at a standard fee defined by the amount of fish, the service required and the duration of storage. The infrastructure is basic, but designed to meet common standards of fish handling, storage and processing for safe seafood. A fish inspector from the RSS Marine Fishery Administration (MFA) is now stationed at each of the ILS. This is a new, positive development as MFA officials have not been regularly present at a fish landing site in the RSS in the past. An important aspect of the ILSs is the consolidation of the harvest at the sites. Fish were previously only landed at a number of small artisanal landing sites without any infrastructure and delivered directly to fish traders there. With the introduction of the three improved landing sites, fish landings are now increasingly being consolidated to the ILSs. In addition to improving the quality of fish harvested and reducing post-harvest losses, this consolidation will facilitate far more efficient collection of fishery sector data that are critical to future fisheries management.

Except for local consumption all fish landed is transported to the central Sigala fish market in Port Sudan, which is the sole fish market in the Red Sea State. While no fisheries data are currently collected at the artisanal landing sites, commercial fisheries data are collected at the three ILSs and by the Marine Fisheries Administration (MFA) at the Sigala market for commercial and fiscal purposes, respectively. However, in this data collection only three, commercial fish categories are distinguished: Najil (Roving Coral Grouper, *Plectropomus pessuliferus)*, Rishal (Lyretail Grouper, *Variola louti*) and Kedaban (others, including a number of species). At Sigala market the MFA therefore determines the quantity of each species on basis of an estimation of the relative proportion in the given commercial group. The data are noted on paper and subsequently entered into excel sheets on individual computers and laptops. These data are, however, of highly limited value for stock assessment purposes. The sampling by MFA at the Sigala marked has not systematically covered all fish entering into the marked and can therefore not be trusted as index of total landings. Identifying landings on the species level is also prerequisite for assessing the biological impact of fishing on the given species type. The data from the ILSs do not contain information at the species level, and the practice of estimation of quantity by species by means of visual assessment of their relative proportion in shipments to the Sigala marked will, inevitably, introduce considerable uncertainty. Further, the transfer of data via record sheets and various computers, before being copied into a master spreadsheet at the MFA office involves a considerable risk for typing- and data transfer errors.

The MFA also have at their disposal a 10 years time series from 2001-2011 on fish caught by trawl vessels in the Red Sea State before the coastal waters were closed for trawling in 2012. The decision of closing the trawl fishery was taken by the Government of the Red Sea State in accordance with the precautionary principle, and taking into consideration that trawling was predominantly undertaken by foreign vessels with limited economic benefits for the Red Sea State. In its endeavours to revitalize a potential trawl fishery, the Government of the Red Sea State is presently undertaking efforts to acquire at trawler. Re-introduction of a trawl fishery should, however, be preceded by an assessment of the living demersal resources in the designated trawl areas as well as by an assessment of the socio-economic impacts re-introduction of a trawl fishery may have on the livelihood of artisanal fisheries, the fishermen and the fishing communities, for which there may be a need for future technical assistance to the Red Sea State.

Presently the different locations of data storage are not interlinked and thus data cannot be retrieved centrally and are not used systematically by the Marine Fisheries Administration. National institutional structures lack the administrative and technical capacities as well as the hard- and software required to monitor fluctuations in the living marine resources, and to formulate and implement realistic and effective fisheries management policies and strategies. The lack of financial and material resources allocated to the authorities responsible for fisheries research, management and development represents a major obstacle in this regard.

The Republic of the Sudan's marine fisheries are still underdeveloped and if managed well and harvested within sustainable limits there may be potential for increased harvesting and value creation through developing artisanal and potentially semi-industrial fisheries that in turn may facilitate increased job creation, food security and poverty alleviation. Development of the fisheries sector may thus also increase the supply of fish to the national market – and possibly also increase export of some seafood products. Realizing this potential will also contribute to the Republic of the Sudan's Economic Diversification Strategy, which was launched in order to compensate for the loss of revenue from oil exports resulting from the establishment of South Republic of the Sudan as an independent state. These developments may, however, only be realized in a sustainable manner if the required knowledge base is in place

Consequently, in order to realize the potential of the marine fishery in the Red Sea State in a sustainable way, there is evidently need to establish a longer time series of fisheries independent data through the implementation of additional fish stock surveys as well as for the provision of technical assistance to strengthen institutional capacities so that the Marine Fisheries Administration can be enabled to develop reliable catch statistics. Only with this information at hands MFA will be in position to ascertain the resource base, discover underutilized resources and thereby scale the development of the fishery effort to sustainable levels. In addition the resource mapping of fish stocks will contribute significant information for the Fishery Development Strategy for the Republic of the Sudan by providing information on the potential to develop sustainable semi-industrial fisheries in the Red Sea State. This will also provide the data relevant for semi-industrial or industrial fisheries. Yet to fully unveil these potentials further surveys will be required and data on actual fish landings need to be collected in a systematic way with assured quality so that they can jointly be analysed and used for the development of policy recommendations and management instruments. Surveys would not only have to cover coral fish species but also cover the deeper waters (deeper than 200m) as well as comprise trawling surveys in the area of the Red Sea States coastal waters that were previously designated for trawling fisheries.

The project aims at establishing the knowledge base for the sustainable management of the marine fisheries in the Republic of Sudan. Marine fish stocks are considered as a natural resource with critical significance for food security and livelihoods. Marine fish stocks are furthermore considered to be an underutilized resource with the potential to up-scale the predominantly artisanal fishery to a semi-industrial or industrial fishery. Thus the proposed project is in line with outcome two under pillar one (poverty reduction, inclusive growth, sustainable livelihoods) of the UNDAF 2013-2016 for the Republic of the Sudan which aims at making relevant institutions more effective in the sustainable management of natural resources as well as with outcome five under pillar three (governance and rule of law), which aims at strengthening government institutions at all levels to effectively plan, deliver and monitor their services. The project is also in line with the Government of National Unity's Five Year National Development Plan 2012-2016 which aims at promoting sustainable economic development by encouraging a competitive private sector, supporting key infrastructure and agriculture projects, and building a knowledge-based economy.

Furthermore the project - by providing the knowledge base that will be required for the modernisation of the artisanal marine fisheries and for the development of a sustainable semi-industrial marine fishery sector - is aligned with the strategy of the Norwegian Embassy in Khartoum to support the sustainable management of natural resources and economic diversification in the Republic of the Sudan, which has become one of the major challenges for Republic of the Sudan following the severe economic effects of South Sudan's secession.

The project is also aligned with the goals of the overall Norwegian Development policy; Fish for Development was announced as a new initiative in October 2013 for the 2014 aid budget. The Fish

for Development Initiative is intended to support sustainable resource management and institutional development.

The project will contribute to achieve the MDG 1: Eradicate extreme poverty and hunger and MDG 7: Ensure environmental sustainability

The three main components of the project will be:

1) The provision of technical assistance, building of capacities and facilitation of the implementation of one annual monitoring survey of the fisheries resources along the Red Sea State coast throughout the project implementation period.

2) The provision of technical assistance, building of capacities and facilitation of the development of a database of fish delivered at the Sigala market and catch and effort data from fish landed at the three improved fish landing sites.

3) The continued provision of limited technical assistance and building of managerial capacities targeted towards enabling the three improved fish landing sites to become financially self-sustaining entities as a pre-condition for cost effective collection of data on catch per unit effort and other fisheries dependent data that cannot be obtained at the Sigala market.

Training, capacity building and catalytic support will be provided for the implementation of the annual monitoring surveys (45 days at sea). Since neither the Republic of the Sudan nor any of the neighbouring states has any suitable research vessels, it is suggested to use a recreational scuba diving vessel, as for the project TESUD12004 “Surveys of renewable marine resources in the Red Sea State, Republic of the Sudan”. The M/S Don Questo used in this project is the only vessel currently operating in the EEZ of the Republic of the Sudan that is suitable for the implementation of these surveys. The M/S Don Questo was built in Selby (England) in 1964 as a trawling vessel, transformed into an oceanographic research vessel in 1984. In 1998 it was refitted into a diving vessel, and was identified as the only vessel meeting the technical requirements of the trap survey[24]. The M/S Don Questo is also the only vessel currently operating all the way south to the Eritrean boarder. For the establishment of the fisheries data base, training, capacity building and catalytic support will be provided in order for the information of actual fish landings to be collected in a systematic and standardized manner. The total landings will be estimated from the fish delivered to the Sigala market, while vessel, catch and effort data will be sampled from landings at the three improved fish landing sites.

Hard and soft-ware required for the central collection, storage and processing of fishery dependent and independent data will be identified through an interactive and participatory planning process, and required equipment will be provided at the location of the individual data collection points. Counterpart staff will be trained at regular intervals in the collection, processing and analysis of the data, as well as in the introduction of a quality assurance and quality control systems. There will also be carried out formal training courses in related topics such as sampling theory, fisheries dynamics, fish biology, applied statistics and IT. In between training sessions, local counterpart staff will be coached by IMR experts by means of low-cost electronic communication platforms such as skype and e-mail, and

[24] M/S Don Questo is the only live aboard vessel with a hydraulic platform as required for the implementation of the surveys.

remote PC interface enabling IMR experts to access local computers in real time. The IMR database experts will also have online access to the database via internet.

Data on total fish catches will be collected at Sigala market. Sigala market is the one and single central fish market in the Red Sea State. The bulk majority of commercial fish catches are delivered to Sigala market; regardless whether the fish was landed at an artisanal or at one of the 3 improved landing sites. Therefore Sigala market constitutes the ideal location for the collection of data on the total of commercial landings in the Red Sea State.

For the collection of data on specific fishery dependent data, like information of catch per unit effort, and biological characteristics of the catches that are representative for the total catch, the improved landing sites have been identified to constitute the location where representative data can be collected with minimal effort.

Given that the three improved fish landing sites were established as recent as in 2012, some technical assistance will be required in order to consolidate the commercially viable operation of these three sites. Provision of technical assistance will thus be facilitated in order to ensure their commercially viable operation. In the Red Sea State the three improved landing sites constitute the only location where specific fishery dependent data can be collected efficiently, and therefore their sustainable operation is of pivotal significance for cost effective collection of fisheries data required for fisheries management in the future. The project will provide limited and targeted technical assistance until more comprehensive technical assistance may be provided under the second phase of the project (TFSUD09002 “Recovery of coastal livelihoods in the Red Sea State through the modernization of artisanal fisheries and creation of new market opportunities”) as proposed by UNIDO to the OPEC Fund for International Development (OFID). For the provision of the limited trainings an annual budget of € 40.000 has been allocated for the years 2015-2017 (see output 2 activity 2.8 in para E 1 budget). Upon approval of funding of the second phase of the project “Recovery of coastal livelihoods in the Red Sea State through the modernization of artisanal fisheries and creation of new market opportunities” all costs related to the ILS (the salaries for the LS managers and the training costs will be borne by this project. Further economies of scale will be achievable by sharing the costs for the staff and operations of the Port Sudan project office. UNIDO will immediately inform the Norwegian Embassy on any developments in this regard so that any unutilized funds budgeted for these activities can be either returned to the embassy or it can be proposed to use them to support additional activities.

The proposed project will create the knowledge based foundation required the development of a sustainable artisanal and semi-industrial marine fishery in the Republic of Sudan through building the institutional capacities for the implementation of fish stock surveys, and providing technical assistance to build the institutional capacities for the development and maintenance of fisheries data base, as well as for the analysis and use of data collected. .

While the Marine Fisheries Administration in the Ministry of Agriculture, Animal Resources and Fisheries, the Faculty of Marine Sciences and Fisheries in the Red Sea University and Red Sea Fisheries Research Centre, Port Sudan will be the direct beneficiaries of the TA for the strengthening of institutional and individual capacities, coastal communities, artisanal fishermen associations and the private sector engaged in fish trade and commercialization will be the indirect beneficiaries since only a sustainable management of the marine fishery can guarantee their mid-term livelihood, food security and secure their income generating activities. The project will involve and address direct and indirect beneficiaries.

KEY STAKEHOLDERS AND THEIR RESPECTIVE ROLES

The key institutions in charge of managing the marine fishery sector in the Red Sea State are:

- the Marine Fisheries Administration in the Ministry of Agriculture, Animal Resources and Fisheries,
- the Faculty of Marine Sciences and Fisheries in the Red Sea University and
- the Red Sea Fisheries Research Centre, Port Sudan

The Marine Fisheries Administration (MFA) has the mandate to collect data on fish landings, develop regulatory instruments (quota, areas and seasons), to issue licences for all fishing activities (artisanal, semi-industrial, industrial) and to enforce laws and regulatory instruments.

The Faculty of Marine Sciences and Fisheries in the Red Sea University and the Red Sea Fisheries Research Centre, Port Sudan are tasked with the implementation of scientific fishery related research, the control of hygienic standards, to create awareness on marine issues amongst stakeholders and to provide the MFA with advice and scientific data for the development of regulatory instruments.

These three institutions lack the institutional capacities to plan and manage the infrastructure required to implement fisheries independent surveys, and to obtain catch statistics from the fisheries, through collection, storage and data analyses. They are the direct beneficiaries of the trainings to be provided under the project.

As for the pilot project TESUD12004 “Surveys of renewable marine resources in the Red Sea State, Republic of the Sudan” it was agreed that the project should be implemented by UNIDO with the Norwegian Institute of Marine Research as the sole provider of substance matter expertise. This will allow the project to benefit from the subject matter expertise of the Institute of Marine Research (IMR) as well as to make full use of the UNIDO structures already established in the Republic of the Sudan. All the training sessions (except for the strengthening of the managerial capacities of the Improved Landing sites) will thus be provided by IMR experts under a subcontract with UNIDO, whereas UNIDO will provide the logistical support, procure, transport and import into the Republic of the Sudan equipment identified by IMR as a requirement for project implementation, facilitate the process to obtain visa for the IMR experts and maintain a Project Office in Port Sudan as required for the continuous and on-going support, technical backstopping and contact keeping with the key counterpart institutions.

CURRENT STATUS OF IMPLEMENTATION

The following activities were carried out from September 2014 until 30 June 2015:

a) From September 2014 until end January 2015 UNIDO kept the core staff of the Port Sudan Project Office (Administrative/Financial Officer, Liaison Officer, Driver and Security) and the Landing Site Managers under contract. Costs were covered from the UNIDO contribution (€ 35.000). From 1st February onwards the costs for the recruitment of this staff were charged to the Norwegian contribution.

   The position of the National Project Coordinator (NPC) was advertised in February 2015 and during the Inception Mission (28th February – 14th March) the three short listed candidates were invited to Port Sudan and interviewed by IMR experts and the UNIDO project manager. Mr. Salih Hassan Mohamed EL THAIR was unanimously retained as the best candidate and offered the position. He accepted the offer and reported to duty on 5 May 2015.

In line with the requirements of the project, the position of the logistics officer was advertised in March 2015. Shortlisted candidates were interviewed by the UNIDO representative to Sudan Mr. Khaled EL MEKWAD. Mr. Haider MOHAMMED ABDELRAHMAN KHAMIS was retained as the best candidate. He took-up his assignment on the 1st May 2015.

b) The repair of the MFA vessel was contracted in October 2014 using the UNIDO bridging funds. Repair works were completed in June 2015 so that the vessel will be fully functional for the method verification survey (28 July -11 August).

c) An offer has been solicited by UNIDO from IMR for the provision of subject matter expertise. In this offer the entirety of the services to be provided over the whole project implementation period was broken down into 34 work packages. In line with funds availability (UNIDO can only establish contracts up to the amount of funding actually received) a subcontract for the provision of the services related to the work packages set-out below was established. The subcontracts with IMR for the provision of scientific subject matter expertise was established in January 2015 and a first amendment to this contract was made in March 2015.

Work packages contracted so far:

- WP 1 Provision of technical assistance during the 2 weeks inception mission by three IMR experts (team leader, fisheries statistics expert, database expert) (€ 92,091.43)
- WP 2 Design and provision of 12 collapsible stainless steel pots/traps and 12 BRUVS (Baited Remote Underwater Video Stations) (€ 50.000)
- WP 3 International expertise for the preparation of the survey plan for the 2015 pilot/method verification survey (€ 12,299.82)
- WP 4 Provision of technical assistance for the first 12 day data base/fisheries statistics training session in Port Sudan by three IMR experts (team leader, fisheries statistics expert, database expert) (€ 73,774.23)
- WP 5 Provision of technical assistance for the first formal training (2 weeks in Port Sudan) by an IMR senior scientist with the required subject matter expertise (€ 25,574.75)
- WP 6 Technical assistance, backstopping and coaching of Sudanese counterparts by IMR experts by three IMR experts (team leader, fisheries statistics expert, database expert) (March-June 2015) (€ 79,566.74)
- WP 7 Summary reporting on the training activities provided between March and end June 2015 (€ 6,149.91)
- WP 8 International Expertise for the 2015 pilot survey (28 July – 11 August) (€ 79,394.81) IMR will provide a scientific cruise leader and a technical cruise leader.
- WP 9 International Expertise for the preparation of 2015 winter survey (20 October – 05 December) (€ 23,236.08)

The total value of the subcontract established with IMR during the reporting period amounted to € 442,087.76.

d) The establishment of the subcontract with Aqua Action for Water Sports Ltd. for the provision of the vessel M.V. Don Questo for the implementation of the four surveys was completed. An offer has been solicited for the provision of the vessel and its crew for the 4 surveys. In line with fund availability a subcontract for the provision of the Don Questo for the 15 days pilot/method verification survey and for the 45 days at sea 2015 winter trap survey were established.

- Subcontract for the 15 days at sea pilot/method verification survey (€ 23,572.50)
- Subcontract for the 45 days at sea 2015 winter trap survey (€ 74,253.38)

The total value of the subcontract established with Aqua Action for Water Sports amounted to € 97,825.88

e) Priority equipment for the implementation of the pilot/method verification survey (fishing gear, Baited Underwater Remote Video Stations) as well as priority equipment for the establishment of the fisheries statistics system and priority laboratory equipment was identified during the Inception Mission and procurement/transport was launched in April 2015.
f) The Inception Mission was carried out by the IMR team leader, the IMR fisheries statistics expert, the IMR data base expert and the UNIDO project manager from 28 February until 14 March 2015. During this mission the first Project Steering Committee Meeting was organized by UNIDO on 11th March 2015. Annex I of the first progress report contains a detailed report on the items discussed and the issues agreed upon including the detailed workplan and budget for 2015 approved by the Project Steering Committee. The workplan and budget for 2016 will be agreed upon during the 2nd Project Steering Committee meeting that will be organized in the second semester 2015.
g) Due to delayed launch of the project and due to limited vessel availability (the M.S. Don Questo was fully booked from December 2014 until July 2015, the pilot survey/method verification survey can only be implemented from 28 July until 11 August 2015).
h) During the inception mission (28 February – 14 March) the IMR fisheries statistic expert and the IMR data base expert had intensive consultations with Sudanese counterparts on the development of the fisheries statistics system. A data sheet template and a statistically well founded sampling scheme (see Annex 2 first progress report) were developed to allow collecting representative samples with minimal effort in Sigala market and at the three improved landing sites (detailed report in Annex 3 first progress report). In order to prepare the MFA for the use of a more complex data base it was agreed that in a first step all data collected should be processed in a high end standalone desk top with the standard MS office software and a strong anti-virus software. These items were provided to MFA by the project. This computer also allowed the Sudanese counterparts to have a cost efficient communication possibility with the IMR experts which provided regular backstopping services by using modern and cost effective communication technologies e.g. skype.
i) Initial works on the design of the database architecture were carried out by IMR and it was decided to use the open source database/ analysis software package PasGear jointly between the IMR and the University of Bergen in the first phase to store data collected at Sigala market and the three improved landing sites as well as during the surveys. From PasGear the data will be exported to the custom built database to be used in the project, as the sampling program in Sudan requires that you have a centralized database that can be updated from several sources and back-up centrally. Initial steps towards the design of this customs built data base have been undertaken and will be completed during the second half of 2015.
j) During the reporting period one state of the art PC equipped with MS office and antivirus software was procured for MFA. Further working stations will be procured in the second half of 2015 in line with the specifications to be provided by IMR.
k) The first two weeks training session on the establishment of the fishery statistics system/database was conducted by IMR from 8th-19th June 2015 (see Annex 5 first progress report).
l) During the inception mission it was agreed between the national stakeholders that the first formal training should be on fish taxonomy in order to strengthen institutional capacities in the identification of fish families and species as required for the proper data collection in Sigala market and the three ILS. Due to the availability of the IMR international expert for fish taxonomy this training mission had to be deferred to 5th – 16th October 2015 with a preparatory mission that will take place from 07th -12th September.
m) Immediately after the inception mission the IMR team started to provide backstopping and quality assurance services to the Sudanese counterparts for the proper collection and storage of the data on fish landings collected at Sigala market and at the three improved landing sites. (see Annex 6 first progress report).
n) Over the period 1st- 31st May 2015 a business development consultant provided 21 days inputs for the development and implementation of tailor made business development training course for management and operations staff of the three improved landing sites.

During his mission to Port Sudan the consultant undertook a business practice assessment of the operations at each of the three fish landing sites in order to identify specific business practice subjects that require improvement. Based on the business practices assessment, a

three day course to amend basic business operations to best reflect identified subjects for improvement was conducted for the management of the landing sites. The course focussed on marketing and pricing, the market mix, and the marketing plan. The second main aspect was pricing of the services and products (ice) provided by the improved landing sites in order to achieve full cost recovery. In each landing site 12 individuals received a training course on business administration (detailed report in Annex 4 first progress report)

The following activities were carried out from 1st July until 31 December 2015:

a) The Individual Service Agreement with Mohamed Abdalla Mohamed SALIH to pilot the MFA vessel and train MFA staff during 15 days at sea pilot/method verification survey was concluded on 14 July 2015.
b) The 15 days at sea pilot/method verification survey was implemented from 28 July-11 August (see annex 1 second progress report for the detailed report).
c) 6 Sudanese counterparts were trained on age determination methods by IMR/Bergen University/Bjerkness Centre in Bergen/Norway from 31 August – 11 September (see annex 2 second progress report for detailed report).
d) Due to budgetary constraints resulting from the exchange rate losses (see annex 3 detailed report on 2nd Steering Committee Meeting) it was decided in consultation with the Institute for Marine Research that the second two weeks fisheries statistics training workshop (planned for September 2015) will have to be cancelled. To compensate for this the efforts provided by IMR for backstopping Sudanese counterparts in the development of the fishery statistics system have been ramped up and the date of the next 2 weeks training session to be conducted by IMR experts in Port Sudan (which was planned for April or May 2016) has been moved forwards to early January 2016.
e) From 7-12 September Dr. Franz Ueblein an internationally recognized fish taxonomy expert from IMR was on mission to Port Sudan to prepare the 2015 formal training on fish taxonomy. The training session was delivered from 5-16 October 2015 (see annex 4 second progress report for detailed report).
f) The survey plan was developed by IMR, submitted and endorsed by UNIDO on 15 October 2015 (see annex 5 second progress report)
g) The Individual Service Agreement with Mohamed Abdalla Mohamed SALIH to pilot the MFA vessel and train MFA staff during 45 days at sea 2015 survey was concluded on 9 October 2015.
h) The 2015 45 days at sea survey was implemented as planned from 20 October until 3 December 2015 (see annex 6 second progress report for preliminary report). During the survey Sudanese participants have expressed their interest to contribute to a higher degree to the substance of the survey report. While this is a very positive development, which confirms the impact the IMR capacity building had and which also confirms that Sudanese scientists start to take stronger ownership of the project, this requires some back and fro between the Sudanese scientists and the Norwegian experts in order to assure quality and consistency. It is expected that this process will last until the end of March 2016. Therefore at this point in time, only an interim report will be submitted. The complete report on the 2015 survey providing the scientific information collected by Sudanese experts will be provided as an annex to the half yearly report for the first semester 2016.
i) The Second Project Steering Committee Meeting was organized on 25 October 2015 in the UNIDO port Sudan Project Office (see annex 3 second progress report for detailed report).
j) IMR provided backstopping to Sudanese counterparts for the establishment of the fishery statistics system throughout the reporting period (see annex 7 second progress report for detailed report).
k) Subcontracts:

During the previous reporting period a financial and technical offer was solicited from the Norwegian Institute of Marine Research (IMR) for the provision of subject matter expertise as stipulated in the project document. In line with funds availability (UNIDO can only establish contracts up to the amount of funding actually received) an initial subcontract for the provision of the services related to the work packages as per IMR's offer was established. Whenever instalments are received from the Norwegian Embassy this subcontract is amended.

To reflect the cancellation of the second two weeks fisheries statistics training workshop (planned for September 2015) an amendment was made to the IMR subcontract on 5 July.

Following receipt of the third instalment of NOK 5,000,000 form the Norwegian Embassy on 28 August 2015 the subcontract with IMR was amended and the following work packages of IMR's financial and technical offer were contracted:

- WP 10 Provisions of International Expertise for the 2015 winter survey (20 October – 05 December) (€186,684.37)
- WP 12 Technical assistance, backstopping and coaching of Sudanese counterparts by IMR experts (July-December 2015) (58,757.11)
- WP 13 Tuition for Sudanese experts during their 2 weeks training in Norway (€ 17907.52)
- WP 14 Participation by the IMR team leader in the 2nd Project Steering Committee and summary reporting on the training activities provided between July and end December 2015 (€ 20,809.62)
- WP 15 Provision of technical assistance for the third 12 day data base training session in Port Sudan (€ 51,292.63)

The total increase in the value of the subcontract established with IMR during the reporting period amounted to € 335,451.25. With this increase effected during the implementation period the overall value of the IMR sub-contract was increased to € 777,539.01.

As summary on the trainings provided by IMR during the reporting period is provided in Annex 8 second progress report)

The following activities were carried out since 1st January 2016:

a) The second fishery statistics training was implemented from 11th -18th January 2016. IMR initially proposed to send 4 experts for this training. After consultation it was agreed that it would make more sense to have one training by 2 experts in January and second training by two experts in May.
b) The second formal training on setting up underwater video surveys, processing and analysing the data was carried out from 1st-15th April.
c) The third fishery statistics training was implemented from 19th -30th May.
d) Throughout the reporting period the UNIDO National Project Coordinator maintained intensive contacts with the Ministry of Agriculture Animal Resources and Fisheries, Red Sea State to assure that the Ministry honoured the pledges made during the second steering committee meeting to facilitate the work of the fish inspectors at Sigala market.
e) The final selection of the 8 to be trained in September in Norway on fishing gear technology was confirmed and efforts to obtain a visa for their training in Norway were launched.
f) IMR experts continued to provide backstopping to Sudanese counterparts for the development of the fishery statistics system.
g) Procurement of equipment (6 fish traps lost during the 2015 45 days at sea survey, additional fishing gear, additional go-pro cameras, scales) and of hard and software (3 high performance lap tops and additional licences for the SeaGis software) as per the material/equipment needs list prepared by IMR was carried out. Equipment was transported to Sudan and import procedures were launched.
h) Subcontracts:

During the initial phase of this project a financial and technical offer was solicited from the Norwegian Institute of Marine Research (IMR) for the provision of subject matter expertise as stipulated in the project document. In line with funds availability (UNIDO can only establish contracts up to the amount of funding actually received) an initial subcontract for the provision

of the services related to the work packages as per IMR's offer was established. Whenever instalments are received from the Norwegian Embassy this subcontract is amended.

Following receipt of the fourth instalment of NOK 6,000,000 form the Norwegian Embassy on 16 March 2016 the subcontract with IMR was amended to and the following work packages of IMR's financial and technical offer were contracted:

- WP 16 Provision of technical assistance for the second formal training session (12 days) (€ 23.295,43)
- WP 17 Technical assistance, backstopping and coaching of Sudanese counterparts by IMR experts (January to June 2016) (€ 49.582,94)
- WP 18 Summary reporting on the training activities provided between January and end June 2016) (€ 18.859,82
- WP 19 International Expertise for the preparation of 2016 winter survey (€ 21.257,16)
- WP 21 Provision of technical assistance for the fourth 12 day data base training session in Port Sudan (€ 45.472,35)
- WP 23 Tuition for Sudanese experts during their 2 weeks training in Norway (€ 16.228,67)

The total increase in the value of the subcontract established with IMR during the reporting period amounted to € 174.696,67. With this increase effected during the implementation period the overall value of the IMR sub-contract was increased to € 952,235.68.

In line with the decisions taken in the second Steering Committee Meeting the actual exchange rate of Norwegian Crowns to Euro at the point in time when the 4th instalment was received, has been applied for the services to be provided by IMR for this contract amendment.

The subcontract with Aqua Action for Water Sports Ltd. for the charter of the MS Don Questo for the 2016 45 days at sea survey (20th Oct- 3rd December) over Euro 77,966.04 was established in April.

WAY FORWARD

Further project activities in 2016 will be implemented as per the provisions of the project document and as per the workplan approved in the 2nd SCM.

- **3rd quarter (Aug. 24th – Sept. 7th) :**training of 8 Sudanese counterparts (2 weeks) in Norway (IMR/Bergen University) on fishing gear
- **3rd quarter:** Mid term evaluation
- **4th quarter (Oct. 17th):** Third SCM, detailed work plan 2017
- **Oct. 13th – Oct. 20th**: Pre-survey planning mission by IMR team.
- **Oct. 20th – Dec. 3rd:** 2nd survey (45 days)
- **Throughout the year:** backstopping of Sudanese counterparts by IMR experts on fisheries statistics system and ILS managerial training

BUDGET INFORMATION

Project No.	Total Allotment	Total Expenditure	% Implementation	Donor
SAP ID 130130 Grant No 2000002943	EUR 1,929,924.30	EUR 1,499,299.89	48%	Norway
SAP ID 130130 Grant No 2000002790	EUR 35,000	EUR 34,969.83	100%	UNIDO

PURPOSE OF THE EVALUATION

The purpose of this independent evaluation is to assess the effectiveness, efficiency and likelihood of sustainability of the project and provide recommendations for the implementation of the 2nd part of the project implementation period, which is expected to last until the end of 2017.

The evaluation will also address to the extent meaningful other standing evaluation criteria singled out in UNIDO's evaluation policy, such as relevance, impact, as well as management, gender mainstreaming, environmental sustainability, alignment with the UNIDO's Inclusive and Sustainable Industrial Development (ISID) agenda, and potential to promote ISID.

The evaluation will be thus a forward-looking exercise and seek to identify the best practices and areas for improvement in order to draw lessons that can be used in the implementation of the 2nd part of this project and for similar projects to be implemented by UNIDO in other countries and the region.

Short-term interest is that the current mid-term evaluation will provide the basis for the second part of the project implementation period for this project. Therefore, the recommendations of this evaluation should be available in time to be taken into account in the implementation of the second part of this project

The long-term interest comes from the strategic potential the transition from an artisanal to a sustainable (semi-) industrial fishery has for the socio-economic development and food security in the Red Sea State. In this connection, the evaluation will produce lessons learned and recommendations on how UNIDO TA can contribute to support the Red Sea State in the realization of this potential/

The evaluation aims to produce:

- Short-term recommendations for UNIDO for the second half of the project implementation period

- Strategic recommendations for UNIDO for the provision of additional TA in support of the realization of the socio-economic development potential of the transition towards a (semi-)industrial marine fishery in the Red Sea State;

The evaluation will assess the achievement of results, as stated in the project document and the contributors to success or lack thereof. Moreover, the evaluation will assess the interventions design, level of national ownership, relevance to various stakeholders and the exploration of synergies with other UNIDO projects and with initiatives of the Government. It will follow a consultative process and seek inputs from a broad range of stakeholders.

The Evaluation will be undertaken as per UNIDO Evaluation Policy, the Guidelines for Technical Cooperation Programmes and Projects and the project document. The Project Manager, in collaboration with the Independent Evaluation Division (IEV) will commission the in-depth, independent evaluation.

SCOPE OF THE EVALUATION

The mid-term project evaluation will cover the project implementation period from 2014 till the mid 2016 covering all the activities that are part of the project, with particular focus on the performance indicators achieved, including inputs and activities, impact and sustainability of the project implementation.

- Consider all the activities that are part of the project;
- Cover the entire results chain from inputs and activities to impact and sustainability and review processes as well as results;
- Produce recommendations for the second part of the project implementation period (e.g. what has worked and what has not and what are the lessons from implementation to date, which issues needs to be addressed in the second half of the project implementation period and what conditions should be in place);

EVALUTION ISSUES AND KEY EVALUATION QUESTIONS

The evaluation consultant(s) will be expected to prepare a more targeted and specific set of questions and to design related survey questionnaires in line with the above evaluation purpose and focus descriptions.

However, the following issues and questions are expected to be included in the assessment:

Ownership and relevance

The extent to which:

- The project objectives, outcomes and outputs are relevant to the different target groups of the intervention;
- The counterpart(s) has (have) been appropriately involved and were participating in the identification of their critical problem areas and in the development of

technical cooperation strategies and are actively supporting the implementation of the project approach;
- The outputs as formulated in the project document are relevant and sufficient to achieve the expected outcomes and objectives;.

Efficiency of implementation

The extent to which:

- UNIDO and counterpart inputs have been provided as planned and were adequate to meet requirements.
- The quality of UNIDO inputs and services (expertise, training, methodologies, etc.) was as planned and led to the production of outputs.
- UNIDO procurement services are provided as planned and were adequate in terms of timing, value, process issues, responsibilities, etc.

Project coordination and management

The extent to which:

- The national management and overall field coordination mechanisms of the project have been efficient and effective;
- The UNIDO management, coordination, quality control and technical inputs have been efficient and effective;
- Monitoring and self-evaluation was based on indicators for outputs, outcomes and objectives and using that information for project steering and adaptive management;
- Changes in planning documents during implementation have been approved and documented;
- Synergy benefits can be found in relation to other UNIDO activities in the country or elsewhere.

Effectiveness

The extent to which:

- Outputs have been produced and how the target beneficiaries use the outputs;
- Outcomes have been or are likely to be achieved through utilization of outputs;
- The project/programme contributes to inclusive and sustainable industrial development.

Impact and sustainability

- To what extent developmental changes (economic, environmental, social, inclusiveness have occurred or are likely to occur as a result of the intervention and are these sustainable;
- Was sustainability correctly factored in the project strategy (risks analyzed and assumptions identified at design stage and appropriately monitored during implementation);

- What is the prospect for technical, organizational and financial sustainability.

The following gender mainstreaming and environment related questions shall be also covered by the evaluation.

Gender and youth

- To what extent have women and youth benefited from the project/can be expected to benefit?
- Has gender been mainstreamed in the implementation of the project?
- Have gender analyses been included in baseline studies, monitoring and reporting?
- Has there been gender balance in the contracting of experts and consultants?

Environment

- Has the project promoted environmental sustainability?
- Are any positive environmental benefits likely, even if they may be indirect?

EVALUATION APPROACH AND METHODOLOGY[25]

This evaluation will be carried out in accordance with UNIDO Evaluation Policy and the Guidelines for the Technical Cooperation Programme and Project Cycle. While maintaining independence, the evaluation will adopt a participatory approach and will seek the views and feedback of all parties. The lead evaluation consultant will liaise with the Project Manager on the conduct of the evaluation and methodological issues.

The lead evaluation consultant will be required to use different methods to ensure that data gathering and analysis deliver evidence-based qualitative and quantitative information, based on diverse sources (including literature reviews, field visits, surveys and interviews with counterparts, beneficiaries, donor representatives and program managers). The lead evaluation consultant will develop interview guidelines.

The evaluation will apply the standard for assessing the relevance of criteria of effectiveness, efficiency, impact and sustainability of programs to assess achievements against objectives and indicators outlined in the Logical Framework.

The methodology will be based on the following:

- Desk review of project document including, but not limited to:
  (a) project / programme policy documents;

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(b) The original project document, monitoring reports (such as half yearly progress and financial reports, output reports (case studies, action plans, sub-regional strategies, etc.) and relevant correspondence;
(c) Notes from the meetings of committees involved in the project (e.g. approval and steering committees);
(d) Other project-related material produced by the project.

- Interviews with project management and technical support including staff and management at UNIDO HQ and in the field (UNIDO country office and Port Sudan Project Office) and – if necessary - staff associated with the project's financial administration and procurement.
- Interviews with project partners including Government counterparts, counterpart institutions and representatives of the Institute for Marine Research (IMR) as the sole provider of substance matter expertise for this project.
- Interviews with intended users for the project outputs and other stakeholders involved with this project e.g. representatives of the Norwegian Embassy as the main donor for this project.
- Other interviews, surveys or document reviews as deemed necessary by the lead evaluator and/or UNIDO EVA.

TIME SCHEDULE AND DELIVERABLES

The Mid-Term Independent Evaluation is scheduled to take place in August 2016.

This section contains a timetable for the evaluation process with tentative deadlines for key events, tasks, deliverables and milestones.

Task	Description/ Deliverables	Timeframe
Contract signed with evaluators		**June 2016**
Desk review and development of interview guidelines, telephone interviews with IMR experts	Background materials provided by Project Manager	**August 2016**
Evaluation mission (briefing of evaluators in the field, , field visits, field research, interviews, observation, questionnaires, etc.)	Mission report and information collected	**August 2016**
Interviews at HQ and presentation of preliminary findings	Presentation in English to Project Manager and project team	**August 2016**
Additional data collection and analyses of information collected, preparation of the draft evaluation report and	Draft report	**August 2016**

circulation, within UNIDO for comments		
Incorporation of comments and preparation of final draft report	Final draft report	**August 2016**
Sharing of draft report with main stakeholders. Collection of comments and finalization of report	Final report	**September 2016**
Presentation and submission to UNIDO, Government of Sudan and donors	Final Report and Management Response Sheet	**September 2016**

EVALUATION TEAM COMPOSITION

The evaluation will be conducted by one international lead evaluation consultant with one national consultant who will be working under the guidance of the UNIDO Evaluation Manager in IEV in coordination with the Project Manager and with the project team in Sudan and in Vienna.

QUALITY ASSURANCE

The Project Manager (PM) will be responsible for managing the evaluation, preparing the terms of reference (TOR) and the job description (JD) of the evaluation consultant(s) on the basis of guidance of UNIDO's Independent evaluation Division (IEV). The PM will forward drafts and final reports to IEV for review, distribute drafts and final reports to stakeholders (upon review by IEV), and organize presentations of preliminary evaluation findings which serve to generate feedback on and discussion of evaluation findings and recommendations at UNIDO HQ.

ANNEXES

- Job Description for team member(s)
- TOC for the Evaluation Report
- Checklist on evaluation report quality

Annex 1. Job Description for team member(s)

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	Lead evaluator
Main Duty Station and Location:	Home based
Mission/s to:	Khartoum, Port Sudan, Vienna
Start of Contract (EOD):	09 August 2016
End of Contract (COB):	10 September 2016
Number of Working Days:	25 days

ORGANIZATIONAL CONTEXT

The consultant will evaluate the projects according to the Terms of Reference. S/he will act as leader of the evaluation team and will be responsible for preparing the draft and final evaluation report, according to the standards of the UNIDO Office for Independent Evaluation.

PROJECT CONTEXT

As described in the MTE ToR.

MAIN DUTIES

The Lead Evaluator is expected to conduct the following duties:

Main Duties	Concrete/ measurable Outputs to be achieved	Expected duration (days)	Location
Conduct desk study of project document and relevant reports and conduct telephone interviews with IMR experts	Interview plan completed and validated by UNIDO	3	Home based
Undertake field mission to Khartoum and Port Sudan to interview the main stakeholders, including beneficiaries and donor representatives) presentation of preliminary findings to field stakeholders	Mission report and information collected	14	Kahrtoum, Port Sudan
Debriefing of the evaluation (Presentation of preliminary findings)	Presentation in English to Project	2	Vienna, Austria

Main Duties	Concrete/ measurable Outputs to be achieved	Expected duration (days)	Location
	Manager and project team		
Preparation of first draft evaluation report and submission for UNIDO feedback	Draft report	4	Home based
Finalization of report upon receipt of stakeholders' feedback	Final report	2	

REQUIRED COMPETENCIES

- Long-term experience in project evaluation
- Experience from working with skills development/vocational training from an industry perspective
- Experience from working with organizational development, capacity and institutional building
- Knowledge of international institutions/organizations working on skills development
- Experience from the Sudan context/ or the African region

MINIMUM ORGANIZATIONAL REQUIREMENTS

- Advanced university degree in social science related disciplines including development studies, development economics, political science, international relations, and peace studies, with training in social research methodologies;
- Minimum 10 years of professional experience in project evaluation;
- Proven track record in evaluation of UN projects.

Languages: Fluency in written and spoken English is required.

Absence of Conflict of Interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract for this evaluation.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	National Evaluation Consultant
Main Duty Station and Location:	Home-based
Mission/s to:	Khartoum, Port Sudan
Start of Contract (EOD):	August 2016
End of Contract (COB):	September 20165
Number of Working Days:	20

ORGANIZATIONAL CONTEXT

The consultant will be part of the evaluation team, led by the International Evaluation consultant, to evaluate the project according to the Terms of Reference. S/he will work in close cooperation with the Lead Evaluator and will be responsible for preparing the draft and final evaluation report, according to the standards of the UNIDO Office for Independent Evaluation.

PROJECT CONTEXT

As described in the MTE ToR.

Under the leadership of the Team Leader (International Evaluation Consultant).. S/he will perform the following tasks:

MAIN DUTIES	**Concrete/ measurable Outputs to be achieved**	**Expected duration**	**Location**
Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data…); Assess the adequacy of legislative and regulatory framework in Sudan	Consultant familiarized with project relevant documentation Brief assessment of the adequacy of the country's legislative and regulatory framework	3 days 3 days	Home-based

Conduct field mission	Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in the country at the end of the mission. Agreement with the International Consultant and Team Leader on the structure and content of the evaluation report and the distribution of writing tasks	6 days	Khartoum, Port Sudan
Prepare inputs to the evaluation report according to TOR and as agreed with Team Leader	Draft evaluation report	6 days	Home-based
Total		18 days	

REQUIRED COMPETENCIES

- Core values:
  1. Integrity
  2. Professionalism
  3. Respect for diversity

  Core competencies:
  1. Results orientation and accountability
  2. Planning and organizing
  3. Communication and trust
  4. Team orientation
  5. Client orientation
  6. Organizational development and innovation

  Managerial competencies (as applicable):
  1. Strategy and direction
  2. Managing people and performance
  3. Judgement and decision making
  4. Conflict resolution

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education: Advanced university degree in science, engineering or other relevant discipline like developmental studies or business administration.

Technical and Functional Experience:

A minimum of five years professional experience, including evaluation experience at the international level involving technical cooperation in developing countries. Exposure to the needs, conditions and problems in developing countries. Familiarity with the institutional context of the project is desirable.

Languages: Fluency in written and spoken English and Arabic is required.

Absence of Conflict of Interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract for this evaluation.

Annex 2: TOC for the Evaluation Report

Table of Contents

Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be 3-4 pages in length

I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

II. Countries and project background

- Brief countries context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project and important developments during the project implementation period
- Project summary:
    - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
    - Brief description including history and previous cooperation
    - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
    - Positioning of the UNIDO project (other initiatives of government, other donors, private sector, etc.)
    - Counterpart organization(s)

III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR. Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

A. Relevance (Report on the relevance of project towards countries and beneficiaries)

B. Effectiveness (The extent to which the development intervention's objectives and deliverables were achieved, or are expected to be achieved, taking into account their relative importance)

C. Sustainability of Project Outcomes (Report on the risks and vulnerability of the project, considering the likely effects of sociopolitical and institutional changes in partner countries, and

its impact on continuation of benefits after the project ends, specifically the financial, sociopolitical, institutional framework and governance, and environmental risks)

D. Project coordination and management (Report project management conditions and achievements, and partner countries commitment)

IV. Conclusions, Recommendations and Lessons Learned

This chapter can be divided into three sections:

A. Conclusions

This section should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

B. Recommendations

This section should be succinct and contain few key recommendations. They should:

- be based on evaluation findings
- realistic and feasible within a project context
- indicate institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- be commensurate with the available capacities of project team and partners
- take resource requirements into account.

Recommendations should be structured by addressees:

- UNIDO
- Government and/or Counterpart Organizations
- Donor

C. Lessons Learned

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation
- For each lesson the context from which they are derived should be briefly stated

Annexes should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.

Annex 3: Checklist on evaluation report quality

Report quality criteria	UNIDO Independent Evaluation Division Assessment notes Rating	Rating
Report Structure and quality of writing		
The report is written in clear language, correct grammar and use of evaluation terminology. The report is logically structured with clarity and coherence. It contains a concise executive summary and all other necessary elements as per TOR.		
Evaluation objective, scope and methodology		
The evaluation objective is explained and the scope defined. The methods employed are explained and appropriate for answering the evaluation questions. The evaluation report gives a complete description of stakeholder's consultation process in the evaluation. The report describes the data sources and collection methods and their limitations. The evaluation report delivered in a timely manner so that the evaluation objective (e.g. important deadlines for presentations) was not affected.		
Evaluation object		
The logic model and/or the expected results chain (inputs, outputs and outcomes) of the object is clearly described. The key social, political, economic, demographic, and institutional factors that have a direct bearing on the object are described.		

The key stakeholders involved in the object implementation, including the implementing agency(s) and partners, other key stakeholders and their roles are described. The report identifies the implementation status of the object, including its phase of implementation and any significant changes (e.g. plans, strategies, logical frameworks) that have occurred over time and explains the implications of those changes for the evaluation.		
Findings and conclusions		
The report is consistent and the evidence is complete (covering all aspects defined in the TOR) and convincing. The report presents an assessment of relevant outcomes and achievement of project objectives. The report presents an assessment of relevant external factors (assumptions, risks, impact drivers) and how they influenced the evaluation object and the achievement of results. The report presents a sound assessment of sustainability of outcomes or it explains why this is not (yet) possible. The report analyses the budget and actual project costs. Findings respond directly to the evaluation criteria and questions detailed in the scope and objectives section of the report and are based on evidence derived from data collection and analysis methods described in the methodology section of the report. Reasons for accomplishments and failures, especially continuing constraints, are identified as much as possible. Conclusions are well substantiated by		

the evidence presented and are logically connected to evaluation findings. Relevant cross-cutting issues, such as gender, human rights, environment are appropriately covered		
Recommendations and lessons learned		
The lessons and recommendations are based on the findings and conclusions presented in the report. The recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?)'. Recommendations are implementable and take resource implications into account. Lessons are readily applicable in other contexts and suggest prescriptive action.		

Rating system for quality of evaluation reports

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory

= 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1, and unable to assess = 0.

ANNEX 5. Logical Framework

	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
Development goal/impact	Contribute to sustainable management of marine fisheries in the Red Sea State	Management plans in line with Maximum Sustainable Yields[26] enacted by the Red Sea State Government Fish stocks and catches monitored by the Marine Fisheries Administration and management plans adjusted according to observed changes in stocks and catches	Depository of fishery regulations issued by the Red Sea State. Annual Reports on fish stocks and landings and knowledge based policy advice issued by the Marine Fisheries Administration.	
Outcome(s)/immediate objective(s)/	Key institutions in the Red Sea State have strengthened their capabilities (in terms of hardware, software and institutional capacities) to develop and maintain a data base on fish stocks and fish landings	Up to date information on fish stocks and catches available in a centralized data base with the Marine Fisheries Administration 75% of staff trained report that they have been enabled to use the data base to pick-	Assessments by external experts. Feed-back, interviews with staff trained. Surveys/questionnaires filled in by participants after the completion of trainings.	Government of the Red Sea State provides MFA with an commensurate budget after completion of project implementation to continue the collection of data on fish stocks and catches

[26] **maximum sustainable yield** or **MSY** is theoretically, the largest yield (or catch) that can be taken from a species' stock over an indefinite period. The concept of MSY aims to maintain the population size at the point of maximum growth rate by harvesting the individuals that would normally be added to the population, allowing the population to continue to be productive indefinitely.

	in the Red Sea State	up signals about stock changes 75% of staff trained report that they have been enabled to plan surveys		

Outputs	1) 4 surveys (in total 150 days at sea) implemented as an applied scientific assessment of fish stocks	30 national counter-parts experts trained every year in survey techniques (planning and implementation) and in at sea/on board analysis while at sea for the collection of fishery independent data	Survey reports.	Project has free access to coastal waters in the Red Sea State and can use the MFA vessel for surveys
	2) A web-based centralized data base of fisheries data, including total landings estimated for fish delivered to the Sigala marked and catch and effort data sampled at the three improved landing sites is operational	Physical existence and functionality of a web based centralized data base 30 national counter-parts trained in data collection, processing, analysing and interpreting	Possibility to retrieve data from the web-based data base Reports on training sessions Half yearly project progress reports	MFA will be granted the required human and financial resources to staff and operate a data management structure

Activities	What the project does	N.A.	N.A.	