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# Recovery of Coastal Livelihoods in the Red Sea State of Sudan



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION

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# Recovery of Coastal Livelihoods in the Red Sea State of Sudan



Canada 



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION  
Vienna, 2013



# Creating sustainable livelihoods in fishing communities in the Red Sea State of Sudan

<b>Duration</b>	June 2009 - December 2013
<b>Funding</b>	US\$ 5.6 Million
<b>Implementing Agency</b>	UNIDO
<b>Donor</b>	Government of Canada
<b>Objective</b>	Increase incomes and improve livelihoods in the fishing communities of the RSS
<b>Number of Beneficiaries</b>	Direct: 1,570 Indirect: 6,280

The Red Sea State (RSS) coastline stretches for 750 kilometres and hosts the country's only commercial port and oil terminal. The population of the RSS is approximately 1.4 million, of which just over half reside in the capital city of Port Sudan. The majority of the population partakes in agricultural and herding activities. However, fishing is taking on an increasingly important role for income generation.

The RSS is one of the least developed states in Sudan and fishing communities require particular attention. The majority of the coastal population is composed of the nomadic Bija tribe. Traditionally, its people focus on agriculture and herding activities, but over the past two-to-three generations, the Bija tribe has turned to the sea as a means to secure livelihoods and increased food security.



Fishers unload their harvest

The Red Sea is endowed with abundant marine resources which can be utilized to create jobs and promote development. In order for the fishery sector to best utilize the resources, fishers must be better organized and possess necessary management and technical skills. Landing site and market infrastructure must be upgraded and expanded to new locations within the RSS. Government institutions mandated in part to support fishing communities need to be streamlined to provide more effective support.

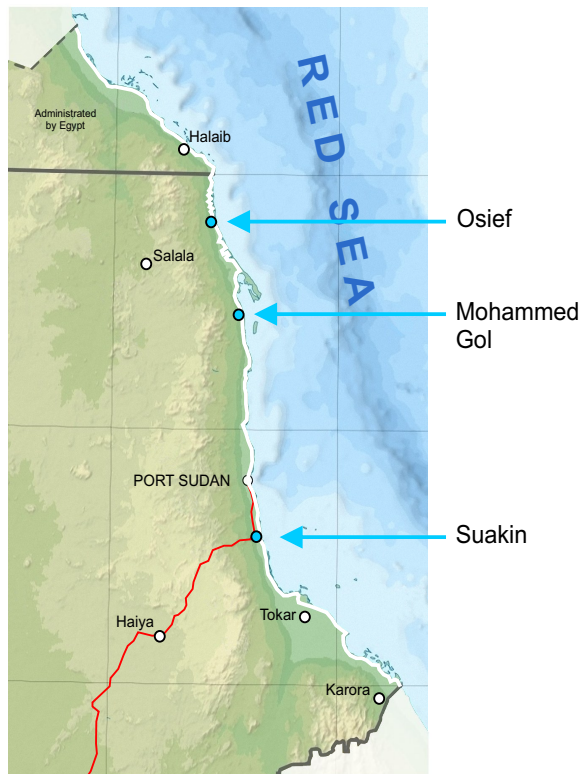
With funding from the Government of Canada, the United Nations Industrial Development Organization (UNIDO) is implementing the project Recovery of coastal livelihoods in the Red Sea State of Sudan: the modernization of artisanal fisheries and creation of new market opportunities.

The overall objective of the project is to increase incomes and improve livelihoods in the fishing communities of the RSS. The project is already beginning to create jobs, increase incomes and provide a needed economic stimulus to rural fishing communities.

## Fish landing sites

Prior to the project, most fish landed in communities along the RSS coastline were transported to the Sigala market in Port Sudan for retail and wholesale. This practice left rural communities with little role in the value chain and allowed for a relatively small proportion of wholesalers to control the market. The practice also led to a higher rate of spoilage and contamination of fish products due to their exposure to the sun, dust and unhygienic handling practices.

In response, the project constructed three landing sites located in the fishing communities of Osief, Mohammed Gol and Suakin. After much consultation with fishery sector actors, the landing



Map of the Red Sea State indicating landing sites

sites are operational and handling ever increasing amounts of fish. The landing site in Suakin started with landing approximately 200 kgs of fish in its first month of operation. As of May 2013, it is landing over 20,000 kgs of fish each month and interest in the landing site services is growing among sector actors.

Each landing site consists of a large building with designated areas for incoming fish, cleaning and processing and outgoing fish for transport and sale. Other rooms are designated for storage and administration.

Landing site users include fish traders, fishing associations and independent small-scale fisher folk. Users pay a fee based on the amount of fish brought to the site. The fees are reinvested in the site to ensure the continued high quality of the infrastructure, equipment and practices.

Each landing site is owned by a private-public partnership board of directors. Representatives from government and private individuals sit on the Board. The daily



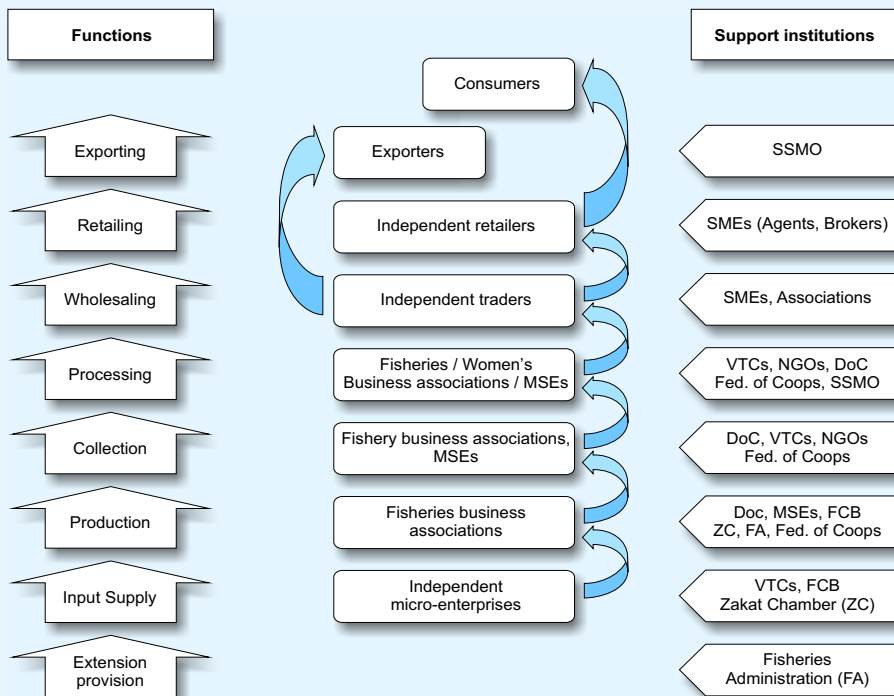
The landing site in Suakin, RSS



management of the landings sites is overseen by a landing site manager, in conjunction with local fishing associations in each community. Landing site staff are selected by the Board and receive hands-on training in landing site management issues such as record keeping, bookkeeping and business operations; others receive hands-on technical training on Good Hygienic Practices (GHP).

The landing sites offer clear advantages to users. Fisher folk are able to land their harvest at the site and leave it in a secure place. They can also use the facilities located at the site. This saves time and money, as fish is quickly placed on fresh ice at the site. For fish traders, the sites offer a hygienic environment in which their fish harvests can be stored and consolidated before onward transport. Fish traders are no longer obliged to send trucks to multiple locations along the coast to collect harvests, saving both time and money. From the fishery sector development perspective, the sites offer an ideal entry point through which data on the sector – crucial for making policy decisions – can be collected.

The project has adopted a value chain approach to improve the overall efficiency of fish products marketing in the RSS. The below chart shows the optimal situation where multiple actors are involved in the value chain and receive support from public and private actors.





Women in small business associations learn about operating small businesses. Many women currently run their own business.

## Creating micro-enterprises

An important aspect of improving livelihoods in fishing communities is the creation of micro-enterprises. It is envisaged that the expanding fishery industry will create demand for micro-enterprises that will provide services to the landing sites, cooperatives and directly to the consumer.

Women in the RSS traditionally do not play a large role in the formal economic life of their communities. The project afforded them the chance to play an increased role; the women – and their communities – have fully embraced the opportunity. Women in the five associations have been provided with various training courses, including: basic business management, long-term planning and group leadership. After forming business development associations under the guidance of the project, the women identified and developed micro-enterprises to meet niche market demands in their communities.

Examples of micro-enterprises are: concrete block manufacturing, gas cylinder sales, household goods sales, fish sales and poultry product sales. A portion of the profits stay



Landing site staff put fish on ice

within the association to be re-invested in additional income-generating activities and social-orientated services, such as daycare and literacy classes. Each association also has a revolving fund that provides loans to members to develop small home-based businesses.

The project also recently constructed an ice production unit at the Mohamed Gol landing site. The unit uses technologies known in Sudan, ensuring that maintenance and repair can be undertaken with ease. The unit is capable of providing 2,688 kgs of ice each day. The ice is preferred by the local fisher folk over ice brought from Port Sudan. It is also in demand by the community as it is cheaper than ice from Port Sudan. The ice unit is currently making a profit and covers some of the landing site operating costs as well. Units for Suakin and Osief are being planned.

## Strengthening support institutions

Human resource capacity in government institutions mandated to provide support to the fishery sector is improving, but support is still required. The project continues to work in close collaboration with relevant institutions in order to build their capacity and ultimately ensure that they can provide the support required by artisanal fishers.

In this regard, multiple exchange tours have taken place, exposing staff in RSS institutions to the practices in other countries with important fishery sectors. The project has facilitated visits to Uganda, Indonesia and Morocco. Participants have been provided the opportunity to observe first-hand the different workings of diverse fishery sectors. Topics of particular attention have included cooperative development, good handling practices, landing site management, fishing techniques and sector development.

Two marine vessels for research and extension work were also provided to the MFA in order to allow the Administration to better fulfill its mandate. The vessels have been used in experimental fishing exercises and research missions.

## On-Board Training

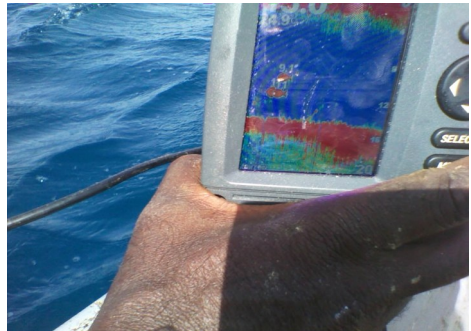
An important component to human resource capacity building has been training MFA extension staff to lead future training courses. The project has supported various on-board training exercises that have introduced new fishing technologies. The training courses have



Fishing cooperative members receive training on marine engine repair

also examined catch data recording and improved on-board handling. MFA staff have also received GPS and eco-sounder training from the project.

Experimental fishing trips have been a constant feature throughout the lifetime of the project. The trips have sought to determine the most promising techniques adapted for the features of the Red Sea. Fisher folk are already employing some of the more successful techniques, such as line trawling and night fishing. There is also an increased usage of GPS and eco-sounder technologies.



New fishing technologies are introduced to fishers



Fishermen learn how to construct fish traps

## Physical environmental considerations

The RSS coastline remains largely untouched by industrial development and its coral reefs are among the most pristine in the world. The project is making every effort to ensure that it has a neutral impact on the environment. During the project development stage, environmental experts were recruited to help design the project. The construction of landings sites – the activity with the most environmental impact potential – was preceded by an environmental impact assessment and regular monitoring by an environmental expert.

All activities undertaken by the project will be subject to a set of Environmental Assessment and Review Procedures (EARP) which were developed specifically for this project. The EARP provides a methodology for assessing the impact of each activity in due course. The EARP also defines the steps to be taken during implementation to ensure that the environmental impact of the activities complies with international standards and that any negative impact is prevented or mitigated.



Ensuring proper handling and storage of fish at the Suakin landing site



**For more information, please contact:**

Agricultural Business Development Unit  
United Nations Industrial Development Organization  
P.O. Box 300, 1400 Vienna, Austria  
Telephone: (+43-1) 26026 3499  
E-mail: [d.tezera@unido.org](mailto:d.tezera@unido.org)







**UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION**  
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria  
Telephone: (+43-1) 26026-0, Fax: (+43-1) 26026-69  
E-mail: [unido@unido.org](mailto:unido@unido.org), Internet: <http://www.unido.org>