



# IUCN, the International Union for Conservation of Nature

WANTS TO HIRE

## Professional Consulting Services for

*“Data collection on fisheries sector and the impact of marine plastics to be used as input for a cost-benefit analysis of interventions to reduce marine plastic leakage in Kenya”*

<b>Type of Contract:</b>	Professional Consulting Services
<b>Term:</b>	3 months
<b>Availability:</b>	Immediate
<b>Supervisor:</b>	Leander Raes, Economist

## 1. BACKGROUND AND JUSTIFICATION

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### About IUCN

IUCN, the International Union for the Conservation of Nature and Natural Resources, helps the world find pragmatic solutions to the most urgent environmental and development challenges.

IUCN's work focuses on the assessment and conservation of nature, ensuring effective and equitable governance of its use, and deploying nature-based solutions to the global challenges of climate, food and development. IUCN supports scientific research, directs field projects around the world, and brings together governments, NGOs, the United Nations and companies, to develop policies, laws and best practices.

IUCN is the oldest and largest environmental organization in the world, with more than 1,400 members of governments and NGOs, and around 11,000 expert volunteers in some 160 countries. The work of IUCN is supported by a team of more than 1,000 people in 45 offices and hundreds of affiliates in public and private sectors and NGOs around the world.

## About the project

### Background of MARPLASTICCS project:

In late 2017, with the support of the Swedish International Development Cooperation Agency (Sida), IUCN launched an initiative on marine plastics and coastal communities in the Western Indian Ocean and South Asia regions. The overall goal of this three-year initiative is that governments and regional bodies within the Eastern and Southern Africa and the Asia regions promote, enact and enforce legislation and other effective measures that contain and reduce marine plastic pollution. To do so, IUCN invests efforts in equipping governments, industry and society in Eastern and Southern Africa and the Asia regions with knowledge, capacity, policy options and plans of action to control plastic pollution. The project is being implemented in Kenya, Mozambique, South Africa, Thailand and Viet Nam.

To understand better the flows of plastics, for each of the five countries of the project, an analysis is being carried out with the use of the 'national plastic footprint hotspotting tool'. In addition to estimating the size of marine plastics generation, the project also aims at providing guidance on policies and interventions to reduce plastic flows to the marine environment. In addition to evaluating the different legal frameworks in the five project countries and the effectiveness of different policies, economic assessments of the impact of marine plastics and of different policy instruments and/or interventions is a tool that can be used to identify the most suited policies, interventions or actions for the goal of reducing marine plastics.

In Kenya, the focus of the economic evaluation will be the marine fisheries sector and the livelihoods of the people that depend on fisheries. This sector and the households relying on fisheries are impacted by marine plastics, but can also be a source of marine plastics, or be part of one or more solutions of the problem. The national plastic footprint hotspotting tool provides information on the sources and types of marine plastics, which is a key input in order to be able to estimate the impact of marine plastics on national fisheries, be they commercial or artisanal, and to identify potential interventions to reduce plastic leakage affecting the marine fisheries of Kenya.

In order to estimate the impact of marine plastics, it is important to obtain an estimate of the value of the fisheries economy in monetary and social terms as well its importance for food security. In addition, the specific focus of the assessment in Kenya will be built upon specific interventions related to fisheries that would be identified by the plastic hotspotting analysis. Specifically, for Kenya, the intervention that this study will focus on is the inclusion of households that depend on fisheries for their livelihood in the circular economy through the collection of marine plastic waste.

The aim of this consultancy is to support the economic analysis through the collection and classification of data related to: (1) the fisheries sector; (2) the livelihoods of people dependent on fisheries; (3) the role and importance of fisheries for food security; (4) the impact of marine plastics on the national fisheries; and (5) the capacity of fisher households to collect plastic as part of the development of a circular economy. A general list of data to be collected can be found at the end of this document. These data will then be used as an input to the further development of the economic analysis, focusing first on estimating the impact of marine plastics on fisheries and food security, and secondly, estimating how specific interventions can reduce this negative impact of marine plastics.

## 2. OBJECTIVES OF THE CONSULTANCY

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### 2.1. General objective:

Collect data for the evaluation of the economic impact of marine plastics on the fisheries sector, the livelihoods of people that depend on fisheries, the importance of fisheries for food security, the impact of marine plastics on the national fisheries and the potential for local fishers to collect marine plastics as part of their livelihood strategy.

In general terms, the main questions to be answered by this consultancy are:

- What is the contribution of the commercial and artisanal fisheries to the economy of Kenya?
- What are the characteristics of the two sub-sectors in terms of boat types, crew, types and quantities of fish caught and gears used?
- What are the main characteristics of the households that depend on fisheries for their livelihoods?
- What is the importance of fisheries for national food security and specifically for coastal fishing communities, including artisanal (subsistence) fishers?
- What are the impacts of marine plastics on marine fisheries?
- What fisheries activities contribute to marine plastic pollution?
- What role does the fisheries sector play in marine plastic pollution control?
- What is the potential capacity of fishers to collect marine plastics<sup>1</sup>?

The geographic scope of the analysis will be the country of Kenya, with as a main focus the coastal areas.

### 2.2. Specific objectives:

- a) Describe the methodology that will be used to collect data (databases, literature, interviews, surveys, etc.).
- b) Collect data and determine the contribution of the fisheries sector to the national economy (employment, value, export, volumes/quantities, etc.).
- c) Assess the types of fishing gears and crafts type and vessels used by each subsector.
- d) Assess the livelihoods of people relying on commercial or artisanal fisheries.
- e) Collect data on the role of fisheries in national food security and coastal fishing communities.
- f) Examine the impact of marine plastics on marine fisheries, and the contribution of the fisheries sector to marine plastic pollution.
- g) Analyze the potential to include fisherfolk, both men and women in the collection of marine plastics.

## 3. PRODUCTS TO BE DELIVERED

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- Product 1: Report with results of specific objectives a.
- Product 2: Report with results of specific objectives b, c, d and e.
- Product 3: Report with results of specific objectives f, g...the final report that contains all the results of the consultancy.

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<sup>1</sup> This is a first step in a broader analysis, which in the future could then focus on the development of different uses for this plastic, if collection is a viable option.

## 4. SCHEDULE AND TIMELINE OF PRODUCT DELIVERY

### 4.1. Activities and schedule

Specific objectives	Activities	Month 1				Month 2				Month 3				
		Week				Week				Week				
		1	2	3	4	1	2	3	4	1	2	3	4	
a. Describe the methodology that will be used to collect data (databases, literature, interviews, surveys, etc.)	<ul style="list-style-type: none"> <li>List data needs and indicators to be developed.</li> <li>For each type of data describe data collection methodology.</li> <li>Write report (product 1)</li> </ul>													
b. Collect data and determine the contribution of the fisheries sector to the national economy (employment, value, export, volumes/quantities, etc.).	<ul style="list-style-type: none"> <li>Based on list of data needs for fisheries sector, collect data from different sources</li> <li>Classify data based on list of data needs and provide estimates for each indicator.</li> <li>Write first part of report (product 2).</li> </ul>													
c. Assess the types of fishing gears and crafts type and vessels used by each subsector.	<ul style="list-style-type: none"> <li>List all types of boats per subsector (commercial and artisanal).</li> <li>Collect data on fishing gear used per subsector and boat type.</li> <li>Write second part of report (product 2)</li> </ul>													
d. Assess the livelihoods of people relying on commercial or artisanal fisheries.	<ul style="list-style-type: none"> <li>List livelihood indicators (e.g. average income, percentage income from fisheries, etc.).</li> <li>Collect data (literature, databases, etc.) on livelihoods of households relying on fisheries.</li> <li>Provide estimate for each indicator.</li> <li>Finish report (product 2).</li> </ul>													
e. Collect data on the role of fisheries in national food security and coastal fishing communities.	<ul style="list-style-type: none"> <li>List key food security indicators to be included (e.g. average kg protein per hh member per year for coastal fishing communities).</li> <li>Carry out literature review, use databases and interview people to collect data on the importance of fisheries for food security.</li> <li>Estimate food security indicators.</li> <li>Finish report (product 2).</li> </ul>													
f. Examine the impact of marine plastics on marine fisheries, and the contribution of the fisheries sector to marine plastic pollution.	<ul style="list-style-type: none"> <li>Carry out literature review on the impact of marine plastics on fisheries in Kenya.</li> <li>List stakeholders to be interviewed.</li> <li>Interview stakeholders on impact of marine plastics on fisheries in Kenya.</li> <li>Interview stakeholders on contribution marine plastic pollution by fisheries sector.</li> <li>Write first part of report (product 3).</li> </ul>													
g. Analyze the potential to include fishermen and women in the collection of marine plastics.	<ul style="list-style-type: none"> <li>Finish report (product 3).</li> </ul>													

## 4.2. Schedule for product delivery:

Products	Expected Delivery Date	Payment Percentage
1-Product 1	15-06-2020	20%
2-Product 2	30-07-2020	40%
3-Product 3	30-08-2020	40%

- All products will be paid once they have been delivered to the full satisfaction of IUCN.
- Disbursements will be made according to the availability of funds by the donor.

## 5. CONTENT OF THE CONSULTANT'S PROPOSAL

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- Letter of Presentation that includes the specific technical competences of the applicant, in the subject of this consultancy.
- Curriculum Vitae (CV).
- Technical Proposal that contains a tentative schedule in relation to the activities and products (adjusted to the proposed time of the consultancy).
- Financial proposal.

**In case the application is done by a company or group of consultants, in addition to the above information, you must specify:**

- Person responsible for the consultancy
- Composition of the consultant team, specialty of each member (include cv)
- Role and responsibility in the activities/products of each member in accordance with the ToRs.

## 6. TECHNICAL PROFILE

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A firm or consultant with the following capabilities:

- Team leader should have an advanced degree (minimum Masters) .....
- A socio-economist with an advanced degree in Economics.
- A fisheries expert with an advance degree in fisheries assessment/ management
- Proven experience in working on marine plastics.
- Proven experience related to working on the fisheries issues particularly frame surveys and stock assessments.
- Proven experience in data collection, analysis and writing, preferably including livelihoods and food security.
- Fluent in English and ability to speak Kiswahili (for communication during questionnaire administration to the local communities).
- Proven experience in working in the coast of Kenya.

## 7. DURATION AND COORDINATION

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Estimated time of this consultancy is three months.

**Way of working (with the unit/project):** The consultants will be responsible for maintaining permanent contact with the consultancy coordinator Leander Raes, and with Peter Manyara, IUCN's Regional Project Officer, Marine Plastics & Coastal Communities, to ensure the proper and participatory execution of each of the work stages, including, when applicable, the organization of field visits, workshops, and meetings, among others.

The delivery of the products will include all the files developed in digital format, with the texts, databases, and other work done to produce the products.

Consulting reports should follow the following structure:

- ✓ Names of the authors, place and date
- ✓ Executive summary of the report (100-150 words)
- ✓ Introduction to the problem, objectives, justification and scope of the consultancy or study (no more than two pages)
- ✓ Conceptual framework and background with their respective literature review (no more than two pages)
- ✓ Methodology
- ✓ Results
- ✓ Conclusions and recommendations.
- ✓ Annexes: bibliography / documents consulted; Interviewed people; others as applicable.

## 8. OTHER EXPENSES

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The consultants will assume the expenses of medical and life insurance, travel insurance, as well as bank transfer when applicable.

The consultant is responsible for the costs associated with potential fieldwork (transportation, lodging and per diem) for the collection of information, when considered necessary, which should be included in the financial proposal.

## 9. EVALUATION CRITERIA

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The proposals will be evaluated according to the following criteria:

- Technical Proposal, which includes activities, methodology and schedule: 50%
- Experience, technical profile and references of previous work in similar fields: 30%
- Financial Proposal, which includes all the expenses involved in carrying out this work: 20%

## 10. PROPOSAL SUBMISSION

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Send the proposal to [Leander.raes@iucn.org](mailto:Leander.raes@iucn.org) and [Peter.Manyara@iucn.org](mailto:Peter.Manyara@iucn.org) under the title ***“Data collection on fisheries sector and the impact of marine plastics to be used as input for a cost-benefit analysis of interventions to reduce marine plastic leakage in Kenya”*** the latest by 28 May, 2020

## **ANNEX Data List**

### **Fishing fleet and fisheries data (MARINE)**

- Number of fishing boats, nets and crew per category
- Commercial fishing vessels
- Commercial fishing crew
- Wage paid per crewmember according to rank
- Artisanal fishing vessels
- Artisanal fishing workers
- Average income per artisanal worker or boat
- Type of fishing boat (commercial)
- Number of commercial boats per type
- Fishing nets used per type of commercial boat
- Type of fishing boat (artisanal)
- Number of artisanal boats per type
- Fishing nets used per type of artisanal boat
- % contribution of GDP by the fishing sector

### **Annual fish catch**

- Total commercial volume (tons)
- Commercial volume for main species
- Total commercial value
- Commercial value for main species
- Estimated commercial by-catch
- Estimated amount of plastic in nets per type of net or per type of fishery
- Total estimated artisanal volume (tons)
- Total artisanal value

### **Export and import wild catch fisheries**

- Annual export volume (tons per type)
- Annual export value (per type)
- Annual import volume (tons per type)
- Annual import value (per type)

### **Aquaculture (if relevant)**

- Total volume marine aquaculture
- Total value marine aquaculture
- Volume per species marine aquaculture (tons per type)
- Value per species marine aquaculture
- Total number of people employed in aquaculture
- Average annual wage earned per worker marine aquaculture

### **Fishing industry**

- Number of fish canneries
- Number of frozen fish factories:
- Fish processing workers
- Average wage earned per worker fishing industry
- Value fishing industry (total production and export)

## **Livelihoods**

- % fisher households total households
- % employed commercial fishing boats/total number employed in country
- % relying on artisanal fisheries for part of their income or consumption
- % employed fishing industry/total number employed in country
- Per capita income for fishers employed in commercial fishing
- Average monetary income (per capita or per household) for artisanal fishers
- GDP of Kenya (total and per capita)

## **Food security**

- Number of food insecure households and number of food insecure people nationally.
- Number of food insecure households and/or people in coastal fishing communities.
- Number of food insecure households that rely on fisheries for part of their livelihoods.
- Average annual and seasonal – marine - fish consumption (kg and protein) for Kenya (total and per capita).
- % fish for own consumption artisanal fisheries.
- Average annual and seasonal marine fish consumption (kg and protein) for coastal fishing communities (per capita).
- Average availability of sufficient food to meet dietary needs for coastal communities, specifically fisher households.
- Number of households having access to sufficient food for their dietary needs
- Number of households having access to sufficient fish for their protein needs

## **Marine plastics**

- Estimated % impact marine plastic on commercial fish catches
- Estimated % impact marine plastic on artisanal fish catches
- Total amount of marine plastics per year coming from fishing boats
- Estimated amount of marine plastics per year coming from 1 commercial fishing boat
- Estimated amount of marine plastics per year coming from 1 artisanal fishing boat

## **Plastic collection (circular economy)**

- Current quantity of marine plastic collected in fishnets by commercial fishing sector (average per boat per year)
- Current quantity of marine plastic collected in fishnets by artisanal fishing sector (average per boat per year)
- Availability to collect more plastic commercial fishing sector (days per week, or weeks or months per year not dedicated to fishing)
- Availability to collect more plastic commercial fishing sector (days per week, or weeks or months per year not dedicated to fishing)
- Average cost 1 fishing trip commercial fishing vessel
- Average estimated cost 1 fishing trip artisanal fishing boat
- Estimated potential marine plastic collected by one commercial fishing boat
- Estimated potential marine plastic collected by one artisanal fishing boat