

Welcome to the Fishery Management Assessment Project and thanks for participating in our survey

The Fishery Management Assessment Project is part of an initiative to assess the effectiveness of conservation strategies worldwide (visit www.fmap.ca for a copy of the first report on the effectiveness of coral reef Marine Protected Areas). **The Fishery Management Assessment Project** seeks to evaluate the effectiveness of fishery management in countries worldwide and quantify the extent of limitations for achieving sustainable and ecosystem-friendly fisheries.

Data are being gathered through a survey designed to assess the effectiveness of national marine fisheries in general and not for specific fisheries; therefore, our survey should be answered in general terms and can be completed by anyone with moderate understanding of his/her country fisheries. These results will be part of a report that will be publicly available. The survey contains 22 multiple-choice questions and a space at the end of the questionnaire if you like to provide any feedback. After you have completed the survey click the "Submit" button. Leave in blank the questions for which you do not know the answers. Even if you know the answers for only few of the questions please do not hesitate to submit; others may provide the remaining answers. Please suggest other people to fill out the survey; duplicate reports allow us to quantify the error associated with our results. If you have questions please contact me at cmora@dal.ca

Once again thank you very much for your participation in our survey,

Camilo Mora, Ph.D.

Dalhousie University

cmora@dal.ca

Contact information

We ask your contact information for internal validation of the data but all your responses will be completely confidential

* **Name:**

Institution, if applicable:

* **Your e-mail address:**

Your expertise of the local fisheries comes from (choose more than one if needed):

- | | |
|---|--|
| <input type="checkbox"/> Academic research | <input type="checkbox"/> Governmental research |
| <input type="checkbox"/> Fishery management | <input type="checkbox"/> Fishing |
| <input type="checkbox"/> Policy making | <input type="checkbox"/> Consulting |
| <input type="checkbox"/> NGO work | <input type="checkbox"/> Trade |

Other, please specify

* **Country of Exclusive Economic Zone (EEZ) for which you will complete the survey:**

Coverage of the fishing regulations

1. How many species, with or without economic value (e.g. by-catch and discards), may be caught as result of commercial fishing in this EEZ? An approximated number is fine. As reference, we provide the number of species per country with fishery statistics in FAO. Please be aware that that number may be underestimated because by-catch and discard species may not be included and because some species are grouped as "mixed fishes".

Species in FAO database:

Of the species harvested commercially, how many are regulated (e.g. through fishing quotas, restricting fishing effort, etc)? An approximated number is fine

Quality of the fishing regulations (only for commercial fishing)

2. What percentage of the regulated species uses the following data as source of information to generate their regulations:

	Percentage of the species regulated				
	0%	<25%	<50%	<75%	<100%
Landings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
By-catch and discards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mortality as landings plus by-catch and discards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Population size	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recruitment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Age structure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fish movement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental variables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ecosystem linkages (e.g. ecological interactions, food-web links, trophic cascades)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What percentage of the regulated species includes all the above data in their regulations?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Are regulations updated and changed periodically?

- ☐ There are no regulations
☐ Regulations are never changed (fixed)
☐ Regulations are changed only under symptoms of collapse
☐ For few species assessment of regulations is carried out every year (e.g. through stock assessments)
☐ For most species assessment of regulations is carried out every year

4. What are the skills and training in fishery science of personnel carrying out the assessment of the fisheries [e.g. education level (e.g. Ph.D. Masters, etc), participation in training courses, access to relevant literature, participation in congresses]?

- ☐ There is no scientific personnel
☐ Scientific personnel exist but there are no efforts for their capacitation
☐ Scientific personnel exist and there are some efforts for their capacitation
☐

of the fishery) if there are reasonable doubts about the impacts of a regulation or if there been excess fishing occurs?

- ☐ No plan exist
- ☐ Plans exist for at least some species but are slow to implement
- ☐ Plans exist for at least some species and are quick to implement
- ☐ Plans exist for at least some species and are quickly implemented, monitored and adjusted

Enforcement and compliance

6. How is funding and equipment of the fishing authority (i.e. a body or institution in charge of monitoring, patrolling and enforcing regulations)?

- ☐ There is not a fishing authority
- ☐ There is a fishing authority but its funding and equipment is precarious
- ☐ The funding and equipment of the fishing authority is partial
- ☐ The funding and equipment of the fishing authority optimum

7. What is the frequency of patrolling fishing grounds and of catch inspections?

- ☐ Non-existent
- ☐ Patrols and inspections are infrequent and restricted to few areas
- ☐ Patrols and inspections are frequent and restricted to few areas
- ☐ Officers could be expected anywhere at anytime

8. Poaching (referred as illegal fishing and misreporting) is:

- ☐ Non-existent
- ☐ Occasional
- ☐ Frequent
- ☐ Very common

9. Penalties upon violators are:

- ☐ Non-existent
- ☐ Lenient
- ☐ Tough but unlikely to deter
- ☐ Stiff and likely to deter

10. Are corruption and bribery:

- ☐ Non-existent
- ☐ Occasional
- ☐ Frequent
- ☐ Very common

Policymaking

11. Is participation in decision-making of stakeholders, local communities and managers open and transparent?

- ☐ No, decisions are made behind closed doors
- ☐ Some or all parties are informed but not considered (i.e. they do not have a vote)
- ☐ Some or all parties are consulted (i.e. they give their opinion) but are not considered
- ☐ All parties are consulted and considered

12. Are there pressures, from any source (e.g. economical, political), to increase catches or to implement regulations

- ☐ Frequently
- ☐ Very commonly

13. Is scientific advice followed in decision-making?

- ☐ There are not scientists
- ☐ There are scientists but their advice is never followed
- ☐ There are scientists and their advice is occasionally followed
- ☐ There are scientists and their advice is always followed

Other aspects

Overcapacity

14. Is the present fishing fleet quantified and regulated?

- ☐ No
- ☐ Quantified but not regulated
- ☐ An optimum fleet size to prevent overfishing has been defined but it has not been implemented
- ☐ An optimum fleet size to prevent overfishing has been defined and it is being implemented

15. Is the fleet being modernized (i.e. boats have been modified to catch more fish or to reduce operation costs)?

- ☐ No
- ☐ A small portion of the fleet may be doing so
- ☐ About half of the fleet may be doing so
- ☐ Nearly the entire fleet uses state of the art fishing technology

16. In general, overall catches have:

- ☐ Increased for most species
- ☐ Remained constant for most species
- ☐ Reduced for most species

Fishing methods

17. How common are the following fishing methods:

	Non-existent	Occasional	Frequent	Very common
(1) Mid-water trawls or purse seines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(2) Bottom or pelagic longlines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(3) Bottom trawls or dredges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(4) Bottom or mid-water gill nets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(5) Pots or traps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(6) Hook and line	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(7) Spear or bow fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(8) Toxins or explosives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If there are other methods commonly used in commercial fishing, please specify:



18. Are there efforts to implement gear modifications or new gears that minimize by-catch of existent fishing methods?

- ☐ No

Rebuilding

19. Are depleted stocks being rebuilt (e.g. by complete closure of the fishery, reducing catch effort, replenishing populations by hatcheries)?

- ☐ No
☐ Some attempts have been made for a few species but remain largely unsuccessful
☐ Attempts have been successful but several stocks remain to be rebuilt
☐ Almost all overexploited stocks have been or are in process of rebuilding

Subsidies

20. Are subsidies provided to support the fishery (subsidies refer to any aid of any source given to the fishery sector to facilitate its sustainability even if the sector is not economically profitable)?

- ☐ No
☐ Only minimally
☐ Large subsidies
☐ Almost completely reliant on subsidies

Could you specify what sorts of subsidies are given to the fishery sector (e.g. hidden subsidies, tax cuts, loans, cheap operating costs, fuel subsidies, etc)?

Recreational and Artisanal fishing

21. Recreational fishing in the area is:

- ☐ Non-existent
☐ Occasional
☐ Frequent
☐ A great deal

If recreational fishing exists to any extent, which of the following apply to it:

	Yes	No
Are recreational fishermen obligated to have a fishing license?	<input type="radio"/>	<input type="radio"/>
Are there regulations to the size of fish caught?	<input type="radio"/>	<input type="radio"/>
Are there regulations to the number of fish caught per boat or per bag?	<input type="radio"/>	<input type="radio"/>
Are there regulations to the number of fishermen that are permitted to fish?	<input type="radio"/>	<input type="radio"/>
Are there statistics being collected for this sort of fishing?	<input type="radio"/>	<input type="radio"/>

22. Artisanal fishing in the area is: (artisanal fishing is defined as the fishing carried out by fishermen from local communities usually using small boats and not very sophisticated fishing equipment. Fish caught is used for their own consumption or for sale in local markets as a small income source)

- ☐ Non-existent
☐ Occasional
☐ Frequent
☐ A great deal

If artisanal fishing exists to any extent, which of the following apply to it:

	Yes	No
Are there regulations to the size of fish caught?	<input type="radio"/>	<input type="radio"/>
Are there regulations to the number of fish caught per boat or per bag?	<input type="radio"/>	<input type="radio"/>
Are there regulations to the number of fishermen that are permitted to fish?	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>



Do you want to be acknowledged in the report?

- ☐ Yes
- ☐ No, I want to remain anonymous

Submit