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Illuminating Hidden Harvests

Questions and answers

From the [Illuminating Hidden Harvests Virtual Dialogue](#) on the Path to the 34th Session of the FAO Committee on Fisheries, Friday 17 July 2020

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About the study

1. When is the study being released?

The team is planning to release the main report for the study in 2021.

2. There are 58 countries participating in the IHH study. But how many countries STILL have to join?

At this stage, we are not intending to add further countries to the study. Countries were selected through a rigorous process that included fish catch, economic and nutrition dependence on inland and marine fisheries and geographic spread. For countries not included, a combination of ‘gap filling’ through best available estimates, and extrapolation through existing case studies, will be employed. Methods will be available to be adopted by further countries and FAO will stand ready to work with other countries as well as with those 58 countries on further improving data collection and analysis methods in support of small-scale fisheries.

3. What countries are included in the study?

58 countries are included in the study.

4. Is this a one-off study or is it planned to repeat it in future? Will the collected data be made available for further research?

This study was a further development of the initial [Hidden Harvest report](#) published by the World Bank, FAO and WorldFish in 2012. At this stage, there are no direct plans to repeat the data collection process. However, we will move forward with countries who request assistance, to help build capacity for improved monitoring and managing of small-scale fisheries, and to advocate for improved co-management of small-scale fisheries.

5. Does IHH collaborate with/build on previous initiatives that have developed methods and estimates of small-scale fishing SSF such as 'Too big to ignore', and the estimates of small-scale fisheries in the 'Global Catch reconstruction' by Pauly & Zeller and team at the University of British Columbia?

The study offers a complementary tool/dataset to both the Too Big To Ignore Information System on Small-Scale Fisheries (ISSF) data system and the Sea Around Us catch reconstructions. It is more quantitative than the ISSF system and operates mostly at a 'national' rather than 'fishery' scale. IHH does not attempt the timeline reconstructions undertaken in the Sea Around Us dataset, but instead presents a snapshot of diverse contributions of SSF, rather than a focus on catch.

6. Does the IHH study consider the economic impact of COVID-19 on the SSF sector?

IHH data collection was largely completed prior to the COVID-19 epidemic. We hope the data and analysis presented in IHH will be useful in comparative studies, but the study will not include data on fishery changes due to COVID-19.

Definition of small-scale fisheries

7. How is 'small-scale' defined in the context of the report?

- *Was the study based on a clear definition of SSF?*
- *What are the parameters to define small-scale fishery?*
- *What is the actual definition of small-scale fishery? According to me it should also take the case of scale of operation. Please clarify. Does this data also take stock of inland fisheries?*

In collating data, the study uses the definitions adopted by each country. However, the study proposes a way to organize the collected information on a range of fishery characteristics in a matrix that can be used to define scale, including e.g. level of mechanisation, size of crews, ownership, marketing etc. This way we can ensure comparability among countries and different analyses undertaken.

8. Could you please clarify if smaller trawl fishery has been included in the definition of small-scale fisheries in any of the countries included in case studies.

Yes, some small trawlers have been included in the IHH database as countries recognized those fisheries and fleets as small-scale.

9. Do you only account for fish or other species? E.g. shrimps

- *Did you include small scale marine mammal hunting in your analysis? It can be very important in some areas, but usually ignored. They are though equivalent to SSF.*

For the purposes of this study, the term fish includes finfish, crustaceans, molluscs, frogs, and any aquatic animal which is harvested (from marine and inland sources) but excludes aquatic plants. So, this approach would include marine mammals, but from what we've seen, people haven't really included marine mammals, but we do see some sea turtles. In

total, more than 200 species have been included.

10. Does the SSF also cover small-scale farmers or not?

No. The study focuses on capture fisheries only.

Data collection and monitoring

11. Do you think that the data used to estimate fish catch/ species caught take into account most small-scale fisheries, or they are underestimations/ overestimations?

The degree to which the statistics cover small-scale fisheries will, unfortunately, vary from country to country. We attempt, through the IHH methods and through training provided to the country teams, to ensure the best possible coverage. It is highly likely that the 'smallest' small-scale fisheries are still underrepresented. These particularly include fisheries that do not involve using a boat. We are also aware that over-estimation is a problem in some countries. The IHH initiative moves us in the right direction towards understanding the contribution of small-scale fisheries to sustainable development but cannot provide all the answers.

12. National statistics in many countries exaggerate fish landings. The subsequent 'adjustment' of these figures may miss the hidden harvest. Should the initial figures be accepted as they may inadvertently adjust for the hidden harvest?

It is indeed plausible that where an apparent overestimate occurs, it may account for 'hidden' components. However, the IHH initiative tries to move away from any form of wholesale assumption. If our country case studies show an overestimate of small-scale fisheries, this is what we will report.

13. Sustained monitoring of SSF dimensions (and large-scale for that matter) is critical, particularly in light of climate change. Yet

funding and human resources dedicated to monitoring are often small or among the first for downsizing or chopping during times of austerity. What efforts will FAO and partners make to advocate for funding for long-term monitoring via climate change finance, for example?

Sustainability remains key to any such action. The reality of small-scale fisheries is that they generally do not, and often will not, return substantial revenues to governments to support monitoring systems. IHH is working with country programs to try to improve the monitoring of SSF. As well as changing the types of data that is collected (e.g. *sex disaggregated data*), the initiative models using other existing data sources in new ways to shine a light on the contribution of fisheries without the need for expensive new systems for data collection. Beyond the data collection phase of IHH, the initiative will continue to work with country teams to develop capacity for monitoring.

14. From the available data set will it be feasible to extract the inter-sectoral interactions of SSF? E.g. with tourism positively for food supply, but often negatively for space on coasts and for nearshore fisheries. Useful for MSP and analysing SSF in socio-economic reporting.

The IHH data includes information about drivers of change in fisheries. Where sectoral interactions are key drivers of change, these will be highlighted. While the study does not collect data on non-fisheries sectors, it will provide new data on fisheries that will form the basis for such comparisons.

15. Is there any data on the number of fishers who have moved into small-scale fishing due to economic reasons?

The IHH data includes a section on drivers of change in fisheries. Where new entrants to the fishery have been identified as a significant driver, this would be picked up. Otherwise, no.



16. How do you plan to evaluate the data quality and ethics in the process of collecting them?

To assure the highest level of quality of data, we developed an iterative process of data screening that resulted in months-long conversations between the IHH technical team and the expert in-country teams about the nature of the data provided. This process allowed us to get to know each other and better understand, at the most detailed level possible, the strengths and limitations of the data they collected and provided to us. To give you a sense of these conversations some of the issues discussed ranged from: what are the units at which data is available to why data was not available. Or what was their own level of confidence on the quality of the data and the overall coverage of the data provided.

Use of Illuminating Hidden Harvests data and results

17. How can you ensure that the data in this study will not be used to undermine SSF in favour of commercialisation? Governments always want to increase their gross domestic product (GDP).

The reality is that we cannot ensure this. However, new information on, for example, the nutrition contribution of SSF, should greatly assist in making the economic arguments for SSF. Similarly, highlighting the sub-national importance of SSF is an approach to moving away from a narrow focus limited to GDP contributions.

18. Are there currently any plans to also assess how accurately and effectively international fisheries management policies reflect the broader importance of SSF, and protect their critical rights of resource access to internationally shared fish stocks? For example, comparing study findings against regional fisheries management organizations (RFMOs) current effectiveness in protecting the rights and needs of small-scale fisheries when making quota decisions that share harvests between small-scale fisheries and industrial fleets?

This is a very important point. It is not included in the scope of IHH to address this specifically, but we would expect that the results can inform a discussion also in relation to the role and rights of SSF in the context of RFMOs. This also relates to the international commitment under SDG 14.b. to provide access for small-scale artisanal fishers to marine resources and markets.

19. These days, facts and data alone does not catalyze change, so what is being done to forge the sort of partnerships which will really drive change?

Agreed. The IHH study works, and will continue to work closely with country teams to understand the pathways to uptake of improved SSF monitoring and ultimately policy change at the level of individual countries. All IHH partners have a continuing interest in seeing this happen, and improved information

is one component of the pathway to achieving change.

Inland fisheries

20. SDG 14 focuses on marine and coastal ecosystems, and the IHH study specifically focuses on SDG 14. SDG 15 is relevant to inland/freshwater ecosystems. How has the IHH study covered inland capture fisheries?

IHH does not have a specific focus on SDG 14, and we agree that the SDGs are deficient in the area of inland fisheries. A strong focus of the initiative is on SDGs 1 and 2, 5, 8 and 10. While 15 brushes on inland waters, it's largely from a biodiversity perspective. This does, of course, intersect with sustainable fisheries management, but the focus of the study is much wider than this.

21. Is the IHH assessment showing relationships between the level of health/condition of inland waters (rivers, floodplain lakes, etc.), and the catch, nutritional value and other indicators of the small-scale inland fishery, including changes over time with changes in environmental conditions (e.g. water quantity and quality, habitat connectivity)?

IHH includes a data protocol that focuses on drivers of change at the country level. Where inland water system health is a substantial driver of change, this may be picked up. However, IHH does not focus on change over time, and does not have separate indicators for health of water systems.

22. Do inland fisheries include lacustrine sources?

IHH uses secondary data only. Where data are available on lake systems within a country, they are certainly covered.

23. I suggest to split compared fisher numbers between inland and marine realms by continent as for example inland and

marine fishers ratio could differ. Updated Thomson tables, for example (Big Numbers Project) showed that there were more inland than marine fishers. Do you think that such data were very preliminary?

The initial Big Numbers Project (Hidden Harvests) has a very limited set of case studies, and we would indeed consider these data 'preliminary' compared to the current study. Inland fisheries include a vast number of part time and occasional fishers, and numbers MAY exceed marine fishers. We are not yet at the point of synthesising these numbers at a global level. It is entirely possible that the current study will reverse the finding and show a greater number of marine fishers.

Catch and effort

24. What is hidden harvest? Is it unreported catch volume or SSF catch that is counted in other categories (LSF/Aqua)?

Hidden harvest is considered as the information on SSF (catch, employment, nutritional value, etc) that is either not included in official statistics and/or not communicated or explicitly accounted for when designing national, regional and global policies.

25. Why is the catch in developed countries three times higher than that in developing countries, when most of these countries are rich in fish?

The preliminary result we presented in the IHH COFI webinar was related to the catch efficiency between developed and developing countries, and not about fish availability. What this preliminary result shows is that developed countries SSF are three times more efficient in catching fish, mostly due to the fact that their fleets are bigger and/or more mechanized, increasing their fishing power.



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26. Have you considered in this study the particularity of small island landing of artisanal fisheries?

Some small island developing countries (SIDS) were included in our database, which we hope will allow us to better understand their particularities.

27. A question on scale in terms of concentrations of effort: Just a few small-scale fishers are not likely to have great impact, but many hundreds or indeed in some cases thousands of small-scale fishers can have adverse local impacts and negative effects on sustainability. How best can we achieve the right balance at the local and regional levels?

Concentration of effort in fisheries, or overcapacity, is a challenge global fisheries face. In this context, it is important to have as much information as possible on fish stock abundance, fishing effort and fleet capacity, as well as social and economic factors, to design and implement management plans in the context of the ecosystem approach to fisheries aimed at reducing overcapacity and achieving sustainable and equitable SSF.

Management

28. What about the internal and informal arrangements for fisheries? Is there any field for we go forward in this issue? Does it interchange with tenure or "tenencia" FAO agenda?

We agree informal arrangements are very important in small-scale fisheries. Management analysis of IHH data will cover informal and formal arrangements but particularly the latter given that the data is much richer there. As for tenure, we asked questions about the distribution and frequency of the different forms of tenure used in SSFs and we certainly expect our results to inform the tenure efforts being conducted at FAO.

29. The fluid changing of our environment and thus the effects on the many different inshore stocks that fluctuate the earnings of coastal communities that leads to many diversifying from one fishery to another based on seasonal fisheries. Can the panel give their views on how management structures will be incorporated into this ever changing area?

We will provide results on what are the most common management schemes being used to govern small-scale fisheries including top-down, co-management of market-based approaches, as well as the level of fisher participation in co-management. Stay tuned!

30. Stock assessment is a key part of sustainable exploitation of large-scale fisheries. Have you looked into how to assess the stocks fished by small-scale fisheries?

We asked countries how often stock assessments are conducted in SSFs and unfortunately not very often. It is an expensive process.

Conservation

31. While aquaculture is a useful approach, conservation of fish and other marine/aquatic fauna and flora is also vital to support small-scale fisheries. Is this aspect a part of any of the presented case studies?

Yes, for instance, one of the thematic studies is looking at the ecosystem impacts of SSF, another is looking at the SSF impacts on vulnerable species.

32. Have you included in the studies the ecosystem approach and impact of SSF on ecosystems compared to other fishery sectors?

Yes, we are looking at the impacts of SSFs on ecosystems, yet the comparison with other fishery sectors is not straightforward.

Gender

33. In gender studies, it is suggested to take into consideration QALY (Quality Adjusted Life Years) and ILL of women fishers to get a better grasp of impediments associated with development. Any comment on this aspect?

This is an excellent idea, but as they say, beyond the scope of our research at the moment. We will add this to the list of data to consider for future SSF work.

34. Will the analysis break down both catch (production) and who buys the fish by gender; i.e. capture SSF women processors?

Where available, the study collects data on processing employment as well as fishing operations. We are hopeful of producing some good sex-disaggregated data on employment in the post-harvest sector, although we will not be able to directly answer your question on 'who buys the fish'.

Culture

35. Does the IHH study consider cultural values to be of any significance to SSF, or it is only dealing with only those aspects with a dollar/ economic value?

Yes, we consider cultural values to be very important in our understanding of SSFs and their contributions to sustainable development. Our report will include these considerations, including the important role of identity as well as indigenous peoples.

Nutrition

36. Will you be taking the results of this significant study to the parties developing the guidelines on nutrition and food systems so that they do more to take fisheries into account in establishing those guidelines?

Yes, we have a number of connections with high-level panels and other significant studies, and will indeed be engaging to make the case for fish! We are also connected with the FAO nutrition team to develop some policy pieces to influence the development of nutrition guidelines among the member states.

37. Are there any insights emerging from IHH on the contribution of dried fish towards this?

For our nutrition studies, we have drawn upon literature on fish consumption and found that dried fish is particularly important for trade and distribution of fish to remote rural populations. In analyzing new data in the African Great Lakes region, we found dried fish to be one of the most common forms of fish consumed, and important in providing quality food to rural populations living far from fisheries.

Social

38. In this study he gave you a social approach, but you used a nutrition indicator. Are there others such as the



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social conditions of artisanal fishermen and in particular women?

The study does consider nutrition to be a 'social' component, but other components include questions about who benefits from small-scale fisheries, values in small-scale fisheries and indigenous fisheries.

Climate change

39. Is there data on what adaptation strategies are mostly done by SSF for manifestations of climate change?

Within the IHH study there is no specific data on climate change adaptation. However, there is a growing body of research on this to inform upscaling and replication and FAO is supporting its members with a climate change adaptation tool box.

General

40. When will FAO officially include hidden catches in global statistics?

IHH will help to better understand how current data collection efforts can be improved and FAO stands ready to work with its members and partners to develop capacity and methods for a better understanding of small-scale fisheries, building on the experiences of IHH.

41. What are the requirements needed to join your team?

The IHH team is already composed as the study is in its final stages, but thank you for your interest. We invite you to [sign up to our IHH newsletter](#) to stay informed.

About the study

Illuminating Hidden Harvests is a collaborative study to assess the contributions, impacts and drivers of small-scale fisheries globally to inform policy-making processes and empower fishing communities with key information. Led by the Food and Agriculture Organization of the United Nations, Duke University and WorldFish, the study due out in 2021 will support implementation of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries and progress toward the Sustainable Development Goals. Funding for the study is provided by the Norwegian Agency for Development Cooperation, Swedish International Development Cooperation Agency, Oak Foundation and CGIAR Trust Fund.

WorldFish - <https://www.worldfishcenter.org/hidden-harvests>

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