

Questions and Answers

LICCI Fisheries online training

Background data

Q: For the fisheries do we have to gather oceanographic data? You seem to have selected the (standardized) climatic variables for land. Do you want to have data for the ocean as well? It's complicated and maybe not so relevant to use the land weather variables.

A: It's not mandatory to collect oceanographic data but would really help if you can obtain them. Particularly, we would be interested in the variables of water temperature, wind speed and currents. In any case, we still want the local weather station data in land as they are relevant for coastal ecosystems. You can collect these secondary data, especially if local people are talking a lot about that (e.g. salinity, temperature of the sea, etc.).

Q: Large scale satellite data could be useful instead of local weather station data? The large-scale/regional data might be useful if some change in the system occurs far from the community (e.g., precipitation on mountains/catchment area km away) but affects them locally (e.g., in the river delta).

A: This satellite data might be relevant for coastal areas (e.g. chlorophyll & temperature maps, etc.) and give a lot of information of changes in the ocean surrounding local areas. However, we are focusing on local perceptions, not on the actual processes that generate the change (which will be explained by this secondary data). We are asking partners to collect local weather station data because they might know better these local weather stations and because we are looking for data close to the community. In any case, if a researcher is interested in analyzing these relations s/he will be able to retrieve this secondary data later on.

Q: I work in a bay in the north and in a bay in the south of Peru, separated by more than 1000 km. But some fishers fishing grounds are across almost all coastal Peru; they fish depending on fishing seasons. When talking to them they will be reporting me changes not from where they live but "the sea" they know about, which is very broad. Should I collect the data available for all coastal Peru? They fish in all the sea and perceive changes accordingly, so it doesn't make sense to have background data only for where they live inland.

A: This is a common situation with marine fisheries, where fishers can travel long distances to reach their various fishing grounds (fishers from some sites may even do long seasonal migrations to reach productive fishing grounds). The first part of the fisheries protocol requires filling a list of all the fishing grounds used by the community, with their specific characteristics, so that changes can be pinpointed to a specific area/habitat.

SSI/FDG:

Q: How many words/pages should the narratives have?

A: As much as you need, a lot of contextual info goes there. In this part, you can explain in detail the relationship of the community with their aquatic ecosystems, the role of fishing on their livelihoods, or any historical events that have shaped/changed the customs of your study site with the aquatic

environment (for instance, introduction of new gears or technology). You can add details about seasonality in target species, or about which groups in the community engage in different kinds of fishing and why, and how many fishers of each kind exist. You should also add here any such details for their food choices and any changes local people recall. If there is published material, please add the references.

Q: Can we include aquaculture and shellfisheries? It's a mixed fisheries system for my region but a shellfish is a lucrative economy for Indigenous and non-Indigenous ...it includes both farmed and wild harvesting...so if there are rules on differentiation for the output manual that would be good to know....

A: Yes, you should include both wild catches and fish/invertebrates coming from aquaculture. But there is no difference in the way you code the data.

Q: Don't we have to collect a timeline?

A: If you collect data for LICCI at the same time as fisheries (most likely), you will collect a timeline and calendar. But for the fisheries part it's not needed, you can include that information in the narrative.

Q: When you talk about the list of "species they know" – do you want any species in the region?

A: The idea of the species section is to know the ecosystem and be able to account for species interaction. If we only talk about fish species they catch we miss part of the information, this is why you should ask them to list all the aquatic species they know.

Q: When you say "estimated income"...is this a cumulative estimate?

A: It's monthly income as estimated by participants. If they are not comfortable giving a specific number, you can ask them to give you a range and then take the mean.

Q: Do you have a suggestion on how to get the approx. percentage of people who target a specific species? Do you refer to all the people living in the village (e.g., if not everybody goes fishing) or the percentage of the fishers? I mean, does the percentage refer to the whole community or among the fishers?

A: The question refers to the percentage of fishers. From the narrative, you know the approximate number of fishers in a village and then you ask which of those target the species approximately.

Q: Can you elaborate on the % catch for own consumption and sale? How are we estimating the % catch?

A: We will use the 'pebble distribution method' (Colfer et al. 1999; Lynam et al. 2007), in which study participants are asked to distribute a given number of points ('pebbles') across different items based on their relevance for a given purpose. In this case, we use the pebble game to get an approximation of how relevant are some fish species are to their catch and to their diet. We ask them about relative importance, not the percentage *per se*.

Q: When do we do the pebble game? Is it compulsory and how many should we do?

A: In the fisheries protocol we use the pebble game during SSI. The ideal is to run 25 pebble games but not necessarily with the same people answering SSI (if they become long). More clarification about the pebble game can be found in the Fisheries and Master Manuals, and on the materials section of the website.

Q: What is the scale of fisheries management? Do you also consider individual fishing management such as how people share their catches between participants or just overall management of the system?

A: Management at the fishing ground scale. It refers to whether this is managed as open access or if there are rules and regulations regarding access, allowed gears, or amount of catches.

Q: Is there room for assessing the existence and the causes of conflicts? For example, due to resources decline exacerbated by climate change and/or industrial fisheries, changes in sea tenure, etc. Or conflict and other topics will be inferred from their answers?

A: Increasing conflicts are one of the identified LICCI. These topics can be discussed during the FGDs, as they also should cover the adaptations (LACCI) regarding the aquatic environment. Of course, any researcher is welcome to pursue any topic of relevance in her/his particular site.

Q: Is there a place to document Indigenous names for species or is that needed for your data set?

A: Yes, in the species list we ask for both for the local name and scientific name.

Q: Are El Niño phenomena changes in LICCI tree?

A: Right now we have only “Changes in storms” or “Changes in winds” or “Changes in currents”, but new LICCI can be created as we were not exhaustive with the aquatic environment LICCI when developing the LICCI classification tree. Remember, however, that LICCI should come from what respondent’s say based on their local knowledge, in this sense “El Niño” might be a scientific term and not a local perception.

Ethics/Publications:

Q: I'll need the questions for my ethics addendum. Should we circulate it with you to confirm alignment?

A: You normally can submit the data collection protocols we provide to your ethics board, with the list of topics to be covered and data collected, and not necessarily the questions (which might change a bit as they are translated and locally adapted). We do not need to see your ethics submission, but feel free to ask us any question you might have.

Q: If I want to become a LICCI Fisheries collaborator, do I need to have an IRB/ethical clearance?

A: We recommend that you obtain your own ethical clearance and authorizations for conducting fieldwork at all relevant levels. From our side, what we need is that you sign the LICCI collaborator agreement where you commit to conduct research ethically, acquire all necessary permits, and protect the data and identity of participants.

Data collection tools:

Q: I was wondering if there is a form for the semi-structured interviews and focus groups that we can just adapt, print and take to the field.

A: You can take the [Fisheries Manual and LICCI Manual](#) to the field, in there you have some output tables you can use.

Q: Where do I send the fisheries data?

A: You can use any media to collect data: notebooks, tables etc. But the data has to be handed in through the App (species lists, LICCI, LACCI, pebble game etc.) and Project Send (GPS, weather data, FPIC forms and Narratives).