Mapping Activity for Fishery Characterization Guide

Beta version – May 2018

Background

The Fishery Characterization Guide helps stakeholders gather contextual information important for developing knowledge of a fishery. This mapping activity is designed to support data collection for the Fishery Characterization Guide by visually representing responses to the spatial questions raised in the Guide, focusing on the distribution of target species, habitats, fishing activities and infrastructure—these questions are marked in green in the Guide.

The activity will produce a total of three map layers—one of species distributions and habitats, one of fishing grounds/areas and communities and one of infrastructure related to the fishing industry.

To download the Fishery Characterization Guide, visit the Sustainable Fisheries Toolkit website.

Time

60-90 minutes

Conducting the activity

This exercise should be conducted during a participatory workshop or stakeholder meeting. The primary audience is fishermen, but it may be valuable to include fish buyers, processors, enforcement officers or other community members in mapping activities to capture diverse perspectives. The exercise should include representation from all communities using the site, not just a subset. If the group is small, everyone can work together to place features on the maps. If the group is large, it may be helpful to break into smaller groups or work individually and then come together to compare maps.

To verify the outcomes of this exercise, it may be helpful to crosscheck habitat locations, infrastructure and other results with other sources—maps, habitat assessments, visual confirmations, etc.

Additional guidance

- Map layers may be drawn on a single map or on multiple maps if it becomes too crowded.
- You can use a variety of colors and textures to display various types of features on these maps. While the exact colors you use can vary, be sure to include a legend with each map and label features clearly.
- It is helpful to have a note-taker to document details during the discussion (e.g., seasonal movement of species).

Materials

- Chalkboard, whiteboard or easel pad
- Large base map of the site (showing both water and land). One is sufficient, with clear labelling, but may become crowded, so use of multiple maps to distinguish amongst elements may be helpful. Multiple copies may also be helpful for large numbers of participants so they can complete the activity in smaller groups. The basemap should cover the community of interest and surrounding areas, with sufficient resolution to identify ports, communities, fishing areas, etc. Google Earth/Google Maps may be a good resource for base maps if published maps, charts or GIS layers are unavailable.
- Colored pencils or markers
- Spare paper
- Tape for hanging or holding down maps
- Large table
- Notepad and pen for moderator
    - Printed facilitation guide (below), which may be customized prior to the activity

Figure 1: Fishermen collaborate during a participatory mapping activity and use different colors to mark key features in their fishery.

FACILITATION GUIDE

Section	Steps	Outcomes
1. Welcome to Session and Overview	**Read prompt**: In this activity, we will work together to map where certain species are found, what habitats they depend on, where you and other members of your community fish, and where certain types of fishing infrastructure are located.	If working as a group, show the map and make sure all participants are oriented to the map. If working individually or in groups, hand out basemaps to each participant or group of participants. Distribute colored pencils.
2. Layer 1: Fish and Habitats	**Read question**: What species do you or other fishermen in this community fish for?	*List the species along the side of the chalkboard or easel pad. Assign each species a color.*
	Read questions: Where do you typically find each of these species in this area? Are they found in different places in different seasons?	*Mark the areas where each species is generally located in the color assigned to that species. If presence of species or distributions are seasonal, note what season the mapped areas represent.*
	Read questions: What habitat types exist in the area? For example, coral reefs, seagrass beds, lagoons, deep water, etc.	*Next to each species listed on the chalkboard, indicate what habitats it prefers. Assign a pattern to each habitat type (for example, dots, X's, or diagonal lines).*
	Read question: Where are these habitats located?	M*ark the areas where each habitat is generally located in the pattern assigned to that habitat.*

	Read questions: Are there any areas where a species tends to aggregate together during particular parts of the year? Do they breed in particular areas, or do juveniles tend to be found in particular places?	*Circle or outline these areas on the map and note what species aggregate there and when aggregations occur.*
3. Layer 2: Fishing Grounds and Communities	**Read questions**: Where do you and other fishermen fish? Do fishing locations change over the course of a year?	*Outline fishing areas. If fishing locations are seasonal, use different colors to indicate fishing groups in each season.*
	Read questions: Where do most fishermen live? Are there fishing camps or other communities near the fishing areas that you stay in while fishing?	*Mark these communities on the map in a new color.*
	Read questions: Do any fishermen who use these fishing areas come from outside this community just to fish? Where do they come from?	*Mark where migratory fishermen come from on the map in a new color.*
	Read questions: Are any parts of the fishing areas associated with particular groups of fishermen? Do some fishermen fish only in certain areas?	*If there are spatial groupings of fishermen, mark their fishing grounds in different patterns and indicate who fishes there.*
4. Layer 3: Infrastructure	**Read questions**: Where do you land your catch? Where do you keep your vessel when you aren't fishing? Are there other ports you have access to?	*Mark the location of ports or landing locations.*

	Read question: If your catch is processed locally, where does processing occur?	*If processing plants are located within the region, mark their location on the map in a second color.*
	Read questions: Do you sell your catch in local markets? Where are these markets located?	*Mark the location of local markets in a third color.*
	Read questions: What other infrastructure or services do you use when fishing—for example, where do you get your ice and fuel? Are there guardhouses, buoys, or other navigation or enforcement infrastructure you use?	*Mark the locations of these types of infrastructure. Use a different color for each type.*
	Read question: Where are offices of relevant government or management bodies?	*Mark the locations of government or management offices.*
	Read question: Where does the community hold meetings?	*Mark meeting spaces in a new color.*
5. Wrap up and debrief	**Read questions**: Is there anything else that should be added to these maps? Do most participants agree on the locations of species, habitats, fishing grounds, and infrastructure?	*Make any final additions on the map. If participants worked in smaller groups, quickly compare the maps and discuss any major differences between them.*