Distant water info

Things to include:

* Explanation of connectivity map
* Data sources and links

## Identify distant water fishing vessels

Since the purpose of this analysis relates to distant water fishing effort, we need to separate out fishing effort considered to be "distant water" from the rest. This is done in a series of steps.

In the first step, the following is not considered to be "distant water fishing" and is therefore removed:

- All fishing effort occurring on the high seas;

- All fishing effort occurring in an EEZ when the flag state of the vessel is the same as the administering state of the EEZ in which it is fishing.

Additionally, we remove all entries in which a vessel has spent less than 1 hour fishing in a given EEZ in a year.

## Determine the sovereign states of each flag state

In order to further parse out distant water fishing effort, we will need to take sovereignty into consideration. GFW has done a lot of this work for us, therefore we use the sovereign states assigned to each eez iso3 for flag states as well. Let's create a table matching all of these up.

We then assign these names to the flag states of vessels, as well as to the EEZ states and sovereigns in the GFW database by matching ISO-3 character codes of each entity.

## European Union vessels

Vessels flagged to EU member states have the right to fish in the EEZs of other EU member states, therefore we do not include these instances as "distant water fishing". In order to remove these from our dataset, we first need create a list of EU member states, as well as non-member states with with the EU has fishing agreements as part of the northern agreement (i.e. Norway and Iceland).

We define "intra-EU fishing" as fishing activity that meets one of the following criteria:

1. The flag state of the vessel is a member state of the EU, Norway, Svalbard and Jan Mayen, or Iceland and the EEZ in which it is fishing is administered by a member state of the EU, Norway, Svalbard and Jan Mayen, or Iceland (e.g. a French-flagged vessel fishing in the EEZ of Spain);

2. The sovereign of the vessel's flag state is a member state of the EU, Norway, Svalbard and Jan Mayen, or Iceland and the EEZ in which it is fishing is administered by a member state of the EU, Norway, Svalbard and Jan Mayen, or Iceland (e.g. a XXX-flagged vessel fishing in the EEZ of Spain).

We do not consider the following to be "intra-EU fishing":

1. The flag state of the vessel is a member state of the EU, Norway, Svalbard and Jan Mayen, or Iceland and the EEZ in which it is fishing belongs to a territory or distant region of an EU member state (e.g. a French-flagged vessel fishing in the EEZ of French Polynesia).

For the purposes of this analysis, we do not consider "intra-EU fishing" to be distant-water fishing and it is therefore removed.

## Dealing with sovereignty

If the sovereign flag state of a vessel is the same as the sovereign state of the EEZ in which it's fishing, this connection may still be considered to be distant water fishing (e.g. US vessel fishing in Palmyra Atoll), though this is generally not considered to be foreign distant water fishing. Let's add a field identifying effort in which this is the case. Though we aren't making any distinctions between foreign distant water fishing and distant water fishing right now, it might be helpful later on to have this distinction available.

We describe "sovereign fishing" as fishing activity that meets one of the following criteria:

1. The flag state of the vessel is the same as the sovereign of the administering territory of the EEZ in which it is fishing (e.g. a US flagged vessel fishing in the EEZ of Palmyra Atoll).

2. The sovereign of the flag state of the vessel is the same as the sovereign of the administering territory of the EEZ in which it is fishing (e.g. a Puerto-Rican flagged vessel fishing in the EEZ of Palmyra Atoll);

There are some cases in which there may be connections that are not foreign and that because of their particular situation should not be considered distant water. An example of this are disputed and joint regime EEZ. These are listed and removed here:

For the purposes of this analysis, we include both "sovereign distant water fishing" and "foreign distant water fishing" as distant water fishing.