**Action 3. Characterize fishing grounds**

**Task 1 - Design methods/tools to map fishing grounds.**

Currently, there are four spatial trackers deployed by Netra on the main fishing vessels. The Netra dashboard can also be accessed on this website: <https://360.netra.co.id/>. The four spatial trackers currently in use have different specifications in capturing coordinate points:

**VMS - SLL 1:** Installed on the main vessel and equipped with a support device, the SOS Button. This device operates on a battery and records data every 30 minutes. Mapping results using the VMS - SLL 1 device can be viewed in the following [image](https://drive.google.com/drive/u/1/folders/1DVTmt9zcg49zD2badZerujg75MeaUevL).

**VMS - SLL 2:** Installed on a small sampan used by fishermen for octopus fishing. This device is typically used for one-day fishing. At night, when the fishermen are on land, the device is brought ashore to recharge its battery. The device records coordinate data every 15 minutes. Mapping results using the VMS - SLL 2 device can be viewed in the following [image.](https://drive.google.com/drive/u/1/folders/1DVTmt9zcg49zD2badZerujg75MeaUevL)

**VMS - SLL 3:** Permanently installed on the main vessel and powered by solar energy. This device records data every 60 minutes. Mapping results using the VMS - SLL 3 devices can be viewed in the following [image](https://drive.google.com/drive/u/1/folders/1DVTmt9zcg49zD2badZerujg75MeaUevL).

**VMS - SLL 4**: Installed on a small sampan used by fishermen for octopus fishing. This device is typically used for one-day fishing. At night, when the fishermen are on land, the device is brought ashore to recharge its battery. The device records coordinate data every 5 minutes. The main difference with this device is that it uses GPS and can only be used in areas with a signal. Mapping results using the VMS - SLL 4 devices can be viewed in the following [image](https://drive.google.com/drive/u/1/folders/1DVTmt9zcg49zD2badZerujg75MeaUevL).

In the map displayed for each device, there is the following information:

1. Points with Different Colors: Representing the month of capture. If there are two points with different colors, it indicates that there are data points for two different months recorded using that device.
2. Blue Color for Capture Location Depth: The blue color indicates the depth of the capture location. It can be observed that the device is positioned at a depth not exceeding 100 meters.
3. Installation Location Information on the Vessel: The map also displays on which vessel the device is installed.
4. Coordinate data can also be extracted from the dashboard, as seen in this [link](https://docs.google.com/spreadsheets/d/1wGxJ-HpzDVMf9IjO-4_GpxtcXphW-MUTIoY--t87e9g/edit#gid=663047018).



