“Most of the world is covered by water. A fisherman’s job is simple: Pick out the best parts.”

This is a quote from Charles Waterman in his perspective to fishing. However, are we getting more of the “best parts” and not caring to replenish it?

The compilation of news clippings earlier is related to various illegal fishing apprehensions during the past months in this year. Most of these methods harm the natural environment of fishes, which depletes their supply of food along with their population. This can go on to affecting the waters where fishes live and the exhaustion of the jobs of fishermen as there is little or no more fish that can be found in their usual fishing spots.

According to Conserve Energy Future’s website, the practice of illegal fishing are ones that contravenes the fishing acts in a territory. In the Philippines, the Philippine Fisheries Code or Republic Act 10654 is the reference for the do’s and don’ts of fishing.

As for the don’ts, there are many methods that are destructive to the sea. The most destructive is bottom trawling, where all aquatic life in the trawled area is caught and the surrounding seafloor is devastated.

In a recent report by the World Wide Fund for Nature, it has been stated that 40% of caught aquatic animals in the sea are bycatch and most of them are immature. Unfortunately, bycatch fishes are mostly injured or dead when returned back to the sea. The loss of fishing equipment in the sea also causes ghost fishing, where fish and other animals may get caught and then suffocate or die.

Using of poison such as cyanide, dynamite explosives, and the practice of muro-ami is prevalent in our country and other neighboring nations in Southeast Asia, making it a destructive practice as it destroys reefs by which fish live and reproduce. In addition to this, the destruction of reefs makes the sea dry and this doesn’t allow biodiversity in the area. This event is tantamount to losing a big part of the economy and biodiversity in the Philippines.

One of the causes that result to illegal fishing is the lack of surveillance of the authorities. As the situation in the water is different from the land, it is much harder to catch those who practice illegal fishing. Even with strict implementations in the fishing code, it is still hard to get a grip on powerful vessels if the authorities are not reminded much earlier. The situation is now dire right now due to our feud with the Chinese in the naval territory.

We are Team Maharlika and we are here to prepare something that would greatly enhance the protection of the sea by bringing out the new sentries of the blue – Buoyani.

The portmanteau word came from two words, “buoy” and “bayani”. Buoyani, as we envision it, will become a powerful sentry that will defend the waters from illegal fishing.

The Buoyani is a buoy that focuses on monitoring municipal waters with low-cost and efficient materials that can easily relay information to the authorities in the nearest area where the buoy is located.

Its objectives are:

- To develop a buoy with a system that deliver accurate and precise data from different detection and ranging sensors to a systematic database.

- To assist the authorities by providing real time information coming from incoming fishing vessels around the buoy’s range of detection.

- To provide surveillance for the said fishing vessels by equipping hidden cameras to the buoy.

- To track fishing vessels around the buoy's range of detection using real time kinematic global positioning system (GPS).

Buoyani has multiple features that will make it effective in many situations, especially in tracking down illegal fishing in the municipal waters in the country.

With quality detection and ranging sensors, water quality sensors, real time surveillance system, and an embedded renewable power source. Team Maharlika is sure that Buoyani can be revolutionary in finding a low-cost unmanned surveillance system in the sea.

Buoyani’s capabilities can also be amped up if it can be mass produced, since it will create a network of Buoyanis that will guard the sea in different locations.

The status of fishing in the Philippines may seem to be under-appreciated and underrated. Because of this, technologies in conserving the municipal waters in the Philippines may be a bit low. With Team Maharlika and the introduction of the Buoyani, we guarantee that the sea is safer when Buoyani guards on the water!