Ocean Innovation Challenge

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Second cohort of UNDP Ocean Innovators on

TARGET 14·B SUPPORT SMALL SCALE FISHERS

TARGET 14·7 INCREASE THE ECONOMIC BENEFITS FROM SUSTAINABLE USE OF MARINE RESOURCES

TARGET 14·4 SUSTAINABLE FISHING

# Combatting Fisheries Bycatch of Endangered Marine Species: A Pilot Project to test Bycatch Reduction Technologies in the Ecuadorian Gillnet Fishing Fleets by SafetyNet Technologies



Fisheries bycatch is one of the most important marine resource issues affecting Ecuador. A large number of species - including potentially endangered species - are unintentionally caught in a range of fishing gears. There is a need for effective and scalable solutions to reduce bycatch and support livelihoods in artisanal fishing communities. This project will test the effectiveness of Bycatch Reduction Technologies (BRT) in the Ecuadorian gillnet fishery in Santa Rosa, Ecuador. The proposed project will use a three-pronged approach, combining community workshops, human-centered design, and scientific trials of LED light devices to reduce turtle bycatch. This will be underpinned by a sustainable business model that offers financial value to participating fishing crews through additional export and domestic market access, made available by the Ecuadorian Government's Action program.

The project started on July 2022 and is planned to be completed by end of May 2024.

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| **Current status and achievements** | • The project started communication with the government and Navy to get the required permits to conduct the trial to install the LED lights during the Turtle migration season.<br>• The project team also developed a website and started posting blogs on the project activities. |
| **Target outputs and outcomes by end of project** | • Conduct a series of workshops with all concerned stakeholders to share knowledge on the use of Bycatch Reduction Technologies and impact of fishing on megafauna in Manta and Santa Rosa<br>• Light trials show the efficacy of Pisces and Centro lights in deterring turtles and other megafauna from gillnet catch.<br>• Analysis of the response to light devices to show their effectiveness in bycatch mitigation<br>• Understanding of the usability of the devices in the Ecuadorian context<br>• Develop a business plan and implementation of using the light devices in bycatch reduction |

The project will create an innovative, results-based, underlying business model to implement Bycatch Reduction Technologies into the small-scale fisheries ecosystem. Engaging with local stakeholders from all communities (fishing, government, tourism, science, the public) will identify sustainable incentives that will reward fishermen's participation in reducing bycatch in gillnet and longline fisheries, which will greatly increase the chance of continued using these technologies post OIC project. Country-wide implementation would take place incrementally by

targeting the ports with the highest bycatch rates first, and gradually by those with lower bycatch rates based on lessons learned from initial rollouts. Implementation in a certain percentage of each fleet could take place per year until eventually the target number of vessels was outfitted. Bycatch Reduction Technology use by fishermen could be monitored per year through the yearly renewal of fishing licenses throughout the country.