

NAME: JUDE EFETOBOR

AGE: 22

GENDER: MALE

**SCHOOL: FEDERAL COLLEGE OF FISHERIES & MARINE TECHNOLOGY, VICTORIA ISLAND
LAGOS**

CITY: VICTORIA ISLAND, LAGOS STATE

COUNTRY: NIGERIA

THE OCEAN: LIFE AND LIVELIHOODS

The oceans provide something different for each individual. Research suggests that the oceans are associated with better physical and mental health. This includes increasing levels of physical activity, reducing stress, and improving overall health and well-being.

17% percent of all animal protein consumed worldwide comes from fish and seafood is a primary source of protein for over 3 billion people. Unfortunately, hotter and more acidic oceans are putting biodiversity at risk, with 1/3 of existing corals and more than a third of all marine mammals in danger of extinction.

The ocean helps sustain all life on Earth and is critical to the global fight against climate change. For decades, the world's ocean has literally been "taking the heat" for climate change, absorbing over 90% of the extra heat and nearly 1/3 of the pollution from greenhouse gas emissions.

Ocean-based tourism and recreation contribute to the livelihood of many countries economy each year. These industries depend on a healthy ocean, clean beaches, and abundant fish and wildlife.

New research links carbon emissions from the major oil and gas producers to dangerous changes in the oceans' chemistry

A change is brewing in our world's oceans: waters are warming and becoming more acidic. The long-term effects of these changes could be ruinous for marine life worldwide, and for the people who depend on it for their food and income. The effects of warming and acidification among other climate-related impacts on our oceans are already being felt in some regions, as fish populations migrate, and corals die en masse.

Acidification and its Consequences

While some emissions from burning fossil fuels are taken up by trees and other vegetation on land, much of the emissions linger in the atmosphere, contributing to the blanketing “greenhouse” effect that warms the earth. The world’s oceans absorb the rest, which nudges its chemistry along the pH scale from basic toward acidic. Surface waters are now nearly 30 percent more acidic than they were in 1850. And ocean acidification is happening at a faster rate today than at any point in the last 66 million years. Projections show that if we do not reduce our carbon emissions, ocean surface waters could be more than twice as acidic in 2100 as they were in 2000.

Increased acidification is harmful to marine life. As carbon dioxide dissolves into the ocean, chemical reactions deprive marine organisms such as crabs and corals of the carbonate ions they need to build their protective shells. From large-scale fishing operations to individual subsistence fishers, ocean warming and acidification also pose an existential threat to the millions of people worldwide who depend on healthy oceans for their survival.

Cutting Emissions Is Imperative

The solution to ocean acidification is also the solution to global warming and sea-level rise, drastic, widespread cuts to carbon emissions is imperative