

AN OCEAN FREE OF PLASTIC

The World's Ocean and Plastic Debris

Preamble:

“Water, water, water everywhere
Yes from nature it was full and free
Water was not meant for a dumping ground but to sustain life
Industrial development and human production
The indiscriminate disposal of plastic waste on land, sewages and bays
Have rendered the oceans unusable”
Excerpt from The 3 Bs of Life by Asuquo, Francis (2018)

Every home, office and eateries have countless products made of plastics. The production of plastics is ever increasing with developed nations like United States of America, United Kingdom, Australia and China taking the lead in producing millions of plastics (like china at 1.32 to 3.52 million tons, U.S.A with 30 million tons, Nigeria with 2.5 million tons) annually. Presently primary, secondary, micro plastics congest our ocean, the latter serving as ‘deadly meal, food’ for marine life.



Plastics debris in fish gut

Plastics in Nigerian ocean environment

In Nigeria, West Africa, a recent study revealed the abundance of plastic along the Atlantic Ocean coastline of Ibeno, Akwa Ibom State, southern Nigeria. This has resulted in polluting the water, beach as well as the environment of the ocean thereby making it inconvenient for recreational and tourism activities on the beach with decline in internal

generated revenue for the local community and council. Plastics on Ibeno Beach, Nigeria (Courtesy of MACORN, 2018)

National Reference to Atlantic Ocean coastline of Ibeno, Akwa Ibom State

Location: Nigeria, 9.0820° N, 8.6753° E

State: Akwa Ibom State 4.9300° N, 7.8722° E

G.P.S. Cordinates of Ibeno Ocean 4.5421°N, 8,0087°E

Nature of Plastics and Source:



Threat and Dangers from plastics

The silent ocean is shedding mermaid tears as plastic poison has undeniably been instilled by us. Plastics debris and waste in our oceans are disastrous for marine animals, marine birds and humans. Plastics are often ingested by marine fish and caused entanglement for marine mammals.

When plastics ingestion occurs, it blocks the digestive tract, gets lodged in animals windpipes cutting airflow causing suffocation, resulting in malnutrition, starvation and potentially death.



Picture showing dead of marine

mammal as plastics ingest digestive tract.



Entanglement of marine mammals by plastic rubber

Plastic in the oceans are a major obstacle for transportation, poor delivery of goods, and recreational activities such as swimming. This has become a problem for students and researchers in the marine disciplines during investigation and sampling as a result of high buoyancy discharged of plastics into oceans.



Plastics hindering marine transportation and swimming activities

Human Health Impacts:

The contaminant that plastic absorbs includes polychlorinated biphenyls (PCBs) and dichlorodiphenyltrichloroethane (DDT). DDT and PCBs are persistence organic pollutant (POPs) that accumulate and pass from one species of organism to next along the food chain. Study reveals that POPs has health effects on human such as neurologic, reproduction and immunologic adverse effects because of microplastics and nurdles easily ingested by species. This affects human during consumption of species contaminated by POPs.

Measures to Control and Eradicate plastics Debris:

Formation of Clean Ocean Youth Watch Organization (COYWO)

With the present state of the ocean and its coastlines, creation of COYWO is inevitable to serve as a watch dog in every coastal community worldwide. Initiation of clean beach programmes such as weekly mopping up of plastics along beaches could be a reasonable exercise.

Public Enlightenment

The use of social, electronic and print media is a veritable means of information dissemination. An impactful vehicle for creating awareness is the use of Jingles and drama in kindergartens and preprimary schools to inculcate in children the dangers of indiscriminate disposal of plastic and authentic ways of plastic disposal.

Recycling and Zero Waste concepts: A promising way towards a future of better plastics free ocean is recycling. Recycling is definitely a potentially great path to solving this issue.

Enforcement of Laws and Orders: Enforcement of the conservation of the world's ocean through international legislation, such as the establishment of the 1972 convention on the prevention of marine pollution by dumping wastes and plastics matter into the ocean. Also re-enforcement of 1988 Annex V of MARPOL law with intention of banning the dumping of plastic materials and garbage from ships.

Life Scenario

Living near a coastal environment, precisely qua iboe river, Akwa Ibom State, Nigeria. My grandfather protected and preserved the river behind his house, he made routine of cleaning that very area each day because of a saying "cleanliness is next to Godliness". From that, he views the water body as his source of natural food, as he sails with his canoe every weekend for fishing. People go there for visit each time they come home and that place serve as a tourist site because of the recreational activities at the river, and the bank.

A day came when my grandpa went out, a tourist came there for sight-seeing; having heard lots about the site. He relaxed, toured round and threw the packs, and plastic bottle at the shore. Not quite long, granny came back and inquired of the dirt and acted very fast to remove the plastic from the river and informed the visitor of the effect of plastics to aquatic organisms and polluting the water itself, and he showed him a notice that was written in bold **"DO NOT DROP ANYTHING NEAR THE SHORE OR INSIDE THE RIVER"**.

From this story, right from the time of our forefathers, they made their little efforts to keeping the coastal environment clean starting from their streams and rivers because the knew that our ocean is our heritage.



“OUR OCEAN OUR PRIDE, OUR OCEAN OUR HERITAGE, OUR OCEAN OUR DIGNITY OUR GIFT FROM NATURE”

TEAM WORK

**FROM INSTITUTE OF OCEANOGRAPHY STUDENTS
UNIVERSITY OF CALABAR, CALABAR**

Below are the detail of each participant

AKPAN, PRECIOUS ETUK

22

NIGERIAN

38 ATAMUNU, MOUNT ZION ROAD, CALABAR SOUTH, CROSS RIVER STATE

preciousakpan548@gmail.com

AYI, EKPENYONG EMMANUEL

22

NIGERIAN

4, EKPENYONG EKPENYONG, CALABAR SOUTH, CROSS RIVER STATE

ekpenyongsmith92@gmail.com

OKON, AKANEKONG EDEM

24

NIGERIAN

8 OKON INOK STREET OFF EDIBIA MARIAN ROAD, CALABAR MUNICIPALITY, CROSS RIVER STATE.

victor2gud4u@yahoo.com

MARTINS, MFON OKON

21

48 ABUA STREET, CALABAR SOUTH, CALABAR, CROSS RIVER STATE, NIGERIA

martinmfon3@gmail.com