

Free senegal: marine pollution argumentative essay example

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Introduction

Senegal is a western African country located 14 degree north of the equator and 17 degree west of the meridian. Senegal owes its name to the Senegal River flowing across the east and north borders of the country. The capital of the country is Dakar. As it was a French colony for a long time the official language of the country is French. Apart from that Wolof, Fula and Serer are the most spoken languages in the country. Senegal has a population of around 12 million. The GDP of the country is \$26 billion with a per capita income of \$2026 (CIA, 2013). The official currency of the country is CFA Franc. Senegal got its independence from France in 1960. Senegal is not as mineral rich as some of the other African nations like South Africa, Zimbabwe or Nigeria. However, Senegal has some gold mines towards the eastern side of the country and Senegalese coastline is a great place for fishing which contributes significantly to the GDP of the country. Apart from fishing, Senegal is home to an array of industries like food processing, mining, cement, chemicals, textiles, fertilizers, petroleum and tourism. Senegal exports fish, chemicals, fabrics, groundnuts and calcium phosphate (CIA, 2013). However, Senegal had long been used as the dumping ground for developed countries for a long period of time due to lack of awareness and proper law and order and as a result the country is facing huge problem in terms of environmental pollution. Especially the marine pollution has gone out of proportion in Senegal. This essay will discuss upon different origins of the marine pollution in Senegal, its effects and the remediation plans for the same.

Origin of Different types of Marine Pollutants

There are different types of sources contributing to the marine water pollution in Senegal. Along the 700 kilometers of Atlantic coastline of Senegal, large quantities of toxins are dumped everyday on the beaches and in the sea water. People use the ocean as the dumping place of waste. The marine lives as well as the people living by the sea are in deep trouble due to the following occurrences:

Oil Spill

Every year almost 90 million metric tons of crude oil passes through the narrow strait between the main coastline of Senegal and Cape Verde islands. Often this crude oil is carried in containers and shipping vessels that do not follow the global standards and resultantly, oil spill takes place almost every day (Sakho, 1999). Millions of metric tons of oil spill are over polluting the whole sea shoreline.

Batteries

Batteries are another source of contamination. In the past and even today many developed countries dump their old cars or car parts in Senegal after the useful life of the vehicles. Especially batteries are sent to Senegal for the dumping and recycling purpose. Some of the batteries are treated in proper battery treatment plants but most of the batteries are set on fire in open air in the sea beaches to collect the lead inside the batteries which is then sold back to other countries (Diao, 2012). However, due to burning the batteries in open air some part of the lead percolates the soil and eventually contaminates the water. Thus both groundwater as well as surface water

gets contaminated with highly hazardous lead. The open air burning of the battery cells also causes the lead percentage in the air to go up.

Chemical Industries

Chemical industries are one of the big causes of pollution in Senegal. Almost the entire industrial sector in Senegal is operated by the sea route. Among them 80%-85% of the total industrial sector is in Dakar. Industries like textile, oil refining and chemical factories are the most common form of industries. As Senegal is a developing country and the laws are not well defined and regulated for environmental practices, industries take full advantage of that lack. Most of the industries dump their industrial waste directly into the sea, river or the canal nearest to their plants. According to the Senegalese Association for the Protection of Resources and Marine Environment (ASPROM), every month almost 4, 164 cubic meters of oil and grease, 115 cubic meters of phosphate, 25. 3 cubic meters of nitrogen and 4. 6 cubic meters of phenols are dumped onto the sea (Oceanium Dakar).

Untreated Human Sewage

Human sewage in the marine water is one of the main problems in Senegal. Every day more than 35, 000 cubic meters of untreated sewage is dumped onto the sea. The main untreated sewage comes from Dakar and the neighboring places. Dakar had a small population till the end of 1980s but after that due to the mass exodus from rural areas to Dakar, its population has increased manifold. From a small population of 87, 000 in 1989 the current population of Dakar exceeds more than 2. 5 million (Oceanium Dakar). Dakar city council was not able to handle this population explosion

with the planning for the city and the overall infrastructure being very weak. Many people staying by the side of a canal, which was earlier used to drain rainwater, use it now for direct sewage disposal. In fact the whole city sewage system is unable to handle the volume and the treatment facility for sewage is almost absent. This is not helping the cause as the amount of sewage is on a rise and the pollution level of the sea water is becoming dangerously high.

Agricultural Fertilizers

Poor Fishing Practices

Poor fishing practices often are not seen as a cause for pollutants. But if we take a deep dive into the practices then we will be able to establish that it is also causing problem in the ocean water. Senegal coastline is very rich with nutrients and this makes it an ideal habitat for fishes. Because of this reason, Senegal coastline is one of the favorite fishing grounds for many countries. Senegal has contract with many foreign counties for fishing in Senegalese water. However, due to the lack of laws and their proper enforcement, fishers often employ illegal and destructive fishing practices to catch large quantities of fishes easily. The use of techniques like dynamite, beach seining and bottom trawling are used (Oceanium Dakar). These methods not only increase the amount of unwanted chemicals in the ocean water but also change the ocean bed and beach landscape creating a huge change in ecology for the marine life to get adjusted to.

Effects of Contaminants

Hann Bay in Dakar was one of the best white sandy beaches in the world.

Hann Bay was often compared with Copacabana beach in Brazil for its beautiful white sands and lovely long beaches. This comparison is now a thing of past. Hann bay is not considered now as one of the most polluted beaches in the world (WADR, 2012). There are various reasons contributing to the contamination of marine water as has been discussed in the previous section. There are various effects of contaminants in the ocean water.

Pollutants are of many types and they leave different effects on marine lives as well as on people living by the ocean. Below are discussed some of the effects of marine pollution:

Decrease in Fishing

Turtle Population

Senegal coastline and beaches are home to some of the most beautiful marine turtles in the world. Turtle types like Green Turtle, Hawksbill Turtle, Loggerhead Turtle and Olive Ridley Turtle are only seen in this area (Dupuy, 1986). Turtle eggs, Green Turtle flesh and turtle shells are hunted by the locals and the fishermen. This is causing a huge drop in the population of sea turtles in Senegal. Furthermore, as almost all the sea turtles lay eggs on sea beaches, they are affected by the chemical pollution of the beaches. Due to most of the turtles laying egg in Saloum Delta and Hann Bay, these two are the most polluted areas in whole of Senegal. The beaches are full of chemical waste and the level of mercury and lead in the water is very high. This is causing a reproduction problem for the turtles as many do not prefer

Cape Verde for laying eggs or even further north of Senegal and come to the polluted Senegal shores only.

Increase in Mercury and Lead Level

Remediation

One of the main problems with marine pollutants is the decrease in fish population along the Senegalese coastline. Fishing is one of the main contributors to the GDP of Senegal. It earns great revenue from leasing out its sea water to many foreign parties for fishing. However, it does not have any control over how the fishermen fish. This is causing a huge problem as those fishermen often use unlawful techniques. Government should immediately look into the fishing contracts and add clauses to ensure fishermen only use techniques which are recommended globally.

Furthermore, Senegalese government should create a maximum weight quota for each lease to ensure the fish population is preserved and is not hunted excessively. Another main cause of fishing population to go down is the pollution in the ocean water. This is primarily caused by industrial and sewage wastes. First of all, Senegalese government should take help from the United Nations and other international bodies financially, if required, to come up with an infrastructure to treat all the sewage before it is disposed in the ocean. It also should create a comprehensive sewage handling system for Dakar. If the sewage system of Dakar is improved then the problem of sewage contamination will be solved by 80% as Dakar is the worst offender in Senegal (Merck, 2005).

Lead pollution due to open burning of batteries on the beaches is another big

problem requiring an immediate attention from the government. It not only affects the marine life but also affects the humans. Already World Health Organization along with Blacksmith has started working on the problem with the help of Senegalese government. The main area facing lead contamination is Ngagne Diaw in Thiaroye Sur Mer (Diao, 2012). Blacksmith along with the help of Senegalese government are now stopping the open battery melting areas and helping them shift to proper battery melting plants. Furthermore, World health Organization is helping children with very high levels of lead in their blood to receive an immediate medical intervention (Blacksmith, 2013).

Turtle shells are very popular among tourists and also it has a demand outside Senegal. The Senegalese government should immediately put a ban on the trading of turtle shells. Furthermore, the government of Senegal should also come up with a plan to reduce hunting for turtle eggs by locals. It should also create national parks where turtles can lay eggs without being threatened. This will help increase the turtle population.

Conclusion

Senegal was one of the most beloved places for tourists all across the world for its lovely pristine beaches. That thing has changed over the last few decades. The Atlantic coastline along the Senegal border is now considered one of the most polluted in the whole western coast of Africa. There are multiple reasons for the pollution. Oil spill causes a significant pollution in the strait between Cape Verde and Senegal coastline. Untreated disposal of chemical by the industries and sewage from the cities, mainly Dakar, is

causing the marine beach and coastline pollution. Fishing which is one of the main livelihoods for many people in Senegal is getting badly impacted by the marine pollution. The fish population is on a decline and some of the turtles are almost on the verge of extinction. Senegalese government has already started to take few actions. It is taking help from different international bodies to overhaul the sewage system in the cities. It is also taking help from WHO and Blacksmith to organize the battery melting sector. It already has created a handful of national parks where turtles can lay eggs without feeling threatened by the local fishermen. However, the actions taken till date are only a baby step to address the whole problem. The government of Senegal needs to act fast and take bigger steps to immediately stop the origins of marine pollutants.

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