

# Endangered coral reefs essay sample

[Environment](#), [Nature](#)



This paper entitled, “ Endangered Coral Reefs” aims to reintroduce the fundamentals or frequently asked questions with regards to reefs by providing answers to the following questions: 1) What are reefs?; 2) How extensive are reefs?; 3) How do reefs support the ecosystem; 4) What is or are the root/s of the problems?; 5) What causes the problems; 6) What are the conditions worldwide?; 7) What will happen if the problems are not addressed?; and last but not least 8) What can be done to help solve the problems?

### *1. What Are Reefs?*

Reefs are technically defined as structures created by organisms that live in water (Spalding et. al., 2001). These reefs are actually the “ *most biologically diverse ecosystems of the sea* ” (Nybakken, 1997).

#### *1. How Extensive Are Reefs?*

Indeed, reefs are extremely extensive (Spalding et. al., 2001). In the Indo-Pacific area alone, approximately ninety two percent of the total area is identified as reefs (Spalding et. al., 2001). On the other hand, in Southeast Asia almost thirty three percent covers reefs (Spalding et. al., 2001). In the Pacific, however, a little over forty percent accounts for reefs (Spalding et. al., 2001).

### *III. Importance of Reefs/How Do Reefs Support the Ecosystem?*

Reefs are extremely important (Zubi, 2006). Some of their importance are the following:

First of all, reefs are responsible for continuously keeping available the supply of seafood (Zubi, 2006).

Second, there are several medicinal products that come from the reefs (Zubi, 2006).

Third, reefs are accountable for the safety of shorelines (Zubi, 2006).

Fourth, reefs play a large role in keeping the communities from the harm caused by storms, as well as, erosion (Cinner, 2005).

Fifth, reefs contribute largely in the livelihoods of countless individuals (Zubi, 2006).

Sixth, reefs also bring about revenue because of tourism (Zubi, 2006).

Seventh, reefs also serve as building materials (Zubi, 2006).

Eighth, it houses sea grass beds, as well as, mangroves which in turn are extremely helpful for young fishes and shellfishes, as well (World., 2007).

### *1. What is the Root of the Problem?*

The root of the problem is actually the activities of people that consequently contribute to global warming, which in turn damages the reefs (Zubi, 2006).

### *1. What Causes the Problems?*

There are several causes of the aforementioned problems. Some of these are the following:

Coral reefs are damaged because of the threatening activities of humans (Wikipedia, 2007).

The global climate change is also a very serious factor (Hughes, 2003).

The combination of the aforementioned causes more and more threats to the now endangered coral reefs (Zubi, 2006). If only people will become more disciplined, more aware of the threats, and more concerned with the ecosystems then they would not indulge themselves into activities that will only destroy bring about global warming that directly affects the coral reefs as well (Hughes, 2003).

### *1. What are the Conditions Worldwide?*

Allow me to present the conditions of reefs worldwide by showing the following coral reef hotspots:

First is Cape Verde Islands (Zubi, 2006). This two-hundred-square-kilometer coastal area is in jeopardy due to the following: development of the aforementioned coastal area; pollution brought about by clearing of the land; excessive fishing; as well as, the general public's agricultural activities (Zubi, 2006).

Second is in Eastern South Africa which is considered as endangered because of the following: 1) fishing; 2) development of tourism; and last but not least 3) pollution (Zubi, 2006).

Third is the Gulf of Guinea which is composed of Annobon, Bioco, Principe, as well as Sao Tome (Zubi, 2006). The 200-square-kilometer-body of water is

somehow defenseless and endangered because of the following: the business of harvesting corals; excessive fishing; logging which in turn causes sediment pollution; as well as, the development of the coastal area (Zubi, 2006).

Fourth hotspot is the ten-thousand-square-kilometer-North Indian Ocean (Zubi, 2006). Chagos, Lakshadweep, Lakkadives, and Maldives which compose the North Indian Ocean is currently in danger because of the following reasons: 1) bleaching of the corals as brought about by increased temperatures of the sea surface; 2) higher temperature of the surface of the sea as brought about by global warming; 3) mining of corals; 4) too much fishing; and last but not least; 5) ornate collection of fishes (Zubi, 2006).

Fifth is the Philippines which is actually one of the most highly threatened hotspots (Zubi, 2006). This is because of the following reasons: 1) agricultural development; 2) continuous rise of population; 3) fishing through the use of cyanides/explosive/poison; 4) pollution runoff brought about by logging; 5) too much fishing; as well as 6) urban development (Zubi, 2006).

Sixth is the Red Sea and Gulf of Aden which includes the Gulf of Aqaba and the Suez Gulf (Zubi, 2006). This two-thousand-five-hundred-kilometer-hotspot is referred to as one because of the following: 1) development of the coast; 2) development of industries; as well as 3) terrible oil spills (Zubi, 2006).

Seventh is Southern Japan, Taiwan, and Southern China (Zubi, 2006). The aforementioned coastal areas are also currently defenseless because: 1) the

government proposes that an airport be developed near the shoreline of the aforementioned area; 2) somebody also proposes that its shoreline be transformed or converted into an agricultural and “aquacultural” location; 3) population explosion; 4) change of global climate; 5) warming of the seas; as well as 6) starfish-eating corals (Zubi, 2006).

Eighth is the Southern Mascarene Islands which is a one thousand square kilometer hotspot (Zubi, 2006). It covers La Reunion, Mauritius, as well as, Rodriguez (Zubi, 2006). This area has been considered a hotspot because it has been lately exposed to the following: agricultural development; development of the coastal areas; excessive fishing; production of sugar cane which consequently led to pollution of the elements involved in it; as well as, rapidly increasing number of people emerging in the area (Zubi, 2006).

Ninth is the Sundaland hotspot which entails half of the country Indonesia, whole of Malaysia, as well as, part of Thailand (Zubi, 2006). Coral Triangle, as it is, otherwise known boasts a 1.6 million square kilometers of coastal area that's exceedingly rich in aquatic resources (Zubi, 2006). Unfortunately, the place is highly threatened by pollution coming from land-based sources (Zubi, 2006). In addition to that, it is also susceptible to dynamite fishing (Zubi, 2006). Last but not least, coral reefs are in jeopardy because of what is technically referred to as “aquarium trade” or live reef fish trade (Zubi, 2006).

Tenth is Wallacea which covers Nusa Tenggara, Mollucas, as well as Sulawesi (Zubi, 2006). This three hundred forty six thousand seven hundred eighty

two square kilometer area is also endangered because of the people's activities like: logging which consequently leads to sediment pollution; dynamite fishing which ultimately destroys everything in the water including the small fishes and their homes; and last but not least, "aquarium trade" (Zubi, 2006).

Last but not least is the Western Caribbean which boasts approximately four thousand square kilometers of reefs (Zubi, 2006). It is just too unfortunate that it is declared endangered now because of the following reasons: 1) global warming which directly affected the situation because of "coral bleaching"; 2) emergence of epidemic diseases; and finally 3) due to the active and continuous development for tourism's sake (Zubi, 2006).

#### *VII. What Will Happen if the Problems are not Addressed?*

If the problems will not be addressed, then coral reefs will no longer be in existence, consequently affecting the lives of those that live in and on it like the fishes and shellfishes (Castro, 2000). If such happen, the lives of countless people who their sources of livelihood come from coral reefs, will greatly be affected also (Castro, 2000). Last but not least, there will no longer be balance in the ecosystems of the oceans (Castro, 2000).

#### *VIII. What Can Be Done to Help Solve the Problems?*

There are several things we can do to contribute in addressing such problems. We simply have to take note of the following helpful solutions:

First of all, let us help alleviate the terrible effects of global warming by utilizing wind and solar power (World..., 2007). This will actually cut down the release of carbon dioxide the aforementioned are actually renewable energy sources (World..., 2007).

Second, let us make sure that our tires are always filled because this lessens the release of carbon dioxide as well (World..., 2007).

Third, it is suggested that cars should be turned off if not in use (World..., 2007). This action also decreases release of carbon dioxide (World..., 2007).

Fourth, instead of always bringing your car along, you should try to walk or use the bike (World..., 2007). This will decrease the number of automobiles on the streets which releases hundreds of pounds of carbon dioxide which contributes largely to global warming and consequently the destruction of coral reefs as well (World..., 2007).

Fifth, if possible, purchase a hybrid or fuel-efficient automobile to hamper release of thousands of pounds of carbon dioxide annually (World..., 2007).

Sixth, send aluminum, cardboard, glass, newspapers, as well as, plastic which you are about to dispose over at recycling centers (World..., 2007).

Seventh, remember to regulate the thermostat: lower it by three degrees during winter time and increase it by three degrees during the summer time as well (World..., 2007). It is also advisable to purchase a thermostat that is programmable (World..., 2007).



Eighth, energy-efficient appliances should also be bought in place of worn-out ones (World., 2007).

Ninth, clothes should be washed using cold water (World., 2007).

Tenth, compact fluorescent bulbs should be substituted for incandescent bulbs (World., 2007).

Eleventh, help uphold the execution of utilization of energy efficient technologies and processes (World., 2007).

Twelfth, be updated with what is going on with the Climate Change Program which is facilitated and led primarily by Dr. Lara Hansen (World., 2007). This will let you know the causes of coral bleaching, as well as, how to address such a problem (World., 2007).

Thirteenth, restrictions should be made with regards to fishing in certain areas near reefs (Cinner, 2005).

Fourteenth, ways or techniques of fishing should also be closely looked into (Cinner, 2005). For instance, allow line fishing and net fishing, but totally ban dynamite fishing, as well as, excessive fishing (Cinner, 2005).

Fifteenth, uphold the protection of habitat by declaring Marine Protected Areas which intends to prohibit any kind of activity on the location (Cinner, 2005). This is very effective in keeping the coral reefs safe (Cinner, 2005).

Sixteenth, join in national and international policymaking linked to global warming (World., 2005). Adopt these policies and apply it to your area or locality (Cinner, 2005).

Seventeenth, for those who are in close contact with the coral reefs like divers, please take into consideration the following: a) touching the reefs with the hand or any equipment can harm coral polyps; b) float-coats should be worn to avoid standing on the corals; c) the bottom of the ocean should be left undisturbed, since these lifeless locations may encourage new growths later; d) never feed the fishes because this disrupts their natural feeding habits; and last but not least e) do not harvest corals so as not to contribute to its speedy depletion (Reef., 2007).

Eighteenth, it is very important to understand the ecosystems aforementioned. This may be done through the following: monitor the health of the reefs, lessen the negative impacts of the activities performed by humans, widen the coverage of Marine Protected Areas, decrease the destruction of habitat, lessen if not totally eliminate pollution, conduct restoration of reefs which have been harmed, information-dissemination is rather helpful because an informed public contributes largely to the aforementioned conservation, and last but not least, encourage governmental coordination, as well as, develop accountability for it (United., 2000).

Last but not least, join and be aware of the negotiations linked to the Kyoto climate treaty, as well as the Arctic Council (World., 2007).

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