

## **Introduction**

Coral Reefs provide a critical source of food for millions of people. Encircling tropical islands, they provide protection from the worst ravages of tropical storms. They have also become a beloved destination for those seeking solace on tropical shores, or adventure, diving into the world of the coral reef, whilst providing a new source of income and employment for some of the world's most impoverished nations.



## **Threats to Coral Reefs**

There are quite a lot of threats to the coral reef ecosystem. Here are some of the Threats:

**Water Pollution-** Water Pollution comes from many things for example fossil fuels, pesticide and sometimes too many nutrients.

**Sedimentation-** This is caused by Construction along coasts and shores, mining, logging and also farming, all of this leads to erosion. The outcome is that all the particles go into the ocean and smother the coral reefs. The mangrove trees and sea grass are also being destroyed as hotels are being built this is also bad as the mangrove trees and sea grass act as a filter of Sediment.

**Destructive Fishing Practices-** Unfortunately some fishing practices are unsustainable- this means that you cannot repair the damage that has been done.

**Coral Mining-** Coral is damaged by mining as it can be used for different things such as being used for bricks or for Road fills. Also sand and limestone can be taken out and be used for cement for building houses.

**Careless Tourism-** Careless Tourism can lead to a lot of damage in the Coral Reefs as inexperienced divers can easily bump into the

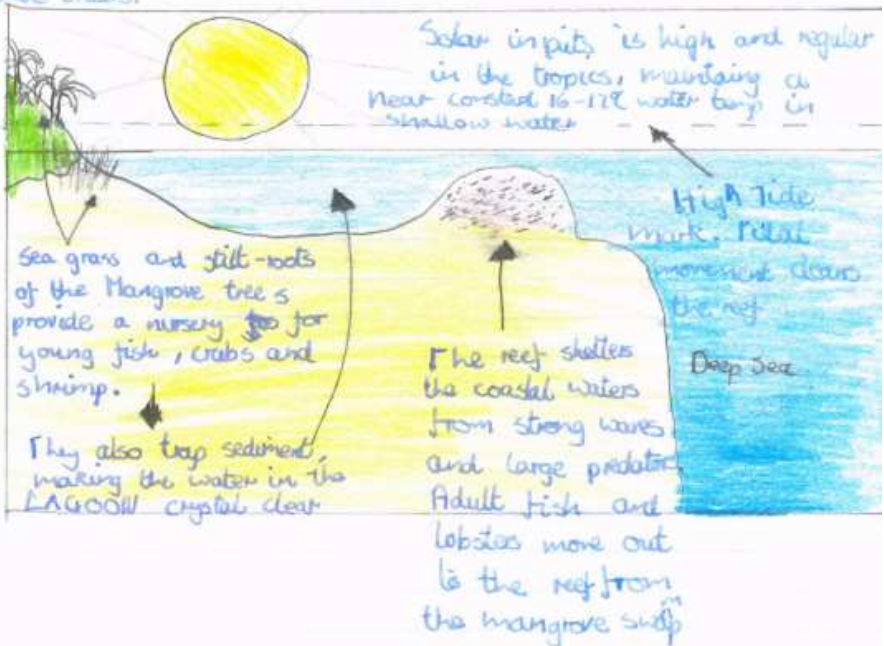
coral and damage it. People driving boats could drop their anchor straight into the coral which could ruin it.

### **Coral Reefs in Palau**

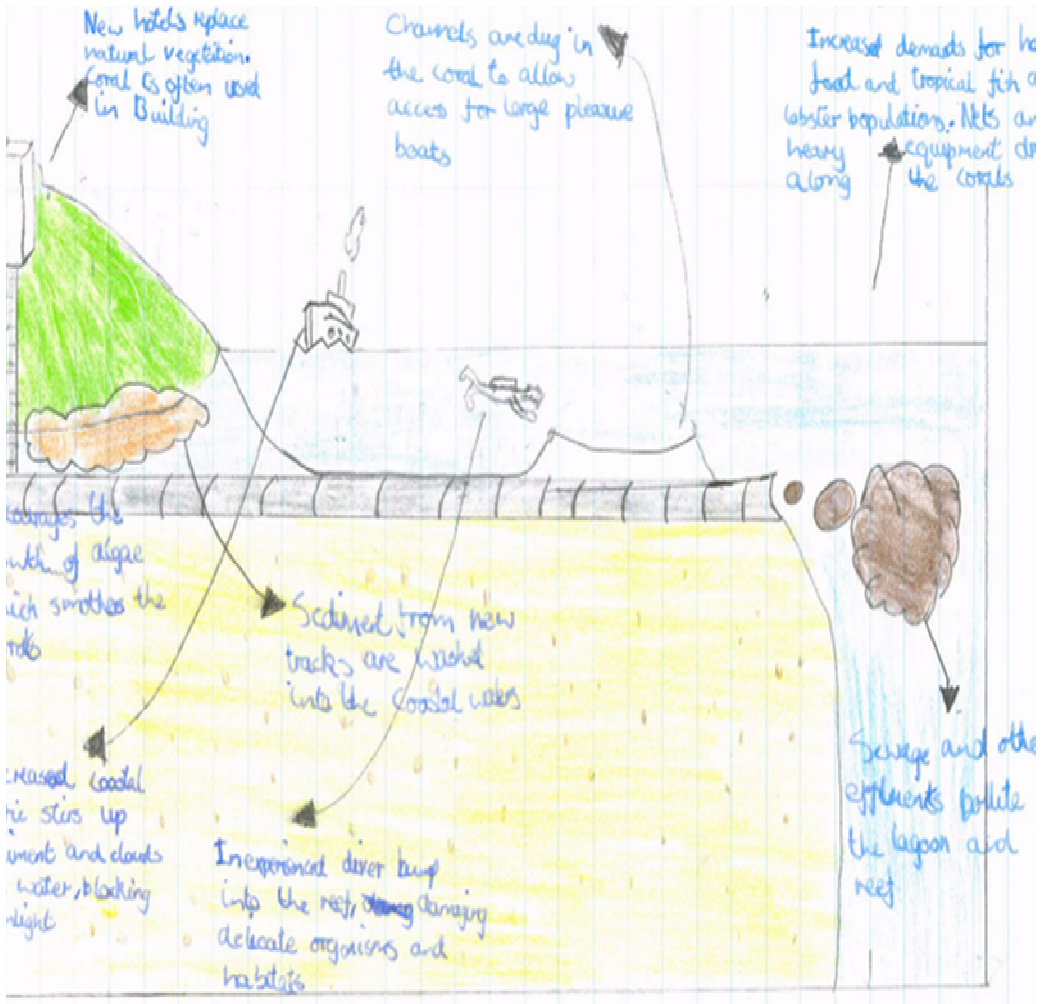
The Republic of Palau is a separate group at the end of the Caroline Islands, 741km east of Mindanao and 1,300km southwest of Guam. There are 20 larger islands and 500 small islands stretching over 700km. The biggest island, Babeldaob, is volcanic and contains the capital, Koror. The south western islands of Palau are 339-599km to southwest of the main archipelago. There is a 144km well-developed barrier reef with 86km on the western coast. Ngchesar and Airai islands also have barrier reefs. The total coral reef area of Palau is 1,661km<sup>2</sup>. The Southern lagoon is the largest lagoon covering 500km<sup>2</sup> and has many islands including the famous 'rock islands' and marine lakes. The east coast barrier reef is less diverse with about 80% of the 150km coast having a fringing reef with limited barrier reefs, lagoons, and patch reefs to the south.

## Diagram of Ecosystem

Mangrove swamps provide nutrients for young fish and crabs.



**Diagram of Coral Reef after Humans have altered it**



### **Advantaged of having Coral Reefs**

There are many advantages of having Coral Reef systems:

- They feed millions of people
- They bring tourists to have a greater Economy
- It is a beautiful breath taking under water experience
- Perfect Temperature in Water

### **Disadvantages of having Coral Reefs**

There are also many disadvantages of having coral reefs

- New hotels replace natural vegetation
- Channels are dug in the coral to allow access for large pleasure boats
- Sewage and other effluents pollute the lagoon and reef
- Inexperienced divers bump into reef, damaging delicate organisms and habitats.

## **Sustainable Development**

Sustainable Development is Development that meets the needs of the people today without compromising the ability of future generations to meet their own needs.

Countries around the world have opted the way forward with Sustainable Development. To aid Sustainable Development Tourists will need to be educated with what the can do and cannot do. This will lower the risk of the coral reefs being damaged. Also this transfers education to responsibility to the Tourists and have to be prosecuted for the actions they take if doing wrong. As the tourists now know exactly what the can and cannot do, there will have to be special marine laws taken out.

