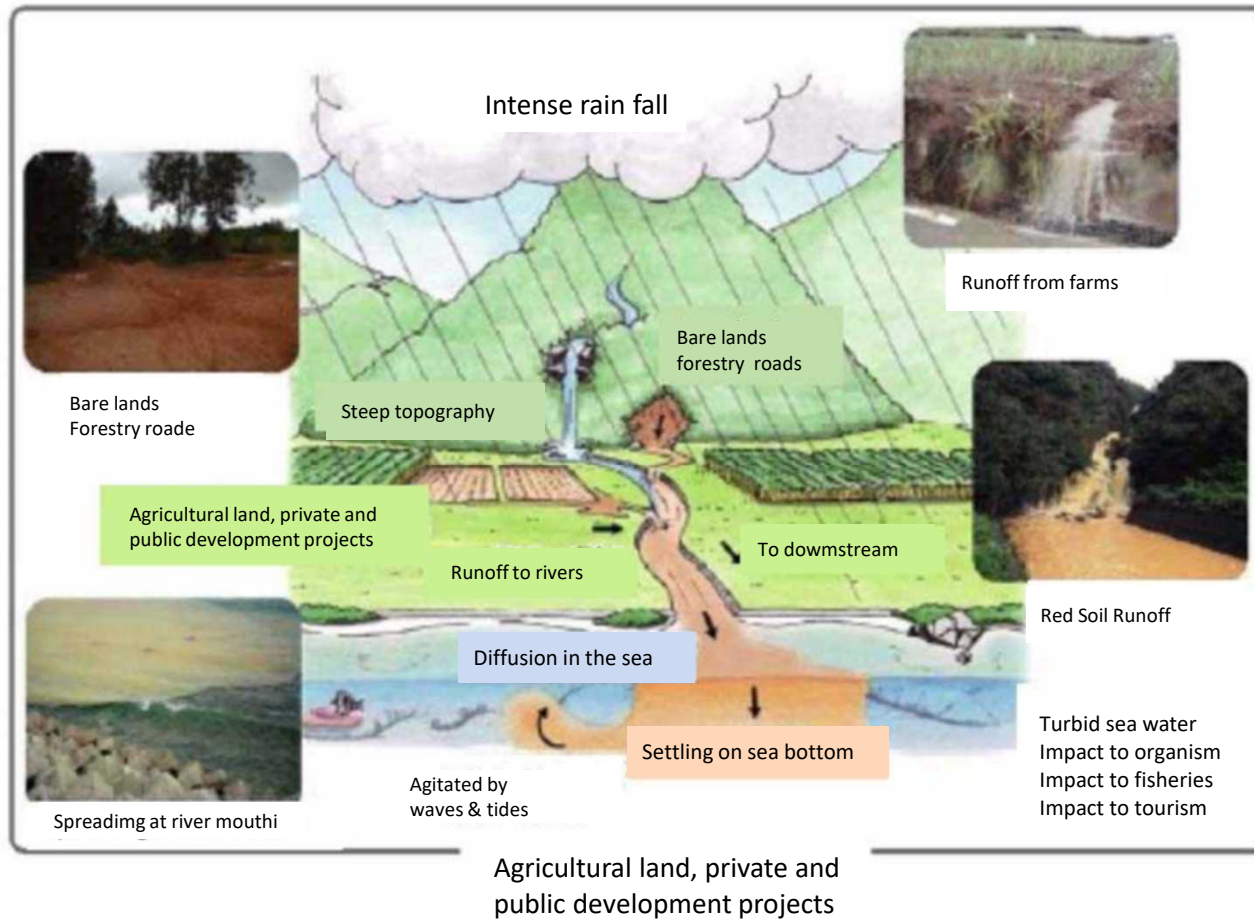
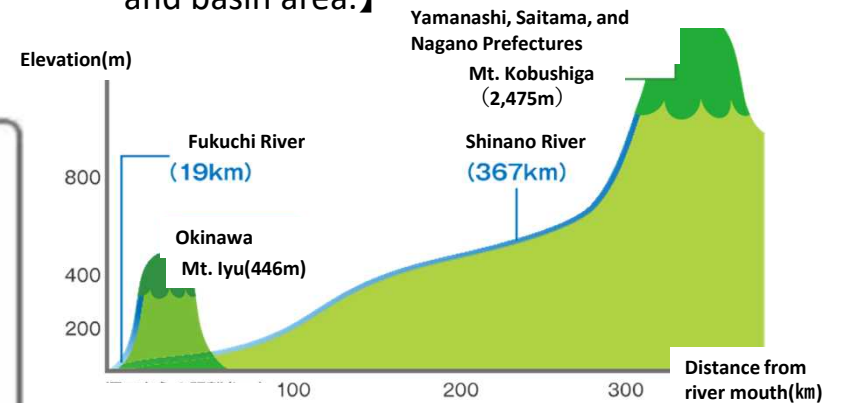


Red soil will have negative effects if it flows from the earth into the sea!

Red soil is an important resource that can only be found in the earth. If it leaves the earth and flows into the ocean, it can have a variety of negative effects on aquatic life.



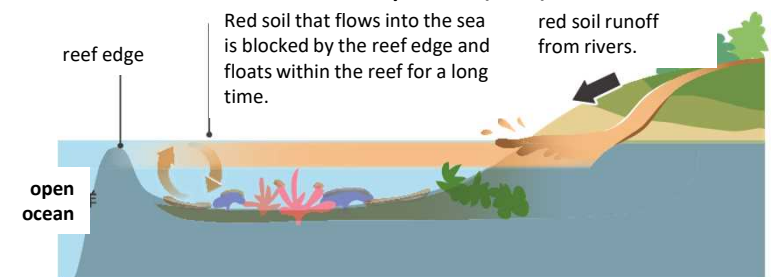
【River longitudinal type, source mountains, and basin area.】



Okinawa is characterized by steeper slopes and shorter rivers than the mainland.

The northern part of the main island of Okinawa and the Yaeyama region are mountainous and is hilly and steep (more than 50% of the total area of Okinawa). The slopes are steep, the land area is small and the rivers are short. Due to this, the rain that falls on the ground does not permeate into the soil, but instead flows straight down. This is one of the reasons why red earth tends to runoff.

【Cross section of reef pond (ino)】



The impact of red soil runoff on reef ponds (Ino)

Red soil that flows into rivers and the sea drifts on the surface layer eventually sinks and accumulates. Therefore, it also affects the growth of aquatic life such as coral, seaweed, fish, shellfish, shrimp, crabs, and gobies.

Negative impact of red soil runoff

Red soil is an important resource that can only be found in the earth. When it leaves the earth and flows into the ocean, it has a negative impact on aquatic life and our lives. Turbid seawater will have an impact on Okinawa's recreational areas, culture, environmental studies, fisheries, aquatic life such as coral reef ecosystems, and the tourism industry.



Red soil that has flowed into the sea area



Red soil that has flowed into recreational areas such as for fishing and clamming



Turbidity in the sea due to red soil



Breeding mozuku with poor growth due to turbidity.



Red soil flowed into seaweed (asa) farm.



Red soil deposited on the ocean floor

1. Sea water turbidity

When red soil flows into the ocean, the beautiful, blue, clear waters of Okinawa that are so familiar to us become red and muddy. It will ruin beach parties and other summer recreational activities. The beach is a place where residents can enjoy the sea, swim, fish, and relax in the summer.



Going down the beach(Clamming)



Swimming in the ocean



beach party



fishing



environmental studies



Hari

2. Impact on aquatic life

When red soil flows into the ocean and accumulates on coral, the habitat of coral and the fish that live there deteriorates and decreases. It also has enormous economic value. According to the Ministry of the Environment, the economic value of Japan's coral reef ecosystems (Okinawa, Amami-Ogasawara) is estimated to be at least 232.4 billion yen per year for tourism and recreation, 10.5 billion yen for fisheries, and 7.52 to 83.9 billion yen for coastal protection functions.



Red soil deposited on coral

3. Impact on fisheries

When cultivating Mozuku, asa and so on, the turbidity of red soil may cause a lack of photosynthesis, which may lead to poor growth. In this way, there are concerns about large losses and damage to the fishing industry as well.



Diverse marine products



Gurukun



Mozuku cultivation

4. Impact on tourism

Many tourists from Japan and abroad visit Okinawa every year in search of the beautiful sea of Okinawa, which is said to be the best in the East and one of the best in the world. However, there are concerns that the sea will become cloudy due to red soil, which will affect the tourism industry.



Going down the beach (Clamming)