

❖ **Discuss the causes and effects of desertification in the sahel (Africa)**

❖ **What are the possible solutions to desertification and in your opinion which solutions would be most effective and why**

Desertification is the spreads of desert conditions into areas were not previously deserted. This process most commonly occurs in arid and semi-arid environments, the Sahel region in Africa is one of the worst affected.

Estimates suggest that 35% of the earth's land surface is at risk, and the livelihoods of 850 million people are directly affected. 75% of the world's drier lands - 45,000,000 square kilometers are affected by desertification, and every year 6,000,000 hectares of agricultural land are lost and become desert. The Sahara is thought to be advancing southwards by about 5-10 kilometers per year, which is a very considerable amount, when you remember that the Sahara is 5,150 kilometers across at its widest point

http://www.yptenc.org.uk/docs/factsheets/env_facts/desertification.html

The regions it affects are Africa, the Middle East, India and Pakistan, China, Australia, the USA, Brazil, Peru and Chile in Latin America, and in European countries such as Greece, Spain and Portugal.

http://www.the-human-race.com/pages/about_desertification.htm

The Sahel region is a semiarid region of north-central Africa south of the Sahara Desert. Since the 1960's, the Sahel (the semi-arid land below the Sahara that stretches from Senegal to Eritrea) has experienced a devastating drought and its population has exploded, compounding the demand for firewood, the main source of cooking fuel. The deforestation, in return has destroyed the land and made desertification worse.

<http://www.remibenali.com/issues-sahel/index.php>

The United Nations Environment Program said that over 19 million square miles of the world's land surface are becoming desert. In North Africa the Sahel region is the worst. The effect of desertification in the Sahel are very bad because it makes the farmers produce less yield of food to the people in the community, the people and animals die off because of the lack of food. It also makes the food expensive for the community because there is less food and more people.

The causes of desertification in Sahel are by both human and natural activities. The human causes are over cultivation, poor irrigation practices, deforestation,

climate change and overgrazing. The natural cause is the annual rain far below average, and high temperatures.

Over cultivation is when farmers exhaust the soil by farming too much on it every year which makes the soil becomes useless to the farmers. When the sun heats it, it becomes dry and is blow away by the wind and later turns to desert.

Poor irrigation practices is when the farmer in the Sahel water their plants poorly, they only water their plants when it rains. When the plant dose not gets water it dies off and when the soil does not gets water it dry out which makes the land turn dust.

Deforestation is when the farmer in the Sahel cut down trees and plant to build houses, making fires and food. When the trees and plants have been cut down it then makes the soil open to the sun which will make the soil turn into dusts. When the rain falls there wouldn't be trees to protect the soil from being washed away.

Climate change is making the world hotter and causing less rain to fall. Climate change is mostly caused by power station cars and industry. They release carbon emissions that trap the heat that makes the earth hotter. So place like Sahel are becoming hotter than

before and because the climate in Sahel is becoming hotter this cause it to rain less and longer droughts.

Overgrazing is when the animals in the Sahel feed on a particular place for a long time eating every thing, even the roots and because the land is unperfected from the sun, it then turn the land into drought.

The natural causes are annual rain and high temperatures. Annual rain in Sahel is far below average. So when there is less rainfall on the land, it then turns the land into desert when it is heated by the sun. High temperature is when it is very hot in the Sahel and due to the high amount of evaporation there will be less rain fall which will then makes the land dry out and turn into desert.

To solve the problems caused by desertification in the Sahel the following have to be done.

Using irrigation water being control, water plant correctly at certain hours also look after water, the advantages of using this method is that it save water, can be done easily and crops grows better. The disadvantage is that it cost money to set up.

Education programs teach the woman and men how to look after their farms and can be more productive, the advantage of using this method is that it the same as long term aid.

Training programs teach farmers how to look after their lands do not overgraze or over cultivate, the advantages of using this method are that it might work, they will make money from the crops and more food to the community. The disadvantages are that it cost money for training and might not work.

Seed technology, mixing certain type of seed that can survive during drought, the advantage of using this method is that it works in dry places. The disadvantage is that it expensive.

Afforestation, planting of more trees, no more cutting down of any more trees, the advantages of using this method is that plant transpiration rainfall, it good for the soil and dose not turn the soil to desert. The disadvantages are that it takes long time for trees to grow and they might die off due to the little rainfall. Long term aid this, this types of aid allows people to develop their live hood so they can survive without aid in future. The advantage of using this method is that it teaches them how to look after their lands and make it more productive for the future.

My opinion on which solution is the best and why
I think that the best solution for every one is
Afforestation because is suitable for everyone, the easiest to use and it's cheaper. It can also last for many generations if looked after; it can produce many

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advantages for the farmer and it can protect their land from desertification,