

Preventing desertification is vital for human security

A quarter of the territory in Mexico is on the way to desertification, which means that most of the population is at risk as they might not even be able to get enough food

Restoring the ecosystems affected by desertification promotes the development of employment and it also contributes to food security and the recovery of biodiversity. This way, Congregación Mariana Trinitaria, through its Welfare Ecosystem Model, creates integral solutions to prevent, address, and repair the land that was affected.



In Mexico, 26 percent of the territory is in a process of desertification, while 58 percent of the population lives in arid zones, as mentioned by the Secretariat of Agriculture and Rural Development (SADER).

June 17 is observed as the World Day to Combat Desertification and Drought, and SADER believes that this day is the perfect opportunity to reflect on the implications of humanity to accelerate this phenomenon and to cause damage to their own existence.

Restoring the land that was affected fosters economic resilience, the creation of new employment, the increase of incomes, and the improvement of food security. Additionally, it contributes to the recovery of biodiversity, and to maintain the atmospheric carbon in charge of keeping the Earth warm, this way, we contribute to the reduction of the climate change effects.

Regarding the three quarters of the Earth which are not covered by ice, they have been affected by humans to meet the demand of food, raw materials, roads, and housing.

“At this time avoiding, slowing down, and reversing the loss of productive land and natural ecosystems is urgent and essential to recover quickly from pandemic and to guarantee the life of the planet and its inhabitants”, alleges the United Nations (UN).

In numbers

Nowadays, degradation of arable lands occurs 35 times faster than before.

135 million people in the world will be displaced from the places they currently live in, as a consequence of desertification in 2045.

1800 million people will experience absolute water scarcity in 2025. In addition to that, two thirds of the world population will not have enough water resources.



Did you know?

- Regarding the three quarters of the Earth which are not covered by ice, they have been transformed to meet the demands of food, raw materials, and human settlements.

- The degradation of lands causes affection on the welfare of almost 3,200 million people.

- Modifying the main purposes of lands becomes the main cause of infectious diseases in humans, and more than 60% of them are zoonoses.



The land does not turn into deserts

According to the Secretariat of Environment and Natural Resources (Semarnat), the concept “desertification” does not refer to the loss of productive areas to become “deserts”, but to the degradation of those lands located in arid, semi-arid, and dry sub-humid areas due to different reasons such as climatic variations and human activities. On the other hand, deserts are very complex ecosystems that may host a huge biological diversity.

The processes that contribute to desertification are diverse and complex. They are related to two aspects, one of them is caused by climatic variations like irregular and very little rain (drought), as well as the persistence of high temperatures for long periods of time, which causes high rates of evapotranspiration.

Meanwhile, the second factor is related to human activities, such as over exploitation of lands due to agricultural activities, overgrazing, deforestation, and the use of inadequate irrigation systems. The actions to repair and to avoid desertification problems must involve environmental, political, and social organizations.

The main consequences of desertification are caused by human settlements and ecosystems. The first ones are related to food insufficiency, low production of food, poverty, severe health problems due to particles suspended in the air (eye infections, respiratory diseases, and allergies).

The second consequence refers to the deterioration of functional capacities in the ecosystem related to a decrease on the fertility of lands, salinization and erosion, a reduction of the land’s resilience, increase of floods in lower areas caused by affectations to hydrologic cycles, water shortage, drying and sedimentation of groundwater bodies, and alteration to biological cycles.

CMT and the protection to the environment

Congregación Mariana Trinitaria, A.C., (CMT) whose main objective is the promotion of welfare and the protection of ecosystems that have been affected, currently develops strategies to take care of the environment.

By means of its Welfare Ecosystem Model through its Network of Environment, CMT promotes solutions to get equipment and to build infrastructures to stop the negative effects on ecosystems like the ones caused by desertification.

In areas where desertification is severe, we promote collecting rainwater, and through our Network of Water we make sure that the vital liquid is available for vulnerable people, an example of that is the rainwater collection system in San Miguel Tenango, Oaxaca; installed in April 2021.

Those systems also have a positive impact on big cities as they prevent floods and they contribute to the recovery of aquifers, two of the most severe consequences of desertification.



Successful case



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