

In some regions, deserts are separated sharply from surrounding, less dry areas by mountains and other different landforms. In other areas, there are no sharp desert borders. We can see a slow change from a dry to a more humid environment, making it more difficult to define the desert border.

These transition zones have very fragile, delicately balanced ecosystems. Small hollows support plants that pick up heat from the hot winds and protect the land from winds. After rain, the wet plants are distinctly cooler than the surroundings. In these border areas, human activity may harm the ecosystem beyond its tolerance limit. This causes the land to deteriorate. The animals like cows also compact the soil by pounding it with their hooves. This can increase the chance of erosion by wind and water. Grazing and the collection of firewood reduces or eliminates plants that help to bind the soil.

This degradation of formerly productive land is a complex process. It involves multiple causes, and it proceeds at varying rates in different climates. Forming of new deserts can cause the climate to become dryer or change in another way.

Deserts do not form in linear, easily predictable patterns. They advance very fast, forming patches on their borders. Unfortunately, an area undergoing this process is not found until too late. Usually it is brought to public attention only after the process is well underway. Often little or no data are available to show the previous state of the land. Scientists still question if forming of deserts is permanent or how and when it can be stopped or reversed.