

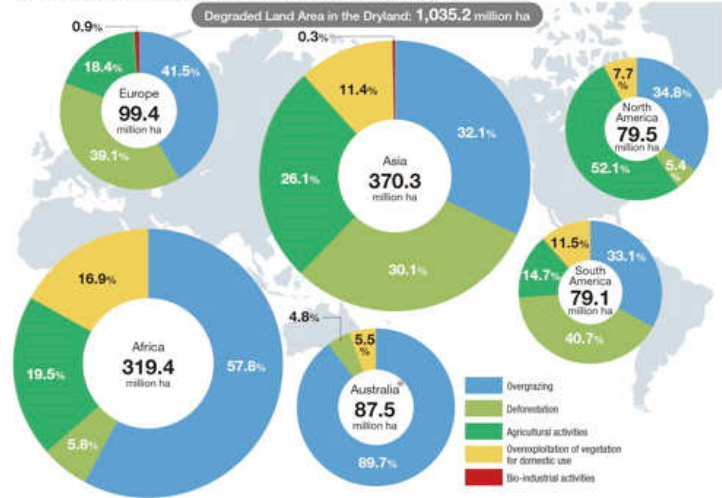


DESERTIFICATION

What is Desertification?

Desertification is the process by which fertile land becomes desert. Roughly one third of the world's land surface is threatened by desertification, and approximately 24 billion tonnes of fertile soil is lost annually. This puts a large strain on the amount of food that we as a race can provide to the ever increasing population which superseded 7 billion in March 2012.

▼Main Causes of Soil Degradation by Region in Susceptible Drylands and Other Areas

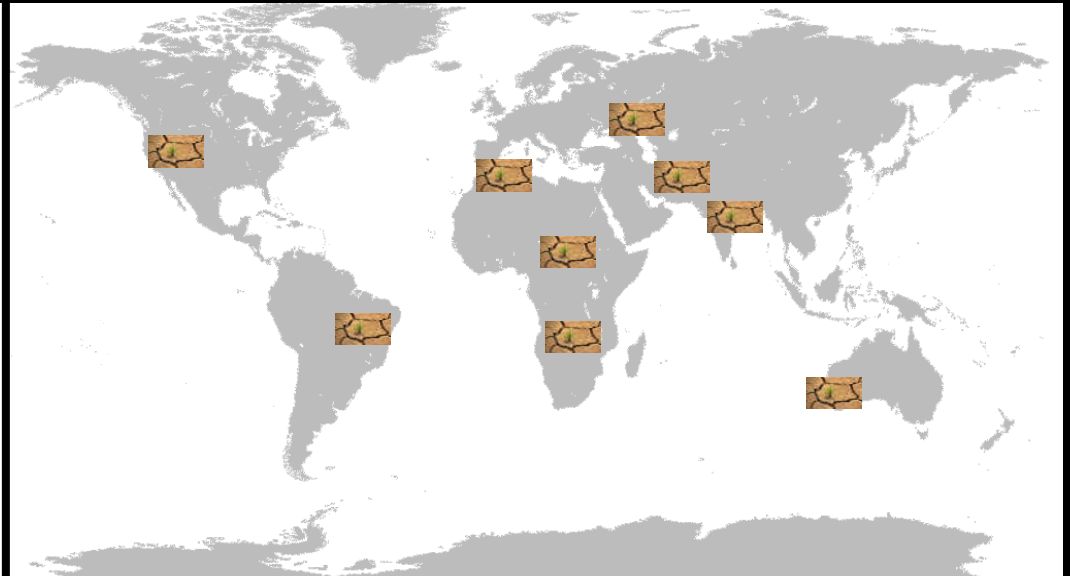


There are multiple causes of desertification of which can be either human or natural. The most prominent cause worldwide is overgrazing. Grazing is imperative for all farmers, from those who are subsistence farmers (who farm to create food for themselves) prominently found in LEDCs; to the richer who rear animals to sell. The overgrazing and deforestation of the land occurs as the vegetation is removed, meaning that the roots do not hold the structure of the soil, enabling the wind and rain to remove the fertile soil, leaving unfertile soil leading eventually to desert like land.

It is important to note that Climate change can also lead to desertification; the reduction in rainfall, and the increase in wind can spread the sand and the deserts like the Sahara will encroach on previously fertile land. Both of the extent of rainfall and wind will differ as a result of Global Warming and is expected to change as the world gets warmer.

There are some solutions to reduce the amount of deforestation in areas prone. Firstly afforestation (the replanting of trees) will stabilise the soils— however in arid (dry) areas they are difficult to grow. Secondly it is possible to limit herd sizes to reduce overgrazing, however this is problematic for those who live from the herd. Neither solutions are entirely practical for stopping desertification, but will lead to a reduction in the damage caused.

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FUTURE PREDICTIONS (below)

(above) DISTRIBUTION OF HAZ-

- One billion people in 168 countries are affected by desertification and this number is steadily increasing as dry-lands are currently inhabited by 2.1 billion people.
- Desertification is costing US\$490 billion per year and wiping out an area three times the size of Switzerland on an annual basis.
- A decrease in the food production, and an increase in population means that food prices will increase— there are no stats that formalise this for the future, however since 2000 the price of staple foods (rice, wheat etc...) have doubled.

(<http://ourworld.unu.edu/en/desertification-crisis-affecting-168-countries-worldwide-study-shows>; accessed 23/04/2014)



(Left) The areas that are predicted to be affected by desertification. (Centre) Overgrazing is a prominent cause of desertification. (Right) Towns are frequently lost to the Namib Desert as it expands.