

# DESERTIFICATION

## ABSTRACT

This essay introduce some basic ideas about desertification. This is a generalized problem in drylands and can occur naturally, but there are some wrong human behaviors which can increase or accelerate this natural trend. In the same way, exist several actions every country should follow to prevent erosion of the soil and consequently to prevent desertification.

## INTRODUCTION

First of all, the essay will examine why does desertification occur, giving the main factors and causes which bring about it. After this, it will present several solutions, or partial solutions, to the problem, summarizing what could people do to prevent desertification. In addition, related to the previous parts, the essay will show some examples of drylands in desertification danger. Finally, we'll discuss the subject from a personal point of view.

## CAUSES OF DESERTIFICATION

Although it's sometimes argued that the main cause of desertification is a climatic change, this isn't really proved so I'm going to talk about the other causes.

Factors which favor the erosion and consequently the desertification:

- Natural causes:
  - Climate: Arid and Semi-arid environments, drought.
  - High topographic gradient and active regional geodynamic.
  - Deforestation due to natural forest fires.

These causes can't be under human control. Geological time.

### ■ Anthropic causes:

- Overgrazing
- Overcultivation
- Mismanagement of irrigation
- Deforestation

These causes are far more quick than the natural ones.

### **O**VERGRAZING\*

Subsistence and commercial economic activities in drylands underline livestock-based livelihoods as an important component. In some parts of Africa, Arabia or Central Asia, for instance, they used to follow traditional pastoral nomadic systems, but during the recent decades ranching has increased.

### **O**VERCULTIVATION\*

Overcultivation is a consequence of changes in the application of traditional dryland agricultural methods and the introduction of inappropriate methods which had been developed in other environments.

### **M**ISMANAGEMENT IRRIGAT.\*

Salinisation and alkalinisation of the soil is one of the major problems associated with irrigation systems. Over-application of water (so a wasteful use of water), poor drainage and waterlogging, combined with the naturally high evaporation rates of drylands have lead to the

▼ Pastures massa intensives.

♦ Cultius massa intensius

\* Problemàtiques derivades d'una irrigació defectuosa.

concentration of salt in the soil and the soil surface.

## **D** EFORESTATION

Human activity has cleared forest and woodland for thousands of years to convert them in agricultural and pasture land. In recent decades there has been an acceleration of this process because of the expansion of ranges and cultivated land, and also because of the introduction of modern agricultural methods.

## **U**RBAN AND INDUSTRIAL ACTIVITIES

In some areas, for instance in the Middle East and Central Asia, waste disposal and pollution from industrial and urban activities can take local significance.

## **S**OLUTIONS

The solution to desertification has to be studied from a world-wide point of view. Therefore, it's essential the collaboration between farmers and land users, and the whole society.

The fight against desertification can be summarized in the following actions:

1. Scientific & technical investigation: To acquire a detailed knowledge about erosion mechanics, areas in desertification danger.
2. Planning of resources: Prevention, control and recuperation of degraded zones.
3. To make appropriate use of the soil depending on its quality, any actuation which can favor the desertification.

## **C**ONCLUSIONS

To conclude this essay, I would like to give my own point of view about the subject. But we can study them and may be in a far future we will be able to prevent them and so to prevent desertification easily or to live in deserts with major comfort.

To conclude, I would say that desertification and soil erosion are global problems that affect the whole earth, so it is essential a world-wide cooperation to find the best solution to the problem.

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