

DESERTIFICATION IN PAKISTAN



Area affected by desertification:

About 51 percent area of Pakistan

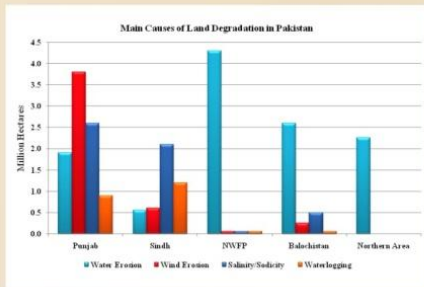
Annual cost of environmental degradation:

About US \$1.7 billion per year (1995 estimate)

Pakistan is mainly a dryland country, where 80% of its land is arid and semi-arid. Two-third of its human population depends on these drylands to support their livelihood. Like many other developing countries, Pakistan is severely affected by land degradation and desertification. Unsustainable land management practices are causing enormous environmental problems, including soil erosion, loss of soil fertility, flash floods, sedimentation of canals and water courses, deforestation and associated loss of carbon sequestration capacity and biodiversity.

CHALLENGES OF DESERTIFICATION

- Out of 79.6 million hectares total land of the country, about 68 million hectares lie in fragile regions receiving less than 300mm rainfall annually. Only 20 million is suitable for agriculture (16 million for irrigated farming and 4 million for rain fed agriculture).
- About 5.2 % of Pakistan's land area is covered by forests, where as both environmental and economic standards suggested that the country should have at least 20-25 % area under forests. Around 3 % of forest cover (7000 to 9000 hectares) is shrinking annually and woody biomass by 5%, further aggravating the desertification process.
- About 11.2 million hectares mostly northern mountain regions are affected by water erosion. As a result, 40 million tons of sediments are brought into the Indus basin each year, which has reduced the soil productivity in the area and shortens the life span of major upstream reservoirs.
- Total waterlogged area with water table depth of 5-10 feet is about 11 million hectares. Around 6 million hectares is affected by salinity and sodicity. These problems are more acute in some irrigated areas of Punjab, Sindh, and Balochistan resulting into low soil fertility, decline in crop yields, and loss of biodiversity.
- About 3-5 million hectares of land is affected by wind erosion in arid regions of Punjab (Cholistan), Sindh (Tharparkar), and Balochistan (Chagai Desert and sand areas along the coast). Some of the areas have 0.5 to 4 meter high moving sand dunes, posing danger to cultivation land and local infrastructure.
- About 60% of the country is classified as rangelands. According to an estimate about 48% of rangelands are degraded. Degradation of rangelands reduces ecosystem functions and services. It affects local livelihoods and increases poverty.



CONSEQUENCES OF DESERTIFICATION

- Diminished food production, reduced soil productivity and a decrease in the land's natural resilience to climate variability
- Increased flooding, reduced water quality, sedimentation in rivers and lakes, and the siltation of reservoirs and water channels
- Land degradation due to dust storms, wind & water erosion, water logging and salinity
- Loss of biodiversity
- Aggravated health problems due to wind-blown dust, including eye infections, respiratory illnesses, allergies, and mental stress
- Brings hunger and poverty and contributes to famine
- Loss of livelihoods forcing affected people to migrate
- Environmental refugees suffer a loss of cultural identity and experience an undermining of their social stability

Sustainable Land Management is defined as:

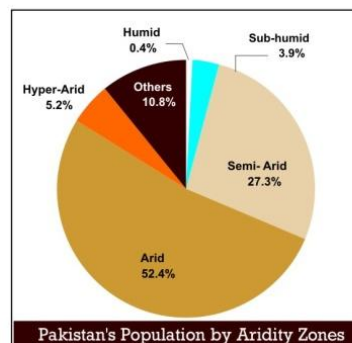
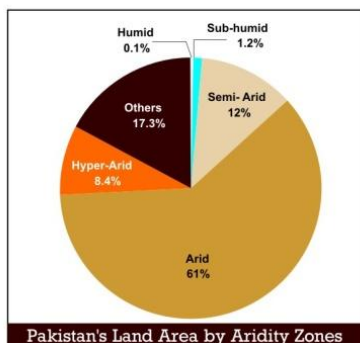
“Allocation of land resources for uses that provide the greatest sustainable benefit to people-while assuring the long term productive potential of these resources and the maintenance of their environmental functions”



MEASURES FOR COMBATING DESERTIFICATION

Combating desertification in Pakistan requires measures at the local, national and regional levels, including improvement in local management of land resources and policy reforms at the national level. Some possible measures include:

1. Introduction of policies and long term strategies that create enabling environment and local incentives for desertification prevention and rehabilitation of degraded lands;
2. Involvement of local communities in planning and implementation of desertification prevention and rehabilitation of degraded lands;
3. Introduction of alternate livelihoods to reduce pressure on local land and natural resources use;
4. Linking poverty alleviation with desertification prevention and control efforts;
5. Promotion of sustainable management of land and water resources;
6. Putting safeguards against over-exploitation of natural resources;
7. Protection of vegetative cover to prevent wind and water erosions;
8. Encouraging restoration of degraded rangelands and waterlogged and saline lands;
9. Development of early warning systems for food security and drought forecasting.
10. Curb deforestation and encourage afforestation /re-forestation programs; and
11. Creation of a “desertification prevention culture” by raising awareness.



For further information contact

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