



Drylands of Balochistan

KHARAN DESERT



INTERNATIONAL UNION FOR CONSERVATION OF NATURE



Drylands of Balochistan - Kharan Desert

Balochistan is the largest of Pakistan's four provinces with harsh climatic and topographic conditions, but is the least populated, most under-industrialised and has the lowest Human Development Indicators.

The climatic conditions in the dryland areas including Chagai and Kharan districts are extreme with the ratio of average annual precipitation to evaporation reaching extremely low values of under 0.05. Besides, the rugged and varied topography with denuded watersheds creates an extremely fragile environment resulting in frequent droughts and occasional flash floods causing land degradation. Poverty is rampant in the areas where livelihoods depend primarily on agriculture and livestock – both extremely susceptible to the negative impacts of droughts and floods.

District Kharan situated in north-western Balochistan with a total geographical area of 48,051 sq km, (13.84% of Balochistan), is divided into the Tehsils of Kharan, Basima, Mashkhel and Nag. It is bound by Chagai in the north and Kalat in the east while towards the south is the Washuk district. The population density of the district is very low (barely 4 persons per square kilometre) and Kharan City is the only urban centre while 80-85% of the population lives in the rural areas. The total current population is estimated at 0.28 million people with Rakhshani and Hasni as the principle tribes. The literacy rate in urban areas is estimated at 32.5% while in the rural areas it is as low as 12.5%. Most (over 95%) of the houses are *katcha* (mud) or semi-*pucca*.

Agriculture is the major source of livelihood in the district. Like in most other adjoining districts e.g. Panjgur, Awaran, Khuzdar, and Chagai, wheat is the principle crop in the district while a variety of fruits is also grown. Livestock and camel breeding is the second most important sector in the district. Rug making is also popular in the district. Electricity was provided to the district as late as 1991.

The major issues of the district are:

- ❑ Loss of vegetative cover in the watersheds and rangelands due to overgrazing, and use of wood for fuel by the local and nomadic population.
- ❑ Soil loss and reduction in fertility due to wind and water erosion.
- ❑ Limited water availability and its poor quality for domestic, agricultural and other requirements.

While agriculture is mostly subsistence-oriented using the highly rainfall dependent





sailaba and *khushkaba* forms of practices, water for domestic purposes is brought from long distances on animal backs or, where communities can afford, in bowsers pulled by tractors.

Incidences of drought have been a common feature in the area due to its hyper arid natural climate, and they have taken a heavy toll of livestock and crops during 1998-2004. Floods have also played their active role in recent times.

Floods cause losses to property (houses and living quarters), crops, livestock and agricultural lands. Droughts impact upon crops and livestock.

Communities following traditional lifestyles are subject to considerable changes, including the negative impacts of climate change resulting in degradation of traditional grazing lands, water scarcity, flash floods and soil degradation. Inability to understand modern business and agriculture models due to low levels of education and limited access to resources are visible in these communities. Therefore civil society organizations, NGOs, research organizations and the government sector must assume responsibility and act as agents of change. It needs to capitalise on the need for

capacity building of dryland communities with a view to strengthening their resilience.

There is need for a new, ecosystem-based approach to dryland environmental management, based on adaptive techniques that bring about:

1. Sustainable land use planning and management practices by village and pastoral communities.
2. Development of national and regional policies that promote adaptive land management interventions and improve rural livelihoods while maintaining ecosystem-regulating services.



The specific recommendations include:

1. Establishing the impacts of climate variability and change on the fragile economy of dryland households and farming systems (agro-pastoralism) in Balochistan
2. Establishing pilot areas to help conduct case studies for:
 - i. Identifying the typology of primary measures undertaken at household and community level to adapt to variable and changing climate
 - ii. Working with selected households and partners to evaluate the potential for rainwater harvesting
 - iii. Identifying the drivers of effective rainwater harvesting and conservation technologies as an adaptive measure to water scarcity
 - iv. Demonstrating and characterizing effective rainwater harvesting methods for crops and pastures.



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