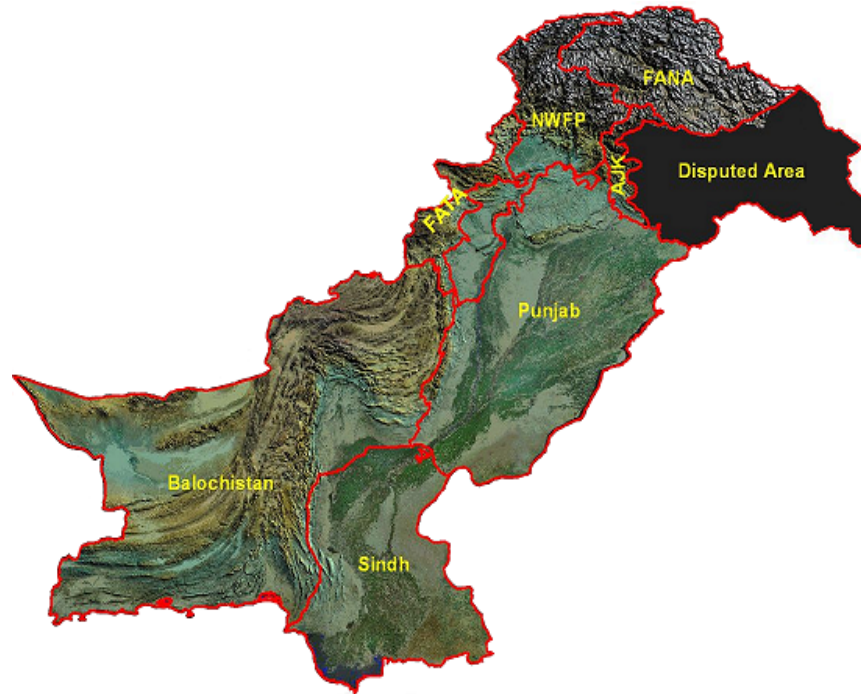




# LAND USE ATLAS OF PAKISTAN



NATIONAL LAND USE PLAN PROJECT

**Ministry of Environment  
Government of Pakistan**

## Minister's Message

Preparation of Land Use Atlas of Pakistan is a major landmark for the Ministry of Environment and the country. I am happy to note that the National Land Use Plan Project has successfully completed this task which, in addition to immense value to the Ministry, also has great potential utility for other line ministries, and institutions dealing with environment and sustainable development.

The Atlas presents an integrated spatial database through Geographical Information System. Looking at the coverage of the Atlas, I see that it has wide utility ranging from interpreting the state of environment in the country to prediction of future climate change and desertification and for identification of areas prone to environmental risks and hazards.

The Atlas is the product of a combination of remote sensing and geographical information technologies. It opens a new era of analytical framework that would go a long way in promoting sustainable development in the country.

The preparation of the Atlas, however, is only the first step. There is a need to widely disseminate it to stakeholders in order to effectively utilize the information. I am glad that steps have already been taken by the Ministry to distribute CDs of the Atlas widely to its potential users.

Hameedullah Jan Afridi

Federal Minister for Environment

## **FOREWORD**

The National Land Use Plan Project (NLUP) was launched by the Ministry of Environment in 2004 to undertake an inventory of land cover/land use and associated features in Pakistan through satellite imageries to collect and consolidate the digital data and utilize it effectively in environmental planning and management. A major output of the project is the Land Use Atlas of Pakistan. The Atlas covers a wide ranging area including land cover, forest, alpine pastures and rangelands, snow cover and water bodies, agricultural land and waste land. The themes and subthemes covered have been highlighted in the table placed at the beginning of the Atlas.

The Atlas holds a great promise for policy planning and implementation. It also establishes a database and a benchmark with a good overview of the contemporary situation. However, the land use changes in time and space, it is therefore important to continue the exercise so that temporal changes could be monitored for their sustainability. It is for the same reason that the Ministry wishes to continue the effort in future in association with the network of present institutions that collaborated with the Ministry in this endeavor as well as other relevant organizations.

The data for the Atlas has been obtained from a number of sources and collaborating organizations particularly those, which had conducted useful studies in the country on various aspects of land use including Space and Upper Atmosphere Research Commission (SUPARCO), National Agricultural Research Centre, International Water and Salinity Research Institute, Soil Survey of Pakistan, and Survey of Pakistan.

I would like to thank the collaborating organizations for providing the appropriate data. I would also like to thank the Director of NLUP and his team especially the GIS analyst for the hard and diligent efforts in compiling the related information. Last, but not the least, I would like to put on record my deep appreciation to the University of Peshawar, in particular Dr. Mohammad Aslam Khan, foreign faculty for his commendable effort in giving final shape to this Atlas.

I would welcome inputs and comments from the professionals, experts, scientists, and academicians for making the Atlas more useful.

Kamran Lashari

Secretary,  
Ministry of Environment

## Land Use Atlas of Pakistan

### Table of Themes & Sub-Themes

	Land Use / Land Cover						
	Thematic Layers						
	Administrative Areas	Land Use / Land Cover	Snow cover & Water Bodies	Forest	Pasture & Range Land	Agriculture	Waste Land
	Pakistan	✓	✓	✓	✓	✓	✓
	NWFP	✓	✓	✓	✓	✓	✓
	Punjab	✓	✓	✓	✓	✓	✓
	Balochistan	✓	✓	✓	✓	✓	✓
	Sindh	✓	✓	✓	✓	✓	✓
	Land Resources						
	Administrative Areas	Elevation (Contours)	Soil Type	Soil Erosion	Water Logging & Salinity	Soil Salinity Sodacity	
	Pakistan	✓	✓	✓	✓	✓	
	NWFP	✓					
	Punjab	✓			✓		
	Balochistan	✓					
	Sindh	✓			✓		

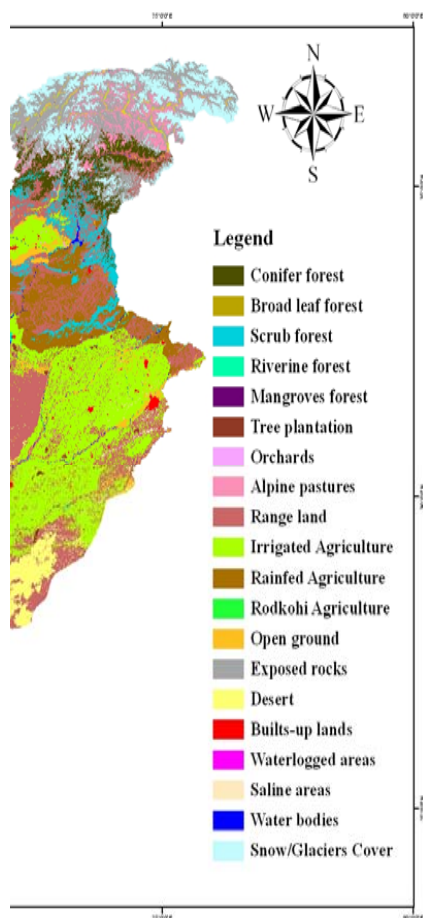


	Agriculture									
	Administrative Areas	Aridity Classes			Crop Growth Classes			Cropping Pattern	Engro Ecological Zones	Water Logging & Salinity
		Annual	Kharif	Rabi	Annual	Kharif	Rabi			
	Pakistan	✓	✓	✓	✓	✓	✓	✓	✓	✓
	NWFP							✓	✓	
	Punjab							✓	✓	✓
	Balochistan							✓	✓	
	Sindh							✓	✓	✓
Population & Human Settlements										
	Administrative Areas	Population Density		Human Settlements		Roads		Railway		
	Pakistan	✓		✓		✓		✓		
	NWFP					✓		✓		
	Punjab					✓		✓		
	Balochistan					✓		✓		
	Sindh					✓		✓		

**LAND COVER / LAND USE**

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_10315](https://www.yunbaogao.cn/report/index/report?reportId=5_10315)

预览已结束，完整报告链接和二维码如下：



## 1. Land cover/ Land use:

### Pakistan

Land cover/land use classification using ten categories in Pakistan developed from Landsat ETM image data is shown in table below. Forest cover including scrub, riverain, mangroves and plantation is about 5 percent in the country. Agricultural land including irrigated, rainfed and rodkahi agriculture extracted from spectral reflectance of crop cover is about 20 percent. It does not include the fallow land which has been covered under open space/ground class (covering about 10% area of country). Rangelands covered over 27 percent areas, while rock outcrops occupied another quarter of the country. The snow/glacier coverage was recorded at about 2 percent. Deserts have about 10 percent area and other uses (built up area, waterlogged and saline land and water bodies together accounted for a little more than one percent). Patterns of land use in Pakistan have evolved through centuries and been influenced by environmental and physical factors such as landform, soil, climate, water availability etc. as well as human factors such as population size, growth, economic demands, and cultural practices or customs. The interprovincial variations clearly depict the influence of these factors. For example in NWFP and Northern Areas, which are comparatively high altitude hilly regions, with relatively higher rain show a higher level of snow and glacier coverage (13 percent), as compared to none in other provinces. Likewise NWFP also has higher forest coverage about 17 percent as against 4 Percent in Punjab, 1.5 percent in Balochistan and some 6 percent in