

Natural Resources

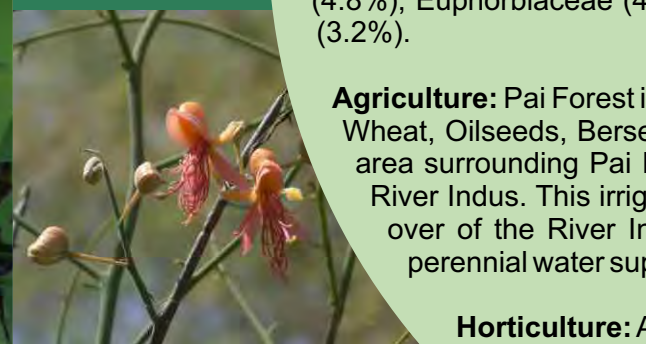
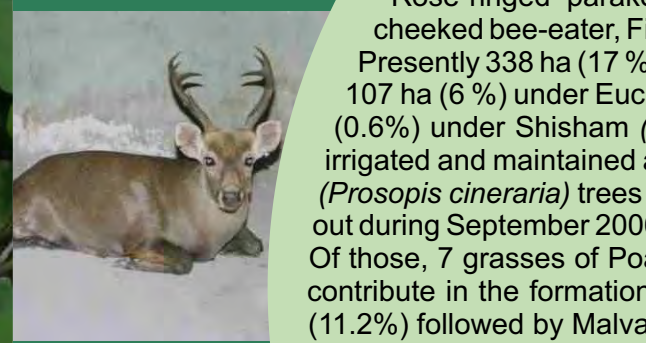
Livelihoods and Conservation Issues

Commonly Found Birds in Pai Forest

Common name	Scientific name	Status
Eurasian collared dove	<i>Streptopelia decaocto</i>	Resident
Grey shrike	<i>Lanius excubitor</i>	Resident
Green bee-eater	<i>Merops orientalis</i>	Resident
Jungle babbler	<i>Turdoides striata</i>	Resident
Purple sunbird	<i>Nectarinia asiatica</i>	Resident
Parakeet	<i>Psittacula krameri</i>	Resident
Red collard turtle dove	<i>Streptopelia tranquebarica</i>	Resident

Commonly Found Plants in Pai Forest

Local Name	Plant species
Babur	<i>Acacia nilotica</i>
Baid Mushk	<i>Eucalyptus camaldulensis</i>
Ber	<i>Zizyphus nummularia</i>
Devi	<i>Prosopis juliflora</i>
Dabh	<i>Desmostrachya bipinnata</i>
Gah	<i>Eragrostis japonica</i>
Gah	<i>Eragrostis minor</i>
Jaar, Khabbar	<i>Salvadora oleoides</i>
Jaar, Khabbar	<i>Salvadora persica</i>
Kandi	<i>Prosopis cineraria</i>
Kirar	<i>Capparis decidua</i>
Lai	<i>Tamarix aphylla</i>
Lai	<i>Tamarix kermanensis</i>
Lai	<i>Tamarix indica L.</i>



Pai Forest is a Game reserve, as it abodes Hog deer and Grey partridge. It is being used for sport hunting since its creation. Other wildlife species include Asiatic jackal, Indian grey mongoose, Small Indian mongoose, Jungle cat, Pangolin, Indian Bengal fox, Desert hare and, Indian porcupine.

There are a number of bird species found in the forest such as Green finch, Red-vented bulbul, White cheeked bulbul, Pied bush-chat, Crow pheasant, Black drongo, Indian roller, long-tailed prinia, Grey wagtail, Green pigeon, Turtle dove, Common starling, Bank myna, Common babbler, Jungle babbler, Purple sunbird, Rose-ringed parakeet, Common kite, Small green bee-eater, Crested lark, Blue-cheeked bee-eater, Finch lark, Indian sand-lark, Bay-backed shrike and Grey shrike.

Presently 338 ha (17 %) of the total area of the Pai Forest are under Babul (*Acacia nilotica*), 107 ha (6 %) under Eucalyptus, 1045 ha (54%) under Kandi (*Prosopis cineraria*) and 12 ha (0.6%) under Shisham (*Dalbergia sissoo*). Thus a total of 457 (24% of the total area) is irrigated and maintained as irrigated plantation while remaining (54%) is comprised of Kandi (*Prosopis cineraria*) trees and do not receive irrigation water. Vegetation assessment carried out during September 2006 revealed 62 plant species belonging to 49 genera and 26 families. Of those, 7 grasses of Poaceae family have been identified. The major plant families which contribute in the formation of vegetation in the area are Amaranthaceae (11.2%), Poaceae (11.2%) followed by Malvaceae (6.4%), Capparidaceae (6.4%), Tiliaceae (6.4%), Aizoaceae (4.8%), Euphorbiaceae (4.8%), Mimosaceae (4.8%), Tamaricaceae (4.8%) and Compositae (3.2%).

Agriculture: Pai Forest is surrounded by irrigated agriculture area used for raising crops like Wheat, Oilseeds, Berseem fodder, Chicken pea, Cotton, Sorghum, and Sugarcane. The area surrounding Pai Forest relies mainly on the irrigation system whose source is the River Indus. This irrigation system relies on canal-water, tube wells as well as the spill-over of the River Indus. The main canal is the Rohri Canal and the area receives perennial water supply from this canal through its channels.

Horticulture: A conspicuous feature of the area is the number of Banana orchards and the indigenous vegetables that are commonly cultivated in Sakrand area. Other fruits include mangoes and oranges. The principal vegetables grown in the area are cauliflower, tomato, peas, carrot, spinach, okra and onion.

Livestock: Good breeds of buffalo and cow are found in the locality. Sheep, goat, camel, horse, donkey and mule are the main livestock types of the Pai area. Cattle of the area are considered among the best in Pakistan and the finest milk cows are found in the tracts with good grazing and water.

The main occupation or livelihood of the population surrounding Pai Forest is agriculture and livestock rearing. A very small proportion of the population settled on the banks of the River Indus is engaged in fishing and hunting. Some of the population is engaged as un-skilled laborers on roads and other construction works. Skilled laborers are working in sugar and cotton mills and motor workshops. Educated people from the local communities also serve in various government jobs.

People of this area can be divided into three broad groups based on their languages, i.e. Sindhi, Balochi and Seraiki speaking. Since climate of the district is hot and humid with meager rainfall, locals often find it more comfortable to remain outside under shelter and shade of trees than in a firmly build dwelling. Given the climate, most houses are built of sun dried mud bricks with flat roofs though concrete constructions are becoming more common in the cities and urban areas.

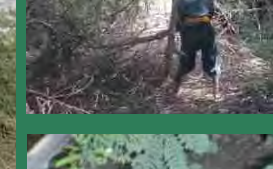
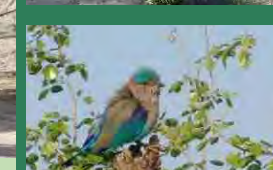
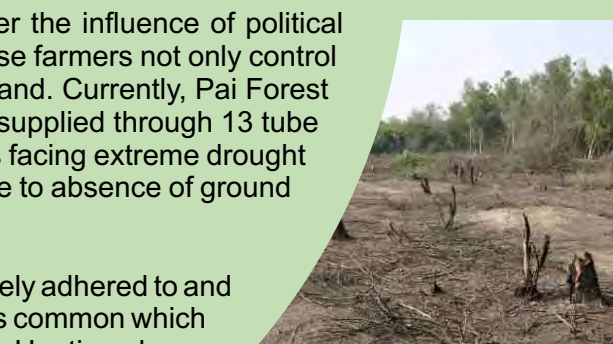
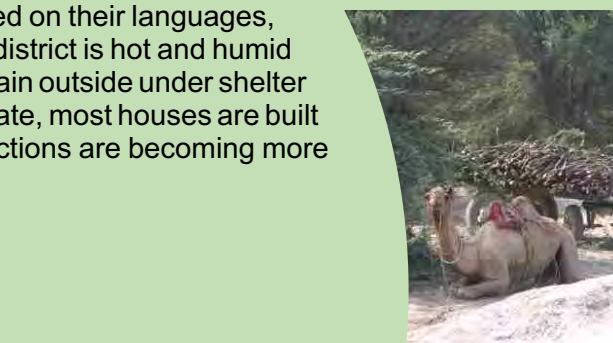
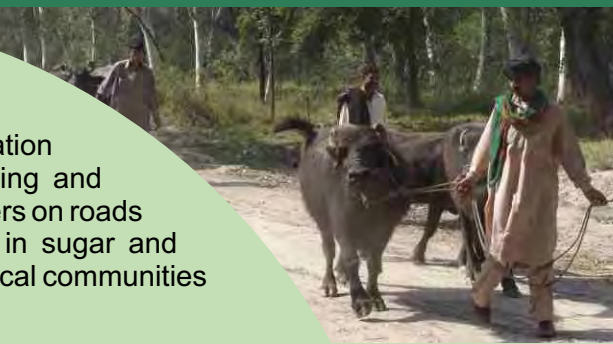
Conservation Issues

The following conservation problems have been identified:

Water and Land Encroachment: The game reserve is under the influence of political pressure especially from the influential local farm owners. These farmers not only control the canal water but also keep on encroaching the Pai Forest land. Currently, Pai Forest receives no canal water and solely depends on ground water supplied through 13 tube wells. Due to intense shortage of irrigation water, Pai Forest is facing extreme drought which results in loss of fertility, erosion and hardness of soil due to absence of ground flora.

Hunting: Though hunting licenses are issued, the limits are rarely adhered to and no guidelines for hunters are available. Indiscriminate hunting is common which has led to the decline in population of Hog deer and Partridges. Hunting also increases disturbance which has ultimately led to the dispersal of wildlife from the area.

Deforestation: Cutting of forest for fuel wood by the local communities has significantly contributed to the destruction of the forest ecosystem. Livestock grazing by the local communities is also widely prevalent which damages the natural vegetation and newly emerging tree seedlings.



Conservation Priorities

The main conservation priority for Pai Forest is to first halt the destruction of the remaining habitat and then rehabilitate it. In addition, there is a need for interventions to help the local community reduce their dependency on the forest viz-a-viz introducing better forest management practices. Some specific actions need to be taken, such as:

- ◆ Rehabilitation of existing irrigation canal water;
- ◆ Implementation of a two year hunting and trapping ban on the two partridge species found in the area;
- ◆ Blanket protection of Hog deer for an unlimited period; and
- ◆ Strict enforcement of habitat removal including scrub and deadwood

Order	Scientific name	English Name	Sindhi Name
Carnivora	<i>Canis aureus</i>	Asiatic Jackal	Giddarr
	<i>Felis chaus</i>	Jungle Cat	Jhangrarr
Ariodactyla	<i>Sus scrofa</i>	Wild Boar	Suar
	<i>Axis porcinus</i>	Hog Deer	Pharra