



© UNDP Pakistan

Sustainable forest management can help conserve biodiversity, mitigate climate change and secure forest ecosystem services.

Sustainable Forest Management to Secure Multiple Benefits in Pakistan's High Conservation Areas

Sustainable forest management is a means of protecting forests whilst offering direct benefits to people and the environment. It contributes to local livelihoods and offers environmental benefits such as carbon sequestration and conserving water, soil and biodiversity.

Less than 5 percent of Pakistan's total area is under forest cover, and 1.5 percent of these forests are lost every year. This has profound impacts on Pakistan's biodiversity, environment and agriculture. With climate change, such events are becoming more frequent and more devastating, pointing towards an urgent need to conserve Pakistan's indigenous forests.

QUICK FACTS

Duration: 2016 - 2020

Implementation partner: Government of Pakistan, Governments of Sindh, Khyber Pakhtunkhwa and Punjab

Funding partner: Global Environment Facility (GEF) and UNDP

Location: Khyber-Pakhtunkhwa, Punjab, Sindh

Annual budget (2019): US\$ 2,040,004

Contact: Muhammad Sohail, Programme Officer, Environment and Climate Change Unit, UNDP
Muhammad.sohail@undp.org

Poverty, weak controls and lack of awareness contribute to over-exploitation. Bringing communities into forest management and thereby helping them achieve sustainable livelihoods, can help conserve forestland across Pakistan.

This project focuses on seven forest landscapes (145,300 hectares) containing three vulnerable and important forest types: temperate coniferous forests in Khyber Pakhtunkhwa, dry scrub forests and pine forests in Punjab, and riverine forests Sindh.

Objectives

To promote sustainable forest management in Pakistan's west Himalayan coniferous forests, scrub forests and riverine forests for biodiversity conservation, mitigation of climate change, and securing forest ecosystem services.

Major Achievements

- 8 water ponds rehabilitated at Moza Sir, Dhok Jhangi, Lar Shah Nawaz, Dera Rajgan, Mahiwal, Haral & Amreela villages in Chakwal.
- 90 gas cylinders (60 in Sindh and 30 in Khyber Pakhtunkhwa) with stoves distributed amongst community members.
- Four biogas plants, two at Keti Shah and two at Kotdhingano riverine forests established.
- 30 km long compartment roads cleared in Sukkur and 15 km in Kotdhingano riverine forests.
- Two enclosures for Hog Deer of 2 acres have been established to provide suitable habitat to indigenous wildlife species.
- 5 km long jeepbale road repaired for jeeps in Diljabba forest area, Chakwal.
- 30 km long compartment roads cleared in Sukkur and 15 km in Kotdhingano riverine forests.
- 30 km long bridle path renovated in Kaghan.
- Two inspection quarters/huts were constructed (one in Sukkur and one in Kot-Dingano); one inspection quarters/huts renovated in Chakwal; one inspection quarter/hut is under construction and one has been renovated in Kaghan.
- Plantation and seed sowing carried out on 523 hectares of land in Siren and Kaghan, Khyber

Pakhtunkhwa. A nursery of fifty thousand plants raised in Siren.

- In Punjab, 241 hectares reforested while 1,059 hectares restored through constructing check dams and water ponds.
- Commemorating Plant for Pakistan day, 14,000 kg seeds broadcasted over an area of 1,336 hectares, 4,000 kg broadcasted over 203 hectares in Kotdhingano, while 200 kg of seeds were provided to frontier works organization for sowing along the M9 motorway. In addition to this, 25,000 seedlings of native species and 1,000 fruit plants were distributed amongst locals during the Monsoon season.
- Water spreading, bush fencing, development and clearance of compartment roads and wetlands restored over 741 hectares land at two landscapes in Sindh.
- The total carbon stock in the Sustainable Forest Management Project area in Sindh is 356,830 tonnes. Out of this, 78.06% carbon stock is in the soil, 10.55 % in aboveground biomass, 5.09% in belowground biomass and 3.20% in litter. Thus, the Average Carbon per hectare is 47.33 tonnes.
- The total carbon stock in the Sustainable Forest Management Project area of Siran Forest Division was estimated at 1,362,927 tonnes. Out of this 56% is in the soil, 33 % in aboveground biomass, 9% in belowground biomass and 2% in litter. Average Carbon per hectare was found to be 99.17 tonnes.
- The total carbon stock in the scrub forest landscape was estimated to be 391,896 tonnes. Out of this, 76% is in the soil, 15 % in aboveground biomass, 8% in belowground biomass and 1% in litter. Average Carbon per hectare was found to be 49.87 tonnes.
- Local allometric equations and carbon tables of *Acacia nilotica* and *Tamarix dioca* were developed through sampling of trees in riverine forests of Sindh.

Planned activities

Embed sustainable forest management into landscape-scale planning by:

- Mapping forest resources and ecosystem services to inform planning, development, implementation and monitoring at the landscape level.

- Developing landscape level spatial plans which integrate biodiversity, ecosystem services, climate mitigation and use of resources by local communities.
- Developing protocols to mainstream ecosystem services, climate risk mitigation and biodiversity into forest management planning.

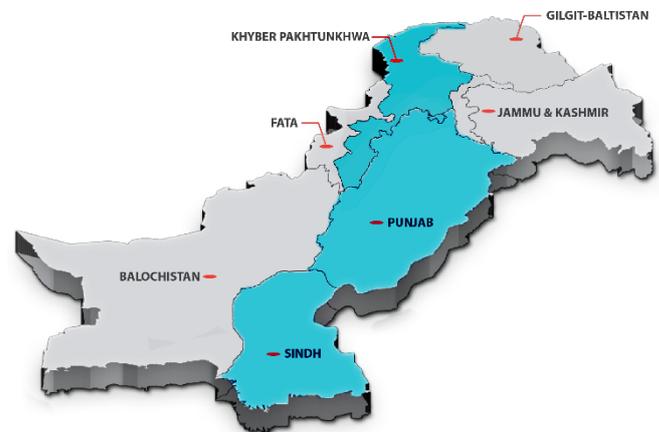
Strengthen biodiversity conservation in and around high conservation value forests by:

- Changing the use of high conservation value forests towards biodiversity conservation and non-exhaustive community forest management, thereby avoiding deforestation.
- Establishing model community governance and management systems.
- Strengthening capacities in biodiversity conservation through training, guidelines, co-management and enforcement.

Enhance carbon sequestration in and around high conservation value forests in target landscapes by:

- Protecting existing forests.
- Restoring and rehabilitating degraded coniferous forests by closing them for natural regeneration and new plantation.
- Rehabilitating scrub forests through dry afforestation techniques.
- Reforesting riverine tracts with indigenous trees.
- Documenting best practices and building capacities in silviculture (local-level forest management) for reforestation and restoration.
- Applying and validating the Pakistan-specific REDD-RPP methodology for measuring carbon stock in target areas.

Where we work



© UNDP Pakistan