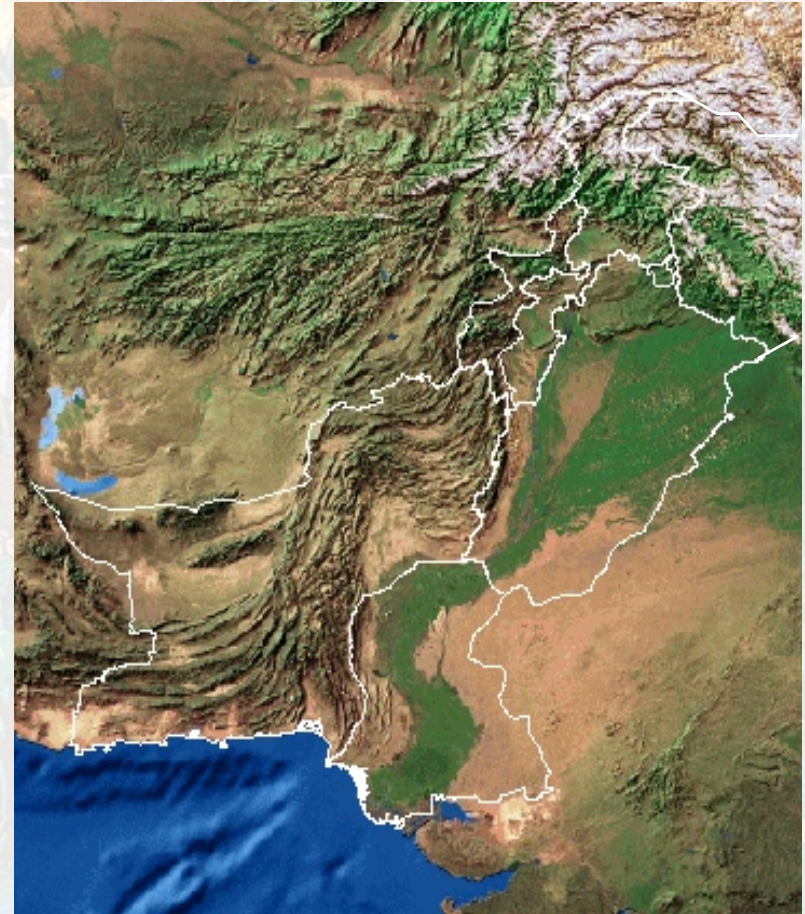




Government of Pakistan
Ministry of Environment
Forestry Wing

FORESTRY RESEARCH & EDUCATION IN PAKISTAN

OUTLOOK FOR 2020



Dr. Shahzad Jehangir
Deputy Inspector General Forests



Categories of R&D and Education Institutions

1. Federal Institutions
2. Provincial Institutions
3. International & National Non-Government Organizations
4. Private Sector Organizations



Ministry of Environment

Structure:

- Environment Wing (deal with brown sector)
- Forestry Wing (deal with green sector)

Functions:

- Forest Policy making (forestry research, education on top of Forest Policy)
- Forest Planning (vision, long-term plans, MTFD)
- Financing R&D (mainly through Pakistan Forest Institute)
- Sponsoring formal and informal education (scholarships, collaborative / joint bilateral education programmes, in partnership with provinces and HEC)

Research Arms of MOE

- Pakistan Forest Institute
- Zoological Survey Department





Pakistan Forest Institute, Pesh

1. Forestry Research Division (FRD)

Disciplines: Silviculture, Forest Genetics, Biometrics, Watershed Management, Range Management, Forest Economics, Wildlife Management, GIS/Computer

2. Forest Products Research Division (FPRD)

Disciplines: Forest Products, Forest Engineering, harvesting techniques, marketing, Pulp & Paper, Wood Technology, Composite Wood Products

3. Biological Sciences Research Division (BSRD)

Disciplines: Forest Botany, Chemistry, Entomology, Medicinal Plants, Pathology

4. Forest Education Division (FED)

Disciplines: Formal education, MSc Forestry degree or BSc Forestry degree, Academically, PFI is affiliated with the University of Peshawar since 1958.

5. Forest Economics Branch (FBR)

Collects and compiles forestry statistics data on regular basis

6. GIS/RS and Computer Section





Pakistan Agricultural Research Council

Mandate

- Undertake, aid, promote and coordinate agricultural research
- Expedite utilization of research results
- Establish research establishments
- Train high-level scientific manpower
- Generate, acquire and disseminate agricultural information

PARC has a number of attached research centers

NARC is the largest of all centers





National Agricultural Research Center Isb

Rangeland Research Programme

- Multi-Purpose Tree Species (MPTS)
- Develop sustainable and economically viable agroforestry packages
- Promote integrated agriculture
- Vegetative techniques soil conservation

Water Resources Research Institute

- Irrigation Water Management
- Water Harvesting and Conservation
- Resource Use Planning
- Management of Hill-torrent Water in Rod-Kohi Areas
- Resource Use Planning and Systems Simulations Programme (RUP)
- Geo-informatics in agriculture and natural resources





SUPARCO

1. Suppliers of all satellite data to concerned R&D agencies

2. SUPARCO's SRS Centre Islamabad is responsible for:

- ✓ Using space technologies for NR inventorying and env monitoring
- ✓ Executing application projects of national significance
- ✓ Transferring technology to users in public and private sectors
- ✓ Imparting Remote Sensing and GIS training to potential users

3. RS/GIS Centre Karachi established to:

- ✓ Undertake R&D work to support planning and development projects
- ✓ Contribute to the natural resource management programs
- ✓ Specialized trainings on RS – GIS
- ✓ Offer higher education programs, PGD, Masters and Ph.D
- ✓ Turnkey solutions in different fields inc Forestry





Global Change Impact Studies Center (GCISC)

1. **Directly reporting to the Prime Minister of Pakistan**
2. **Climatic modeling and simulation for assessing CC (RCMs)**
2. **Vulnerability zoning to global warming and climate change**
3. **Prediction of impacts of climate change on**
 - ***Agriculture***
 - ***Water***
 - ***Biodiversity***
 - ***Forests***
4. **Advising the PM and concerned agencies on adaptation to CC**





Allama Iqbal Open University, Isb

- Distant Learning for in-service people interested in higher education, vocational training, short courses
- Offering Masters Programmes in:
 - ❖ **Forestry Extension & Communication**
 - ❖ **Social Forestry**
 - ❖ **Participatory Forest management**
- Mainly field-oriented research as part of degree programmes



Punjab Forestry Research Institute, Fbd

- Research & education Arm of Punjab Forest Department
- Mandated for Applied Research on field issues

Irrigation efficiencies

Nursery / planting techniques

Farm & Agro-forestry

Provincial Forestry Schools

- Administratively under Provincial Forest Departments
- Offer Diploma and Certificate Courses for forest technicians

Punjab Forest Schools (2)

Sindh Forest School

NWFP Forest School



University of Arid Agriculture, Rwp

- Higher education and research on various disciplines of science, agriculture, arts and humanity
- Department of Forestry, Range Management & Wildlife (est 2001)

Objective: Conduct research with special emphasis on problems of rangelands, forests and NRM of arid and semi arid regions

- Offering the degrees of
 - BSc (Hons) Agri and MSc (Hons) Agri in RMF major
 - Research-based MPhil and PhD



University of Arid Agriculture
Rawalpindi (UAAR)





- IUCN
- WWF
- SDC / Inter-cooperation
- LEAD-Pakistan
- Sustainable Development Policy Institute

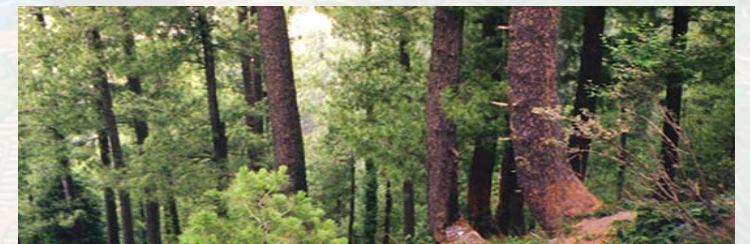
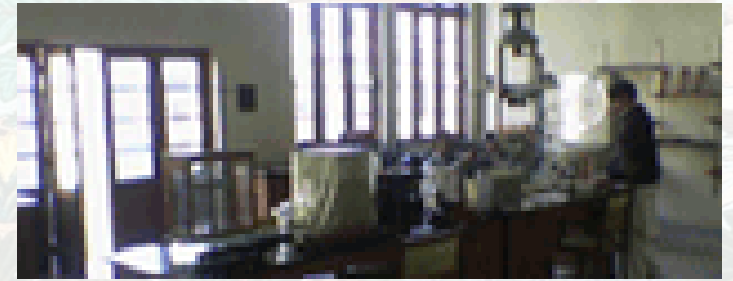
Involved in:

- ✓ Forestry research, surveys, baselines
- ✓ Forestry education (informal)
- ✓ Policy Research for Planners and Decision Makers



Key Topics of Current Forest R&D Programme

- Wood technologies
- Chilghoza productivity
- Juniper regeneration
- Mangrove restoration
- Protected Areas (baselines / mgt plans)
- Ethnobotany





Bringing Excellence in FR&E in Pakistan

FINANCING IN FR&E

- 1. High Priority of Forestry Research & Education (NFP, MTFD)**
- 2. Allocation of sufficient financial resources (PFI in focus)**
- 3. Pakistan Forest Institute being strengthened (\$3m + \$8m +)**
- 4. Financial and technical support to other R&D institution**
- 5. Government considering re-vamping of National Forestry Research & Education Programme**



Bringing Excellence in FR&E in Pakistan

PILLARS OF FUTURE FR&E PROGRAMME

- **Functional Coordination and Collaboration within the country**
- **Provision of highly qualified human resources for FR&E**
- **Special, performance-based Pay packages for practicing scientists**
- **Higher education for forest managers (domestic, foreign, split training)**
- **Strengthening regional cooperation** (ICIMOD, IUFRO, APAFRI, CIFOR, SAARC Forestry Center etc)



Bringing Excellence in FR&E in Pakistan

ELEMENTS OF FUTURE FR&E PROGRAMME (ADDITIONAL)

- ▶ **Forest Biodiversity**
- ▶ **CC Mitigation & Adaptation**
- ▶ **Parks, Protected Areas & Eco-tourism**
- ▶ **Farmland & Community Forestry**
- ▶ **Forest-related MEAs** (CBD, UNFCCC/Kyoto, UNCCD, UNFF, CMS, CITES, Ramsar)
- ▶ **Forest Geo-informatics**
- ▶ **Wood technologies, products & marketing**
- ▶ **Non-wood forest products**
- ▶ **Economic valuation & green accounting**

