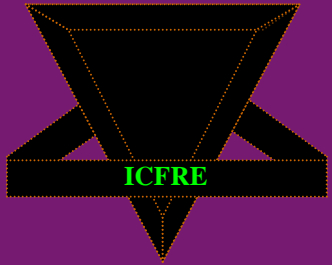


Indian Council of Forestry Research and Education (ICFRE) and its Role in South Asia: Vision 2020

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Director General, ICFRE





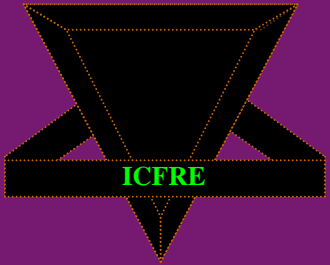
Introduction: South Asia

- A very vibrant and unique region with complex ecosystems: glaciers, water bodies, forests, grasslands, deserts
- Large range of forests from alpine and temperate mountain forests bordering Tibetan Plateau in north through tropical deciduous forests to humid tropical forests in south
- Collectively more than one hundred million hectares of varied forest types

Introduction: South Asia

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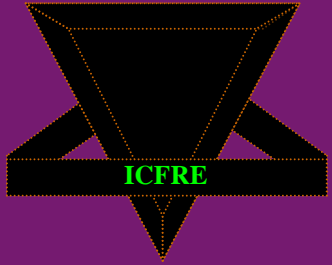
- ❖ Histories, languages, culture and social structures of peoples and communities hugely diverse
- ❖ Forestry issues of region most complex in world





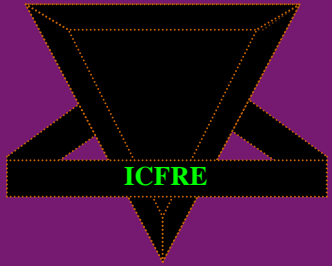
Threats

- ❖ Forests as important life-support system intricately linked with social and cultural structures and activities
- ❖ Forest as land use competing with agriculture, plantations, commerce, mining and industry



Impacts

- Deforestation leads to modification of land surface characteristics which consequently
 - affects land stability, and gas, energy, water and nutrient exchange
 - impacts land productivity, water flow, economy, health, industry, and environment

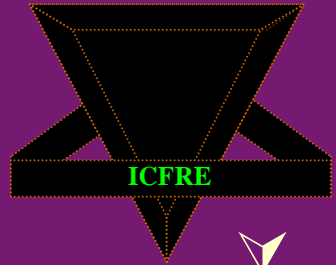


Strength of ICFRE & Allies

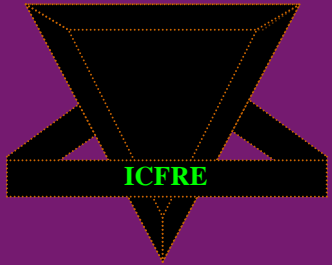
- More than 100 years of forestry research, management and education backup
- Many original technologies and patents
- Comprehensive infrastructure and facilities—unique and only of its kind in world
- Regional institution of repute in capacity building in S and SE Asia: Afghanistan, Sri Lanka, Nepal, Bhutan, Lao PDR, Korea, Mauritius
- 8 Institutes, 4 Centres » 220 forest types, diverse research problems

Strength of ICFRE & Allies

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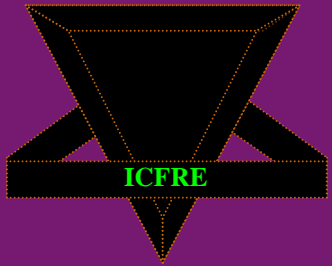


- Education: oversees forestry education-
undergraduate, graduate levels
 - FRI University: 3 PG courses + PG Diploma courses
- Observer Status of UNFCCC
- Applied for Observer Status of UNCCD
- Allied Organizations
 - IIFM, IPIRTI, State Agricultural Universities
- Expertise and capability of addressing regional and
global issues » policy research, extension, climate
change, environmental services



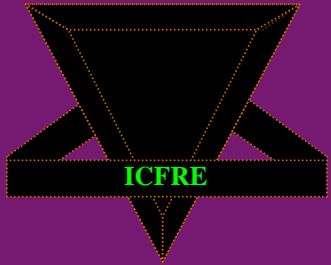
Linkage Issues

- ❖ Partnerships and Networking for Conservation and Development of Forest Ecosystem in South and South–East Asia lacking
- ❖ Exchanging and sharing of facilities and information on forestry research and education



1. Developing strategies for protection and sustainable management of natural forests

- ❖ Based on better understanding of ecological processes, of biodiversity, and of economic utility of useful but lesser-known wood and non-wood products
- ❖ Improved silvicultural practices for sustainable extraction of both wood and non-wood products in natural forests, plantations and farming systems



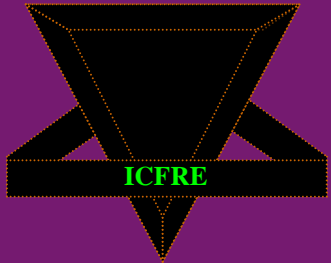
2. Research on trees in farming systems

- Directly impacts on agroforestry and watershed protection and rehabilitation: role of trees and shrubs in farming and pastoral systems
- Trees essential for checking degradation of, and promoting rehabilitation of degraded agricultural lands to provide economic and social stability to rural areas, and thus check migration



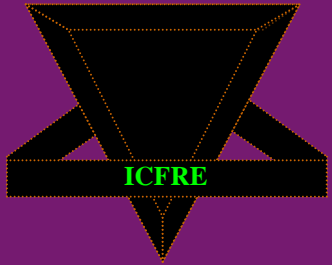
3. Investigations into tree breeding and intensive forestry

- ▼ Provenance trials, tree breeding, genetic engineering, vegetative propagation, pest control, fertilizer application and other practices to produce quality planting material and high-yielding trees for forestry and agroforestry practices
- ▼ Increasing productivity of forests and agricultural lands, for social and economic development



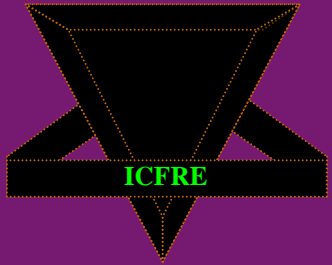
4. Research for improved utilization

- Utilization-including improved recovery and processing of traditional wood and paper products, more efficient use of wood in housing, other constructions, and in improved cooking stoves and charcoal kilns – all offer opportunity of adaptive research in the region based on learning from each other- countries and region



5. Research on policy and socio-economic analysis

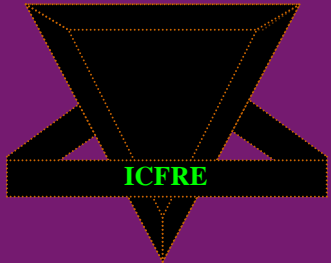
- Within and outside forestry sector, as integrated policy research encompassing forestry and social issues essential for real economic development of rural people
- Integrated policy research across sectors, countries and regions possible



5. Research on policy and socio-economic analysis

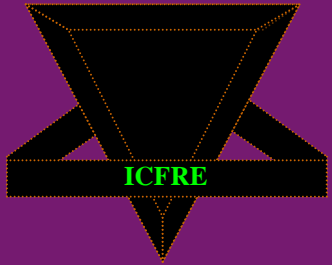
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- ✓ **Subjects:**
- ✓ Conservation and land use
- ✓ Marketing and pricing
- ✓ Tariff and non-tariff trade barriers
- ✓ Legal and regulatory framework
- ✓ **Cross-cutting Elements:**
- ✓ Ownership rights
- ✓ Land tenure
- ✓ Culture and gender
- ✓ Capacity building



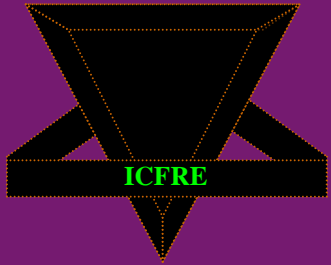
6. Research on valuation of forest ecosystems

- ❖ Direct economic, social and ecological valuation of natural and man-made forest ecosystems
- ❖ Estimation of compensation value, and of payments for goods and services generated from forests
- ❖ Comparison of such values with other sectors, estimation of other institutions, and within and among countries and regions



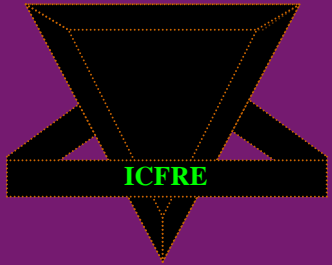
7. Research Extension

- Forest Science Centres
- Demonstration Villages
- Farmer to Farmer Visits
- Exchange Visits by Forest Based Industry
- Technology and Information Transfer amongst countries and regions



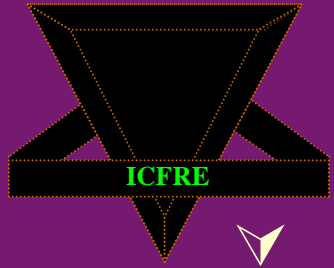
8. Data Generation

- ❖ Forest cover and type maps using state of the art analysis of most advanced satellite imageries
- ❖ Forest biomass carbon maps
- ❖ Forest soil carbon maps
- ❖ Collection and dissemination of reliable data for policy formulation



9. Forestry Education

- Evolving and articulating appropriate and relevant plans for forestry education in the region
- Evaluation of existing forestry curricula for standardization
- Evaluation of job opportunities for forestry graduates in public sector



ICFRE & Role in South Asia: Vision 2020

Regional Cooperation and Networking

- Integrated policy and socio-economic research
- Valuation of goods and services from forests and comparison with environmental and economic returns from other land uses
- Climate change and forestry
- Research extension (FFV, FBI)
- Education: comparison and upgrading, exchange visits
- Capacity building, sharing of information and facilities
- Development and sharing of maps and data



MoU with FRIs, Educational Institutions of South Asian countries



**Thank
you**