



# FOREST, ENVIRONMENT AND CLIMATE CHANGE: ISSUES AND CHALLENGES JANUARY 30-31, 2012



# DEPARTMENT OF FORESTRY, WILDLIFE & ENVIRONMENTAL SCIENCES GURU GHASIDAS VISHWAVIDYALAYA (CENTRAL UNIVERSITY)

**BILASPUR-495009, CHHATTISGARH, INDIA** 

#### **BACKGROUND:**

Forests are most valuable resource for the sustenance of life on the mother earth. Nearly 4 billions hectares of forest cover the earth's surface, roughly 30% of its total land area. These forests have provided timber for homes, firewood, food, medicines, transport services and tribal traditional uses. Many of the world's great forests are mostly reduced by logging activities. In fact, few places on Earth retain any virgin forests. Though extensive, the world's forests have shrunk by some 40% since agriculture began 11,000 years ago. Three quarters of this loss occurred in the last two centuries as land was cleared to make way for farms and to meet demand for wood. Over the last five years, the world suffered a net loss of some 37 million hectares of forest (FAO). Each year the world looses some 7.3 million hectares of forest, an area the size of Panama.

The forests in India cover 67.833 million hectares, which is 20.64% of the total land area. About 60% of the Indian people are dependent on the forests for energy resources, grazing of cattle and construction materials. Planning and management practices will define the future structure and composition of forest resources and their ability to provide ecological, social-cultural and economic benefits. In 2006, forestry in India underwent a major change with the passage of the Forest Rights Act, a new legislation that seeks to reverse the "historical injustice" to forest dwelling communities that resulted from the failure to record their rights over forest land and resources. It also sought to bring in new forms of community conservation.

The changes on temperature in India show a striking pattern, with colder forests of being subjected to a larger increase of about 3°C compared to the evergreen forests, which on an average become warmer by only about 2.4°C compared to the national average of 2.9°C. Most of the forests show an increase of about 4°C with the northern temperate forests being subjected to about 4.6°C increase, while the evergreen forests show the least change of about 3.3°C. Unsustainable consumption patterns of the rich industrialised nations are responsible for the threat of climate change. Only 25% of the global population lives in these countries, but they emit more than 70% of the total global CO<sub>2</sub> emissions and consume 75 to 80% of many of the other resources of the world. In per capita terms, the disparities are also large: an Indian citizen emits less than 0.25 tonnes of carbon per year whereas a citizen of the USA, for example, emits more than 5.5 tonnes.

Climate change is a global problem requiring a global response. Energy-related carbon dioxide emissions have risen 145-fold since 1850 and are projected to increase another 54% by 2030. Most emissions come from a relatively small number of countries. An effective global strategy to avert dangerous climate change requires commitments and action by all the world's major economies. The United States with 5% of the world's population is responsible for 18% of global greenhouse gas emissions.

The state of Chhattisgarh is significantly rich in endemism with respect to many herbs, shrubs and tree species having timber, spices, fibre, fodder and medicinal values. The forest of state fall under two major forest types: i.e. tropical moist deciduous forest and tropical dry deciduous forest. There are about 22 varied forest sub types existing in the state. The Chhattisgarh state has 44% area under forest cover.

Chhattisgarh is the second largest producer of Tussar silk next to Jharkhand. Tussar culture is predominant in the state and practiced traditionally in the state through different eco-races and cultivated varieties of Tussar silkworm specific to their niche. Amongst wild Tussar silkworm eco-races Raily and Baraf are the most popular eco-races of silkworm for commercial exploitation. Raily cocoons are found naturally in Sal (*Shorea robusta*) forest of Bastar region in southern Chhattisgarh. The reared verities of Tussar silkworm feed on many food plants viz. *Terminalia arjuna, Terminalia tomentosa* and *Lagerstroemia parviflora* which are growing in abundance in the forest of Chhattisgarh. The number of nature grown cocoons is decreasing at an alarming rate which needs immediate attention of the scientific community to develop a sustainable harvesting practice of natural cocoon collection so as to save the eco-races of Tasar silkworm in this region.

Guru Ghasidas Vishwavidyalaya was established on June 16, 1983 in the name of a Satnami Saint Guru Ghasidas Baba of 18<sup>th</sup> century who waged a relentless struggle against social evil and injustice. In the year 2009, the university was upgraded to Central University (A Central University established by the Central Universities Act 2009 No.25 of 2009) status to promote the higher education and quality research in the Central India. The University has 750 acres of land which is covered with lush green tree canopy.

The Department of Forestry, Wildlife & Environmental Sciences was established in 1989 with dedication to impart graduate, post-graduate education and to promote research and professional excellence, keeping in view of the forestry, wildlife and environment trained man power need of the region in particular and country in general. The department has made noteworthy contributions in the realm of Forest Tree Improvement, Agroforestry, Watershed Management using Remote Sensing & GIS, Ethnoforestry and bioprospecting, Microbial ecology of forest soils and remediation of wastelands.

This national conference is aimed at providing a common platform to forest scientists, environmentalists, researchers, sericulturists, industrialists, NGOs, farmers, entrepreneurs and forest officers for brain storming on national and global issues related to 'FOREST, ENVIRONMENT AND CLIMATE CHANGE' to make recommendations for better planning and development of forests, environment and mitigation of climate changes.

## THEMES OF THE CONFERENCE:

- Forest Biodiversity.
- People and Forest in Harmony.
- Forestry Techniques Silvicultural, Tree Improvement, Pest Management, NWFP utilization and Bioprospecting.
- Tussar culture and their products.
- Forest Tree Genomics and Tree Breeding.
- Watershed and Water Resource Management through Remote Sensing & GIS.
- Wildlife Conservation, Management and Ecotourism.
- Potential of Forest in Mitigation of Climate Change.
- Climate induced Changes in Forest Ecosystem Services.
- Carbon Forestry and Carbon Trading.
- Green Technology and Environmental Engineering.
- International Summits, Conventions and Treaties.

## CALL FOR ABSTRACTS FOR ORAL/POSTER PRESENTATION:

The interested participants who wish to present their research work and experiences related to above mentioned themes may submit abstracts, not exceeding 300 words, duly typed on A4 size paper or in CD (MS Word). It is mandatory for participants to send their abstract through e-mail (forestry\_ggu@rediffmail.com/ sssingh\_ggu@rediffmail.com).

#### Following instructions may also be followed while preparing the abstract:

#### **Title: Capital letters**

Name of the authors, address and e-mail address of Corresponding author.

Key words: (4 to 5 words). Botanical names should be in Italic font.

Full length paper presented at the Conference will be published in book form proceedings.

#### **Poster:**

The poster should have clear title, Abstract, Introduction, Methodology and important findings with References. (For further information please see university website: www. ggu.ac.in.)

### **IMPORTANT DATES:**

A	Abstract submission Acceptance of Abstract		: 08.01.2012 : 12.01.2012		
-	Full length paper		:	17.01.2012	
<b>REGISTRATION FEE:</b>					
Categories					
Delegates		:	<b>Rs.</b> 1	1000.00	
Research Scholars	6	:	Rs. 5	500.00	
Students		:	Rs. 3	300.00	
Accompanying Per	rsons	:	Rs. 5	500.00	

(One day excursion on demand of participants can be arranged on Feb 01, 2012 to visit Achanakmar-Amarkantak Biosphere Reserve 80 kms away from Bilaspur)

## Accommodation:

Limited accommodation will be provided in the University Guest House. This facility will be provided on first come first serve basis. Participants may also opt for hotel accommodation. Hotel reservation can be arranged on the basis of a written request to the Convener.

## Address for Communication:

#### Prof S. S. Singh

Convener, National Conference Head, Department of Forestry, Wildlife & Environmental Sciences Guru Ghasidas Vishwavidyalaya (A Central University) Bilaspur-495009 (C.G.) Mobile: 09424163260

#### **Bilaspur City:**

Bilaspur is the second largest city of Chhattisgarh after Raipur (capital of the state) situated on Mumbai-Howrah route of South East Central Railway. Bilaspur is the hub of education, business, industries and tribal culture representative of northern Chhattisgarh. The holy place Amarkantak is 100 kms away from the Bilaspur and well connected with transport facility inside the well known Achanakmar - Amarkantak Biosphere Reserve (A place of oldest Sal forest and brave Tigers). It is well connected by rail to all major cities of the country. Daily air services are available from New Delhi, Mumbai, Kolkata, Hyderabad, Chennai, Bangalore, Nagpur and Bhubaneswar to Raipur. Raipur city is 100 kms away from Bilaspur. The weather at Bilaspur during January remains pleasant and average temperature ranges from 18<sup>o</sup>C to 28<sup>o</sup>C.

PATRON: Dr Lakshman Chaturvedi Vice-Chancellor Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)

## CONVENER: Prof S. S. Singh

Head, Department of Forestry, Wildlife & Environmental Sciences School of Natural Resources Guru Ghasidas Vishwavidyalaya Bilaspur (C.G.)

#### ORGANIZING SECRETARIES: Dr (Mrs.) Rashmi Agarwal

Dr (Mrs.) Rashmi Agarwal (Associate Professor) Dr S. S. Dhuria (Associate Professor) Dr S.C. Tiwari (Associate Professor)

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# **PRE REGISTRATION FORM**

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Please complete this pre registration form and send it through e-mail to the Convener, National Conference (forestry\_ggu@rediffmail.com/ sssingh\_ggu@rediffmail.com) upto 15.01.2012. The registration fee will be accepted on reception desk during the conference.