



सत्यमेव जयते

INDIA STATE OF FOREST REPORT 2013



Forest Survey of India
(Ministry of Environment & Forests)
Government of India
Dehradun

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Maps are based on the Survey of India maps with the permission of the Surveyor General of India. The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate baseline.

प्रकाश जावडेकर
Prakash Javadekar



सत्यमेव जयते

राज्य मंत्री (स्वतंत्र प्रभार)
पर्यावरण, वन एवं जलवायु परिवर्तन
भारत सरकार

MINISTER OF STATE (INDEPENDENT CHARGE)
ENVIRONMENT, FORESTS AND CLIMATE CHANGE
GOVERNMENT OF INDIA

FOREWORD

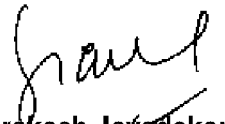
I am happy to learn that Forest Survey of India is releasing the 13th India State of Forest Report-2013. The biennial report is an exhaustive and authoritative review of the state of forests in our country.

Forests have always been an important part of Indian culture and ethos. The wide expanse of green is nature's therapy for releasing the human genius inherent in each of us. We owe to forests the evolution of our civilization and its prospects in the future.

While the symbiotic relationship with forests is as old as civilization, the modern age has witnessed the emergence of scientific forest management based on the principle of sustainability. The sustainable management of forests lies at the core of our approach towards this priceless resource enabling us to pass this legacy in good health to future generations.

Periodic assessment of our forest resources is very important for future planning. It has further gained immense importance in the recent past as forest play important role in climate change mitigation. Forest Survey of India is doing a commendable job by carrying out biennial assessment of forest resource of the country for more than 25 years. The present report contains information not only on forest cover and forest inventory of the country and the change with respect to previous assessment, but has also provided information on 'important characteristic of our forests, Agro forestry and Urban forestry', thus making the report more enriched and useful.

I congratulate FSI team for preparation of this important document and hope it will serve as a useful source of information for policy makers, planners, academicians and other stakeholders who are directly or indirectly involved in management and conservation of this pristine resource.


(Prakash Javadekar)

वी० राजगोपालन
Dr. V. RAJAGOPALAN, IAS



सत्यमेव जयते

सचिव
भारत सरकार
पर्यावरण एवं वन मंत्रालय
SECRETARY
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS

MESSAGE

As the Forest Survey of India brings out the biennial India State of Forest Report 2013. It is an appropriate moment for us to dwell on the emerging challenges of growth and their effect on this scarce resource we have.

Forests are frequently described as a renewable resource to contrast them with resources like coal and petroleum that are replenished over millions of years. The use of the term renewable may be scientifically correct but it tends to engender in our minds a smug feeling that forests are permanently with us. Such insouciance in approach is a sure remedy for disaster. Though forests as living organisms regenerate over time, their prowess to regenerate cannot keep pace with human ambition gone berserk. Forests are quite like children during their gestation period. A three-year-old sapling needs about the same care as a child of that age. We cannot treat our forests with contempt and expect them to support us in perpetuity. The need to introspect and take corrective measures is now.

From the point of view of the survival of the human race, the most important forest are those that are in the greatest physical proximity with human societies. Today we witness a rapid spell of urbanization bringing droves of people to cities and towns in search of better prospects. The cluster of such a large number of humans in a relatively small geographical domain imposes unimaginable restrictions even on the air the people breath. It is the trees growing in urban areas that sustain life. As the arrival of more and more people puts urban space in greater stress, the need to augment urban forestry becomes more acute. Our planning has to focus increasingly on greening the urban landscape to ensure a quality life for a large number of our people.

The present report of the Forest Survey of India includes a chapter on urban forestry. The Trees outside Forests (TOF) in urban areas are practically the elixir of life that promises us a better morning to wake up to. The effort by FSI to take this factor into account is most commendable.

I wish the ISFR 2013 the very best and hope it will be used in planning as well augmenting the forest resources by all stakeholders.

V. Rajagopalan
(Dr. V. Rajagopalan)

डॉ. एस. एस. गर्ब्याल
Dr. S.S. Garbyal



वन महानिदेशक एवं विशेष सचिव
भारत सरकार
पर्यावरण एवं वन मंत्रालय
DIRECTOR GENERAL OF FOREST & SPL. SECY.
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS

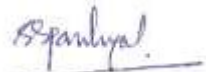
MESSAGE

The launch of the Mars Orbiter Mission or Mangalyaan, India's valiant mission to Mars has excited the curiosity of our people about the red planet. The inevitable question is asked: is there life on Mars? We will need to wait for Mangalyaan to beam back pictures before we know for sure, but there is no doubt the existence of life on that planet will depend on two parameters: does Mars have air and plant life?

Separating human life from forests is like separating the flesh and bones of a living human. Forests are not just an accompaniment of life; they are a prerequisite of life. Where there are forests life is sure to emerge. Where there are no forests life will not exist and any existing life will soon wither away. That is what makes the assessment of forest resources such a vital part of our national planning.

We commonly understand forests from the foliage that the forests present to the world. The extent of foliage is covered by satellite imageries that capture that chlorophyll emanating from the surface of the earth. But forests are more than foliage; they are trees on the ground. The measurement of the volume of trees, or growing stock, is a critical part of the evaluation of the forest resources. The calculation of growing stock emerges from the exercise of inventory carried out by ground staff by laying out thousands of plots inside the forests. The ISFR 2013 takes the assessment of forests to the next higher level by treating the subject of inventory in greater detail than any preceding report. I congratulate the Director General FSI and all members of the organization for taking this herculean step forward.

Let us taken this solemn opportunity to rededicate ourselves to the preservation of this wonderful gift of nature. On forests shall depend our future generations and the hope of a better life on the planet.


(S.S. Garbyal)

Dr. Anmol Kumar, IFS
Director General



सत्यमेव जयते

भारत सरकार
भारतीय वन सर्वेक्षण
पर्यावरण एवं वन मंत्रालय
GOVERNMENT OF INDIA
FOREST SURVEY OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS

PREFACE

The India State of Forest Report is the thirteenth biennial report to be published by the Forest Survey of India. In its long journey over a quarter of a century, the organization has tirelessly aspired to assimilate the most suitable technology of the day in its assessment of the country's forest resources. We have advanced from visual to digital interpretation and reduced the minimum mappable area from 400 hectares to one hectare. The biennial wall-to-wall mapping of the entire country every two years places us at par with the most advanced monitoring systems in the world.

The emergence of new issues in the lexicon of forests and environment had opened before FSI the challenge of providing complete and verifiable information in the new areas. Foremost among these is the assessment of carbon in the forests. The Forest Survey of India has been entrusted with the responsibility of conducting 'Greenhouse gas inventory' in Forest Land Remaining Forest Land & Land Converted into Forest Land for the period 1994 to 2004 under 'Land Use, Land-Use Change and Forestry (LULUCF) for the purpose of the Second National Communication (SNC) to UNFCCC. The assessment of carbon forms a consistent feature of ISFR.

We have made the present report more informative by including separate chapters on Trees outside Forests (Urban), National Forest Inventory and farm forestry. Although the data relevant to these subjects was presented in earlier reports, the separate treatment on this occasion has made available the information in more concise and accessible form. This will doubtlessly be of assistance to planners, policy makers and academicians in this field.

On the auspicious occasion of the launch of ISFR 2013, I would like to acknowledge the guidance and support the FSI has received from Dr. V. Rajagopalan, Secretary, Environment & Forests, Govt. of India, Shri S.S. Garbyal, Director General of Forests & Special Secretary to Govt. of India, Shri A.K. Srivastava, Additional Director General of Forests (FC), Dr. Rekha Pai, Inspector General of Forests (EAP) and Shri Ashok Kumar, DIG (SU). I place on record my appreciation for the untiring efforts made by the officers and technical staff of FSI to bring the report to its final form.

On behalf of the organization, I reiterate our commitment to serve the nation by making available comprehensive information on the forest resources that would enable the Government and people to view this precious natural resource on a firm scientific footing.


(Dr. Anmol Kumar)