



Report
on
Observance of World Soil Day, 2019



Organized by

ENVIS Resource Partner

on

Forest Genetic Resources and Tree Improvement

Institute of Forest Genetics and Tree Breeding

(Indian Council of Forestry Research and Education)

Coimbatore

Observance of World Soil Day 2019 by ENVIS, IFGTB

The ENVIS Resource Partner on Forest Genetic Resources and Tree Improvement at IFGTB observed World Soil Day 2019 on 05th December, 2019. The primary objective of the observance was to highlight soil's importance on Earth and to protect the environment from soil erosion for sustainable future. The programme began with an invocation in Sanskrit on the significance of conservation of nature and natural resources by Dr Kannan C.S. Warriar, Scientist F & Coordinator ENVIS. He welcomed the gathering and gave an overview on the theme of the World Soil Day 2019 prescribed by the FAO "**Stop Soil Erosion, Save Our Future**". He described the various factors causing soil erosion and how it could lead up to a loss of 50% in crop yields. He also gave an insight to the severity and extent of soil degradation in the country and highlighted that India loses up to Rs.6800 crores annually due to soil erosion. Soil loss and degradation were not recoverable within a human lifespan, he added. Dr R.Yasodha, Scientist G and Director in-charge, IFGTB in her special address emphasised the importance of conservation and management of the soil resources in the country. She also elaborated on the ill effects of deforestation on soil erosion leading to the ultimate desertification. Dr K.K. Krishnamurthi, Chairman Indian Society for Certification of Organic Products (ISCOP), Krishnamurthi International Agriculture Development Foundation and former Dean, Tamil Nadu Agricultural University (TNAU), Coimbatore graced the function as Chief Guest and presented a lead lecture on the significance of soil conservation and how unsustainable agricultural practices and developmental activities deteriorate the various soil properties. He presented a comparison of various soil properties and functions in human body. Dr K.K. Krishnamurthi also highlighted the importance of our soil resources and the necessity for their effective and sustainable management. An awareness poster highlighting the theme was released during the occasion. Awareness poster and handouts were distributed among school and college students. Soft copies of them were also sent to all in the mailing list and Whats App broadcast of IFGTB ENVIS. Dr S. Vigneswaran, Programme Officer ENVIS proposed the vote of thanks. The details on the observance of World Soil Day 2019 by IFGTB ENVIS has found a place in the FAO website.









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WORLD SOIL DAY 2019

STOP SOIL EROSION, SAVE OUR FUTURE

Soil erosion is a global environmental crisis that threatens natural environment and also agriculture. Accelerated soil erosion has adverse economic and environmental impacts and creates on-site and off-site ill-effects on productivity due to decline in land/soil. In India about 5334 MT (16.4 ton/hectare) of soil is eroded annually, about 29% is carried away by the rivers into the sea and 10% is deposited in reservoirs resulting in considerable loss of the storage capacity. It is also estimated that about 38% out of a total geographical area (127 million hectares) in India are subjected to serious soil erosion.

KEY FIGURES ON SOIL EROSION

- It can take up to 1000 years to produce just 2-3 cm of soil.
- 33% of the Earth's soils are already degraded and over 90% could become degraded by 2050 (FAO and ITPS, 2015; IPBES, 2018).
- The equivalent of one soccer pitch (approximately 7140 Sq.m) of soil is eroded every five seconds. (FAO and ITPS, 2015).
- Estimated rates of accelerated soil erosion on arable or intensively grazed lands are 100-1000 times higher than natural erosion rates.
- Soil erosion can lead up to 50% loss in crop yields.
- India loses up to 68 billion rupees annually due to soil erosion according to National Remote Sensing Agency.

STRATEGIES TO IMPROVE SOIL HEALTH

1. Reduce inversion tillage and soil traffic. Excessive tillage is harmful to soil health in a number of ways.
2. Increase organic matter inputs.
3. Use cover crops.
4. Reduce pesticide use and provide habitat for beneficial organisms.
5. Practice crop rotation.
6. Manage nutrient status.

WAYS TO AVOID SOIL EROSION



PLANT GRASSES & SHRUBS

AFFORESTATION

PRACTICE CROP ROTATION



ESTABLISH WINDBREAKS

USE MULCH MATTING TO HOLD VEGETATION ON SLOPES

IMPROVE DRAINAGE

AVOID OVER WATERING

AVOID SOIL COMPACTION

ADOPT MEASURES TO PREVENT LANDSLIDES

CONSERVATION OF SOIL

1. Grow different types of vegetation i.e trees, shrubs, herbs and grasses.
2. In the irrigation process, avoid using strong flow of water.
3. Sprinkler irrigation can reduce soil erosion to a great extent.