

FOREST

ECOSYSTEM

TATA SUSTAINABILITY
MONTH, JUNE 2021



WHAT IS IT?

A forest ecosystem is a natural woodland unit consisting of

ALL PLANTS, ANIMALS AND MICROORGANISMS IN THAT AREA, FUNCTIONING TOGETHER WITH ALL OF THE NON-LIVING, PHYSICAL FACTORS OF THE ENVIRONMENT

FORESTS COVER 31% OF THE GLOBAL LAND AREA

but are not equally distributed around the globe.



1.6 bn livelihoods

We depend on forests for our survival - from the air we breathe to the wood we use.

HEALTHY FORESTS SUPPORT THE LIVELIHOODS OF 1.6 BILLION PEOPLE GLOBALLY

1 billion of whom are among the world's poorest.

There are three types of forests:

TEMPERATE



TROPICAL



BOREAL



More than half of the world's forests are found in only five countries -



WHY IS IT IMPORTANT?

NATURAL DEFENCE AGAINST CLIMATE CHANGE

Forests are major contributors to the Earth's ability to maintain its climate



PREVENT TOPSOIL EROSION

by reducing the force of rainfall on the surface of soil and by absorbing water



PRODUCTS THAT MODERN SOCIETY DEPENDS ON

such as wood, paper, gum, bamboo and a number of medicinal plants - all originate from forest ecosystems



NATURAL WATER FILTERS

by collecting and storing water and recharging underground aquifers



GREATER RANGE OF BIODIVERSITY THAN ANY OTHER ECOSYSTEM ON EARTH

A single massive tree in the Amazon rainforest can be home for thousands of species

HOW IS IT DEGRADED?

DEFORESTATION & DEGRADATION are the biggest threats to forests worldwide

DRIVERS OF DEFORESTATION

Conversion to agriculture, urban infrastructure expansion & mining, among others



Deforestation occurs when forests are converted to non-forest uses, such as agriculture and road construction.

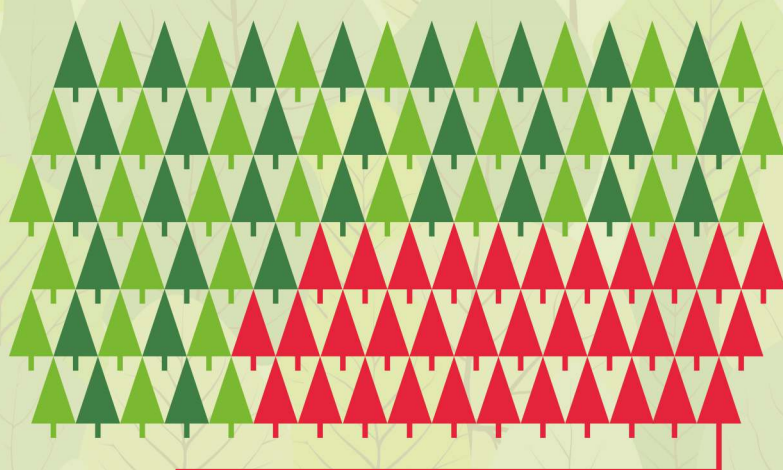
Degradation occurs when forest ecosystems lose their capacity to provide important goods and services to people and nature.



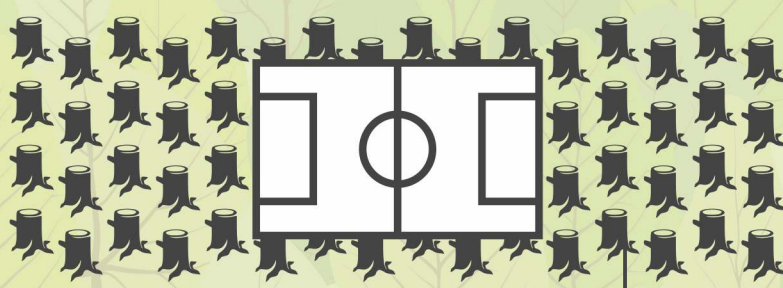
Overharvesting of forest products such as timber logging, fuel wood & charcoal, uncontrolled fires, overgrazing

DRIVERS OF DEGRADATION

HOW BAD IS THE SITUATION?



About **47%** of the world's forests are at high risk for deforestation or degradation by 2030



Over **4.7mn** hectares of forests are lost every year. That's one football pitch every three seconds

WHAT CAN BE DONE TO RESTORE THEM?

Forest Landscape Restoration (FLR) can help countries reverse the effects of deforestation and degradation and regain the ecological, social, climatic and economic benefits of forests. FLR is a composite of multiple activities.



PLANTING TREES

An important part of forest restoration, efforts need to be taken to plant healthy seedlings of native tree species



IMPROVING SOILS

Adding organic matter to the soil can radically change a forest and support restored forest health



PROTECTING WILDLIFE CORRIDORS

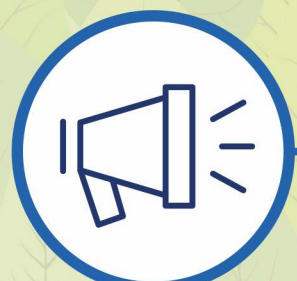
Cresting corridors can allow animals to travel among forest fragments, significantly improving their chances of surviving, reproducing, and flourishing



MANAGING LAND SUSTAINABLY

Promoting agroforestry - a farming technique that incorporates the cultivation and conservation of trees among crops or pastureland for more productive and sustainable land use

WHAT CAN MY ORGANIZATION DO?



CONDUCT LARGE SCALE AWARENESS
programs, plantation drives etc.



EVALUATE AND MITIGATE
impacts of its activities across the value chain on forest ecosystems



PARTNER
with non-profits working on forest restoration

WHAT CAN I DO TO HELP?



LEARN ABOUT FORESTS
both local and global. Plant native trees, the more the better



CHOOSE RESPONSIBLY
Buy forest friendly (certified) products, such as RFA, FSC, RSPO etc.

Sources: UNEP <https://www.decadeonrestoration.org/types-ecosystem-restoration/forests/> | WWF <https://www.panda.org/discover/our-focus/forests-practice/importance-forests/> | TreeHugger <https://www.treehugger.com/what-is-forest-ecosystem-and-biodiversity-1342815/> | <https://www.worldwildlife.org/stories/what-is-forest-degradation-and-why-is-it-bad-for-people-and-wildlife> | <https://www.worldwildlife.org/stories/what-is-forest-restoration-and-how-do-we-do-it-well> | <https://www.downtoearth.org.in/blog/forests/earth-day-2021-why-we-need-to-pledge-to-save-our-forests-76613> | <https://treefoundation.org/10-things-you-can-do-to-save-forests/> | <https://www.vedantu.com/biology/forest> | <https://www.iucn.org/resources/issues-briefs/deforestation-and-forest-degradation>