

KANDASWAMI KANDAR'S COLLEGE, Velur, Namakkal (Dt)

Department of Zoology

Zoology Association Inaugural Function

Date: 07.09.2018

Chief Guest: **Dr. M. Ramamoorthy**

Principal,

Bharathidasan College of Arts and Sciences,

Ellispettai, Pallapalayam Post,

Erode

Dr. M. Ramamoorthy, presented a talk on the topic "Deforestation and Biodiversity". He explained **Deforestation** or **forest clearance** is the removal and destruction of a [forest](#) or stand of trees from land that is then [converted](#) to non-forest use. Deforestation can involve conversion of forest land to [farms](#), [ranches](#), or [urban](#) use. About 31% of Earth's land surface is covered by [forests](#) at present. This is one-third less than the [forest cover](#) before the expansion of agriculture, with half of that loss occurring in the last century. Between 15 million to 18 million [hectares](#) of forest, an area the size of [Bangladesh](#), are destroyed every year. On average 2,400 trees are cut down each minute. Estimates vary widely as to the extent of deforestation in the [tropics](#). In 2019, nearly a third of the overall tree cover loss, or 3.8 million hectares, occurred within humid tropical [primary forests](#). These are areas of mature [rainforest](#) that are especially important for [biodiversity](#) and [carbon storage](#).

The direct cause of most deforestation is agriculture by far. More than 80% of deforestation was attributed to agriculture in 2018. Forests are being converted to plantations for [coffee](#), [palm oil](#), [rubber](#) and various other popular products. Livestock [grazing](#) also drives deforestation. Further drivers are the [wood industry \(logging\)](#), [urbanization](#) and [mining](#). The [effects of climate change](#) are another cause via the increased risk of [wildfires](#) (see [deforestation and climate change](#)).

Deforestation results in [habitat destruction](#) which in turn leads to [biodiversity loss](#). Deforestation also leads to [extinction](#) of animals and plants, changes to the local climate, and

displacement of [indigenous people](#) who live in forests. Deforested regions often also suffer from other environmental problems such as [desertification](#) and [soil erosion](#).

Another problem is that deforestation reduces the uptake of carbon dioxide ([carbon sequestration](#)) from the atmosphere. This reduces the potential of forests to assist with [climate change mitigation](#). The role of forests in capturing and storing carbon and mitigating climate change is also important for the agricultural sector. The reason for this linkage is because the [effects of climate change on agriculture](#) pose new risks to global [food systems](#).

Since 1990, it is estimated that some [420 million hectares](#) of forest have been lost through [conversion](#) to other [land uses](#), although the rate of deforestation has decreased over the past three decades. Between 2015 and 2020, the rate of deforestation was estimated at 10 million hectares per year, down from 16 million hectares per year in the 1990s. The area of primary forest worldwide has decreased by over 80 million hectares since 1990. More than 100 million hectares of forests are adversely affected by forest fires, pests, diseases, [invasive species](#), [drought](#) and adverse weather events. The session was highly useful to our students and it has created an interest our students to do research in foreign universities.



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