EVS ASSIGNMENT

NAME: DHARSAN D. R

ROLLNO: T376232AD129

DEP: AI & DS.

ASSIGNMENT - 1

Deforestation and its Ripple Effects: Case studies from India and the Amazon.

① Abstract :-

Deforestation is a global environment crisis with severe consequences for biodiversity, climate and human populations. This paper examines the cause and impacts of deforestation in two critical regions. Both regions face unique challanges and exhibit distinct patterns of deforestation, yet share common consequences such as biodiversity loss, increased carbon emissions and disrupted hydrological cycles. The paper highlights the urgent need for sustainable land management practises and effective conservation policies to mitigate the devasting ripple effects of deforestation in these vital ecosystems.

2. Discussion:-

Deforestation, the clearing of forests for other land uses, is a complex environmental issue with far reaching ecological, social and economic consequences. The causes and impacts of desforestation vary across different

reflecting unique soio-economic conditions, land use. patterns and conservation policies This discussion examines the deforestation in two critical regions- India and the Amazon forest- highlighting the distinct drivers and ripple effects in each region while also identifying common challenges.

Impacts of deforestation in India:-

→ Biodiversity Loss: India is home to a such variety of flora and fauna and deforestation leads to the loss of critical habitats, threatening numerous species with extinction.

→ Climate change: Forest play a vital role in Carbon sequestration and deforestation Contributes to increases greenhouse gas emixions, exacerbating climate change.

→ soil Erosion: The loss of forest cover exposes the soil to erosion, leading to land degradation and reduced agricultural productivity.

→ Disrupted Hydrological cycle: Deforestation disrupts rainfall patterns, increases the risk of floods and droughts and reduces ground water change.

→ Impacts on Livelihoods: Deforestation affects the livelihoods of forest-dependent communities, including tribal populations, who rely on forests for food, fuel, and other resources.

Case studies in India:-

→ The Himalayas: Deforestation in the himalayan region has led to increased soil erosion, landslides, and flash floods, impacting downstream communities.

→ Western Ghats: The Western Ghats, a biodiversity hotspot, has suffered significant deforestation due to agricultural expansion and logging, threatening its flora and fauna.

→ Central India: Deforestation in the forests of central India has affected tribal communities and wildlife, leading to human-wildlife conflict.

Deforestation in the Amazon Forest:

→ Cattle Ranching: Cattle Ranching is a major driver of implementation Amazon, as large areas of forests are cleaned to create pastureland for cattle.

→ Soybean cultivation: The expansion of coyabean cultivation, primarily for animal feed, has also contributed significantly to deforestation.

→ Logging: Both legal and illegal operation extract valuable timber from the amazon, leading to forest degradation and lost.

→ Mining: The extraction of minerals such as gold bauxite, and iron ore involves clearing forests and polluting waterways.

→ Infrastructure development: The construction of roads dams and other infrastructure projects opens up previously inaccessible areas of the amazon to deforestation.

Impacts of deforestation in the Amazon-

→ Biodiversity Loss: The amazon is home to an unparalleled diversity of plant and animal species and deforestation threatens to drive many of these speci to extinction.

→ Climate change: The amazon rainforest stores

of carbon into the atmosphere, contributing to global warming. Deforestation also disrupts regional rainfall patterns, which can have global consequences.

→ Soil erosion and Land degradation: Deforestation leads to soil erosion, land degradation, and reduced soil fertility, affecting agricultural productivity and ecosystem health.

→ Disrupted Hydrological cycle: The Amazon plays a critical role in the water cycle, and deforestation can disrupt rainfall patterns, leading to droughts and floods in the region and beyond.

→ Impacts on Indigenous communities: Deforestation threatens the livelihoods and culture of indigenous communities who depend on the forest for their survival.

Case studies in the Amazon:

→ Brazil: Brazil accounts for the largest share of amazon deforestation, driven primarily but cattle ranching soybean cultivation and logging.

→ Bolivia: Deforestation in Bolivia is driven by agricultural expansion, particularly for soybean production

Conclusion :-

Deforestation in India and the Amazon rainforest represents a significant environmental challenge with profound implications for Biodiversity, climate & human wellbeing. While the drivers and patterns of deforestation vary between the two regions, both are experiencing the devasting ripple effects of forest loss. In India, the primary drivers of deforestation include agriculture expansion, urbanizat of logging and Mining.

REFERENCES :-

Hansen, M.C, stehman, S.V., Potapov, P.V limited., Love T.R., Townshend, J.R.G,.

Fearnside, P.M (2005). Deforestation in Brazilian Ama History, rates and consequences. Conservation biology, 19(3), 680 - 688

Petries, R.S,...& Hansen, J.V (2013). High resolution gl maps of 21st centary forest Cover change. Science (6160), 850 - 853.