GROUP 3

Write short notes on Nature-based solutions and green infrastructure.

Nature-Based Solutions:

Nature-based solutions refer to sustainable approaches that utilize nature to address various societal challenges, including climate change, biodiversity loss, and disaster risk reduction. It involves the protection, restoration, and sustainable management of ecosystems to provide multiple benefits for both people and the environment.

Some examples of nature-based solutions include reforestation, wetland restoration, coastal conservation, green roofs, urban gardens, and sustainable agriculture practices.

Nature-based solutions can help mitigate climate change by sequestering carbon dioxide, enhancing water management, reducing the urban heat island effect, and supporting natural climate regulation processes.

Nature-based solutions can also provide adaptation benefits by improving ecosystem resilience, protecting coastal communities from storm surges, and enhancing water availability during droughts.

Nature-based solutions offer co-benefits such as biodiversity conservation, improved air and water quality, enhanced recreational opportunities, and social well-being.

Green Infrastructure:

Green infrastructure refers to the strategically planned network of natural and semi-natural spaces that provide ecosystem services to human populations. It includes green spaces, such as parks, forests, wetlands, green roofs, permeable pavements, and urban tree canopies in both urban and rural areas.

Green infrastructure helps manage stormwater runoff, reduce flood risk, and improve water quality by allowing natural infiltration and retention of rainwater.

It also helps mitigate the urban heat island effect by providing cooling through shading and evapotranspiration, improving air quality and human health.

Green infrastructure supports biodiversity by providing habitats for wildlife, promoting ecological connectivity, and contributing to the overall ecological resilience of the landscape. Additionally, Green infrastructure delivers recreational and cultural benefits, enhances aesthetics, and supports community engagement and social cohesion.

In summary, nature-based solutions and green infrastructure offer nature-centered approaches to address environmental and societal challenges. They provide sustainable and cost-effective solutions by working with natural systems, delivering numerous benefits for both ecosystems and human well-being. Integrating and promoting these approaches in decision-making processes can help create more resilient, sustainable, and livable communities.

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