



Nature-based Solutions

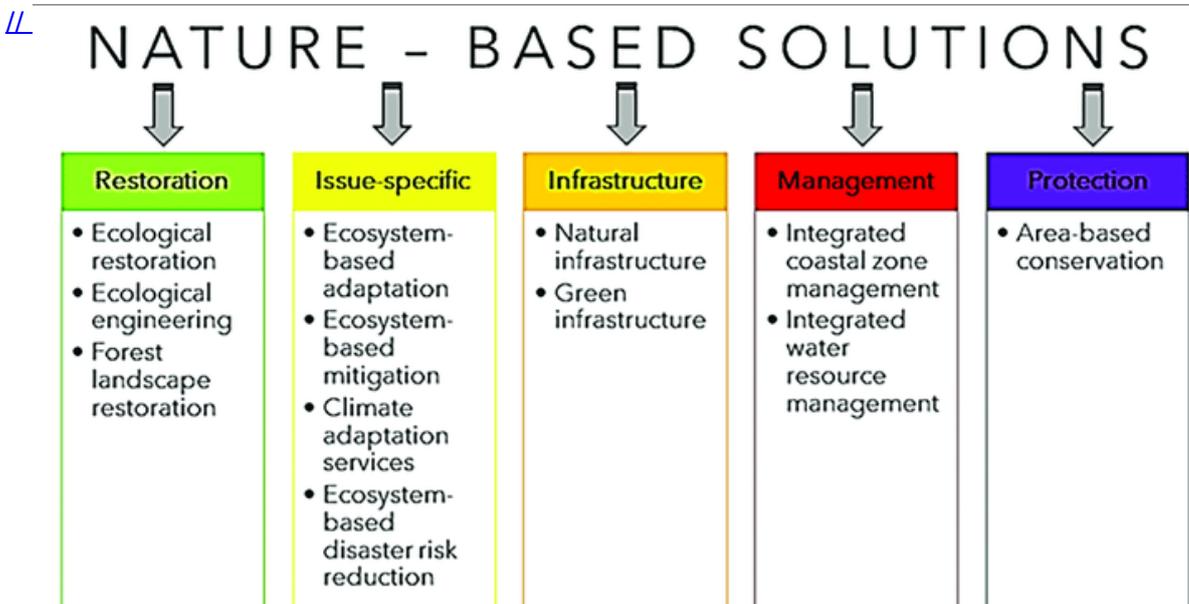
For Prelims: Nature Based Solutions, World Urban Forum, IUCN, Local-led adaptation, Green roofs, World Water Day, UN Climate Action Summit, Cities4Forests

For Mains: Local-led adaptation, Types of Nature based Solutions, Recognition of NbS

Why in News?

Recently, **the National Institute of Urban Affairs (NIUA)** [Climate Centre for Cities](#) (NIUA C-Cube), [World Resources Institute India](#) (WRI India) and their partners launched **India's first National Coalition platform for Urban nature-based solutions (NbS)** at the **11th World Urban Forum in Poland**.

- **NIUA** focuses on **research, knowledge management, policy, advocacy, and capacity building** on **urban development** and management to address and develop **sustainable, inclusive, and productive urban ecosystems in the country**.



What is the World Urban Forum?

- The World Urban Forum (WUF) is the **premier global conference on sustainable urbanization**.
- The WUF was established in 2001 by the [United Nations](#) to **examine rapid urbanization and its impact on communities, cities, economies, climate change and policies**.

- WUF11 is co-organized by UN-Habitat, Poland's Ministry of Development Funds and Regional Policy and the Municipal Office of Katowice, Poland.

What are the Key Highlights of National Coalition platform for NbS?

- The **India Forum for Nature-based Solutions** aims to create a collective of NbS entrepreneurs, government entities and like-minded organizations, **to help scale urban nature-based solutions through:**
- **Defining a shared language and communicating benefits** that inform actions at the local level including scaling up of existing NbS interventions.
- **Driving investment** and strengthening delivery mechanisms through multi-stakeholder coordination.
- **Mainstreaming urban ecosystem-based services** and nature-based solutions in India **through informing policy, plans and project interventions.**

What is the Significance of Nature Based Solutions?

- **About:**
 - **Nature-based Solutions (NbS)** are defined by [IUCN](#) as “**actions to protect, sustainably manage, and restore natural or modified ecosystems**, that address societal challenges effectively and adaptively, simultaneously **providing human well-being and biodiversity benefits.**”
 - Ecosystem-based services and Nature-Based Solutions are fast emerging as **cost-effective and sustainable ways** to address **climate change** induced challenges such as **heat, urban flooding, air and water pollution and storm surges.**
 - Along with **mitigating the impact of climate change**, NbS also helps in providing multiple ecosystem benefits along with addressing various societal challenges including **building resilience of the underserved and vulnerable urban communities** who are **most affected by climate change induced catastrophes.**
 - To overcome or minimize the impacts of climate change, the idea of **local-led adaptation** has been widely discussed, **which is directed to NbS.**

What is Local-led Adaptation?

- Local-led adaptation refers to **local communities, local governments acting strongly in taking effective decisions to tackle climate change.**
- Local-led adaptation is often characterised by **indigenous solutions, which are often associated with nature.**
- Given that the most vulnerable populations are the ones that are more dependent on natural resources, it is, therefore, to be expected that coping solutions also often germinate from the same source.
- **Potentials:**
 - **Restoring wetlands to buffer local communities** from flood waters, or conserving mangrove forests that provide nurseries for fish and protect nearby homes against storm damage.
 - From **protecting salt marshes to restoring forest habitats**, nature-based solutions are already in operation across the world.
 - **Green roofs or walls** are Nature-based solutions that **can be implemented in cities** to moderate the impact of high temperatures, capture stormwater, abate pollution, and act as carbon sinks, while simultaneously enhancing biodiversity.
- **Types:**
 - **Minimal Intervention in Ecosystems:**

- It consists of **no or minimal intervention in ecosystems,**
- **Examples include the protection of [mangroves in coastal areas](#) to limit risks associated with extreme weather conditions and provide benefits and opportunities to local populations.**
- **Some Interventions in Ecosystems and Landscapes:**
 - It corresponds to **management approaches that develop sustainable and multifunctional ecosystems and landscapes (extensively or intensively managed).**
 - This type of NBS is strongly connected to concepts like natural systems [agriculture, agro-ecology,](#) and **evolutionary-orientated forestry.**
- **Managing Ecosystems in Extensive Ways:**
 - It consists of managing ecosystems in very extensive ways or **even creating new ecosystems (e.g., [artificial ecosystems with new assemblages of organisms for green roofs and walls to mitigate city warming and clean polluted air](#)).**
 - It is linked to concepts like [green and blue infrastructures](#) and **objectives like restoration of heavily degraded or polluted areas and greening cities.**
- **Recognition:**
 - **United Nations:**
 - The UN promoted NBS as the **theme for [World Water Day 2018](#)** as "Nature for Water".
 - **The UN World Water Development Report was titled "Nature-based Solutions for Water".**
 - The **2019 [UN Climate Action Summit](#)** highlighted **Nature-based solutions** as an effective method to combat climate change.
 - A **Nature Based Solution Coalition** was created, including dozens of countries, **led by China and New Zealand.**
 - **European Union:**
 - Since 2016, the EU has supported a **multi-stakeholder dialogue platform (Think Nature)** to promote the co-design, testing, and deployment of **improved and innovative NBS** in an integrated way.
 - **India:**
 - India launched its first **National Coalition platform for Urban nature-based solutions (NbS)** under the [Cities4Forests](#) initiative.
 - **Cities4Forests: It works closely with cities around the world to connect with forests,** emphasises the importance of wetlands and their multiple benefits to help **combat climate change and protect biodiversity in cities.**

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