

**DAILY
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ANALYSIS**



LAKSHYA ACADEMY®

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1 - World Restoration Flagships by the UN:

GS II

International Issues

- **Context:**

- Seven initiatives from Africa, Latin America, the Mediterranean, and Southeast Asia have been named World Restoration Flagships by the UN.
- These programmes, which attempt to restore ecosystems that are in danger of degrading, have potential benefits for both socioeconomic advancement and environmental preservation.
- It is anticipated that the amalgamation of these endeavours will yield restoration operations on roughly 40 million hectares of land and produce nearly 500,000 job opportunities.

- **Which seven World Restoration Flagships have the UN recently recognised?**

- **The Initiative to Restore Mediterranean Forests:**

- Involves Turkey, Tunisia, Morocco, Lebanon, and Turkey.
- It comprises of a revolutionary strategy that is claimed to have restored and preserved endangered ecosystems and natural habitats.
- With a target of over 8 million by 2030, almost 2 million hectares of woods have been restored since 2017.

- **The Living Indus project:**

- Approved by Pakistan's parliament after the floods brought on by climate change in 2022. It was formally introduced at Sharm el-Sheikh during the 27th Conference of Parties to the UN Framework Convention on Climate Change.
- Intends to restore the Indus River Basin on 25 million hectares by 2030.
- It is an action performed to safeguard rivers worldwide, acknowledging the Indus River as a living being with rights of its own.
- Australia, Bangladesh, Bolivia, Ecuador, Brazil, Canada, India, New Zealand, Peru, and Sri Lanka are all involved.

- **The Social Movement Acción Andina:**

- One million hectares of Andean forests are to be preserved and restored, and it is spearheaded by the nonprofit Andean Ecosystems Association (ECOAN).

- Tropical and subtropical forests of the Andes mountain range in South America are known as Andean forests.
- Together with securing land rights for nearby people, the effort aims to keep mining and timber exploitation out of the forest.
- **Initiative for Mangrove Regeneration in Sri Lanka:**
 - It's a community-led programme with a scientific focus. Its main objective is to get the ecosystem's natural balance back.
 - The UN said that since the program's inception in 2015, 500 hectares of mangroves have been rehabilitated.
 - by 2030, 10,000 hectares of mangroves are to be restored.
- **The Terai Arc Landscape Initiative (TAL):**
 - Sought to rebuild the forests along the TAL's vital routes by partnering with locals who served as forest guardians, community-based anti-poaching squads, citizen scientists, and other roles.
 - Between the Yamuna River in the west and the Bhagmati River in the east, TAL covers an area of 810 km.
 - It includes portions of the Indian states of Uttarakhand, Uttar Pradesh, and Bihar as well as the low-lying hills of Nepal. It also includes the Shivalik hills, the surrounding bhabhar lands, and the Terai floodplains.
 - The initiative includes actions like restoring 66,800 hectares of Nepal's forests, which is expected to raise living standards for over 500,000 households there.
 - It also helped to sustain the 1,174-tiger population that now exists in the area that is shared by Nepal and India.
 - 350,000 hectares of forest restoration are the target by 2030.
- **Reforestation Agriculture in Africa:**
 - It improves crop and grass yields, stores more carbon, strengthens the soil's resilience to flooding, and fertilises the soil naturally with fixed nitrogen.
- **Expanding Woods in Africa's Arid Regions Initiative:**
 - increases the hectares under repair from 41,000 to 229,000 by 2030.
 - involves farmers in Africa who plant tens of millions of trees a year.
 - more than 230,000 employment are created, promoting sustainable growth.

- **UN World Restoration Flagships: What Are They?**

- The UN Environment Programme (UNEP) and the Food and Agriculture Organisation of the UN (FAO) are leading the UN Decade on Ecosystem Restoration, which includes the World Restoration Flagships. The goal of this initiative is to prevent, stop, and reverse the degrading of ecosystems on every continent and in every ocean.
- The UN Decade on Ecosystem Restoration has been proclaimed by the UN General Assembly for the years 2021–2030.
- Through the World Restoration Flagship Award, the UN acknowledges the World Restoration Flagships.
- With the goal of halting ecosystem deterioration on all continents and oceans, UNEP and FAO are leading the UN Decade on Ecosystem Restoration, which includes this prize.
- Recipients of this grant gain access to UNO financial and technical support.
- The awards recognise noteworthy projects in the wake of international pledges to restore one billion hectares, an area greater than China.

- **Importance:**

- Honouring and celebrating their success stories in restoration on a global scale.
- Up to USD 500,000 in technical and financial support (only for poor countries) can be allocated to each proposal that is chosen.
- drawing investments and attention from around the world.
- Participate in the publications, campaigns, outreach, advocacy, and educational initiatives of the UN Decade.
- mentioning in the General Assembly Report from the UN Secretary-General.

Source → The Hindu

2 - India's AVGC-XR Sector's Potential:

GS II

Government Policies and Interventions

- **Context:**

- In the next five to six years, India's animation, visual effects, gaming, comics, and extended reality (AVGC-XR) industry is poised for tremendous growth.

- **What Prospects Does India's AVGC-XR Sector Have?**

- **Industry Overview:**

- With more than 4,000 studios and important centres in Mumbai, Bengaluru, Pune, Hyderabad, and Chennai, India has a thriving film industry. Furthermore, there is a notable increase in studio establishments in smaller towns, which emphasises the industry's broadening reach.
- India's proficiency in the visual arts is based on its rich cultural legacy, variety of art genres, and talented artists. The industry is starting to realise how much opportunity there is in this area to create value and jobs.

- **Work:**

- Content developers, animators, pre- and post-production artists, pre-visualization artists, composers, and other related professionals will make up the majority of direct job jobs.
- The industry is expanding at a rapid rate; certain AVGC-XR segments are already expanding by 30 or 35% a year.

- **Estimated Growth:**

- With 2.6 lakh people employed, the AVGC-XR sector expects to add 23 lakh direct jobs by 2032. Revenues are predicted to rise from the current USD 3 billion to approximately USD 26 billion by 2030.
- India's share of the worldwide AVGC-XR market is only 0.5%, but according to government estimates, by 2025, it might account for 5% (or USD 40 billion) of the market share, growing at a rate of about 25–30% year and adding more than 1,60,000 new employment yearly.

- **What Difficulties Does the AVGC Sector Face?**

- **Absence of Real Data:**

- The lack of information about employment, industry size, educational attainment, etc. for the AVGC sector makes it more difficult for entities to make decisions.

- **Skills Gap in the Work and Education Sectors:**

- A workforce with specialist abilities is needed for a variety of vocations, including animators, developers, designers, localization experts, and product managers, in order to create the AVGC ecosystem within the nation.

- **Infrastructure Restrictions:**

- The quality of training that students receive is declining in the lack of a sufficient infrastructure for training, which has an effect on the AVGC industry's people resources and output quality.

- **Decreased emphasis on Research Development:**

- For the AVGC-XR sector, research-related narrative development is also necessary in order to allocate specific attention to it.

- **Lack of an Academic Reference Point for AVGC:**

- In India, the AVGC industry lacks an apex institute, in contrast to other industries like engineering, design, management, packaging, etc.

- **Funds Accessible:**

- The lack of a specific fund to promote the AVGC industry currently exists, which hinders the sector's expansion in India.

- **Absence of Popular Indian IPs Worldwide:**

- Since the majority of the work in the AVGC sector is outsourced, the industry as a whole has suffered from a lack of original Indian intellectual property.
- Since services to other nations dominate the animation business, it's critical to provide extra incentives for domestic production in order to boost local intellectual property.

- **Which government initiatives are in place to support the AVGC-XR industry?**
- **Integration of Education:**
 - In order to create an atmosphere that is favourable for developing talent in AVGC-XR, the National Education Policy (NEP) 2020 has incorporated sports, design, and the creative arts into the curriculum starting in Class 6.
 - AVGC-XR learning has been implemented in about 5,000 state board and CBSE schools, with ambitions to expand the programme across the country. The goal of this project is to rethink animation as an age-appropriate family entertainment medium.
- **Framework for Policies:**
 - The establishment of an AVGC Promotion Task Force to suggest strategies for realising and expanding domestic capacity for serving Indian markets and the global demand was announced in the Union Budget 2022–2023 as a means of unleashing the sector's potential.
 - To create strong rules that are specific to each state, industry associations such as FICCI, ABAI (Association of Bangalore Animation Industry), and SAIK (Society of AVGC Institutions in Kerala) are working along with government agencies.
 - Several states, including Telangana, Maharashtra, and Karnataka, have already taken significant steps to encourage the expansion of this industry.
- **The Way Ahead:**
 - It is imperative to maintain the focus on skill development initiatives customised for the AVGC-XR sector. This covers initiatives for formal education that are incorporated into school curricula as well as programmes for vocational training that provide the skills needed for aspiring professionals.
 - Encourage increased cooperation between educational institutions and industry participants to guarantee that training programmes and curricula meet industry demands. Opportunities for internships, industry-sponsored projects, and guest lecturers can help close the knowledge gap between academics and business.

Source → The Hindu

3 - Wheat Blast and Climate Change:

GS III

Environmental Conservation

- **Context:**

- A recent study titled "Production vulnerability to wheat blast disease under climate change" has raised alarm about potential connections between the fungal plant disease Wheat Blast (WB) and climate change.
- The paper traces the chronology of WB outbreaks, highlighting how they spread from their original South American origin to Bangladesh in 2016 and Zambia in 2018. El Niño and other meteorological phenomena have an impact on the disease.

- **A Wheat Blast Disease (WB): What is it?**

- A very harmful fungal illness, wheat blast disease mostly targets wheat harvests.
- It is a serious threat to food safety and security, especially in South Asia and South America's tropical regions.
- The fungus *Magnaporthe oryzae* pathotype triticum (MoT) is the cause of the disease.

- **Signs:**

- **Leaf Lesions:** The leaves develop tiny, spindle- to oval-shaped lesions. These lesions may seem yellow or tan at first, and then they may become brown or necrotic. They frequently have a yellow aura about them.
- **Stem Lesions:** The stems of wheat plants are also susceptible to developing lesions akin to this. These lesions may encircle the stem, causing the plant to lodge and wilt.
- **Symptoms of the Spikelets:** Blackened and elongated, infected spikelets may resemble spindles. This symptom is more noticeable when the plant is in its reproductive stage.

- **Effect on Crops of Wheat:**

- The wheat ear is specifically targeted by the fungus, which causes it to shrivel and distort in an unusually short amount of time—often less than a week after the earliest signs appear.
- Farmers have little time to react due to its quick onset, which results in significant yield losses.
- Wheat blast spreads by a number of channels, including agricultural waste products, airborne spores that can travel great distances, and infected seeds.

- Although the virus can infect every part of the wheat plant that is aerial, it is the infection of the wheat ear that causes the greatest amount of harm.
- **Which aspects of the study stand out the most?**
- **Wheat Blast's Impact from Climate Change:**
 - Currently, 6.4 million hectares of cropland are at risk from wheat blast, and by 2050, climate change is probably going to make matters worse and put 13.5 million hectares of cropland at risk.
 - Wheat blast is also associated with El Nino weather patterns.
 - All of the severe wheat blast epidemics that occurred throughout South America and Asia during the warm, rainy years of 1987, 1997, 2002, 2009, 2012, and 2015 coincided with El Nino-dominated weather patterns, according to a 2018 study published in the Annual Review of Phytopathology.
 - The potential for wheat blast alone to cut global wheat yield by 13% illustrates how seriously it affects global food security.
- **Availability by Area:**
 - The locations most susceptible to wheat blast in the future climate include South America and Africa.
 - Up to 75% of these regions' wheat acreage may be in jeopardy by 2050.
- **Future Dispersion and Effects:**
 - Potentially, Wheat Blast could spread to other nations, such as Uruguay, Ethiopia, Kenya, and the Congo.
 - It also emphasises forecasts of heightened susceptibility in areas such as North America and Oceania.
 - Potential wheat blast targets include previously untouched nations like Italy, Spain, Japan, and New Zealand, underscoring the threat's worldwide reach.
- **Effect on the Region of Europe:**
 - The likelihood of infection is decreased by the frigid temperatures found in Europe and other regions with snowfall. However, over time, climate change may influence how certain insect pests and illnesses are distributed.
 - It's probable that regions of Europe close to the Mediterranean have weather that's conducive to fungal infections.
 - This covers portions of southern France and Spain as well as Italy.

- **Result for India:**

- If dry seasonal conditions with more frequent severe high temperatures (over 35 degrees Celsius) occur in the latter half of the wheat-growing season in future climates, then some portions of India might become less susceptible to wheat blast.
- Such high temperatures reduce the likelihood of wheat blast infection, but they also cause terminal heat stress, which reduces India's potential output.

- **Which adaptation strategies are recommended by the study?**

- **Change to Crops Less Susceptible to:**

- In order to reduce output and financial losses, farmers may need to switch to less sensitive crops given the threat that wheat blast poses to significant wheat-growing regions of the world.

- **Different Approaches:**

- It is advised to use a variety of approaches to manage the illness. For example, in midwestern Brazil, maize is progressively replacing wheat in agricultural practices.
- Another crucial tactic that has already been started and may help reduce losses in newly exposed areas is the breeding of wheat resistant to blast damage.

- **Ideal Date for Sowing:**

- Selecting the right sowing date will also help prevent situations that encourage wheat blast. Another successful disease-mitigation method is to modify the planting dates.
- During the flowering period, rain followed by hot, muggy conditions might encourage the growth of diseases. Since these times correspond with high temperatures and relative humidity because of higher precipitation levels, it is advised to avoid planting in Bangladesh during the late planting season and early planting in central Brazil.

- **What Steps Are Taken to Prevent Wheat Blast?**

- The International Maize and Wheat Improvement Centre (CIMMYT) and its partners in the National Agricultural Research Systems have developed wheat blast-resistant cultivars that have shown promise in lessening the effects of wheat blast.
- One of the most important ways to lessen the effects of this terrible illness is to develop and promote wheat cultivars that are resistant to wheat blast. Rmg8 and 2NS are two examples of wheat types that show resistance to wheat blast.

- A particular gene called as Rmg8 confers genetic resistance to wheat blast to the Rmg8 wheat variety, which was developed by CIMMYT researchers.
- The 2NS entails introducing a section of chromosome 2N to farmed wheat types from a wild relative of wheat called *Thinopyrum ponticum*. It has been discovered that this translocation improves resistance to a number of fungal infections.

Source → The Hindu

4 - Land of Nazool:

GS III

Internal Security

- **Context:**
- Violence recently broke out in Haldwani, in the Nainital District of Uttarakhand, following a demolition drive carried out by the local authorities to clear encroachment from what was purported to be Nazool Land, the location of a mosque and madrasa.
- The administration claims that the land on which the two buildings are located is officially registered as Nazool land owned by the Municipal Council.
- **What is Land of Nazool?**
- Although Nazool land is held by the government, it is typically not managed as state property.
- Generally speaking, the state leases such land to any organisation for a predetermined amount of time, usually between 15 and 99 years.
- If the lease is about to expire, you can apply to have it renewed by sending a written request to the local development authority's Revenue Department.
- The government has the option to retake Nazool land by either cancelling or renewing the lease.
- Nazool land has been assigned to various bodies for diverse uses in nearly all major Indian towns.
- **The formation of Nazool Land:**
- Many revolts against the British during their rule by monarchs and kingdoms resulted in multiple conflicts between the British Army and these opposition parties. The British would frequently steal these rulers' territories after beating them in combat.

- The British left these regions behind when India gained its independence. However, since monarchs and royals frequently lacked the necessary records to demonstrate past ownership, these properties were designated as Nazool land, which will be possessed by the corresponding state governments.
- **What Nazool Land Is For:**
 - Generally speaking, the government uses Nazool land for public works projects like constructing Gramme Panchayat buildings, schools, and hospitals.
 - Large areas of land designated as Nazool land have also been observed in several Indian towns being used for housing societies, usually on a lease basis.
 - The Nazool Lands (Transfer) laws, 1956 are the primary legislation utilised for Nazool land adjudication, notwithstanding the fact that numerous states have brought in government directives for the purpose of establishing laws for Nazool land.
- **What Does an Intruder Do?**
 - It is the occupation or unlawful use of another person's property. If the rightful owner isn't actively interested in maintaining the area, this might happen to vacant or abandoned locations. Property owners should be informed of their rights in these situations as well as the legal actions that can be taken.
 - The unlawful use or occupation of land or property within urban areas is known as urban encroachment.
 - This could involve squatting, building illegally, or engaging in any other type of occupation without the required authorization or legal rights.
 - According to Section 441 of the Indian Penal Code (IPC), 1860, land encroachment is the act of breaking into someone else's property without their consent in order to conduct a crime, pose a harm to their property, or remain there against their will.
- **How to Get Rid of Illegal Encroachments:**
 - The local authorities are typically obligated to notify the people or businesses engaged in unlawful encroachments prior to taking any further action.
 - Courts have stressed the value of due process and have frequently decided that enough notice and an opportunity to be heard are necessary before any demolition is carried out, including the Supreme Court.
 - The SC had observed that the right to livelihood is a component of the right to life in the 1985 Olga Tellis case, which highlighted the rights of slum dwellers and the right to livelihood.
 - In the event that the persons do not reply or offer an adequate reason, the demolition procedure may be carried out by the local authorities.

- In general, it is required of the authorities to respond in a way that is proportionate to the seriousness of the offence and the steps taken to uphold natural justice principles.

Source → The Hindu

