



Urban visions

Urban transportation: Metro and Bus

1. With a clear focus on the expansion of Metro Rail and bus services through Central funding, Budget 2021 has recognised a core component of urbanisation.
2. Comfortable, safe and affordable commuting has well-recognised multiplier effects for the economy and more generally for public health.
3. The proposed ₹18,000 crore plan to augment public bus transport using a PPP model will enable private sector players to finance, acquire, operate and maintain over 20,000 buses.
4. India's ratio of buses to population is a low 1.2 per 1,000 people, compared to 8.6 in Thailand and 6.5 in South Africa, although some States like Karnataka are well ahead of the national average, as per NITI Aayog data.
5. Licensed private urban bus services remain a politically sensitive topic in many States, where State monopolies coexist with unregulated paratransit, and it will take a major effort to convince them that a bus renaissance is a good post-pandemic recovery strategy.

The Urban Challenge

The challenge of urbanisation goes beyond standalone interventions such as Metro and bus system grants. There is valid criticism that the existing paradigm is one of "exclusionary urbanisation", which makes Metro and bus services expensive for the majority, particularly for those forced to live in the suburbs due to housing costs, and sometimes making the per kilometre cost of using a two-wheeler more attractive. Moreover, Census 2011 showed that the number of Census Towns, which are urban for census purposes but not named urban local bodies, grew tremendously over a decade. They lack access to funding, infrastructure and capacity to meet the needs of large populations even now.

Conclusion:

Enhanced ambition, therefore, requires the Centre to work with State governments to integrate key areas with its transport vision, such as affordable inner-city housing, including rental projects, access to civic services and health care, and enhanced sustainability, greenery and walkability. All these are covered by Central budgetary schemes for cities. Only integration can bring about inclusive urbanisation.



'Smart walls' for Indian borders

The 'smart wall' technology could solve border security issues without the need for a physical barrier. The wall would use sensors, radars, and surveillance technology to detect and track border break-ins, and technology capable of performing the most difficult tasks dedicated to border security.

Smart Walls at Indian Borders

A question that now arises is whether such a project can be undertaken to secure Indian borders. India has been struggling with the problem of terrorists and smugglers infiltrating into the country and efforts are ongoing to secure our borders and curb cross-border infiltration. Therefore, it is proposed that it is high time we start envisaging the use of technology to help India secure its borders.

Other benefits

A critical factor that must be considered to enable the usage of such a system along Indian borders is that the terrain in the region is rugged, and, furthermore, not even clearly defined. Hence, erecting fences, walls or any physical structures is extremely difficult. A "smart" wall, however, makes use of systems that would be designed in such a way that they can operate even in rugged areas. Smart walls will save the lives of our soldiers lost in guarding such tough posts.

A complement to manned borders

Notably, such a system, even if not feasible for our long boundaries, may still be deployed to enhance critical security establishments of the country and complement the already-existing physical fencing and walls. The attack on the Pathankot Air Force base highlighted that often, it may become difficult to secure establishments due to their vast size. Further, it is imperative for Indian armed forces to be well-equipped and simultaneously have the latest technological advantage over its enemies.

Ongoing Initiatives:

1. The project BOLD-QIT (Border Electronically Dominated QRT Interception Technique) under CIBMS (Comprehensive Integrated Border Management system) implemented on India-Bangladesh border in Dhubri District of Assam.



2. CIBMS involves deployment of a range of state-of-the-art surveillance technologies — thermal imagers, infra-red and laser-based intruder alarms, aerostats for aerial surveillance, unattended ground sensors that can help detect intrusion bids, radars, sonar systems to secure riverine borders, fibre-optic sensors and a command and control system that shall receive data from all surveillance devices in real-time. Implementation of CIBMS projects on Indo - Pakistan and Indo - Bangladesh border will enhance the capabilities of the Border Security Force (BSF).

Towards sustainable growth

Economy of Pandemic

1. The pandemic has resulted in huge economic losses. Globally, the GDP is expected to contract 2.4% to 8% in 2020.
2. The World Economic Forum (WEF) estimates that the global cost of dealing with the pandemic could be from \$8.1 trillion to \$15.8 trillion.
3. Preventing such pandemics will cost only a fraction of this amount, estimated at \$22.2 billion to \$30.7 billion a year, and this is without factoring in the human suffering.

Natural World, Pandemic and Economy

1. We have to recognise that there would not be an economy without the natural environment. A study by Swiss Re Institute published in 2020 introduces a new biodiversity and ecosystem services index. It found that globally, 20% of countries, including India, have fragile ecosystems. It also states that 55% of the global GDP depends on high-functioning biodiversity and ecosystem services.
2. Global studies documenting human ecological footprint, the decline in wildlife populations, and the conversion rates of natural ecosystems for other uses, place India among countries experiencing the highest rates of negative change.
3. This increases our vulnerability towards catastrophes, including pandemics. Additionally, there is a strong correlation between human density, the richness



of biodiversity, and the emergence of zoonotic pathogens of wild origin, which renders India particularly vulnerable.

4. With high human densities — among the highest diversity of mammals in the world — and a saturated interface between humans and wildlife, India is considered to be among the hotspots for zoonotic emerging and re-emerging infectious diseases.

The WEF's Global Risks report for 2021

It states that environmental risks continue to threaten the global economy. The top five risks are extreme weather, climate action failure, human environmental damage, infectious diseases and biodiversity loss. In terms of impact, infectious diseases top the list, followed by climate action failure. The top two risk response blind spots are climate action failure and biodiversity loss.

Old Models of Economic Growth and pandemic risks

1. Our models of development and our notions about them have to change. Destruction of the environment should no longer be justified in the name of development.
2. Like all pandemics, COVID-19's emergence has been entirely driven by unchecked activities in the name of development.
3. Rampant destruction of natural habitats, especially due to mining and infrastructure development, continued expansion and intensification of agriculture and animal husbandry, as well as unrestrained consumption, have disrupted nature, increased contact between wildlife, livestock, pathogens and people, setting the stage for the pandemic to take hold of our lives.
4. Pandemic risk can be significantly lowered by reducing human activities that drive the loss of biodiversity as it will help prevent the spillover of new diseases.

Need New Models of Economic Growth

1. The evidence is overwhelming. All budgets need to reduce investments, including subsidies, in activities that will further degrade our natural habitats. By orders of magnitude, we should enhance investment in research in sustainability science.

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2. A National Mission on Biodiversity and Human Well-Being has been approved by the Prime Minister's Science Technology and Innovation Advisory Council.
3. The overarching objectives are to restore and enhance biodiversity, strengthen its sustainable use, generate thousands of green jobs and encourage the Indian public to appreciate the natural and associated cultural treasures that we have collectively inherited.
4. This initiative has the potential to enable India to play a global leadership role in linking conservation with tangible human well-being outcomes.