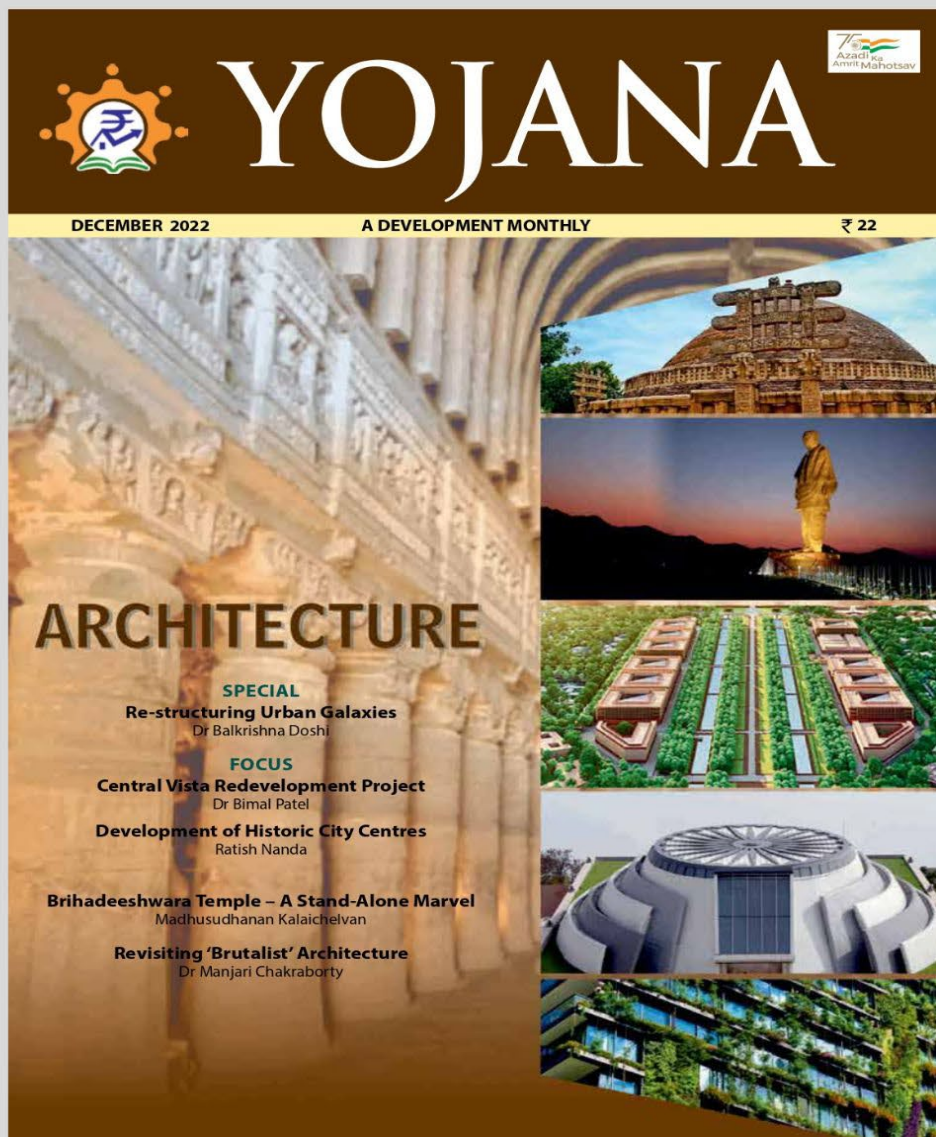


# YOJANA COMPILATION



DECEMBER 2022

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# YOJANA DECEMBER 2022 COMPILATION

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## Development of Historic City Centers

India boasts of several millennia of built heritage and living culture represented in the traditional architectural crafts.

### Conservation Initiatives

1. The Aga Khan Trust for Culture in partnership with the Archaeological Survey of India, Central Public Works Department and the Municipal Corporation of Delhi have undertaken a 15-year urban renewal project at the Humayun's Tomb Nizamuddin area in Delhi. Here, conservation efforts have incorporated local area development through employment generation, boosting local crafts and arts, building of infrastructure, environmental conservation, and landscaping.
2. The Archaeological Survey of India is taking several steps to ensure long term, sustainable preservation of our nation's heritage in a manner that is based on increased awareness amongst the public of the significance of our heritage and increased involvement of civil society in the preservation effort.
3. The formation of the National Monument Authority is mandated to create guidelines for new buildings in the setting of each one of nation's protected monuments.

### Inappropriate conservation efforts

1. The building, Humayun's tomb had suffered over a century of inappropriate conservation work. A million kilos of concrete was required to be removed from the roof- laid here in the 20th century to prevent rainwater ingress; over 200,000 square feet of cement plaster was similarly required to be removed and replaced with traditional lime plaster.
2. Using inappropriate modern materials not only compromised the original design intention but also set in a process of accelerated decay.

3. In the shift from the traditional to the cheap modern we have lost architectural craft skills that had the capability of creating millions of mandays of employment while ensuring that our cities had both a unique identity as well as a higher quality of life.
4. These assets are however under threat from the pressures of urbanization

### Way ahead

1. The craftsmen should also once again become stakeholders in the preservation effort and continue to impart traditional skills to their future generations who are moving to other trades in large numbers.
2. To achieve conservation and development objectives, different agencies of the government need to partner with academic institutes/civil society and local communities
3. The success of the Nizamuddin Urban Renewal has demonstrated a model approach for community-based conservation. Not only have several protected monuments in the dense Hazrat Nizamuddin Basti undergone conservation but the conservation effort has been coupled with providing education, health services, vocational training to create economic opportunities for local youth and women, sanitation, urban improvements including landscaping neighborhood parks and street improvements, revival of a 700-year Living culture centered around Sufism and Qawwali, creating performance spaces, amongst other aspect.
4. Multi disciplinary approach –it requires significant public private partnership with NGO's, Resident Welfare Associations, grant making organizations, corporate sectors, Municipal Councils/Corporations to come together with a long-term vision. The initiative has global lessons but has been possible with a multi-disciplinary team creating customized, contextual and local solutions all aimed at improving the quality of life for inhabitants with heritage assets restored and well taken care of.
5. The need for Museums/ Interpretation Centres either located within existing buildings or in new sensitively designed structures is now strongly felt. In order to enhance visitor experience and attract younger generation of visitors to major sites or ensembles of monuments state of-art displays using new media are planned.

## India's G20 Presidency: Significance and Opportunities

- The Group of Twenty (G20) is the premier forum for international economic cooperation.
- It plays an important role in shaping and strengthening global architecture and governance on all major international economic issues.
- The G20 members represent around 85 per cent of the global GDP, over 75 per cent of the global trade and about two-thirds of the world population.

### India's Presidency

- India is holding the Presidency of the G20 from 1 December 2022 to 30 November 2023 which offers a unique opportunity to contribute to the global agenda on pressing issues of international importance.
- India maintains close relations with developed countries on the one hand and at the same time understands and expresses the views of developing countries very well.
- Guided by the Prime Minister's vision, India's foreign policy has been evolving to undertake leadership roles on the global stage.
- The G20 President sets the agenda for the year, identifies the themes and focuses areas, conducts discussions and delivers the outcome documents.
- India will identify, highlight, develop and strengthen international support for priorities of vital importance in diverse social and economic sectors ranging from energy, agriculture, trade, digital economy, health and environment to employment, tourism, anti-corruption and women's empowerment, including in focus areas that impact the most vulnerable and disadvantaged.
- The G20 mantra is- **One Earth, One Family, One Future.**
- It is these thoughts and values of India that pave the way for the welfare of the world.
- India's Presidency will not only be a memorable one for the country, but the future will also assess it as a momentous occasion in the history of the world.

## India's Summit

- The 18<sup>th</sup> G20 Heads of State and Government Summit will take place on 9-10 September 2023 in New Delhi.
- The Summit will be a culmination of all the G20 processes and meetings held throughout the year among ministers, senior officials and civil societies.
- A G20 Leaders Declaration will be adopted at the conclusion of the New Delhi Summit, stating Leader's commitment towards the priorities discussed and agreed upon during the respective ministerial and working group meetings.

## Genesis of G20

- ❖ The G20 was founded in 1999 after the Asian Financial crisis as a forum for Finance Ministers and Central Bank Governors to discuss global economic and financial issues.
- ❖ It was upgraded to the level of Heads of State/ Government in the wake of the global economic and financial crisis of 2007 and in 2009 was designated the “**premier forum for international economic cooperation**”.
- ❖ The G20 initially focused largely on broad macroeconomic issues, but it has since expanded its agenda to inter-alia including trade, climate change, sustainable development, health, agriculture, energy, environment, climate change and anti-corruption.

## G20 Members

It comprises 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkiye, United Kingdom and the United States) and the European Union.



## International Organisations

- In addition to the regular International Organisations (IOs) (UN, IMF, WB, WHO, WTO, ILO, FSB and OECD) and Chairs of Regional Organisations (AU, AUDA-NEPAD and ASEAN)
- India as G20 Presidency will be inviting ISA, CDRI and ADB as Guest IOs.

## Working of G20

1. The G20 Presidency steers the G20 agenda for one year and hosts the Summit. It consists of two Parallel tracks: The Finance Track and The Sherpa Track. Finance Ministers and Central Bank Governors lead the Finance Track while Sherpas lead the Sherpa Track.
2. Within the two tracks, there are thematically oriented working groups in which representatives from the relevant ministers of the members as well as from invited/guest countries and various international organisations participate. The Sherpas oversee negotiations participate. The Sherpas oversee negotiations over the course of the year, discussing agenda items for the Summit and Coordinating the substantive work of the G20.
3. There are Engagement Groups that bring together civil societies, Parliamentarians, think tanks, women, youth, labour, businesses and researchers of the G20 countries.
4. The Group does not have a permanent secretariat. The Presidency is supported by the Troika previous, current and incoming Presidencies. During India's Presidency, the Troika comprises Indonesia, India and Brazil respectively.

## Logo and Theme

- ✓ The G20 logo draws inspiration from the vibrant colours of India's national flag- Saffron, white and green and blue.
- ✓ It juxtaposes planet Earth with the Lotus, India's national flower that reflects growth amid challenges.
- ✓ The Earth reflects India's pro-planet approach to life, one in perfect harmony with nature.
- ✓ The theme of India's G20 Presidency- "**Vasudhaiva Kutumbakam**" or "**One Earth One Family One Future**" is drawn from the ancient Sanskrit text of the Maha Upanishad.

- ✓ Essentially, the theme affirms the value of all life human animal, plant and microorganisms and their interconnectedness on the planet Earth and in the wider universe.
- ✓ The theme also spotlights, LiFE (Lifestyle for Environment), with its associated, environmentally sustainable and responsible choices, both at the level of individual lifestyles as well as national development.
- ✓ The logo and the theme together convey a powerful message of India's G20 Presidency is of striving for just and equitable growth for all in the world.

### **Universal Public Designs**

- In a heterogeneous society the goal of every state is to provide equal access to its citizens.
- When it comes to physical public domain design, infrastructure for persons with disabilities assumes another dimension of architecture.
- It has certain implications from the special-need quotient of demography and disability as an asocial construct.
- The International community is building competencies for delivering quality governance on universal designs.
- India too has initiated Sugamya Bharat Abhiyan as a credible step towards goals in universal designs.

### **Inclusion**

- Inclusion stands for giving freedom for access for all and building commonalities.
- Most of the housing solutions are standardized for common users and not for special needs.
- There is a standard approach for building residential space which traditionally does not focus people with special needs. But when it comes to physical public domain design it assumes another dimension of architecture.

- It has certain implications for the vision of a country on development, accountability in the use of state's budgeted funds and the special need quotient of demography.
- When administrators consider people with all kind of abilities and their accessibility issues while building utilities and spaces, it can be coined as universal design.
- Universal or inclusive design provides for a holistic approach in designing public spaces and utilities.

## UNCRPD

- The UN Convention on the Rights of Persons with Disabilities (UNCRPD) inspires and focuses on Universal design.
- It highlights the sovereign government's responsibility to make improvements since accessibility is a right.
- Member states are responsible for systematically removing obstacles and creating inclusive solutions for everyone, irrespective of their functional capacity, characteristics and preferences (Maria, 2018).
- Those countries with high living standards and quality of life, universal design certainly forms a modality for indexing in terms of life quality.
- Nordic countries for instance and universal design are a good example of vision for inclusive growth.

There are three vital aspects of inclusive designs in any situation.

1. The social responsibility or commitment of the entity that evolves strategies for inclusion
2. The reward to such organisations which initiate such changes and finally the sustainability of such initiatives.

## Challenges

- ❖ A major challenge in implementing such changes is on emphasizing the value of such indicatives at the policy level and at the execution level.
- ❖ Inclusive design is about placing people at the heart of the designing process.
- ❖ It is about creating buildings and spaces, streets, public parks, gardens, etc., that are really comfortable and easy for inclusive architecture is that the people who are working at various capacities in construction are, no doubt, experts in their fields but

they lack knowledge about the whole structure and issues of accessibility fail to bring those minute changes at their ends for universal designs.

- ❖ **Sugamya Bharat** has been formulated by considering all possible lacunae.
- ❖ The country with such diverse structure demands a systemic approach to tackle the existing challenges.

### Approaches and Principles

- In 1997, a term of architects and designers from North California State University created a set of principles for a universal design.
  - The Understand the suitability of piece of architecture as universally designed these principles can be used as a test for suitability.
1. A piece of architecture should provide an equitable use for every person irrespective of their differential ability.
  2. A piece of architecture should possess a quality of flexibility in use.
  3. A piece of architecture must have the quality simple and intuitive use.
  4. A piece of architecture should have perceptible information and its layout?
  5. A piece of architecture should possess the quality of tolerating for errors. If people commit mistakes due to their disability.
  6. A piece of architecture should possess the quality of usage or access should demand low physical effort.
  7. A piece of architecture should possess adequate size and space for use.

### Implications

- ✓ While looking at a strategic approach for engaging a universal design for system problems, a time-phased systematic approach is suggested.
- ✓ In all the domains of public work, an integrated approach by incorporating the end users feedback can deliver quality of governance to people with differential abilities.

- ✓ Most importantly, reward for such initiatives of universal designs should be given to build public consciousness.

### **Sugamya Bharat Abhiyan**

- On 3 December 2015 World Disability Day the Govt. of India launched Accessible India Campaign as a country-wide campaign for achieving universal accessibility for persons with Disabilities.
- It has three important components including the build environment, transportation sector and the ICT ecosystem.

### **Built Environment Accessibility**

- An accessible physical environment benefits everyone not just persons with disabilities.
- Measures are taken to eliminate obstacles and barriers to indoor and outdoor facilities including schools, medical facilities and workplaces.
- Further, these would include all public spaces such as roads, footpaths, parks and gardens etc.

## **EARTHQUAKE RESISTANT CONSTRUCTION**

### **Seismic Zoning**

Zones-the country has been classified into different zones indicating the intensity of damage or frequency of earthquake occurrences.

### **Zone mapping**

These zoning maps indicate broadly the seismic coefficient that could generally be adopted for the design of buildings in different parts of the country. These maps are based on subjective estimates of intensity from available information on earthquake occurrence, geology; and tectonics of the country.

## Risk Zones

seismologists have classified 59% of the land mass of India as prone to earthquakes of different magnitudes- 11% in very high-risk Zone V, 18% in high-risk Zone IV, and 30% in moderate-risk Zone III.

Guwahati and Srinagar are located in Seismic Zone V, while the national capital of Delhi is in zone IV and the mega cities of Mumbai, Kolkata, and Chennai are in zone III. 38 cities with a population of half a million and above each and a combined population of a million are located in these three regions.

## Solutions

### 1. Earthquake-resistant buildings

#### A) Thermocol

##### Earth quake resistant

Thermocol has dual advantage one it can be used as earthquake resistant second energy saving. It could be the material of the future for the construction of earthquake-resistant buildings, with thermal insulation, and could also save energy required to develop construction materials. Researchers at IIT Roorkee have found that thermocol or Expanded Polystyrene (EPS) is used as a composite material in the core of reinforced concrete sandwich, could resist earthquake forces on up to four-storey buildings. The researchers tested a full-scale building and a number of wall elements constructed with thermocol sandwiched between two layers of concrete at the National Seismic Test Facility (NSTF) of the Department of Earthquake Engineering, IIT Roorkee, developed under the Fund for Improvement of S&T Infrastructure (FIST) programme of Department of Science & Technology (DST), Government of India.

#### Energy Saving

Besides resisting earthquakes, the use of an expanded polystyrene core in the concrete walls of a building can result in thermal comfort. The core provides the necessary insulation against the heat transfer between the building's interior and exterior environment. This can help in keeping the building interiors cool in hot environments and warm during cold conditions. India suffers a large variation of temperature in different parts of the country and during different seasons of the year. Therefore, thermal comfort is a crucial consideration along with structural safety.

### **Saving natural resources**

It replaces a large portion of concrete volume from the walls and floor/roof. This replacement of concrete with the extremely lightweight EPS Seismic zonation and intensity map Of India not only reduces mass, thereby decreasing the earthquake force acting on a building but also diminishes the burden on the natural resources and energy required to produce the cement concrete.

### **2. Retrofitting non-earthquake-resistant buildings**

Retrofitting old non-earthquake-resistant buildings with a technology that can prevent major damage to such buildings from earthquakes.

The technology called semi-confined unreinforced brick masonry (SC-URBM) can resolve the problem of the spread of settlements in earthquake-prone areas with constructions that have been built without following earthquake -preventive building codes. This technology for strengthening existing URBM buildings is not only architecturally aesthetic but can also be implemented by locally-available manpower.

### **Mains Corner**

1. What are the challenges before the India of G20 summit initiative?
2. What is an earthquake and what are its causes? Also discuss the impact of earthquake, along with the challenges faced by pre disaster preparedness
3. Explain the significance of Baliyatra ('voyage to Bali') in the context of Cultural links between Ancient Kalinga and South East Asia.
4. How food fortification is a proven cost-effective and complementary strategy to address India's malnutrition burden?
5. Travellers played a key role in preserving history through their writings during ancient and medieval history. comment

## Prelims Corner

1. 'Global Gender Gap' Index is released by

- A) World Economic Forum B) Oxfam C) WHO D) UN Women

Answer (A)

The World Economic Forum (WEF) ranked India at 135 out of 146 countries in its Global Gender Gap (GGG) Index for 2022.

2. In which one among the following categories of protected areas in India are local people not allowed to collect and use the biomass?

- A) Biosphere Reserves B) National Parks C) Wetlands declared under Ramsar Convention  
D) Wildlife Sanctuaries

Answer (B)

National Parks are protected areas in India in which local people not allowed to collect and use the biomass

3. Under the Constitution of India, which one of the following is not a fundamental duty?(2011)

- A) To vote in public elections B) To develop the scientific temper  
C) To safeguard public property D) To abide by me Constitution and respect its ideals

Answer (A)

To vote in public elections is not a fundamental right under the constitution of India

4. What is the importance of developing Chabahar Port by India?

- A) India's trade with African countries will enormously increase.  
B) India's relations with oil-producing Arab countries will be strengthened.  
C) India will not depend on Pakistan for access to Afghanistan and Central Asia.  
D) Pakistan will facilitate and protect the installation of a gas pipeline between Iraq and India.

Answer (C)

India will not have to depend on Pakistan for access to Afghanistan and Central Asia





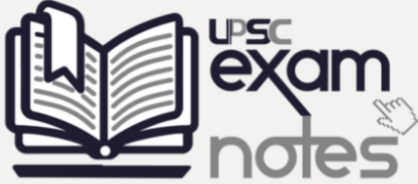
5. Men are considered to have anaemia if their haemoglobin concentration is less than how many grams/decilitre?

A. 15.0 g/dL    B.12.0 g/dL    C.10.0 g/dL    D.13.0 g/dL

Answer (D)

Men are considered to have anaemia if haemoglobin concentration is less than 13.0 g/dL.

While iron deficiency is the main cause of anaemia, particularly in women, other causes of anaemia are deficiency in folate, vitamin B12, or vitamin A



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