

Hally War was just 10 when an idea took root in his mind. Seeing his parents' daily struggle to cross a river to reach their farm, little Hally decided to build a bridge, nay a root bridge. Sixty years later, his creation over the Umkar river in Siej village near Cherrapunjee, also known as Sohra, in the undulating East Khasi Hills of Meghalaya has grown into a living marvel. As is the traditional practice, he used the roots of the rubber fig (*Ficus elastica*), learning the techniques to mould and model the roots into a bridge with the help of bamboo from his grandfather and other elders in the family, Mr. War, nearing 70, reminisces.

Two top socio-political bodies of Ladakh, the Leh Apex Body (LAB) and the Kargil Democratic Alliance (KDA), on Saturday rejected the high powered committee constituted by the Union Home Ministry to ensure protection of land and jobs for the people of the Union Territory. The bodies hardened their stand on four key points, which include granting statehood and special status under the Sixth Schedule of Constitution.

The Union Home Ministry has sought another extension of six months to frame the rules of the Citizenship (Amendment) Act, 2019 (CAA) without which it cannot be implemented. This is the seventh such extension sought by the Ministry. The Act, which was passed in 2019, fast tracks the citizenship of people from the Hindu, Sikh, Parsi, Christian, Buddhist and Jain communities from Pakistan, Afghanistan and Bangladesh who entered India before December 31, 2014 without any documents.

Despite daily new infections in Japan averaged at more than 2,00,000 per day in early August 2022, the number of COVID-19 cases and deaths per capita in Japan has been significantly lower than in peer countries. Japan has achieved this feat despite having the world's oldest population, being densely populated and strict lockdowns prohibited by its constitution. While other countries focused on disinfection, Japan emphasised on closed environments, crowded conditions, and close contact settings.

Covering 10% of the world's hydropower reservoirs with 'floatovoltaics' would install electrical capacity equivalent to that provided by all electricity generating fossil fuel plants in operation worldwide. Floating solar panels have benefits: the water's cooling effect makes them more efficient than land-based ones; they do not interfere with desert ecosystems; and they keep precious water from evaporating. Even though reservoirs are artificial ecosystems, they provide habitats for wildlife.

A limitless supply of fresh water exists in the form of water vapour above Earth's oceans, yet remains untapped. A new study from the University of Illinois Urbana-Champaign suggests harvesting oceanic water vapour as a solution to limited supplies of fresh water in various locations globally. The researchers evaluated 14 water stressed locations for the feasibility of a hypothetical structure capable of capturing water vapour and condensing it into fresh water.

Generally, patients receive a diagnosis of Alzheimer's only after they exhibit well-known signs of the disease, such as memory loss. By

ANTHROPOGENIC AND GEOLOGICAL REASONS AMONG MANY FOR JOSHIMATH SINKING

1. Joshimath (about 6000ft) in Uttarakhand's Chamoli district is a key transit point for Badrinath and Hemkund Sahib. It is bounded by the Karmanasa and Dhaknala streams on the west and the east. The Dhauliganga and Alaknanda rivers on the south and the north. The first instance of subsidence in Joshimath was reported in 1976 Mishra Commission report.
2. **Natural factors for subsidence**-Joshimath almost sits on the Vaikrita Thrust (VT), a tectonic fault line and is also very close to main geological fault lines, Main Central Thrust (MCT), and Pandukeshwar Thrust (PT). It falls in Zone V of the Seismic Zonation Map. The area around it is covered with a thick layer of overburden material making it vulnerable to sinking. High snowfall and highly weathered gneissic rocks make the area prone to landslides.
3. The impact of extreme rainfall events impacting the stability of the slope. Anthropogenic factors: Unplanned construction and Improper water drainage Hydroelectric schemes around Joshimath and Tapovan, including the Vishnugad HE Project has created additional pressure on fragile slope. Increase in ground seepage of water from surface, a probable cause for subsidence.
4. **Land Subsidence**: It is a gradual settling or sudden sinking of the Earth's surface due to removal or displacement of subsurface earth materials.

1ST ALL INDIA ANNUAL STATES' MINISTERS CONFERENCE ON "WATER VISION@2047 HELD IN BHOPAL

1. **Following initiatives were launched during it**: National Framework on Reuse of Treated Waste Water. National Framework for Sedimentation Management. Sedimentation management enables optimal utilization of reservoir capacity.
2. It focuses on Adaptive structural and functional measures best practices under Jal Shakti Abhiyan: Catch the Rain 'Catch the rain' aims to nudge Rain Water Harvesting Structures with people's active participation. Inauguration of a sub-portal of 'Jal Itihas' under WRIS portal. Jal Itihas showcases selected water heritage structures more than 100 years old.
3. India- Water Resources Information System (WRIS) provides a single window solution for all water resources data and standardised information. 'Water Vision Park' was proposed to be established to promote idea of afforestation to achieve goal of water conservation.
4. Also, key features of Water and Allied Resources Information and Management (WARMIS) were highlighted like Unified data repository, Intelligent Insight into data etc. Significance of the conference: It will bring in synergies between different government programmes /schemes in terms of planning, process, and implementation. It highlighted the need to focus on the 4 Es of Water Governance i.e., Ecology, Equity, Efficiency and Economics.
5. **Constitutional provisions for water governance**: State list, entry 17 (Water supplies, irrigation and canals, drainage etc); Union list, entry 56 (Regulation and development of inter-State rivers and river valleys).

CENSUS POSTPONED BY AT LEAST 4 YEARS TO 2024-25: OFFICE OF THE REGISTRAR GENERAL AND CENSUS COMMISSIONER OF INDIA

1. Citing the on-going COVID pandemic, the office of RGI has extended the deadline of freezing of administrative boundaries to June 30, 2023 (extended multiple times since COVID). As per Rule 8(iv) of Census Rules, 1990, the boundaries of the administrative units shall be frozen from the date intimated by the Census Commissioner, which shall not be earlier than one year from the Census reference date.
2. As general elections are scheduled for early 2024, it would not be possible to conduct Census operations before polls. The Census Process: Before every Census, the states are required to provide information to the RGI on changes in the number of administrative units like towns, districts, etc.
3. The number of districts changed from 640 in 2011 to 736 in 2022. After which the Census Operations will be carried out in two phases: - House listing and Housing Census- As per the recent amendments to Census Rules this phase also carries enumeration of National Population Register (NPR). Population Enumeration- During this each person is enumerated and her/his individual particulars (Age, Marital status, Religion, etc).

that point, the best treatment options slow the progression of symptoms. But research has shown that the seeds of Alzheimer's are planted years earlier, long before the cognitive impairments surface that make a diagnosis possible. Those seeds are amyloid beta proteins that misfold and clump together, forming small aggregates called oligomers. Over time, through a process scientists are still trying to understand, those 'toxic' oligomers of amyloid beta are thought to develop into Alzheimer's. A team led by researchers at the University of Washington has developed a laboratory test that can measure levels of amyloid beta oligomers in blood samples.

Access to clean and drinkable water has now not only become a local problem but global as well. Water contamination is one of the world's leading causes of death and the problem is only getting worse. To tackle this, our team at Indian Institute of Science Education and Research (IISER), Pune came up with a custom designed unique molecular sponge like material — macro/microporous ionic organic framework — which can swiftly clean polluted water by soaking up sinister contaminants. The results were published recently in the journal, *Angewandte Chemie*.

In 1911, Dutch physicist Heike Kamerlingh Onnes discovered superconductivity in mercury. He found that at a very low temperature, called the threshold temperature, solid mercury offers no resistance to the flow of electric current. The BCS theory Scientists later classified mercury as a conventional superconductor because its superconductivity could be explained by the concepts of Bardeen-Cooper--Schrieffer (BCS) theory. While scientists have used the BCS theory to explain superconductivity in various materials, they have never fully understood how it operates in mercury — the oldest superconductor. A group of researchers from Italy recently set out to "fill this gap", as they wrote in their November 3 paper in the journal, *Physical Review B*.

Negotiations for bilateral free trade agreements with several countries are "well on track" and India is also looking at some multilateral pacts that are fair and equitable for all member countries, Commerce and Industry Minister Piyush Goyal said on Saturday. India had implemented a free trade agreement (FTA) with the UAE in May 2022 and on December 29, 2022, with Australia to boost bilateral trade and investments. The country is negotiating FTAs with other countries such as Canada, the U.K. And the European Union (EU).

4. The responsibility of conducting the decadal census rests with the Office of the Registrar General and Census Commissioner of India, Ministry of Home Affairs. National Population Register (NPR) is a register of all usual residents of the country regardless of whether they are citizens/non-citizens of India. First compiled in 2010 and updated in 2015. Prepared under provisions of Citizenship Act 1955 and Rules, 2003.

SC DIRECTS PANEL TO EVOLVE FRAMEWORK ON GUIDELINES FOR ROAD SAFETY

1. The SC bench along with CJI, has highlighted the immediate necessity to formulate Guidelines for Road Safety in India. The committee will be led by a former apex court judge, Justice A.M. Sapre. It will seek to create State-specific guidelines for the electronic monitoring and enforcement of road safety across States as per Section 136A of the Motor Vehicles Act, 1988. The bench also acknowledged that speeding is the main cause of fatal accidents on Indian roads.
2. **Motor Vehicle Act, 1988**-The act replaced the Motor Vehicles Act, 1939 and came into force from 1 July 1989. Various sections of it are amended and the recent one in 2022, for third party insurance and creation of Motor Accident Claims Tribunal.
3. Section 136 (2) of the act mandates the Centre to "make rules for the electronic monitoring and enforcement of road safety including speed cameras, closed-circuit television cameras, etc. Sections 215 A and B of the act, provides for the functions of electronic monitoring to the States and the formation of a National Road Safety Board in an advisory capacity.
4. According to a Ministry of Road Transport and Highways report (2021), altogether 4,12,432 road accidents were reported. Steps like dashboard for road accidents, cashless treatment, acknowledgement of good Samaritans and establishment of National Road Safety Council have been taken to deal with it.

INITIATIVES LAUNCHED ON 76TH FOUNDATION DAY OF BUREAU OF INDIAN STANDARDS(BIS)

1. BIS was established under the BIS Act 1986, assuming the functions of the erstwhile Indian Standards Institution (ISI) which was established in 1947. Presently BIS operates under the framework of the BIS Act of 2016. Various Initiatives launched were Standards National Action Plan (SNAP) 2022- 27: SNAP to meet the emerging technologies and concerns of sustainability and climate change. Will play an important role in steering the national standardization efforts. 2.Revised National Electrical Code of India 2023 or NEC 2023: Prepared by BIS, it provides guidelines for regulating Electrical Installations practices across country. India's first NEC was formulated in 1985 (subsequently revised in 2011). Current revision includes latest International best practices and addition of special locations like Hospitals, Community facilities, Hotels, etc.
3. **Revision Exercise of National Building Code of India (NBC 2016):** BIS initiated exercise of Revision of NBC to include Sustainable city planning norms; New and sustainable building materials, etc.
4. **Standards Clubs in Schools:** Through Standards Clubs, BIS aims to expose science students of class 9th and above to the concepts of Quality and Standardization through student centric activities. Training courses for national capacity building for judicious implementation of NBC 2016 and NEC 2023.
5. **Some Common BIS standards-BIS Hallmark:** Mandatory standard for gold and silver jewellery ISI Mark: Standards compliance mark for industrial products Ecomark: Labeling of environment friendly products. Product Certification Scheme: Applicable for tangible products. Foreign Manufacturers Certification Scheme: Overseas applicants/foreign manufacturers are granted a license for the use of the ISI mark. System Certification Scheme: Applicable for systems/processes.



“Never clear backlog. It is a promise that they would not be created in future.”

DR. KHAN
(KSG)