

“If you care about something enough, you'll find a way to make it happen.”

Roy T. Bennett

NATIONAL

INDIA FARES POOR ON GLOBAL LIVEABILITY

The rankings of 140 global cities, based on their living conditions were released by the Economist Intelligence Unit (EIU).

The EIU is part of UK magazine The Economist and provides forecasting and advisory services through research and analysis.

The index assigns cities scores on five broad parameters — stability, healthcare, culture/environment, education, and infrastructure using 30 indicators.

India has fared poorly on the Global Liveability Index, 2018, with Delhi ranking 112 and Mumbai five places behind at 117.

Delhi has outperformed Mumbai on education, healthcare and infrastructure, while faring marginally better on culture/environment. The only parameter in which Mumbai fares better than Delhi is stability.

The weakest area for Delhi is its instability due to the high prevalence of petty and violent crimes, and a high risk of terrorism and civil unrest.

It also achieves the lowest possible ranking for public transport, an indicator within infrastructure.

Even newly-developed areas (in Indian cities) are poorly served by public transport, suffer from congestion and pollution, and have inadequate water.

While private health and education are acceptable in both Mumbai and Delhi, the level and quality of public provision is well below the global average.

High levels of corruption and social and religious restrictions also reduce liveability markedly in both cities.

The EIU report is in contrast with the MoHUA's recent Ease of Living Index for 111 Indian cities that was released wherein

Mumbai ranked at number 3, far ahead of New Delhi at a low 65th rank.

While much of the parameters and data sources are different for the two reports, New Delhi is far behind Mumbai on parameters such as health, education and physical infrastructure.

EIU, which was involved in developing the methodology to measure city GDP for the Indian government's Ease of Living report, had nothing to do with the ranking process itself.

As per their ranking, the liveability factor of these two Indian cities is the same as Mexico City, Jeddah, Ho Chi Minh City and Jakarta.

Austria's capital Vienna has been ranked as the best city to live in, displacing Australian city of Melbourne, which had held the record for seven consecutive years.

Syrian capital of Damascus continues to be ranked at the bottom of 140 cities.

Dhaka in Bangladesh is the second worst with Pakistan's capital Karachi ranked as the fourth worst.

RUCO (REPURPOSE USED COOKING OIL) INITIATIVE

The Food Safety and Standards Authority of India (FSSAI) has launched RUCO (Repurpose Used Cooking Oil), an initiative that will enable collection and conversion of used cooking oil to bio-diesel.

Under this initiative, 64 companies at 101 locations have been identified to enable collection of used cooking oil. For instance: McDonald's has already started converting used cooking oil to biodiesel from 100 outlets in Mumbai and Pune.

FSSAI wants businesses using more than 100 litres of oil for frying, to maintain a stock register and ensure that UCO is handed over to only register collecting agencies.

FSSAI believes India has the potential to recover 220 crore liters of used cooking oil for the production of biodiesel by 2022 through a co-ordinate action. While biodiesel produced

from used cooking oil is currently very small, but a robust ecosystem for conversion and collection is rapidly growing in India and will soon reach a sizable scale.

The initiative has been launched nearly a month after the food safety regulator notified standards for used cooking oil. According to FSSAI regulations, the maximum permissible limits for Total Polar Compounds (TPC) have been set at 25%, beyond which the cooking oil is unsafe for consumption.

Total Polar Compounds (TPC)

In many countries, TPC is used to measure the quality of oil. The level of TPC increases every time oil is re-heated. Some of the studies show that TPC accumulation in oil without food is slower than that in oil frying with food.

Higher level of TPC in cooking oil leads to health issues like hypertension, atherosclerosis, Alzheimer's disease and liver disease. One of the studies also noticed high levels of glucose, creatinine and cholesterol with declined levels of protein and albumin in cooking oil.

Currently, used cooking oil is either not discarded or disposed of in such a manner that it chokes drains and sewerage systems. Apart from setting quality standards, the new regulation addresses the way this oil is discarded. As used cooking oil is considered the most reasonable feedstock for biodiesel production, the FSSAI is planning to redirect the used cooking oil from the food business operators. It has already started collecting used oil in small quantities either through a barter arrangement or at cost.

FSSAI:

The Food Safety and Standards Authority of India (FSSAI) has been established under Food Safety and Standards Act, 2006 which consolidates various acts & orders that have hitherto handled food related issues in various Ministries and Departments.

It was created for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food for human consumption.

Ministry of Health & Family Welfare, Government of India is the Administrative Ministry for the implementation of FSSAI.

PITCH TO MORE INITIATIVE

NITI Aayog has launched "Pitch to MOVE" – a mobility pitch competition that aims to provide budding entrepreneurs of India a unique opportunity to pitch their business ideas to a distinguished jury.

Pitch to MOVE:

"Pitch to MOVE" is organised by NITI Aayog in collaboration with Invest India and Society of Indian Automobile Manufacturers (SIAM).

The competition aims to identify and reward the start-ups offering innovative solutions for shared, connected, and environment friendly mobility. It also aims to incentivise the startups, which will help the Government realize its vision of Shared, Connected, Intermodal and Environment Friendly Mobility for India. The objective is to harness the latest disruption for generating employment and growth in our country.

The Startups can be from the domain of Public Mobility, Electric Vehicles, Shared Transport, Last Mile Connectivity, Passenger Transportation, Battery Technology, Automotive IoT, Freight & Logistics, Powertrain/Drivetrain, Experiential, Travel, Mobility Infrastructure and Automotive Electronics etc.

FEAR ISN'T THE KEY: ON REGULATION OF SECURITIES MARKETS

A panel headed by T.K. Viswanathan, a former Lok Sabha Secretary General, has now submitted recommendations to curb illegal practices in the markets and ensure fair conduct among investors

Front-running, insider trading, shady accounting practices that are tantamount to window-dressing firms' performance, and other shenanigans to manipulate share prices continue

Panel's recommendations

A key recommendation is that the stock market watchdog be granted the power to act directly against “perpetrators of financial statements fraud”

This means SEBI can act not only against listed entities under its extant powers but also against those who aid or abet financial fraud — including accountants and auditors

The panel has suggested that SEBI, rather than the Central government, be given the power to grant immunity to whistle-blowers who help uncover illegal activities

It has mooted new ideas to address market manipulation, from a better scrutiny of price-sensitive information to the creation of processes to expedite the investigation into cases

It goes to the extent of recommending that SEBI be given powers to tap phone calls

Pros

Greater executive powers can help the regulator take swifter action against offenders instead of relying on government bodies such as the Ministry of Corporate Affairs

This could also free SEBI from various manifestations of political influence

Cons

Given that SEBI is now considering a cap on trading by retail investors based on their assessed ‘net worth’, the committee’s suggestion that it may consider any trading by players beyond their known ‘financial resources’ as fraud could lead to undue harassment of investors

Way Forward

Granting more teeth to enable the market regulator to fulfil its primary role of protecting investors is fine

A strong regulator serves as a good deterrent to truants in the market, but banking on fear too much could also scare away genuine investors

It is equally critical to empower it with the right tools so that a sledgehammer is not deployed to crack a nut

SCIENCE AND TECH

GAGANYAAN 2022

With PM’s announcement that an Indian astronaut would go into space by 2022, ISRO has finally got a definitive timeline for a project it has been working on for the last 15 years.

In 2004 the manned space mission was first endorsed by the ISRO Policy Planning Committee.

There was lack of clarity on when exactly the mission would be launched, although the target initially in discussion was 2015.

A manned space mission is very different from all other missions that ISRO has so far completed.

In terms of complexity and ambition, even the missions to the Moon (Chandrayaan) and Mars (Mangalyaan) are nowhere in comparison.

For a manned mission, the key distinguishing capabilities that ISRO has had to develop include the ability to bring the spacecraft back to Earth after flight, and to build a spacecraft in which astronauts can live in Earth-like conditions in space.

Over the years, ISRO has successfully tested many of the technologies that are required, but many others are still to be developed and tested.

ISRO successfully tested GSLV Mk-III, now called LVM-3 (Launch Vehicle Mark-3).

It successfully launched the first developmental flight of LVM-3, which carried the GSAT-19 satellite into space.

The LVM-3 is the declared launch vehicle for taking the manned crew module into space as it will help for sending up heavier and heavier payloads.

Any manned spacecraft, however, needs to come back. This involves mastering of the highly complicated and dangerous reentry and recovery ability.

While reentering Earth's atmosphere, the spacecraft needs to withstand very high temperatures, in excess of several thousand degrees, which is created due to friction.

Also, the spacecraft needs to reenter the atmosphere at a very precise speed and angle, and even the slightest deviation could end in disaster.

The first successful experimental flight of GSLV Mk-III also involved the successful testing of an experimental crew module that came back to Earth after being taken to an altitude of 126 km into space.

Called the Crew module Atmospheric Reentry Experiment (CARE), the spacecraft reentered the atmosphere at about 80 km altitude and landed in the sea near the Andaman and Nicobar Islands.

The design and configuration of the inside of the crew module have also been finalised. Ground testing will have to be followed by tests in the space orbit while simulating zero gravity and deep vacuum.

While ISRO still plans to set up a permanent facility, the selected candidates for the first manned mission will most likely train at a foreign facility.

Candidates will need to train for at least two years in living in zero gravity and dealing with a variety of unexpected experiences of living in space.

SUPER-INSULATING GEL COULD HELP BUILD MARS HABITATS

Scientists at University of Colorado at Boulder have developed a transparent heat-resistant gel using beer waste that may one day be used to build greenhouse-like habitats for human colonized on Mars.

It is made up of common plant sugar cellulose and is a thin, flexible film that is roughly 100 times lighter than glass.

The gel is transparent and so resistant to heat that you could put a strip of it on your hand and a fire on top without feeling a thing.

Aerogels are at least 90 per cent gas by weight, but their defining feature is air.

Their thin films are made up of crisscrossing patterns of solid material that trap air inside billions of tiny pores, similar to the bubbles in bubble wrap.

This trapping capacity makes them such good insulators.

Transparency is an enabling feature hence it can be used in windows for extraterrestrial habitats. A peel-and-stick film could simply be attached to home windows.

Its thermally-insulating nature helps protecting from big oscillations in temperature in Space.

The group's gel is also cheaper to produce because it comes from beer waste.

It can be developed for many other applications, including smart clothes, for insulating cars and protecting firefighters.
