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Current Affairs (11 to 20 January, 2019)

1. National News

1.1 Quota Bill gets President's assent, becomes law

President Ram Nath Kovind on Saturday gave his assent to the Constitution amendment that provides 10% reservation to the economically backward section in the general category in government jobs and education.

With the Ministry for Law and Justice issuing a notification about the <u>Constitution</u> (103 <u>Amendment</u>) Act, 2019 receiving the Presidential assent, reservation for the economically weaker among general category is now law.

The Act amends Articles 15 and 16 of the Constitution — ensuring Fundamental Rights to a citizen — by adding a clause that allows the State to make "special provision for the advancement of any economically weaker sections of citizens".

These provisions would relate to "their admission to educational institutions, including private educational institutions, whether aided or unaided by the State, other than the minority educational institutions".

The Act makes it clear that reservation would be "in addition to the existing reservations and subject to a maximum of 10% of the total seats in each category".

Amendment of Article 16 stated, "Nothing in this article shall prevent the State from making any provision for the reservation of appointments or posts in favour of any economically weaker sections of citizens other than the classes mentioned in clause (4), in addition to the existing reservation and subject to a maximum of 10% of the posts in each category."

Unlike other Constitutional Bills that require ratification from half of the State Assemblies, the Law Minister had clarified that this Act would not require such a process.

Responding to a query by Rajya Sabha member M.K. Kanimozhi on exactly this point, Law Minister Ravishankar Prasad had, on the floor of the House, confirmed that there was no need for State governments to ratify the Bill.

"If the Parliament is amending the Fundamental Rights under Article 368, there is no obligation to go to the State Vidhan Sabha. This was a part of the Constitution, as framed by them in 1949 and 1950. That needs to be appreciated," Mr. Prasad had responded to Ms. Kanimozhi's query during the Parliament discussions on the Bill.



The Bill, that was passed by Parliament on January 9, has been challenged in the Supreme Court.

1.2 Centre to award UDAN III routes soon

The Union Ministry of Civil Aviation will shortly award new regional connectivity routes under UDAN (Ude Desh ka Aam Nagarik) III, Union Minister for Commerce, Industry & Civil Aviation Suresh Prabhu said in Mumbai on Monday.

"Very soon, we will be declaring results for a very successful round in UDAN III. We will announce it formally in the next two days. The new routes will meet lot of unmet demand and futuristic requirement of people," Mr. Prabhu said ahead of a two-day Global Aviation Summit.

"[In this round] We want to do something which is completely ready and fool-proof. In the past, some airlines that had bid and succeeded in bagging routes did not take off [from those routes]. We do not want to see a repeat of that kind. We want to make sure that UDAN is really flying," the Minister added.

'Starting' trouble

He was referring to Air Odisha and Air Deccan which, despite bagging many regional connectivity routes, could not launch many flights due to lack of resources. The third round of bidding under the Regional Connectivity Scheme (RCS) for domestic routes concluded recently and 15 airlines had bid for a total 111 routes. These include a bulk of the 56 (RCS) routes withdrawn from Air Odisha and Air Deccan because of their inability to launch flights. The two airlines between them had 84 routes bagged by them in round one of UDAN

As the two airlines accounted for two-thirds of the total 128 routes bagged by five operators in round one, their inability to start these routes meant a setback for the scheme.

"We are connecting incredible, inaccessible parts of India. We are going ahead with more connectivity, and working with State governments. We are also coming out with a template of doing joint ventures with States for airport development," he said.

He added that at the summit, the Ministry would unveil a Vision 2040 for the aviation sector. Delegates from about 86 countries are participating in this first-of-its-kind summit.



1.3 10% reservation in all admissions for 2019-20

The recently introduced 10 per cent reservation for students from <u>economically weaker</u> <u>sections</u> (EWS) will be effective from the upcoming 2019-20 session. The quota, applicable to both government and private educational institutions, will be effective in all 40,000 colleges under 900 universities in the country, human resource development minister Prakash Javadekar said on Tuesday.

Since the newly introduced quota will be over and above the existing 49.5 per cent for schedule castes, schedule tribes and other backward class students and seats allotted to general category students, all institutions are required to increase their total seat count by 25 per cent.

"The <u>University Grants Commission</u> (UGC), the All India Council for Technical Education (AICTE) and the (human resource development) ministry will come out with norms within weeks, notifying colleges and universities about the same," said Javadekar. The announcement came after a meeting between the three government bodies.

According to the ministry's estimates, currently there are 40 million students undertaking various courses in the country. People in the know said that adding 10 million seats within the upcoming admission season — expected to commence from May — is an uphill task.

At present, there are 25,383 private colleges and 343 private universities in the country, according to the All India Survey on Higher Education, 2017-18, besides 6,700 stand-alone private educational institutes. According to H Chaturvedi, Director of Birla Institute of Management Technology (Bimtech) and alternate president of the Education Promotion Society for India (EPSI) — a body of B-schools in the country — it will be difficult to increase the number of seats by a fourth for many institutions with hostel facilities.

"The government should have kept some buffer time before implementing it. This will be a herculean task for many institutes, especially those that offer hostel facilities and are already running on full capacity," he said.

"It seems to be a hasty step ahead of the election. Even many government institutes like the new Indian Institute of Managements are operating on rented buildings due to lack of adequate infrastructure. It takes at least nine months to set up new buildings. Further additional teaching and associate stuff will have to be arranged," said the director of a prominent B-school.

Moreover, various private institutions have already expressed concerns that admission of poor quality students under the quota may impact the system of education.



Others said it will put additional burden on general category students, given additional costs have to be recovered from them. However, most of these institutes said they prefer to accommodate the 10 per cent quota by reducing general category seats.

1.4 Tobacco companies are targeting Children: Study

A report released on Wednesday finds that <u>tobacco</u> companies in India are systematically targeting children as young as eight by selling tobacco products and placing tobacco advertisements near schools.

These tactics, happening all over the country, is a clear violation of Section 5 and 6 of Cigarettes & Other Tobacco Products Act, it said.

To gather evidence regarding tobacco products being sold around educational institutions in violation of the law, two groups working in the area of tobacco control -- Consumer Voice and Voluntary Health Association of India -- undertook a study in 20 cities across six states in India.

Titled Tiny Targets, the study was conducted to determine the extent of tobacco products being marketed and sold around schools in India. A sample of 243 schools and 487 points of sale were closely surveyed during this study.

"Despite the prohibition on sales of tobacco products near educational institutions, numerous shops/vendors/points of sale sell and advertise tobacco products around schools," found the study.

"Vendors display tobacco products in ways that are appealing to children and youth. Investigators documented that in 225 tobacco points of sale observed, 91% of displays were at 1 metre – child's eye level, 54% had no visible health warning; and 90 per cent of displays were, beside candies, sweets and toys, items marketed to children," noted the study.

This is not the first time the tobacco industry has been found targeting children, nor is it unique to India. However, the data is alarming because it documents a very systematic and widespread pattern of activity by tobacco companies to get young people addicted to tobacco.

"The tobacco industry must be held accountable for their aggressive advertising efforts around our children's schools,"Bhavna B Mukhopadhyay, Voluntary Health Association of India said. "Our schools are not safe so long as the tobacco industry continues to try and lure our children into buying their deadly products."



1.5 Rural housing achieves only 66% target

With two and a half months to go for the end of this financial year, the Pradhan Mantri Awas Yojana (Grameen) scheme to provide housing for the rural poor has achieved only 66% of its target to complete one crore houses.

The Ministry of Rural Development still hopes to advance further towards the goal by the deadline of March-end, given that about 15 lakh homes have reached the late stages of construction with roofs ready to be added. Another 11 lakh homes have reached the lintel level, and may be completed in the next few months even if they do not meet the March 31 deadline. The scheme has been successful in reducing the average time of construction from 314 days to 114 days, according to an official statement.

However, there has been little headway made with regard to one bloc of beneficiaries: the landless, who do not possess the land on which to construct the PMAY homes they are entitled to.

In a letter to States dated January 4, the Ministry pointed out that only 12% of the 4.72 lakh identified landless beneficiaries had been provided land for house construction.

Laggard States

According to data provided in the letter, some of the most laggard States as of July 2018 were Maharashtra, which had provided land for only 890 of 1.39 lakh landless beneficiaries and Assam, which had provided land for 574 of 48,283 landless beneficiaries. In Bihar, only 55 out of 5,348 beneficiaries had been allotted land. West Bengal had not allotted land for even a single one of its 34,884 landless beneficiaries. "There are about 2.4 lakh left [to be sanctioned] in Bihar and about 30,000 each in Andhra Pradesh and Tamil Nadu," said a senior official of the Ministry.



2. International News

2.1 At mini 2+2, India, U.S. review progress on pacts

India and the U.S. reviewed the progress on finalising two key agreements during the 2+2 intercession meeting last week, apart from taking stock of the overall defence cooperation. The agreements are the Industrial Security Annex (ISA) and the Basic Exchange and Cooperation Agreement for Geo-spatial Cooperation (BECA), a foundational agreement.

"This was to follow up on the 2+2 dialogue and to keep the official-level dialogue going. The two sides reviewed the decisions taken at 2+2 and also exchanged notes on developments in the Indo-Pacific and the region, broadly the countries of interest. Also, the bilateral defence cooperation was reviewed, especially the greater Maritime Domain Awareness (MDA) and the first tri-service exercise which will take place later this year," an official source said.

The inaugural 2+2 dialogue was held last September. The third foundational agreement, Communications Compatibility and Security Agreement, was signed on the sidelines.

Taking ties forward

Industrial Security Annex (ISA)

As the Indian industry looks for greater role in defence manufacturing, the agreement allows sharing of classified information from the U.S. government and companies with the Indian private sector

Basic Exchange and Cooperation Agreement for Geo-spatial Cooperation (BECA)

The U.S. has already shared a draft of BECA, the last foundational agreement to be signed with India

The U.S. has already shared a draft of BECA, the last foundational agreement to be signed. "We have a working draft [BECA] which we are looking at. It came some time before the Defence Minister's visit to Washington," the official said.

The ISA is particularly essential as the Indian industry looks for a greater role in defence manufacturing. It allows sharing of classified information from the U.S. government and American companies with the Indian private sector, which is so far limited to the Indian



government and the defence public sector undertakings. The ISA draft is currently going through the official process in Washington.

The meeting was attended by Principal Deputy Assistant Secretary of State Alice Wells and Assistant Secretary of Defence Randall Schriver from the U.S. and Joint Secretary of the External Affairs Ministry Gourangalal Das and Joint Secretary of the Defence Ministry Shambhu Kumaran from India.

2.2 India flays Pakistani SC move on Gilgit-Balistan

India on Friday summoned a Pakistani diplomat and protested against a recent order of the Supreme Court of Pakistan that brought the region of Gilgit-Baltistan within its ambit.

A press note from the External Affairs Ministry said the diplomat was told that the region was, and would remain, an integral part of India.

Strong protest

"The Deputy High Commissioner of Pakistan was summoned today and a strong protest was lodged on recent order by Supreme Court of Pakistan on the so-called 'Gilgit-Baltistan', which is an interference in India's internal affairs," the Ministry said.

The response came after the Pakistani court said in an order on Thursday that Gilgit-Baltistan came within its domain. It was delivering its comments after the Government of Pakistan ordered constitutional safeguards for the region which previously was not given these safeguards explicitly.

Islamabad's move

Pakistan in recent months had taken a series of steps to ensure full constitutional and legal guarantees to the region which was strategically important for the country especially in view of the passage of the China-Pakistan Economic Corridor through the region.

"India rejected such continued attempts by Pakistan to bring material change in these occupied territories and to camouflage grave human rights violations, exploitation and sufferings of the people living there. Pakistan was asked to immediately vacate all areas under its illegal occupation," the statement from the Ministry declared indicating that it did not recognise the observations of the Pakistan Supreme Court.



3. Polity and Governance

3.1 10% economic quota bill challenged in SC

A petition challenging the Bill seeking to provide <u>10% reservation for poorer sections in general</u> <u>category</u> in jobs and education filed in the Supreme Court was Thursday.

The petition, filed by Youth For Equality organisation and Kaushal Kant Mishra, sought the quashing of the Bill, saying that the economic criterion cannot be the sole basis for reservation.

The plea said the Bill violated the basic feature of the Constitution as reservation on economic grounds cannot be limited to the general categories and the 50% ceiling limit cannot be breached.

The Rajya Sabha passed the Bill, with 165 voting in its favour and 7 against on Wednesday, a day after the Lok Sabha approved The Constitution (One Hundred and Twenty Fourth Amendment) Bill, 2019.

The quota will be over and above the existing 50% reservation to SCs, STs and Other Backward Classes (OBCs).

4. Economy

4.1 NREGA gets additional Rs 6084 Cr

At a high

The Union Rural Development Ministry says the allocation for the rural job scheme is the highest ever during 2018-19, but activists cite pending dues and liabilities to contest the claim



99% of funds allocated were exhausted three months ahead of the end of the fiscal

₹6,084 crore is the additional allocation

₹61,084 crore is the total allocation

Fine print

- 15 States have a total negative net balance of ₹4,064 crore, which includes payments due to workers
- ₹9,040 crore is the pending liability from previous years

Pending payments will leave little money for fresh employment generation

After exhausting 99% of its annual allocation three months ahead of time, the National Rural **Employment** Guarantee (NREGA) scheme has been given an additional allocation of ₹6,084 crore to tide over the next three months.

This lifts the total allocation to MGNREGA for 2018-19 to ₹61,084 crore, which is the highest ever allocation, according to a statement from the Ministry of Rural Development.

However, the fine print of the balance sheet paints a less buoyant picture.

As on January 16, the scheme's financial statement shows that 15 States have a total negative net balance of ₹4,064 crore, which includes payments due for unskilled wages for work that has already been done.

"If this additional allocation is used to pay off these pending payments, there will be much less money left for fresh employment generation over the next three months," said Rakshita Swamy, a member of the People's Action for Employment Guarantee, a network advocating for better implementation and accountability of MGNREGA.

"If this money is not used to pay off these committed liabilities, it will delay wage payments beyond the stipulated 15-day period, and further disincentivise people from seeking employment under the scheme," she added.

'Serious consequences'

The funds crunch being faced by States has serious consequences for employment provision, researchers say. "We are already seeing that when workers come looking for work, they are not being registered in many districts, simply because there is no money to pay them," said Rajendran Narayanan, an assistant professor at Azim Premji University in Bengaluru. "And even this under-registered demand for work is not being met."

Dr. Narayanan's study analysing government data in 3,500 panchayats found that the employment provided during 2017-18 was 32% lower than the work demanded in that year.

4.2 India to grow crops for UAE, Saudi Arabia

Union Commerce Minister Suresh Prabhu announced here on Sunday that the UAE and <u>Saudi</u> <u>Arabia</u> had decided to use India as a base to address their food security concerns.

Mr. Prabhu was speaking to presspersons after meeting delegates from the two countries, along with representatives from 44 others, at a summit of the Confederation of Indian Industry here.

"The UAE and Saudi Arabia will use India as a base in addressing their social security concerns. For the first time, India's export policy identifies the potential of agriculture along with horticulture, dairy, plantation and fisheries," Mr. Prabhu said. The farm-to-port project will be similar to a special economic zone but in the style of a corporatised farm, where crops would be grown keeping a specific UAE market in mind. The concept has been accepted by both governments.

Ensuring food security remains an area of high priority for India and the two countries whose partnership has been on the upswing since 2015.

"We are ready for exports. Great buyback is possible from the Gulf region. The UAE wants to invest in organic and the food processing industries. The farmers are already getting 150% of production cost as Minimum Support Price. If a farmer exports, he will earn much more," Mr. Prabhu said.

The Indian government has already welcomed a proposal from the UAE for establishing food security parks, including through the creation of high-quality food processing infrastructure, integrated cold chains, value addition, preservation technology, packaging of food products and marketing.

Mr. Prabhu said it was estimated India would produce 290 million tons of agricultural produce, this year. Along with about 310 million tons of horticulture, the produce would total over 600 million tons, besides milk.

The Partnership Summit is the annual flagship event of the CII and has been organised in association with the Ministry of Commerce and Industry, Government of India and the Government of Maharashtra.

Explaining how Maharashtra would gain from the export policy, Mr. Prabhu said Nashik had grapes, Ratnagiri/Sindhudurg mangoes, Nagpur oranges and Lasalgaon onions, which when exported would hugely benefit farmers.

The Minister said Argentina, countries in North America, Europe, Asia, and Korea were interested in investing in the Indian logistics space. India, on the other hand would be investing in the Central-African nation, Angola. "Angola is rich in mineral deposits. India is planning investments there through the Export-Import Bank of India," Mr. Prabhu said.



5. Science and Tech

5.1 ISRO cranks up Gaganyaan project

Gaganyaan, the great Indian human leap to space by 2022, will soon get cracking under a new Human Space Flight Centre and a dedicated team around five months after it was first unveiled. A team of 800 to 900 people is to be deployed over time to carry it out.

Indian Space Research Organisation on Friday named Unnikrishnan Nair, who led its Advanced Space Transportation Programme at the Vikram Sarabhai Space Centre, as the man to steer it as also the director of the new centre. Dr. Nair has already been involved in this work for a few years as director, Human Space Flight Project. ISRO.R.Hutton, who has helmed the PSLV light lift vehicle programme, also from Thiruvananthapuram, is the project director in that set-up.

K.Sivan, ISRO Chairman and Secretary, Department of Space announced the new set-up soon after forming it. A handful of deputy directors each for the centre and the project have also been picked.

"Gaganyaan is our highest priority now. We have put in a management structure to realise it. The Human Space Flight Centre [based in Bengaluru] will carry out all activities related to the human programme. Under it will function the Gaganyaan Project."

Dr. Sivan explained, "All work related to the mission will formally begin now," including the schedule, blueprint of various tasks, astronaut selection with the Indian Air Force and systems based on the project report.

He told The Hindu that the nodal Human <u>Space Programme</u> Office set up six months back under V.R.Lalithambika would continue to coordinate mission affairs at the headquarters here, Antariksh Bhavan.

ISRO has projected to the government a manpower requirement of 861 including 761 to be appointed in addition to the routine annual hirings. However, they would be recruited in stages.

ISRO's own Indian Institute of Space Science and Technology, Thiruvananthapuram, which produces around 100 space engineers each year, will be a primary source of talent, said a senior official

"The year 2019 has started with a big bang with Gaganyaan getting the government's approval and budget for putting threre astronauts in space for seven days," Dr. Sivan said. The astronauts will orbit Earth from an orbit 400 km away.

The project, according to him, will be a major turning point for ISRO, expanding its activities beyond engineering activities of launchers and satellites - and into the realm of developing and handling technologies to sustain humans in space.

"The HSPC will work full steam now. We must select the astronauts, train them, create and ensure livable conditions in space for them bring them back safely and later rehabilitate them in their routine," Dr. Sivan said.

The heavy lift launch vehicle GSLV MarkIII - which got operational in November after its second successive flight in a row, must be suitably certified or human-rated. It will have two non-crew flights in December 2020 and July 2021.

The actual flight with crew is targeted to happen by December 2021 - to meet the Prime Minister's goal of August 2022, India's 75th year of Independence.

5.2 Gaganyaan top priority: ISRO

The priorities of the Indian Space Research Organisation (ISRO) this year are on the human space flight programme Gaganyaan, launch a major student outreach and Chandrayan-2, said its Chairman Dr. K. Sivan on Friday.

"A separate centre called Human Space Flight Centre has been formed in ISRO. Gaganyaan project will come under it and that's how we will target the first unmanned mission in December 2020," Dr. Sivan said.

India's second lunar mission, Chandrayan-2, which aims to launch a lander/rover on the moon is scheduled for April this year after some technical delays.

Following Prime Minister Narendra Modi's announcement last August that an Indian will go to space by 2022, ISRO has outline a roadmap to put a three man crew in a low earth orbit for a period of 5-7 days. As part of this, a crew module along with the service module together called the orbital module weighing seven tonnes will be mounted atop a GSLV Mk-III launch vehicle.

As part of Gaganyaan, the target this year is to have the human rating of the launch vehicle and designing and certifying the crew module. Dr. Sivan explained that certain modifications need to be done in the launch vehicle to support human flight and then certified. "The design of the orbital module will be finalised in 2-3 weeks. Then the realisation and testing," he stated.

The other aspect that ISRO will focus this year is the selection of the crew members and their training which is a long process.



Young Scientist Programme

Stating that this year ISRO is planning to expand its wings in areas it wasn't before, Dr. Sivan said termed Young Scientist Programme (YSP) the as the most important in their effort to reach out to students.

Under the YSP, three students, eighth standard pass, will be selected from each of the 29 states and seven Union Territories and will spend one month at ISRO during which they will be given lectures, get access to research and development and will be given experience to build a satellite.

"If the satellite is good, we will launch it. This programme is similar to NASA's student outreach," Dr. Sivan stated.

This year ISRO has planned 32 missions including 14 launch vehicles, 17 space craft and one demonstration. The Reusable Launch Vehicle (RLV) is a very important experiment to reduce the cost of space programme in the long term.

5.3 Cut red meat, sugar by 50%: Lancets' diet plan for the world

With the ideal diet, your life would be less sweet but your lifespan would be longer. Cut consumption of sugar and red meat by 50%, and increase the intake of fruits, vegetables, and nuts — that is the top recommendation of a worldwide diet plan according to a special report released on Thursday by the journal *Lancet*. Such a diet would not only be healthier but also more environment-friendly.

The EAT-Lancet Commission, an independent non-profit consisting of 19 scientists and 18 coauthors from 16 countries, was tasked with developing global scientific targets for a healthy diet and sustainable food production.

The experts on this panel from India included Srinath Reddy of the Public Health Foundation of India and Sunita Narain of the Centre for Science and Environment.

The Commission recommended that the average adult, whose daily requirement is about 2,500 calories, must strive to source around 800 calories from whole grain (rice, wheat or corn), 204 calories from fruits and vegetables, and not more than 30 calories from red meat (beef, lamb or pork). It also suggested that the ideal diet should have no "added sugar" or "added fat". Unhealthy diets are the leading cause of ill-health worldwide, and following this healthy diet could avoid approximately 11 million premature deaths a year, the report said.



UN goals

"These global targets define a safe operating space for food systems that allow us to assess which diets and food production practices will help ensure that the UN Sustainable Development Goals (SDGs) and the Paris Agreement [on Climate Change] are achieved," said a press statement accompanying the report.

Though the Commission's recommendations for a healthy diet do include red meat, it emphasises that "global targets" ought to be applied "locally" and must keep in mind "cultural sensitivities". That means the protein requirement from meat can be substituted, with, say, legumes or equivalent substitutes.

What constitutes	Food	Macronutrient intake (gm/day)	Caloric intake (kcal/day)
a healthy diet	Whole grains	232	811
Scientific targets for a planetary health diet, with possible ranges, for an intake of 2,500 Kcal/day	Tubers	50	39
	All vegetables	300	78
	Fruits	200	126
	Dairy foods	250	153
	Beef, lamb, pork	14	30
	Chicken	29	62
	Eggs	13	19
	Fish	28	40
	Legumes	75	284
	All sugars	31	120

People in North American countries eat almost 6.5 times the recommended amount of red meat, while those in South Asia eat only half the recommended amount. All countries are eating more starchy vegetables (potatoes and cassava) than recommended, with intakes ranging from between 1.5 times above the recommendation in South Asia to 7.5 times the optimum level in sub-Saharan Africa.

Dramatic change

"The world's diets must change dramatically. More than 800 million people have insufficient food, while many more consume an unhealthy diet that contributes to premature death and disease," said co-lead Commissioner Dr. Walter Willett of Harvard University. "To be healthy, diets must have an appropriate calorie intake and consist of a variety of plant-based foods, low

amounts of animal-based foods, unsaturated rather than saturated fats, and few refined grains, highly processed foods, and added sugars."

The researchers also modelled the effects of a global adoption of such a diet on deaths from diet-related diseases.

Three models each showed major health benefits, suggesting that the new diet could globally avert 10.9-11.6 million premature deaths a year.

The report shared a road map to help global populations move towards such a diet by 2050. These include re-orienting the focus of agriculture from large-scale production of a few crops to "a diverse range of nutritious foods from biodiversity-enhancing food production systems".



6. Environment / Geography

6.1 70% towns along Ganga let out garbage into the river

Four-and-a-half years after the Centre launched its flagship Namami Gange programme to clean up the Ganga, a government- commissioned assessment has found that 66 towns and cities along the river still have *nullah*s or drains flowing directly into the Ganga. Almost 85% of these *nullah*s do not even have screens set up to stop garbage from entering the river.

Of the 92 towns surveyed, 72 still have old or legacy dump sites on the ghats. Only 19 towns have a municipal solid waste plant, according to an assessment done by the Quality Council of India (QCI).

The third party assessment, which was conducted over a 6-week period in November and December 2018, was commissioned by the Ministry of Urban Development (MoUD). It covered 92 of the 97 towns along the river, located in five States: Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal. Of the remaining five towns, three had no ghats along the river, while two were shut due to extreme weather conditions during the period of the survey.

Of the 242 *nullahs* that discharge directly into the Ganga, only 37 had installed screens, some of which are already choked with garbage. Of the 205 *nullahs* allowing solid waste to flow freely into the river without any screens, 100 are in the towns of West Bengal. In fact, only two *nullahs* in that State had any screens at all, the assessment found. Bihar also fared very poorly, with none of the 30 *nullahs* in the State having any screens.

While much of the focus of Namami Gange over the last four years has been on liquid waste management and sewage treatment plants, the Centre is now turning its focus to solid waste management as well, under the aegis of the Swachh Bharat Mission (Urban).

However, a workshop held on the issue last week saw participation from less than half the towns along the Ganga, with West Bengal — where 39 of the towns are located — having the smallest presence, with less than five officials attending. The MoUD warned municipal officials that another assessment would be done in March to check their progress on these measures. The ongoing nationwide Swachh Survekshan survey will also include a special award for the Ganga towns, said Secretary Durga Shanker Mishra.

The QCI assessment graded the towns on four parameters: overall cleanliness, which involved the dump sites and garbage vulnerable points present near the ghats, as well as the presence of solid waste floating on the river's surface; the availability of a municipal solid waste plant; the installation and maintenance of screens placed over nullahs; and solid waste management

services such as sweeping and cleaning arrangements, litter bins and anti-littering signs and a trash cleaner to trap solid waste floating on the river.



Perhaps unsurprisingly, most of the 12 towns that achieved an 'A' grade had populations of less than 1 lakh people. Most were located in the upstream States of Uttarakhand and Uttar Pradesh. A notable exception was the West Bengal town of Maheshtala, with a population of 4.5 lakh. Large cities such as Kolkata, Varanasi, Kanpur and Patna all achieved low scores.

6.2 Rajasthan's State Bird may be extinct soon

Almost two years after the <u>Rajasthan</u> government proposed setting up of captive breeding centres for the Great Indian Bustards to boost their wild population, the wildlife activists here have called for enforcement of recovery plan for the country's most critically endangered bird. The GIB's last remnant wild population of about 50 in Jaisalmer district accounts for 95% of its total world population.

No progress has been made on the proposal for establishing a captive breeding centre at Sorsan in Kota district and a hatchery in Jaisalmer's Mokhala village for conservation of the State bird of Rajasthan. The previous BJP regime had taken up the work in 2017 after the Union Ministry of Environment, Forest and Climate Change sanctioned ₹33.85 crore to facilitate the two centres and authorised the Wildlife Institute of India to be its scientific arm.

A group of wildlife activists, who met Rajasthan Minister of State for Environment & Forest Sukh Ram Bishnoi here earlier this week, offered to formulate an emergency action plan for conservation of GIB in order to help the State government tackle the issue methodically.

Tourism & Wildlife Society of Indian honorary secretary Harsh Vardhan, who was among those who met Mr. Bishnoi, said the decisions after the launch of the Project Bustard in 2013 had not been followed up for five years. "The forest officers have concentrated solely on tiger, which has done well. The tiger population is settling outside the Ranthambhore reserve... Two females recently gave litters in scrub areas dominated by human settlements," he said.

Other members of the group were Sariska Foundation secretary Dinesh Durrani and former Chief Wildlife Warden R.N. Mehrotra.

The group pointed out that the WII had not nominated any scientist to work exclusively on GIB in the State despite the related issues discussed at a meeting held here in April 2017 to decide for setting up the conservation breeding centres. "No progress has been made on land allotment or deputing a scientists abroad to get the breeding training," the members told the Minister.

Incubation unit

Mr. Vardhan said the group had suggested to the Minister that an incubation unit be set up at Jaisalmer district's Sudasri — considered the sanctum sanctorum of the Desert National Park — so as to step up recruitment rate of the critically endangered species. "This can be done within a few weeks, whereas the breeding centres will take time," he said.

Mr. Bishnoi told the group that he would visit the DNP after the ongoing session of the State Assembly was over and convene a meeting of WII, forest officers and wildlife activists to take the GIB programme forward. He agreed that the endangered bird should get the highest priority in the conservation plans.



6.3 History of India's lost known hippo

Nearly 5.9 million to 9,000 years ago, India was home to the hippopotamus. These entered Eurasia from Africa, then diversified in South Asia before going extinct.

Now, studying a small fragmented tooth unearthed in Madhya Pradesh, an international team of researchers has discovered the last known specimen of the Hippo *Hexaprotodon* species. However, this does not mean that it is the last one to have lived in India.

This fossil was unearthed in 2003 by Rajeev Patnaik (Panjab University) and Parth R. Chauhan (IISER Mohali) who spent days studying the fossiliferous silt near the river Narmada. "We believed that the species was older than 50,000 years and did not study it fully. Recently, I analysed the date using accelerator mass spectroscopy (AMS) in <u>Taiwan</u>. It revealed that the specimen was quite young and could possibly be among the last ones that lived in India," Dr. Patnaik says. Accelerator mass spectroscopy does not require a large sample and it also has a higher precision than traditional radiocarbon dating.

Human-led extinction?

The paper published in *Quaternary International* also discusses the possible causes of the extinction. The researchers hypothesise that a "combination of climatic stress and anthropogenic impacts" could have led to their extinction.

Dating studies show that this hippo lived during a "particularly dry period in the late Quaternary" period (15,000-16,000 years ago). Severe drought in South Asia and weak Indian monsoons might have led to the extinction.

Researchers note that hunting, habitat alteration, ecological human encroachment were the reasons for species extinctions during this period in other parts of the world. While *Hexaprotodon* and *Homo sapiens* co-existed for several thousand years, researchers did not find any kill sites, but they note that this reason cannot be ruled out.

Direct dating

This is the only directly dated *Hexaprotodon* from the Indian subcontinent, the report states. "A direct date means that the fossil bone of the animal was used to determine the date. Usually, charcoal or shells found alongside the fossil are studied and this known as an indirect or associated date," explains Advait M. Jukar, the paper's lead author, in an email to *The Hindu*. He is from the Department of Paleobiology, National Museum of Natural History, Smithsonian Institution.

He explains that carbon isotope analysis showed that the animal had a C4 dominated diet. "It refers to the kinds of plants the animal was eating. The plants leave a specific isotopic signature in the teeth of animals that eat them... basically, these hippos were eating grasses, and grasses prefer dry, seasonal climates."

The report concludes that ancient DNA could provide insights into the causes of the extinction. When asked if fossils hold DNA, Advait explained, "DNA does degenerate as soon as the animal dies, but fragments remain, and in some cases, have been isolated from fossils that are a few hundred thousand years old. This *Hexaprotodon* specimen isn't very old, so it may be possible to extract DNA fragments."