DIA, DEOGHAR IAS ACADEMY

Daily News Feed

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Sabaijor Complex, Near Jamunajor Pul, Castair Town Deoghar, Mob:-9162500508



Cast-off capital

emerged as one of Asia's largest processors of textile waste. Ashok Kumar finds that the city has a large number of illegal bleaching and dyeing units, essential in the conversion of scrap cloth into low-quality thread. These units discharge contaminated water into drains that merge with the Yamuna river

e units discharge contaminated water into divide the contaminate of th

has best for deceases, in the emerged as onlice Addish largest weaving, dyeing, and estille recyAddish largest weaving, dyeing, and estille recybraining is a processing hub for around 30 lakh nomes of results weats, easy, saingy Cang, Northern India Rotor Spinners Association president, comprising about 100 units. Colta craps-come in daily from factories in the U.S., the U.S., Canada, Europe, Turkey, China, and Japan. In units here, these are processed into yarn, which is further sold in Tanda CUITA Pradesh). Solpure (Maharashirta), and Turquur (Tanil Nadu), for use in bathetis, cushous, bed sheets, captes, and several offine products.

In the control of the control of

burgieoning population and high inequality, with its water, "in a todds. Is bleaching doth scraps. Several illegal bleaching units function on Panti-par's perspitery, devoid of any mechanism for the safe disposal of the chemical sladen waste water, mostly actile and chitorine based. They operate on agricultural land taken on lease from the farmers. This highly contaminated water is just allowed to seep underground, polluting the advanced of the properties of the properties of the properties of the properties. The polluting the call drains. It eventually travels to Brain 2 that merges with the Yamuna, "says Yamun Gulid, a Delhi-dased environmentalist.

Rajbir haments than no one listens to the people bere: "Yahan par kait boar patrukar anye hait.

The natlah (Drain No. 2)

effluents from factories in Panipat city falls into the river just ahead of our village, contamin-arins it with

ating it with hard chemicals

Photo keech kar le gaye. Video bhi banaya. Lekin kuch nahi hua.* (Journalists have come here many times. They took photographs. They made videos too. But nothing happened.)

dees too. But nothing happened.)

Cloth to yaru
Taking a nay on his farm under a structure resembling a palapa, Krishan, who owns a couple
of acres of land, asys the ground water in Kinojapur and the neighbouring villages along Brain
No. 2 is melly. "It is not it for drinking and tringation. Those residing in these villages suffer
from various skin related alternat and, in some
puraps near this drain," he says. Then, laughing
rouckally, adds, 'Imagine people in Delhi who
have to drink this contaminated water.
In March 2025, Frime Minister Narendra Modi, in his 'Mann XI Baari broadcast, spoke about
the problem of testile water. Several start-ups
have started working on testile recovery facilities... some cites are creating new identities in
dealing with testile water. Paripat is emerging as
a global histo of excile recycling. The had said.

Garg says the father was the first to so a
disposal into the same properties.

"Only 10-15 tonnes of scrap could be processed cally at these units centler. But high-speed
sylving the says, in this expansive office, adding that almost 90-15 of the imported scraps end up in Panipat, Carg owns Akshay Spinning Mills on the bethan 250 such this country to avour all hundred
industrialists, scattered across the city.

On the ouslists of Panipat, scores of illegally
run bleaching units have musbroomed to cater
to the growing redet to bleach the cloth scraps
before they are shredded and made into yarn. A
few of the larger spinning mills have their own
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the Yamuna.

Garg maintains that the spinning mills are "mon-polluting units" that give a fresh lease of life to the garbage collected from across the globe", but downplays the role of illegally run bleach units. "Only a fraction of the cloth scraps imported need to underpo bleaching," claims the second-generation industrialist, insisting that the mills do not outsource production to illegal bleaching units.

Bleach-washed in a complaint to the Central Pollution Control Board in January this year, Gulati said Illegal bleaching units were running in several villages across Panipat: Naulya, Dohar, Binjhaul, Balana, Paldi, Kaurad, Didwadi, Mandi, Gwalda, Pardha-

bleaching units were running in several villages across Panipits Naulya, Dahar Biphaul, Balana, Paldi, Kurrad, Diebandi, Mandi, Cowalda, Pardhana, Charmoda, and Nica; "Chemical containing acid and chlorine are added to the water to wash scraps and this polsonous water is later released into the ground by digging pito or into storm water dratus," he said in his compiling proportions like the Bhopal gas disseite, the letter mentioned around two docen illegal units along with their addresses. It said that the owners of these bleaching units, embodiedned by the inaction of the HSFCB, had now set up illegal plants to make add and bleach chemicals using toxic chlorine gas. This, in case of leakage, could cause a major accident.

Running a bleaching unit in Dudwart village, a 38-year old man, nor willing to be identified, says he had set up an Enfluent Theatment Phant CETP could cost several lablas, he says. It has been set up plast to get the permission to run a bleaching unit. "Water is reused a couple of times to bleach, and finally discharged into the drain," he says. The man says that he has constructed tanks on his agricultural land and rented them out to a spinning mill owner. It only provide the land and the bloach powder, which It make using chlorine gas. The mill owners' contractors hire the labour for the bloach fool, he says.

Yaman Bichou Abblyan funding and bleaching units in Dranlaged intentioning without elevances and treatment intrastructure discharge acidic, chlorine-laced water starting the network of merger of Drain No. 2 the visual discoluration for he trans a start indicator of the contamination," he says.

Multiple water sample reports of Drain No. 2 by the 18/SCE Labourston in Acid and the years as a start indicator of the contamination, Prop. says.

firm that several parameters were much higher than the permissible levels fixed by the Central Pollution Control Board. For instance, Biological Oxygen Demand was at 68 mg/, with the maximum level set at 30 mg/l; Chemical Oxygen Demand was at 24 mg/, which is should have been no more than 50 mg/l; and foral Dissolved Solids were at 1,85 mg/l, with the care of at 500 mg/l. Risbil Kumar, another bleaching unit owner in Didwari, says there could be 400-odd units in Panipat, and only one-fourth were truming with permission. The recycle market has been slaggish after it reached in peak in 2023. The profit in the bleaching business is around 10-20 pasts per kg of scrap. But running a unit as per the norms increases the cost by 0 per kg, Ss, it is not financially visible," says Kumar, who runs his unit with due permission from the HSCs. He says he has 50 units on his Sacre agricultural land, but only half of them are occupied, as the demand is

one permission from the Not Ck. He says he has 50 units on his Saicre agricultural land, but only half of them are occupied, as the demand is weak. Thave my own labour force staying inside the unit. We work both ways. We have cloth scraps from traders, bleach them, and self them to the spinning mills. The mill owners also send us scraps to Beach, says klumar. Following media reports, the National Green Tribural has taken suo motu cognisance of the ellegal bleaching units and issued notices to the HSPCB and Panipat Deputy Commissioner, among others, directing them to file an affidavit a week before the hearing on August 29. HSPCB Regional Offices, Panipat, Bhupinder Singla Chabial says the department has ordered closure of 20 units and sent show-cause motices to a dozen more a month ago. Chabial, however, says the units and sent show-cause notices to a dozen more a month ago. Chahal, however, says the de-partment does not have the figure for the illegal

Dip in demand

units.

Dip in demand

Two types of cloth waste are imported: cloth scraps and second-hand clothes. The majority of gadowns on Basars Road, where they are concentrated, dead in scraps. These are bought by spinning mills to be made into yarm.

Ramjan, a worker at a warehouse on Barsat Road, says his employer imports 30 tomes of cloth each season, mostly from Korea and China, both before the onset of summer and winter. The scraps are seld for (230 alg. The discarded clothes are seld at 100-120 per place). Mostly traders from Delhi and per clothes are seld in 200-120 per places and his markets at help in magins? sways Ramjan. Delhi's Strajini Nagar market is one such hab. Brunning a firm in the name of A. R. Traders on Barsat Road, Ravinder Garg mostly deals in scraps. "We sell it to the spinning mill owners through agents. A small percentage of the westage, not accepted by the spinning mill, end up an active for local industry, Muses Garga, The Strajini Strajini



'India-U.K. FTA a game changer for trade'

The Hindu Bureau

NEW DELHI

Terming the India-U.K. Free Trade Agreement (FTA) a 'game changer', Commerce Minister Piyush Goyal said that the Indian government had ensured the protection of all sensitive sectors of the Indian economy, while benefiting every section including



Piyush Goyal

farmers and the MSME sector. Addressing a press conference at the BJP

headquarters here on Saturday, Mr. Goyal also said that trade talks with the U.S. and Oman were continuing apace.

"With this [India-U.K. FTA], India would be able to ship 99% of its exports to U.K. duty-free," he said.

The Minister asserted that the agreement was signed with the U.K. "confidently" on India's terms while protecting "sensitive items" like agriculture and ethanol.

"I believe that this FTA carries a very big message for the future economy of India. We will all see the benefits that India will get under it in the coming years," he said. Mr. Goyal added that the agreement will open doors for India to the developed world.





Ocean heatwaves imply earth close to tipping point

Scientists found that the 2023 marine heatwaves were the most extreme recorded. Sea-surface temperatures stayed above the 90th percentile for up to 120 days over 96% of ocean, producing 53.6 billion degrees C-days of thermal stress. The heatwaves were found to have been triggered by extra sunshine and a shallow mixed layer in the North Atlantic; fewer clouds and stronger currents in the Southwest Pacific; sustained heat gain in the North Pacific; and El Niño-driven ocean flows in the equatorial east Pacific.

What makes NASA-ISRO NISAR satellite special?

What is the need for NISAR? What is synthetic aperture radar? How will NISAR serve India's needs, especially on agriculture, forestry, and disaster management? How was NISAR built? How soon will the data NISAR produces be available for users?

Vasudevan Mukunth

The story so far:

he Indian Space Research Organisation (ISRO) is planning to launch the NISAR satellite from Sriharikota on July 30 onboard a GSLV Mk-II rocket. 'NISAR' stands for NASA-ISRO Synthetic Aperture Radar and is a joint mission of the two space agencies. It is a sophisticated earth-observation satellite designed to study changes on the earth's surface in fine detail, covering earthquakes, volcanoes, ecosystems, ice sheets, farmland, floods, and landslides.

What's the need for NISAR?

NISAR is the first major earth-observing mission with a dual-band radar, which will allow it to observe changes more precisely than any other satellite. It will be able to see through clouds, smoke, and even thick vegetation, both at day and night, in all weather conditions. The three-tonne machine costs more than \$1.5 billion, making it one of the most expensive earth-observing satellites to date.

The earth's surface is constantly changing. Natural disasters, human-driven changes, and climate shifts all affect environments and human societies. Satellites provide critical information by taking snapshots of these changes from space, helping scientists, governments, and relief agencies prepare for, respond to or study them. To this end, NASA and ISRO have created a powerful global mission that also allows ISRO guaranteed access to a stream of high-resolution data tailored to India's needs.

NISAR's science and application goals span six areas: solid earth processes, ecosystems, ice dynamics, coastal and ocean processes, disaster response, and additional applications (including tracking groundwater, oil reservoirs, and infrastructure like levees, dams etc.). The planned mission lifetime is three years although its design lifetime is at least five years. Notably,



Ready for lift-off: A view of the NASA-ISRO NISAR ahead of its launch on July 30 from the Satish Dhawan Space Centre in Sriharikota. ANI

During a disaster, NISAR can collect data for 'damage proxy maps' to be delivered in under five hours

the mission's data policy entails that the data NISAR produces will be freely available to all users (typically) within a few hours.

How does NISAR work?

Once it is launched, NISAR will enter into a sun-synchronous polar orbit at 747 km altitude and an inclination of 98.4°. From here, instead of snapping pictures, NISAR's synthetic aperture radar (SAR) will bounce radar waves off the planet's surface and measure how long the signal takes to come back and how its phase changes. The ability of a radar antenna to resolve smaller details increases with its length, called its aperture. In orbit, deploying an antenna hundreds of metres long is impractical. SAR gets around this by mimicking a giant antenna. As the spacecraft moves forward, it transmits a train of radar pulses and records the echoes. Later, a computer coherently combines all those echoes as if they had been captured simultaneously by one very long antenna, hence the "synthetic aperture".

NISAR will combine an L-band SAR (1.257 GHz), which uses longer-wavelength radiowaves to track changes under thick forests and soil and deformations on the ground, and an S-band SAR (3.2 GHz), which uses shorter-wavelength radiowaves to capture surface details, such as crops and water surfaces.

Although NISAR will operate globally at L-band, ISRO has reserved routine, planned acquisitions with the S-band SAR over India. The latter acquisitions have extended sensitivity to biomass, better soil-moisture retrieval, and mitigate ionospheric noise – all capabilities tuned to India's needs in agriculture, forestry, and disaster management. Because the L-band radar is the principal tool for NASA's mission goals, the instrument is expected to operate in up to 70% of every orbit. This said, operating both radars together is an official implementation goal so that mode conflicts over the Indian subcontinent are minimised.

Polarisation is the direction in which the electric field of some electromagnetic radiation, like radiowaves, oscillates. SAR can transmit and receive radar signals with horizontal or vertical polarisation. Using different combinations will allow the instruments to identify the structure and types of different surface materials, like soil, snow, crop or wood.

The swath width, that is, the breadth of the bands on the ground the SARs will scan, is an ultra-wide 240 km. The radars' SweepSAR design will transmit this beam and, upon its return, digitally steer multiple small sub-apertures in sequence, synthesising beams that sweep across the ground track. This scan-on-receive method allows the 240-km swath without compromising resolution.

The resulting scans will have a spatial resolution of 3-10 m and centimetre-scale

vertical mapping — enough to spot impending land subsidence in cities, for example — depending on the mode. Each spot on the ground will be scanned once every 12 days. The satellite also features a large 12-m-wide mesh antenna. NISAR will produce annual maps of aboveground woody biomass of 1 ha resolution and quarterly maps of active and inactive cropland. High-resolution maps of flooded versus dry areas will be available as well. During a disaster, NISAR can also be directed to collect data for 'damage proxy maps' to be delivered in under five hours.

This said, for certain acquisition modes, NISAR won't be able to achieve full global coverage at the highest resolution. Above roughly 60° latitude, every alternative observation will be skipped due to converging ground tracks. Similarly, some 10% of the surface may not be mapped from either direction (of the satellite's passage over the ground) in any given 12-day cycle.

How was NISAR built?

At the time the two space organisations agreed to build NISAR, NASA and ISRO decided each body would contribute equivalent-scale hardware, expertise, and funding. ISRO supplied the I-3K spacecraft bus, the

ISRO supplied the I-3K spacecraft bus, the platform that houses the controls to handle command and data, propulsion, and attitude, plus 4kW of solar power. The same package also included the entire S-band radar electronics, a high-rate Ka-band telecom subsystem, and a gimballed high-gain antenna. The S-band electronics were designed and built at the Space Applications Centre in Ahmedabad.

NASA's biggest contribution was the complete L-band SAR system. NASA's Jet Propulsion Laboratory (JPL) supplied all radio-frequency electronics, the 12-m antenna, a 9-m carbon-composite boom, and the instrument structure that carries both radars. The agency also fabricated the L-band feed aperture and provided the supporting avionics, including a high-capacity solid-state recorder, a GPS receiver, an autonomous payload data system, and a Ka-band payload communications subsystem. The spacecraft was to be integrated at the ISRO Satellite Centre in Bengaluru after the two radars were mated at JPL. Following observatory-level tests, the mission will lift off from Sribarikota onboard a GSLV Mk-II rocket, with ISRO providing end-to-end launch services.

While the mission operations are to be centred at the JPL Mission Operations Center, day-to-day flight operations will be led from the ISRO Telemetry, Tracking and Command Network in Bengaluru.

Once NISAR is in orbit, most of its data will be sent through NASA's Near Earth Network facilities in Alaska, Svalbard (Norway), and Punta Arenas (Chile), which can together receive around 3 TB of radar data per day. They will be complemented by ISRO's ground stations in Shadnagar and Antarctica. After the raw data arrive, India's National Remote Sensing Centre will process and distribute all products required for Indian users, mirroring NASA's pipeline.



Cool off point: A vendor sells ice cream at the buzzling ima Market in the heart of imphal. The market hosts 5,000-6,000 stalls and serves as a generational bridge

Women's business

Ima Market in Manipur's capital Imphal is entirely run by women and hosts 5,000-6,000 vendors, who sell a variety of products catering to needs of the local people as well as tourists; the market stands testimony to the empowerment of women in the State and the socio-economic role they play



Ritu Raj Konwar

he Ima Market located in the centre of Manipur capital's imphal is a market entirely run by women. Known as Ima Market in the Market

Vendors at the market, dressed in traditional Vendors at the market, dressed in traditional Plancks (long skirrs tightly draped around the waist) and imaquius (shoulder drapes very similar to shawls), get ready every morning to welcome shoppers, many of them tourists. The economic backbone of many families, the market has served to empower women at the socio-economic level.

Women in Manipur enjoy a unique status in society. Their empowerment is visible through their active participation in the economic realm.

External Affairs Minister S. Jaishankar, who visited the market in November 2022, In a post on X, had lauded the market in November 2022, In a post on X, had lauded the market for being "a great example of Nari Shakii (women's strength) powering economic growth".

Women from diverse faiths and tribes run their own stalls with pride and purpose.

"All of us come together and actively participate when it comes to issues concerning Manipur as a whole. We are not our contributing to the State's economy and supporting our families financially, but we also take part in important social and political matters. This involvement is not limited to just one district — women from all districts and communities, including Muslims and tribal groups, come together. They bring their local products to this market, sell them to us at wholesale rates, and we, in turn, self those items. It's a wonderful and effective system," a vendor told ANI last, July.

"We want to bring peace. We all want to live together in harmony, Whether it's the Tangkhul, Naga, Ruki, or any other tribe in Manipur, we all wish to come together. Work together, and live with love and unity," sald another vendor.

(With ANI inputs)



Money makes money: Women running a money exchange besiness at the market.

Two half-dose combination of drugs right for BP control in Indians: study

Ramya Kannan

CHENNAI

With evidence lacking thus far for guiding optimal combination hypertension therapy in South Asian patients, a recent study has recommended half doses of two drugs in a single pill combination right from starting treatment for hypertension.

The paper, "Comparison of dual therapies for hypertension treatment in India", published in the journal Nature Medicine, investigated the blood pressure (BP)-lowering efficacy and safety of three commonly recommended anti-hypertensive combinations in a single pill in a multi-centre trial across 32 sites in India, Nearly 2,000 adults with uncontrolled or untreated hypertension were studied and interventions included three single pill dual combinations amlodipine with perindopril, perindopril with indapamide, and amlodipine with indapamide.

All three combinations,



Around 2,000 adults with uncontrolled BP were studied and the interventions included three pill combinations. ISTOCKPHOTO

in patients aged 30-79, delivered equivalent reductions in BP and similar rates of BP control, researchers said. All combinations were equally safe and effective with high tolerability over six months, they wrote in the paper.

"It must be noted that we are not recommending a multi-drug regimen. Polypharmacy will only lead to discontinuation of treatment," says Prabhakaran Dorairaj, principal investigator of the study, from the Centre for Chronic Disease Control, New Delhi. "What we are recommending is to start with half doses of two drugs in a single pill combination. If BP control does not happen, then it is important to titrate to full doses. Despite this, if BP continues to be higher than 140/90, then additional drugs are to be added," he explains. "It is really astounding we have been basing treatment on Western guidelines, so far," Dr. Prabhakaran adds. This study tests the global guidelines for hypertension treatment among patients in India, since these combinations are already available here. These drugs work through multiple pathways and are synergistic, with low side effects, he says.

"Many physicians, even cardiologists, think that they should start with a low dose and then keep escalating it," says Nagendra Boopathy, co-author, and interventional cardiologist, Sri Ramachandra Medical Centre, Chennai. "Even patients are reluctant to start on drugs, but these combinations we have tested are really effective in bringing down BP. and the side effects are minor," he adds. The side effects observed during the trial included cough, swelling of feet and lower potassium in some sub-groups, and not statistically significant.

Dr. Prabhakaran adds: "The biggest problem in India is poor control of hypertension. Only around 20% of individuals with hypertension are treated to target in urban areas and it is even lower in rural areas."

Modi, Muizzu signal reset in bilateral ties

PM highlights support for 'strong, time-tested' friendship between India and the Maldives

President of the island nation stresses territorial safeguards, but acknowledges foreign support

Messages put out by the two leaders show a substantial resolution of differences since 2023

Meera Srinivasan MALE

ndia is looking forward to deepening its ties with the Maldives across multiple sectors, Prime Minister Narendra Modi said on Saturday, highlighting the "bipartisan support" within the island nation for the "strong and time-tested" friendship.

and time-tested" friendship.
Mr. Modi, who was in the Maldives on a two-day state visit, held talks with top Maldivian leaders state visit, neit talks with
top Maldivian leaders
across the political spectrum, including Vice-President Uz. Hussain Mohamed Lattheef,
parliamentary Speaker Abdul Raheem Abdulla, formtop-resident Mohamed er President Mohamed Nasheed, and key mem-bers of the Opposition. He also attended the island na-

Square in its capital, Male. Mr. Modi's visit marks a major reset in bilateral ties that had soured after Mal-divian President Mohamed Muizzu came to power in 2023, campaigning mostly on an 'India [military] out'

'Need other nations'

While "every square inch" of Maldivian territory will be safeguarded by its citi-zens, the country needs other nations for "certain resources and technical expertise", Mr. Muizzu said on Saturday, appearing to be alluding to the coun-try's revived partnership

with India in key sectors. He was addressing the Maldives National Defence Force and the Maldives Police Service on the coun-try's Independence Day, seeking to balance the Maldives's sovereignty with its need for external support,

nour: Prime Minister Narendra Modi with Maldivian President Mohamed Muizzu on his left during the 60th Independence Day celebrations of the Maldives in Male on Saturday. PTI

especially to cope with

economic pressures.

The revival in ties between India and the Maldives could be seen in the memorandums of understanding (MoUs) and agree

ments signed during the Prime Minister's visit to the island nation on July 25 and 26. Notably, Mr. Muiz-zu and Mr. Modi inaugurated a new building of the Maldives' Ministry of De-

other jointly executed infrastructure projects.

Resilient partnership' The sentiment also came through in Mr. Muizzu's ad-

dress at the state banquet hosted for Mr. Modi on Fri day. Asserting that India has long stood as the "closest and most trusted partn-er" of the Maldives, he pointed to this year mark-ing 60 years of diplomatic relations between the Maldives and India. He called it "a milestone" that re-flects the shared history of the countries, and "the depth and resilience" of

the partnership.

Messages put out by the leaders showed a substanteaders showed a substan-tial resolution of differenc-es. "We both agree that the India-Maldives friendship will always be bright and clear," Mr. Modi said fol-lowing his discussion with the Maldivian President on Friday. Posting on X on Sa-Friday. Posting on X on Sa-turday evening, Mr. Muiz-zu thanked the Prime Mi-nister for what he called a "defining visit", that "sets a clear path" for India-Maldives relations.

The political opposition in the Maldives welcomed the Muizzu government's shift in its India policy. Abdulla Shahid, who was the Foreign Minister in the former Ibrahim Mohamed Solih government and later served as the President of the UN General Assembly, said he conveyed to the Prime Minister that "while governments may change, the Maldivian people's ap-preciation for India's friendship remains constant.

Muizzu's 'realisation'

A senior politician, who re quested anonymity, told The Hindu that the turna-round in ties was possible after Mr. Muizzu's "realisaarer Mr. Mulzzu's 'realisa-tion' that he needed to work with India "no matter what". He added: "India's broad shoulders and thick skin also helped."

