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India's Homegrown Passenger Plane to Fly Again, First Flight Expected In June

CSIR-NAL

12th May 2017

The first flight of India's re-engined and modified passenger jet SARAS is expected to The first flight of India's re-engined and modified passenger jet SARAS is expected to take off this June, Times of India has reported, reviving hopes that India's three-decade-old plan to build an indigenous passenger jet will finally materialise.

Placed on the back-burner after the crash of a prototype in 2009 that killed a three-member Indian Air Force (IAF) crew, the programme was revived by the government as a part of its push for affordable regional air connectivity take off this June, *Times of India* has reported, reviving hopes that India's three-decade-old plan to build an indigenous passenger jet will finally materialise.

Placed on the back-burner after the crash of a prototype in 2009 that killed a three-member Indian Air Force (IAF) crew, the programme was revived by the government as a part of its push for affordable regional air connectivity.

Now, the Bengaluru-based National Aerospace Laboratory (NAL) has handed over a reconfigured prototype to IAF's Aircraft and Systems Testing Establishment (ASTE). The testing centre has conducted a few low-speed ground runs.

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"The engine tests have already begun. The low-speed taxi and high-speed taxi trials are expected to be completed by the end of this month. After that, the ASTE will do the first flight most probably in the first week of June," *Times of India* quoted Jitendra J Jadhav, director of National Aerospace Laboratories, as saying.

The 19-seater SARAS will have a maximum takeoff weight of 6,100 kg and a maximum payload of 1,232 kg. Manufacturing of two limited series prototypes of SARAS will require Rs 400 crore to Rs 500 crore.

Meanwhile, the government is also planning to start a separate programme to build a bigger, 50-70 seat commercial aircraft. Feasibility study for the project, which would need a private party to manufacture, has been completed.

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India's passenger plane remains on paper since 2007

CSIR-NAL

12th May 2017

BENGALURU: Last week, China successfully completed a 80-minute first flight of its indigenous passenger aircraft conceived in 2008. Sadly, India's plans of making a plane with half the carrying capacity has remained on paper since 2007.

China's C919 — almost the size of the Airbus A320 and Boeing 737-800 — can carry 158-168 passengers. India's plane, the Regional Transport Aircraft (RTA), is designed to ferry 50-90 passengers. "Effectively, it will be a 70-seater aircraft," a National Aerospace Laboratories (NAL) official said.

Hopeful of a renewed push under the regional connectivity programme, NAL, which is developing the RTA, has completed a new feasibility study and discussions on finding partners to fund the project has begun. But it could well be another decade before the first flight.

According to the feasibility study, India will need at least 150-200 aircraft for civilian use in the next 5-10 years, while RTA can also replace the ageing AN-32 fleet of the defence forces, which means an additional 70-80 planes. Meanwhile, the Commercial Aircraft Corporation of China (COMAC), which developed C919, said: "The first aircraft rolled out on November 2, 2015 and we have 570 orders from 23 customers." Experts have pegged the C919 as competition to Boeing and Airbus, on whom the Indian market will continue to depend for its domestic demand.

In 2007, NAL and Hindustan Aeronautics Limited signed an agreement for the project with the former responsible for design and development, and latter for manufacturing.

The aircraft, which will be capable of short take-off, will be able to operate from smaller airfields and airports that Regional Connectivity Policy is aiming to revive. Jitendra J Jadhav, director, NAL, told TOI: "We're looking at a riskreward-sharing model for funding and are expecting to make some headway in the next three months."

NAL had projected an estimated cost of Rs 9,000 crore in 2015 and part of the reconfiguration will be looking at a next-generation turbo prop engine.

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The Times of India

President Presents National Technology Awards

CSIR

12th May 2017

President, Pranab Mukherjee, on Thursday presented the national awards for excellence in technology to mark the 19th National Technology Day.

The award winners included Prof Phani Kumar Pullela of CMR Institute of Technology, Bengaluru and Dr. Soma Guhathakurta, Adjunct Professor in the Department of Engineering Design at the Indian Institute of Technology, Chennai, and Director (Bioengineering), Messrs Synkromax Biotech of Chennai.

The two got their awards for being the best in biotechnology products and process development and commercialization. Prof. Pullela got it for his development of a new cost effective method for molecular diagnosis of infectious diseases and Dr. Guhathurta for developing an indigenous pericardial patch scaffold, which is a life saving implant for critical cardiovascular patients.

The other award winners included Numaligarh Refineries Limited, Guwahati, Indian Institute of Petroleum, Dehradun and Engineers India Limited, New Delhi, for successfully commercialising indigenous technology in the public sector, and Vikarsh Nanotechnology and Alloys, Pune, and Pluss Advanced Technologies, Gurugram for being successful in commercialization of technology among Medium, Small and Micro Enterprises.

Further, Amrita Technology Business Incubator, Kollam, Kerala got the award for being the best technology business incubator and IITM Incubation Cell, Chennai got the award for being the best emerging technology business incubator.

Bellarix Aerospace, Mysore, Padmaseetha Technologies, Chennai, and Nanoclean Global, Gurugram, were chosen as the best start up companies and an NGO from Dehradun, Himalayan Environmental Studies and Conservation Organisation got the award for using biotechnology for social development.

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Outlook.com

Problem points in pollution battle

CSIR

12th May 2017

Problem points in pollution battle

JAYANTA BASU

May 10: Calcuttans seem to be destined to breathe in toxic fumes for at least another two years.

The government had recently accepted in public that it could only come up with an "action plan" to curb air pollution after the National Environmental Engineering Research Institute (NEERI) completed its study of the toxic load in the city's air and filed a report. The agency needs at least another two years to prepare the report.

The state pollution control board, which would be a nodal agency in preparing the action plan, has said its "understanding of the air pollution sources is incomplete" and that a combat plan would only be ready after NEERI files its report.

Environment experts, however, think the state has enough data to come up with a plan of action and is using the NEERI timeline as an excuse to delay action. **Metro** draws up a list of actions the government needs to take immediately to reduce the air pollution level in the city.

Pollution scan on vehicles

Every vehicle has to undergo a tailpipe emission test and collect a pollution-under-control certificate (PUCC) after meeting all criteria every six months. Hardly 20 per cent of the vehicles in Calcutta comply with the rule.

Sources said the certificates in possession of many vehicle owners are fake. The malpractice is more rampant in the commercial transport sector, the biggest contributor to the city's air pollution.

Expertspeak: The transport department, pollution control board and police have to strictly enforce the PUCC rule.

Ban illegal autos and old vehicles

FOUL AIR tt FOR city

The high court had in 2008 banned all autorickshaws except the 4-stroke-LPG ones in the Calcutta Metropolitan Area. The order is routinely flouted beyond the area under the Calcutta Municipal Corporation. Most of the illegal autos on the fringes run on adulterated fuel, whose pollution index is much higher than LPG, petrol or diesel.

The high court order on phasing out of commercial vehicles 15 years or older has met with the same fate as the one on autos.

Expertspeak: The transport department and police have to ensure comprehensive implementation of the high court orders.

Improve public transport and create space for pedestrians

Calcutta was once known for its quality public transport and pedestrian-friendly pavements but has slipped on both counts over the past few years. If the roads are dominated by private vehicles, the footpaths have been hijacked by hawkers.

Expertspeak: The transport department should immediately improve the condition of the bus, tram and ferry services and get them linked to Metro. Pavements should be freed for pedestrians.

Stop construction pollution

Construction activities account for a third of the air pollution because of the dust they create and roadside dumping of materials. This despite clear rules that each construction site must have a buffer zone around it and materials must be kept in a covered area.

Expertspeak: The civic authorities, PWD and the pollution control board must enforce the rules and councillors should not protect errant developers.

Ban use of coal in roadside eateries and stalls where clothes are ironed

The city has thousands of such stalls which use enormous amounts of coal. One of the biggest contributors to air pollution is burning of coal.

Expertspeak: The environment department, civic authorities and the pollution control board need to come down hard on such stalls.

Curb dust

Dust is a major problem in Calcutta and can only be controlled by regular sprinkling of water on trees and roads as well as planting dust-sapping trees (those with large and hairy leaves) along major roads.

Expertspeak: The forest department and the civic body have to take the lead in adopting anti-dust measures.

Postscript

Environment activist Subhas Datta has recently argued before the National Green Tribunal that the government should start taking actions to curb air pollution instead of waiting for two years for the NEERI recommendations.

"The study may quantify the various sources of air pollution but we know the sources and the government should start taking action against them immediately," Datta told this newspaper.

"So many agencies — such as CEMSAP (Calcutta Environment Management Strategy and Action Plan), World Bank and ADB — have conducted studies on air pollution but hardly any action has been taken," emission expert S.M. Ghosh said.

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The Telegraph, Page 12

CSIR-CSMCRI

12th May, 2017

સેન્ટ્રલ સોલ્ટમાં શુક્રવારે રાષ્ટ્રીય ટેકનોલોજી દિનની ઉજવણી કરાશે

ભાવનગર, તા.૯

દર વર્ષે ૧૧ મી મેના રોજ ભારતની તકનીકી નવીનતાઓ અને શ્રેષ્ઠતાના ઈતિહાસની ઉજવણી માટે રાષ્ટ્રીય ટેકનોલોજી દિવસ દર વર્ષે ઉજવવામાં આવે છે કારણ કે ૧૧ મે, ૧૯૯૮ ના રોજ પોખરણમાં પરમાણુ બોમ્બની સફળતાપૂર્વક પરીક્ષણ કરવામાં આવ્યું હોવાથી, આ દિવસનું મહત્વ છે. આ વર્ષે, કેટલાક અણધાર્યા સંજોગો ના કારણે, ઝજીંઈ-ઝજીસ્ઝઈં, ભાવનગર મા ઔપચારિક રીતે ૧૨ મે, ૨૦૧૭ (શુક્રવાર) બપોરે ૩.૦૦ કલાકે રાષ્ટ્રીય ટેકનોલોજી દિવસની ઉજવણી કરાશે.

અમદાવાદની નેશનલ ઈન્સ્ટિટ્યુટ ઓફ ડિઝાઈન અમદાવાદના નિદેશક પ્રદ્યુમ્ય વ્યાસ, મુખ્ય મહેમાન પદે અને ડો. સી બી ત્રિપાઠી, વિભાગના વડા, ગવર્નમેન્ટ મેડિકલ કોલેજ ભાવનગર વિશિષ્ઠ અતિથિ તરીકે ઉપસ્થિત રહેશે. આ કાર્યક્રમ ૩:૦૦ વાગ્યે શરૂ થશે અને સાંજે ૫:૦૦ કલાકે પૂર્ણ થશે. આ પ્રસંગે સંસ્થા હાલ મા સ્થાનાંતરિત કરેલ ટેકનોલોજી નું પ્રદર્શન નું આયોજન કરી રહેલ છે.

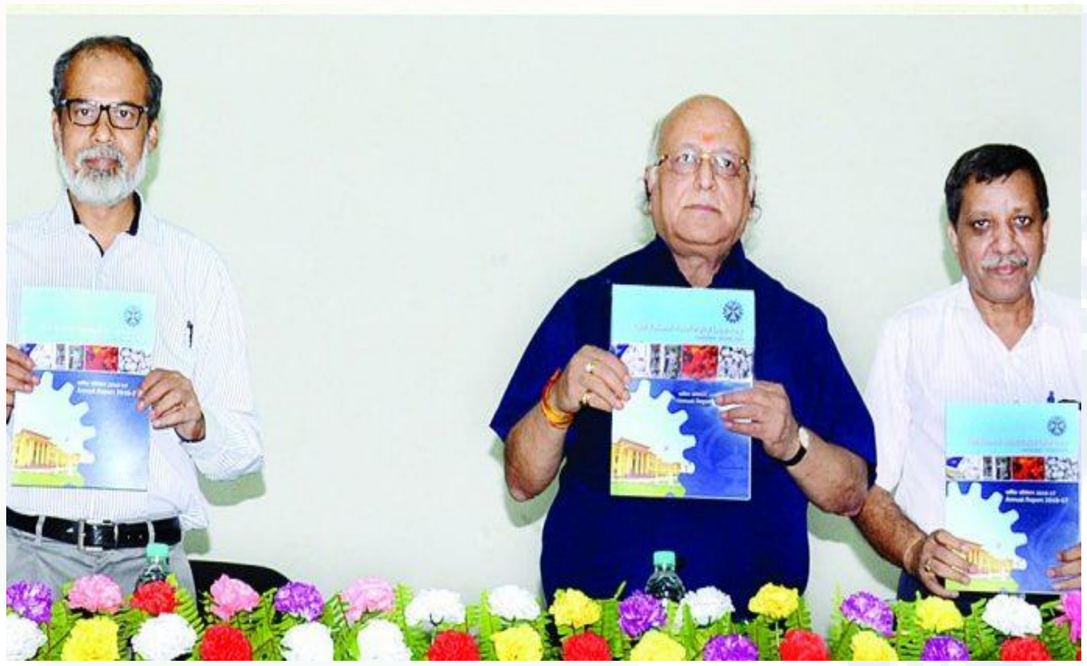
Published in:

Gujrat Vaibhav

NML showcases its technical expertise on National Technology DAy

CSIR-NML

12th May 2017



Mahavir Prasad Jalan, Chairman, Ramkrishna Forgings Ltd., Gamariha graced the function as Chief Guest and delivered Technology Day Lecture towards the various challenges faced during his journey of over Forty years for various shape development through his extended experience of forging & foundry technologies.

CSIR- National Metallurgical Laboratory, Jamshedpur presented nine various technologies developed during the year 2016-17 the occasion of National Technology Day.

On the occasion of Technology Day, Technology Day Quiz 2017 competition was also organized at National Metallurgical Laboratory Auditorium, Jamshedpur

CSIR- National Metallurgical Laboratory, Jamshedpur presented nine various technologies developed during the year 2016-17 and those Technologies are 'Metal oxide nanoparticle based anti-corrosive chemical for metallic bodies', 'Synthetic flux and a process for de-phosphorization of steel in induction furnace',

'Production of coke using non-coking and semi-coking coals', 'Process for production of ferric sulphate from copper slag for arsenic removal', 'Process for production of Z-black oxide/magnetite from iron rich waste sources', 'Production of Fe-Ni/Co-Mo Metallic Alloy & Saleable Alumina Rich Slag from Leach Residues of Ni-Mo/Co-Mo Spent Catalysts', 'A Process for Production of Highly Metallised Directly Reduced Iron Cylinders (DRIC) from Lean Grade Raw Materials', 'Recovery of Iron values from Iron ore tailing slimes', 'Technology for dry beneficiation of non coking coal for application in thermal power and DRI'. Two Technologies amongst them are commercialized.

Prof. ParthaPratim Chattopadhyay, Director, NIFFT, Ranchi was the the Guest of Honour and he delivered lecture on an exciting topics of challenges of bridging the gap between Skill & Education in Manufacturing.

The function ended with the vote of thanks offered by S.R. Hembram, Controller of Administration, CSIR-NML. More than 150 students from Indo Danish Tool Room, Gamariha, Al-Kabir Polytechnic Institute, Mango and AIT, Adityapur also visited NML.

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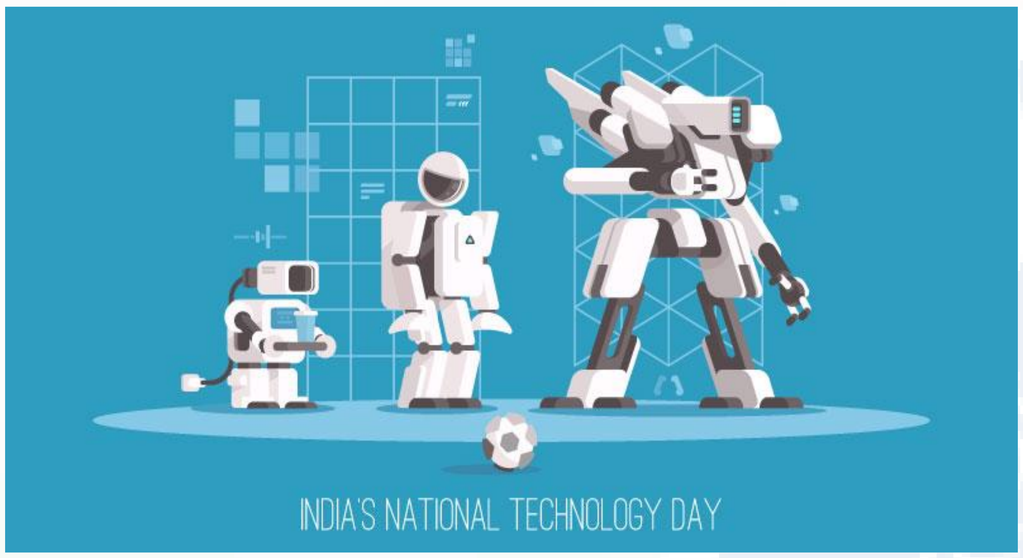
avenuemail.in

Why India celebrates National Technology Day on May 11, and its theme for 2017

CSIR-NAL

12th May 2017



On May 11, 1998, India successfully test fired the Shakti-I nuclear missile at the Indian Army's Pokhran Test Range in Rajasthan in an operation led by aerospace engineer and late President Dr APJ Abdul Kalam. Two days later, the country successfully tested two more nuclear weapons as a part of the same Pokhran-II/Operation Shakti initiative (Pokhran-I was the 1974 test firing of the 'Smiling Buddha' missile).

Following this, the then Prime Minister Atal Bihari Vajpayee declared India a nuclear state, making it the sixth country to join the 'nuclear club' of nations and the first one that was not party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) – an international treaty signed by the US, Russia, the UK, France, and China which aims to prevent the spread of nuclear weapons and hopes to achieve nuclear disarmament.

Becoming the world's sixth nuclear state wasn't the only feat India achieved on that day. The country's first indigenous aircraft, the Hansa-3, was flown in Bengaluru while the nuclear tests were being conducted in Rajasthan. Developed by the National Aerospace Laboratories (NAL),

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Research (CSIR) lab, the Hansa-3 was a light two-seater general aviation plane used in flying institutes for pilot training, sports, surveillance, aerial photography, and environment-related projects.

That isn't all. May 11, 1998 was also the day on which the Defence Research and Development Organisation (DRDO) completed the final test-fire of the Trishul missile after which it was inducted into service by the Indian Army and Indian Airforce. A short-range, quick-reaction, surface-to-air (SAM) missile, Trishul was a part of India's Integrated Guided Missile Development Programme – a Ministry of Defence initiative that has resulted in the creation of the Agni, Prithvi, and Akash missile systems.

Based on these tremendous breakthrough achievements by the country's scientists, engineers, and technicians, Atal Bihari Vajpayee declared May 11 as the National Technology Day. Every year since 1999, the Technology Development Board (TDB) commemorates the day by honouring technological innovations that have positively impacted the nation. The TDB also selects a theme for each year's event, and the 2017 National Technology Day theme is 'Technology for inclusive and sustainable growth'.

Celebrated as a symbol of quest for scientific inquiry and technological creativity, and their translation into the integration of science, society, and industry, the National Technology Day sees the TDB confer National Awards to the most noteworthy individuals, institutions, and businesses of the year. It is a large-scale event which sees the Department of Science and Technology, Department of Bio-Technology, the Ministry of Earth Sciences, the Council of Scientific and Industrial Research, and several other scientific departments in attendance. The event, conducted in New Delhi, also sees India's President give out the National Awards and launch a range of innovative products as the Chief Guest. Furthermore, several state governments organise local events that see academic institutions, research organisations, and NGOs come together to generate awareness about the latest technological advancements in the country.

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CSIR-AMPRI Celebrate Technology Day

CSIR-AMPRI

12th May 2017

Council of Scientific and Industrial Research (CSIR) and Advanced Materials and Processes Research Institute (AMPRI) Bhopal celebrated National Technology Day on Thursday to commemorate the momentus accomplishments of Science and Technology.
The day is celebrated every year to commemorate the series of nuclear tests at Pokharan. Subsequently the firing of Trishul missile by DRDO and launching of HANSA civilian aircraft by CSIR - NAL have marked the Technology Day. Chief Engineer, Civil Engineering Group, Nuclear Power Corporation Ltd. Mumbai Engineer Arvind Shrivastava was the Chief Guest and Marketing Manager, Hindoostan Composite Solutions Mumbai Sanjeev Narvekar, was the Guest of Honor on the occasion. At the outset Acting Director, CSIR - AMPRI, Bhopal SS

Amritphale welcomed the guests and highlighted the activities of AMPRI, Bhopal.
Chief Scientist CSIR-AMPRI Rupa Dasgupta underlined the importance of celebration of National Technology Day. Sanjeev Narvekar delivered the Technology Day lecture on "Opportunities and Applications in Composites" on the occasion. He presented the fascinating scenario of usage of new composites. Er. Arvind Shrivastava, in his address underlined the technological achievements, which are the genesis of Technology Day. He said that scientists should contribute to society with their research work. He also underlined the contribution of AMPRI towards the society through it's time and cost saving technologies. The function concluded with a vote of thanks from Chief Scientist CSIR-AMPRI RK Morchhale.

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CSIR-CBRI

12th May 2017

धरातल पर खरी उतरे तकनीक: डोभाल

रुड़की | कार्यालय संवाददाता

रुड़की आईआईटी में गुरुवार को आयोजित कार्यक्रम को वैज्ञानिकों ने संबोधित किया।

उत्तराखंड राज्य विज्ञान एवं प्रौद्योगिकी परिषद के महानिदेशक डॉ. राजेन्द्र डोभाल ने कहा कि प्रौद्योगिकी के विकास के साथ ही उसकी व्यापारिक क्षमता के बारे में भी जानकारी होनी चाहिए। कहा कि इस क्षेत्र में व्यापारिक और विशेषज्ञों की भी आश्यकता बढ़ रही है। हर प्रौद्योगिकी पेटेंट की एक व्यापारिक क्षमता और उपयोगिता होनी चाहिए।

केन्द्रीय भवन अनुसंधान संस्थान में राष्ट्रीय प्रौद्योगिकी दिवस पर आयोजित कार्यक्रम में उन्होंने य बातें कही। कहा कि हर प्रौद्योगिकी की संधारणीयता और उसके नकारात्मक प्रभावों के बारे में जानकारी और उपायों की ओर कार्य करना आवश्यक है। विशिष्ट अतिथि डॉ. विकास मोहंती ने वर्तमान प्रौद्योगिकी में चुनौतियां और भविष्य की दिशा पर व्याख्यान दिया। उन्होंने कहा हमें अपने ज्ञान क्षेत्र का विकास कर समस्याओं का निवारण ढूंढना चाहिए।

संस्थान के निदेशक डॉ. एन गोपालकृष्णन ने कहा हमें अनुसंधान तथा विकास कार्यों से अधिक संधारणीय प्रौद्योगिकी के उत्पादन पर ध्यान देना चाहिए। डॉ. एके मिनोचा ने राष्ट्रीय प्रौद्योगिकी दिवस की महत्ता के बारे में विस्तार से बताया। संस्थान की द्विभाषी पत्रिका सीबीआरआई न्यूजलैट भवनिका का विमोचन भी किया। इस मौके पर वैज्ञानिक यादवेंद्र पाण्डेय, एसके सिंह, डॉ. नीता मित्तल, एस मैती, डॉ. पीके एस चौहान, डॉ. एलपी सिंह, डॉ. अतुल अग्रवाल मौजूद रहे।

Published in:

Hindustan, Page no. 1

CSIR-NGRI

12th May 2017

नहीं चेते तो गंभीर होगा पानी का संकट

देवरिया | निज संवाददाता

राष्ट्रीय भूभौतिकीय अनुसंधान संस्थान हैदराबाद के निदेशक डा.वीरेन्द्र मणि तिवारी ने कहा कि लगातार पानी का स्तर गिर रहा है। जितने पानी की खपत है उतना रिचार्ज नहीं हो रहा है। ऐसा हर साल बरसात कम होने के चलते हो रहा है। भविष्य में पानी गंभीर समस्या बनकर सामने आ सकती है। उनका संस्थान लगातार सर्वे का जहां पानी उपलब्ध है उसकी जानकारी देने के साथ ही जल संचय करने पर जोर दे रहा है।

यह बातें डा. तिवारी ने बुधवार को पत्रकार वार्ता में दी। उन्होंने कहा कि पानी की बढ़ रही समस्या को देखते हुए उनका संस्थान हेलीकाप्टर से मैग्नेट के माध्यम से जहां पानी उपलब्ध है उसका सर्वे करने में लगा है। इस माध्यम से

पत्रकार वार्ता

- राष्ट्रीय भूभौतिकीय अनुसंधान सस्थान के निदेशक ने प्रेसवार्ता मे दी जानकारी
- गैस हाइड्रेड होगा भविष्य में उर्जा का नया सोत
- सौ स्कूलों को गोद लेकर सीएसआईआर भूकंप पर कर रहा जागरूक

300 मीटर तक पानी है तो पता चल जाता है। उन्होंने कहा कि पानी संग्रह नहीं करने से वाटर लेवल नीचे जा रहा है और जितनी मांग है उतनी आपूर्ति नहीं हो पा रही है। जंगलों की जगह कंरकीट के जंगल बन रहे हैं जिससे पानी जमीन में नहीं जाकर बह कर समुद्र में चला जा रहा है। सीएसआईआर बरसात के पानी को

राष्ट्रीय भूभौतिकीय अनुसंधान संस्थान के निदेशक डा.वीरेन्द्र मणि तिवारी।

स्टोर करने,जहां पानी कम है वहां कम पानी वाले फसल की खेती करने पर जोर दे रहा है।

कई जगहों पर पानी तो है लेकिन उसमें आर्सेनिक और फ्लोराइड की मात्रा अधिक होने से पीने लायक नहीं हैं। औद्योगित प्रदूषण भी पानी के संकट को बढ़ा रहा है। उन्होंने कहा कि आने वाले समय में गैस हाइड्रेड उर्जा का नया स्रोत हो सकता है। गैस हाइड्रेड कहां पर है इसे संस्थान ने चिन्हित किया है,लेकिन इसे निकालने और प्रयोग में लाने की तकनीक अभी विकसित नहीं हुई है।

दूसरे देशों में इस पर काम चल रहा है। संस्थान 100-200 किमी दूर भूकंप आने पर क्या प्रभाव पड़ेगा इसके बारे में लोगों को जागरूक करने में लगा है और उसी हिसाब से तैयारी करने पर जोर दे रहा है। जिससे जन-धन की कम हानि हो। इसके लिए महाराष्ट्र के 100 और कुछ उत्तराखण्ड के स्कूलों को गोद लिया गया है।

जहां टीचर व बच्चों को भूकंप आने पर क्या करें इसके बारे में जागरूक किया जाता है। उन्होंने युवाओं से भूभौतिकी की पढ़ाई करने की सलाह देते हुए कहा कि इसमें कैरियर की काफी संभावनाएं हैं।

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