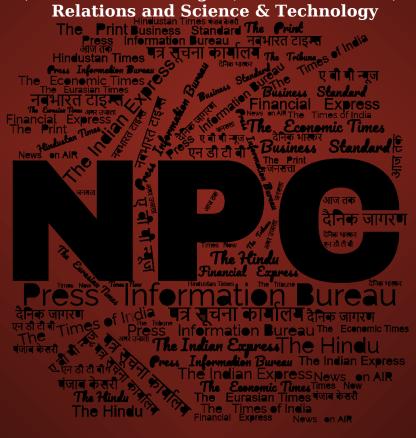
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04/08/2023

# समाचार पत्रों से चयित अंश Newspapers Clippings

डीआरडीओ समुदाय को डीआरडीओ प्रौद्योगिकियों, रक्षा प्रौद्योगिकियों, रक्षा नीतियों, अंतर्राष्ट्रीय संबंधों और विज्ञान एवं प्रौद्योगिकी की नूतन जानकारी से अवगत कराने हेतु दैनिक सेवा

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#### **Defence News**

# Defence Strategic: National/International



Thu, 03 Aug 2023

#### Bharat Dynamics Limited Hands over First Radio Frequency Seeker of Akash to DRDO

The Bharat Dynamics Limited (BDL) has handed over the first Radio Frequency (RF) Seeker of Akash - the Next Generation Weapon System produced at its newly commissioned state-of-the-art Seeker Facility Centre (SFC) to the Defence Research and Development Organization (DRDO).

Seeker is a critical and technology intensive subsystem used in Surface-to-Air Missiles and Air-to-Air Missiles for target tracking in the terminal phase. The RF Seeker has been designed by DRDO's Research Centre Imarat, and produced by BDL at its state-of-the-art Seeker Facility Centre set up at BDL, Kanchanbagh Unit in Hyderabad.

In a special ceremony held at BDL's Kanchanbagh Unit yesterday, the Chairman and Managing Director of BDL, Commodore A Madhavarao handed over the 1st RF Seeker manufactured by BDL at this facility to the Secretary, the Department of Defence Research & Development and Chairman DRDO, Dr Samir V Kamat. As per a release, Dr Kamat stated on the occasion that the establishment of the Seeker Facility Centre at BDL has enabled India to achieve self-reliance in the field of RF seeker production and contribute greatly towards realizing the goal of Atmanirbhar Bharat.

https://newsonair.gov.in/News?title=Bharat-Dynamics-Limited-hands-over-first-Radio-Frequency-Seeker-of-Akash-to-DRDO&id=465419



Fri, 04 Aug 2023

### With Focus on Pacific, Indian Warships Make Port Call at Papua New Guinea

With increasing focus on the Pacific part of the Indo-Pacific region, two frontline Indian naval warships under the Eastern Naval Command, INS Sahyadri and INS Kolkata made port call at Port Moresby as part of ongoing initiatives for enhancing maritime partnership and cooperation with

Papua New Guinea. At the same time, two warships from the Western Naval Command are at Oman — INS Visakhapatnam at Muscat and INS Trikand at Duqm.

"During the port call, the crew from the two ships will engage with personnel from PNG Defence Forces in a wide range of activities including professional interactions, cultural exchanges, Yoga sessions and ship visits. The port call is aimed at strengthening ties between India and Papua New Guinea in the maritime domain," the Navy said in a statement. The ships arrived on Wednesday.

Last month, India and France agreed to "expand cooperation" in the Pacific. The India-France joint statement issued during Prime Minister Narendra Modi's visit to Paris last month had noted both countries are resident powers and key partners with vital stakes in the Indo-Pacific. They announced the adoption of a road map for the Indo-Pacific and agreed to expand cooperation in the Pacific while also working on finalising an Indo-French development fund for third countries for joint financing of sustainable development projects in the region.

INS Sahyadri is the third ship of the indigenously designed and built Project-17 class multirole stealth frigates and is commanded by Capt. Rajan Kapoor while INS Kolkata is the first ship of the indigenously designed and built Project-15A class destroyers and is commanded by Capt. Sharad Sinsunwal. Both the ships have been built at Mazagon Dock Shipbuilders Limited, Mumbai.

In addition to the professional interactions aimed at enhancing cooperation, strengthening ties and sharing of best practices undertaken with Royal Navy of Oman on various elements of maritime operations, the two warships took part in social interactions, the Navy said. "Indian Navy Band had the local populace spellbound with melodious and mesmerising tunes at Avenues Mall, Boshar. Sporting and cultural interactions were also conducted with Royal Navy of Oman personnel," it said in a statement.

School children visited INS Visakhapatnam and were taken around the ship and given an overview of the capabilities of the indigenously designed and constructed warship, it added.

#### Modi's assurance

In May, Mr. Modi visited Papua New Guinea and attended the 3rd summit of the Forum for India Pacific Islands Cooperation (FIPIC) where he spoke in favour of free and open Indo-Pacific region and focused on India's commitment to assist the development goals of the member-countries of FIPIC stating that New Delhi would continue to help the Pacific island states in "every possible" way. The Pacific Island nations have been in focus of late as China signed last year a security agreement with the Solomon Islands while the U.S. and Papua New Guinea concluded a defence partnership agreement. The FIPIC consists of Cook Islands, Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, Niue, Samoa, Solomon Islands, Palau, Papua New Guinea, Tonga, Tuvalu and Vanuatu.

https://www.thehindu.com/news/national/with-focus-on-pacific-indian-warships-make-port-call-at-papua-new-guinea/article67155482.ece

#### THE ECONOMIC TIMES

Thu, 03 Aug 2023

# Deputy NSA Vikram Misri Visits Kazakhstan to Expand Security Ties; Give Push to Kazakh Role in INSTC

The Fourth India- Kazakhstan Security Dialogue was held in Astana on Thursday and the two sides decided to expand security cooperation and coordination over the International North South Transport Corridor (INSTC) as a key Eurasian connectivity initiative.

Vikram Misri, Deputy National Security Adviser, who led the Indian delegation at the dialogue held productive discussions with the Kazakhstan delegation led by Nurzhan Kajiakbarov, Deputy Secretary of the Security Council of Kazakhstan.

The consultations were also significant as Kazakhstan has taken over the SCO Presidency from India. NSA AK Doval could visit Astana that will host the next edition of the India-Central Asia NSA meet in October, ET has learnt. Discussions at the Security Dialogue focused on bilateral and regional issues, including the situation in Afghanistan, and international issues of mutual concern, according to an official statement.

Both sides welcomed the convergence of views on these issues and agreed on steps to be taken to further enhance bilateral security cooperation between the relevant organizations, including in the fields of counter-terrorism, combating radicalization, narcotics control, cyber security, connectivity and defence cooperation, the statement added. Over the last few years India has stepped up its defence cooperation with Kazakhstan.

Kazakhstan is interested to use INSTC as the connectivity corridor for trade with India and beyond. It has also shown interest to connect with India via the Chabahar Port. Thursday's consultations also focused on Kazakhstan's participation in the INSTC that has played key role in enhancing India-Russia trade over the last year.

During the visit, Misri called on Gizat Nurdauletov, Aide to the President - Secretary of the Security Council and held discussions with Kanat Tumysh Deputy Foreign Minister. The Indian delegation also visited facilities of interest, considering the bilateral strategic relationship between the two countries. This was Misri's second visit to Central Asia since July. He was in Bishkek last month to meet top leadership of Kyrgyzstan that borders China.

During that trip India and Kyrgyzstan agreed to intensify partnership to counter terror and combat radicalization and enhance defence cooperation. Misri led the Indian delegation at the two day (July 17 and 18) dialogue.

Misri had also called on Zheenbek Kulubaev, Foreign Minister of the Kyrgyz Republic, during that visit. The discussions at that security dialogue focussed on bilateral, regional and international issues of mutual concern, the threats and challenges being faced by both the countries, including the situation in Afghanistan. India and Kyrgyzstan decided to intensify cooperation in the fields of counter-terrorism, combating radicalization, narcotics control and defence cooperation.

https://economictimes.indiatimes.com/news/india/deputy-nsa-vikram-misri-visits-kazakhstan-to-expand-security-ties/articleshow/102399869.cms



Thu, 03 Aug 2023

#### PM Modi to Attend BRICS Summit in Johannesburg Later this Month

Prime Minister Narendra Modi on Thursday, August 3, 2023 confirmed to South African President Cyril Ramaphosa that he will be travelling to Johannesburg to attend the August 22-24 BRICS summit. The telephonic conversation between Mr. Modi and Mr. Ramaphosa came days after Russian President Vladimir Putin cancelled his visit to Johannesburg for the same event.

"President Ramaphosa invited the Prime Minister for the BRICS Summit being hosted by South Africa on August 22-24, 2023 and briefed him on the preparations for the same. The Prime

Minister accepted the invitation and conveyed that he looked forward to his visit to Johannesburg to participate in the Summit," said a statement issued by the Ministry of External Affairs.

The event in Johannesburg has acquired special significance as it is taking place in the backdrop of the crisis in Ukraine. Additionally, the event is special as it is expected to hold substantive discussion on expansion in the membership of BRICS that both Russia and China are campaigning for. "The two leaders positively assessed the progress in bilateral cooperation, including in the context of the thirtieth anniversary of establishment of bilateral diplomatic relations being celebrated in 2023," the press note stated.

https://www.thehindu.com/news/national/pm-modi-to-attend-brics-summit-in-johannesburg-later-this-month/article67155558.ece



Thu, 03 Aug 2023

# India's Naval Torpedo Landscape: Challenges and Promising Developments

#### By Huma Siddqui

As India's naval fleet grapples with an array of challenges on the surface and beneath the waves, the need for advanced torpedoes is becoming more apparent. This need paints a vivid picture of the difficulties besetting India's defence acquisition system, as the nation's state-of-the-art Scorpene submarines sit idle without their integral assortment of heavyweight torpedoes.

The intended supply of robust Black Shark torpedoes from WASS, a subsidiary of Italy's Leonardo, to the Scorpene fleet has been stalled by legal issues surrounding another Leonardo affiliate, AgustaWestland. This legal quandary has led to the stalling of negotiations with the Ministry of Defence (MoD) regarding the procurement of heavyweight torpedoes for the Scorpene fleet.

While these complications persist, India's Navy is making do with Atlas Elektronik AEG Surface and Underwater Target (SUT) 264 21-inch heavyweight wire-guided torpedoes. Originally commissioned in 1967, these torpedoes do not meet the demands of contemporary naval warfare.

However, there seems to be a silver lining in the form of the Raytheon MK 54 torpedoes. Operated by Indian Naval Aviation on the Boeing P-8I maritime patrol aircraft (MPA) for Anti-Submarine Warfare (ASW) missions, these torpedoes bring some much-needed versatility to the Indian Navy's toolkit. The MK54, in production for two decades, uses complex processing algorithms to analyse information and target underwater threats, even those deploying decoys or countermeasures.

#### Domestic developments also hold promise

The Defense Research and Development Organization (DRDO) has achieved significant advancements in the creation of indigenous underwater armaments. Among these are the formidable Varunastra, a heavyweight torpedo launched from ships, and the Torpedo Advanced Lightweight (TAL). While these weapons boast remarkable capabilities, their current limitation lies in the inability to be launched from submarines. Nevertheless, DRDO's remarkable progress with Varunastra and TAL indicates a promising future, suggesting that they may be on the verge of developing a state-of-the-art submarine-launched torpedo to meet the immediate requirements of the Navy.

Simultaneously, DRDO is developing a supersonic missile-assisted torpedo, the Supersonic Missile Assisted Release of Torpedo (SMART) system, which could substantially extend the Navy's antisubmarine warfare capabilities. The Maareech Advanced Torpedo Decoy System, deployable on all frontline warships, significantly enhanced the Indian Navy's ASW capacity when it was integrated in June 2020.

The global landscape of torpedo technology also continues to advance. Notably, the British Spearfish Mod-1, an upgraded heavyweight torpedo, was ready for frontline action with the Royal Navy as of May 2021. Moreover, Turkey's Roketsan introduced its Akya heavyweight torpedo, a high-speed, long-range, fully autonomous torpedo designed for submarine launch in 2021.

It remains to be seen how India will address its current torpedo shortfall. However, with domestic developments and a global backdrop of rapid advancement in underwater weaponry, the future holds promise for the Indian Navy.

https://www.financialexpress.com/business/defence-indias-naval-torpedo-landscape-challenges-and-promising-developments-3197745/



Thu, 03 Aug 2023

# India's Defence Technology Advancements: Precision Munitions and Cutting-Edge Missiles Unveiled

In the rapidly evolving landscape of defence technology, India is proving to be a force to be reckoned with. Earlier this year as revealed at the 14th Aero India Expo held in Bengaluru, the country's Defence Research and Development Organisation (DRDO) is rolling out its own precision-guided munitions (PGMs). These stand-off PGMs have been a decade in the making and are poised for mass production by private companies under three categories of the Ministry of Defence's (MoD) Defence Procurement Procedure's (DPP) India designed, developed, and made (IDDM) category.

It is expected that the Kalyani Group, in a joint venture with Israel's RAFAEL Advanced Systems Ltd., will be chosen for mass production of the Smart Anti-Airfield Weapon (SAAW). Government-owned Bharat Dynamics Limited (BDL) is set to serve as the primary industrial contractor and systems integrator. In September 2020, Defence Acquisition Council put its stamp of approval for mass acquisition of the SAAW, which is roughly valued at Rs 970 crore (\$131m).

Anti-radiation missiles (ARMs) are another category of weapons in production. The Defence R&D Laboratory (DRDL) initiated R&D for these missiles in 2012 and now spearheads the design and development of three different ARMs. The first ARM, Rudram-1 NG-ARM, is slated for series production by Adani Defence & Aerospace. Equipped with a 60kg pre-fragmented warhead and a dual-pulsed rocket motor engine, the Rudram-1 has a maximum speed exceeding Mach 2 and a range of 150 km.

For the mass production by Adani Defence & Aerospace Ltd., the MoD has given approval for the long-range guided-bomb 'Gaurav'. This bomb which has a maximum gliding range of 80 km, will be launched exclusively launched by Su-30MKIs. The 'Gautham' glide-bomb, with a maximum range of 30 km, shares this exclusivity, and both bombs have a circular error probable of less than 15 meters.

Another highly anticipated event in India's defence tech world is the maiden test-firing of the BrahMos-NG supersonic cruise missile by late 2024. This project is a joint venture of the DRDO and Russia's NPO Mashinostroyeniya, under the banner of BrahMos Aerospace Pvt Ltd. However, the availability of the hypersonic BrahMos-2K missile for India's armed forces is uncertain due to Russia's ongoing conflict with Ukraine.

The DRDO's Aeronautical Development Establishment is also engaged in ongoing R&D work on the Indigenous Technology Cruise Missile (ITCM), which has a range of 1,500 km. It has been reported earlier this year that the latest test flight took place on February 21, off the coast of Odisha. This was following a failed attempt in 2022 due to technical issues with the indigenous Manik small turbofan engine. Since 2020, four tests of the ITCM technology demonstrator have been conducted, with mixed success.

https://www.financialexpress.com/business/defence-indias-defence-technology-advancements-precision-munitions-and-cutting-edge-missiles-unveiled-3197902/



Thu, 03 Aug 2023

# Pakistan Cabinet Approves Signing of Security Pact with U.S.: Report

Pakistan's Cabinet has quietly approved the signing of a new security pact with the U.S., a move that indicates a fresh start in defence cooperation after years of distrust between the two nations and may open avenues for Islamabad to get military hardware from Washington, a media report said on Thursday.

Through a circulation summary, the Cabinet gave its seal of approval to sign the Communication Interoperability and Security Memorandum of Agreement, known as the CIS-MOA, between Pakistan and the U.S., The Express Tribune newspaper reported.

However, there was no official announcement from either side about the signing of the agreement. According to the report, Federal Minister for Information Marriyum Aurangzeb was approached but did not respond.

The development comes days after Pakistan and the U.S. agreed to further enhance their bilateral relations, including in the defence field, at a meeting between U.S. Central Command (Centcom) chief General Michael Erik Kurilla and Pakistan's Chief of Army Staff (COAS) General Asim Munir.

CIS-MOA is a foundational agreement that the U.S. signs with its allies and countries with which it wants to maintain close military and defence ties. It also provides legal cover to the U.S. Department of Defence for ensuring the sale of military equipment and hardware to other countries.

The signing of the CIS-MOA means that the two countries are keen to maintain the institutional mechanism.

The agreement, first signed between the Joint Staff Headquarters of Pakistan and the U.S. Department of Defence in October 2005 for 15 years, expired in 2020. The two sides have now renewed that arrangement which covers joint exercises, operations, training, basing and equipment.

The signing of the CIS-MOA indicates that the U.S. might sell some military hardware to Pakistan in coming years, a source in Washington was quoted as saying in the report.

However, a retired senior Army officer who previously dealt with the U.S. played down the development and said it was not easy for Pakistan to buy military hardware from the U.S. despite this agreement. Referring to the growing strategic ties between the U.S. and India, the officer said Washington's long-term interests are not aligned with Islamabad. Nevertheless, the U.S. needs Pakistan in some critical regions, and hence this agreement serves the purpose of both, he said.

Pakistan was once a major recipient of military and security assistance from the U.S., but with the Cold War ending and China challenging U.S. supremacy, things changed.

The situation prompted Washington to seek closer cooperation with India to counter China, and meanwhile, Pakistan lost its decades of significance in the eyes of the U.S., the report said.

Pakistan and the U.S. maintained close defence cooperation, but their ties came under strain due to differences over the issue of Afghanistan. The killing of former al-Qaeda chief Osama bin Laden by U.S. Navy Seals in Pakistan's Abbottabad, close to a military training school in 2011, deteriorated the situation. In the same year, the U.S. forces bombed a Pakistani military outpost on the Afghan border, killing 24 soldiers and prompting Islamabad to block the land routes used by the allied forces to carry vital supplies to Afghanistan.

The issue was later resolved, but the relations could not escape the shadow of Afghanistan.

Former U.S. President Donald Trump had repeatedly accused Pakistan of not doing enough to route out militants. He also accused Islamabad of giving nothing to the U.S. other than "lies and deceit" in return for American aid.

Since being elected as U.S. President in 2020, Joe Biden has not formally spoken to the Pakistani leadership. Things have improved between the two countries since the Shehbaz Sharif-led government took over in April last year, and endorsement of the new pact may be a sign of a fresh beginning, the report said.

 $\underline{https://www.thehindu.com/news/international/pakistan-cabinet-approves-signing-of-security-pact-with-us-report/article 67154415.ece$ 



Thu, 03 Aug 2023

### Hypersonic Interceptor HYDIS Backed by European Commission

MBDA, leaders of the Hypersonic Defence Interceptor Study (HYDIS) consortium researching ground and naval-launched hypersonic-missile interceptors, announced 2 August that the project framework has been proposed for funding by the European Commission through the European Defence Fund (EDF) 2023 work programme.

The emergence of new threats, including manoeuvring ballistic missiles, hypersonic cruise missiles and hypersonic glide vehicles, represents a challenge for European and NATO air defence systems. The EU's revised 2018 capability development plan identified shortfalls in capabilities for anti-access area denial and ballistic missile defence capability, and made Air Superiority one of its 11 EU capability development priorities.

The HYDIS project is a component of European states' contributions to the mission of defending populations and armed forces against emerging hypersonic threats that represent a radical shift from ballistic threats. The consortium contributes to the AQUILA concept − which received €80m

(\$87.2m) without a call for funding through EDF's 2030 work programme – for an endoatmospheric hypersonic interceptor capability that can reach 100km above the surface of the Earth.

As of 30 March 2023, €123m of EDF funds had been earmarked for projects in air and missile defence, for the development of counter-UAS capabilities and an endo-atmospheric interceptor, from a total of €1.2bn that the EDF will provide for defence Research Design and Innovation (RD&I). Global missiles and missile defence market is set to reach \$67.5bn by 2033, according to GlobalData's "The Global Missiles & Missile Defense Systems Market Forecast 2023-2033,"

The goal of HYDIS is to design various interceptor concepts and mature the associated critical technologies in order to deliver the best interception solution that meets the needs of the four member countries – France, Italy, Germany, and the Netherlands – while also complying with the European TWISTER capability programme.

MBDA has worked for five years on options for counter-hypersonic air-defence, and has brought together a consortium of 19 partners and 30 subcontractors across 14 European countries to form HYDIS. In GlobalData's report on Hypersonic Technologies (2022), we find that the key advantage of hypersonic technology is speed, and the capability to adjust course during fight – providing conventional missile defence technologies with a challenge beyond that provided by other ballistic missiles. In comments from 20 June, Eric Béranger, CEO of MBDA, said the project will help to strengthen Europe's sovereign missile systems industry by sustaining and developing critical expertise, technologies, and materials, thereby increasing European industrial competitiveness. "The technologies in the hypersonic domain are evolving, and it is a priority for MBDA to remain at the forefront of innovation, guiding Europe towards the most efficient solution to counter hypersonic threats."

The HYDIS partners are ArianeGroup, Avio, Avio Aero, Bayern-Chemie, CIRA, DLR, GKN Fokker, LYNRED, MBDA España, MBDA France, MBDA Germany, MBDA Italia, OHB System AG, ONERA, ROXEL France, THALES LAS France, TDW, THALES Netherlands and TNO.

In June 2023, Rafael revealed its own hypersonic interceptor, Sky Sonic, with manoeuvrability and speed capabilities at ten times faster than the speed of sound.

https://www.airforce-technology.com/news/hypersonic-interceptor-hydis-backed-by-european-commission/

#### THE ECONOMIC TIMES

Thu, 03 Aug 2023

### Russia Says Downed Six Drones Less than 200 km from Moscow

Russia on Thursday said it had downed six drones in the Kaluga region, less than 200 kilometres from Moscow, amid a surge in such attacks targeting the capital city.

The defence ministry said it had foiled "a terrorist attack with drones" in Kaluga.

"This night, six drones trying to cross the Kaluga region, were shot down with anti-air defence systems," said regional governor Vyacheslav Shapsha said on Telegram. There were no casualties, he said. Russia on Tuesday said it had foiled drone attacks in Moscow but one of them hit a building in the city, which witnessed a similar strike last weekend.

https://economictimes.indiatimes.com/news/defence/russia-says-downed-six-drones-less-than-200-km-from-moscow/articleshow/102379483.cms

#### **Business Standard**

Fri, 04 Aug 2023

### NZ to Boost Defence Capabilities Amid Increasing Tensions in Pacific

New Zealand said Friday it plans to boost its defence capabilities as tensions rise in the Pacific, due in part to a military buildup by China.

Defence Minister Andrew Little said current defence spending amounted to about 1 per cent of the nation's economy, a proportion he expected would need to increase, although not as high as 2 per cent.

He said replacing aging navy frigates and patrol vessels is among the most pressing needs under consideration. He said the country is also facing an increase in domestic threats such as misinformation, cyberattacks and terrorism.

The new defence policy paper released by Little contained no specifics about increases in spending, equipment or troops, with those details expected to be finalized in a later plan.

Rather the paper pointed to a rethinking about the role of the nation's military, which has often been used primarily to act as peacekeepers or provide aid when Pacific countries are hit by natural disasters.

Now, the paper said, New Zealand is facing more challenging times than it has in decades and the military needs to improve combat readiness. The military has been struggling with outdated equipment and difficulties recruiting and retaining staff.

Little said New Zealand had thought until recently that it was protected by its remoteness.

The changes in the domestic and international security environment mean our response and preparedness must change, too," he said.

The paper took direct aim at China for heightened tensions, saying it is using its national power in a way that challenges existing international rules and norms.

Beijing continues to invest heavily in growing and modernising its military, and is increasingly able to project military and paramilitary force beyond its immediate region," the paper said.

Little stressed that he doesn't think "we are close to war in the Pacific.

I think there is some rising tension in the Pacific. I think it puts the onus on all countries with a stake in the Pacific, and involved in the Pacific, to be engaged, he said.

US Ambassador Tom Udall told The Associated Press that New Zealand has an important role in Pacific security.

I think the first thing that this recognizes is that we are seeing a big security change in the region, Udall said of the defence paper. And I don't think there is any doubt that New Zealand is on top of that, and moving forward to take very aggressive action to put in place policies and plans to address it.

https://www.business-standard.com/world-news/nz-to-boost-defence-capabilities-amid-increasing-tensions-in-pacific-123080400085 1.html



Thu, 03 Aug 2023

# Ukraine Conflict: Belarus Seeking to Manufacture Iranian Weapons

Belarus is likely seeking to establish an indigenous Iranian Shahed loitering munition production facility, the Institute for the Study of War (ISW) said on 31 July.

Belarusian Defence Minister Lieutenant General Viktor Khrenin and his Iranian counterpart Brigadier General Mohammad Reza Ashtiani met in Iran on 31 July to sign a memorandum of understanding (MOU) and a bilateral military co-operation plan.

The negotiation likely involved discussing weapon deals including establishing a production facility for Shahed loitering munitions in Belarus. This followed reports from the Ukrainian National Resistance Centre in May that an Iranian delegation, purportedly organised by Russian intelligence services, was in Belarus to assess the possibility of adapting local factories to produce Iranian munitions.

Iranian engineers are considering converting a plant in Gomel, Belarus, the centre added.

Belarus, under President Aleksandr Lukashenko, has partly facilitated both the logistics and conduct of Russia's war in Ukraine, including providing Russia with ammunition from Belarusian stocks and exporting Western-origin components and goods to support the Russian defence industry. This partnership, along with Russia's relationship with Iran, has strengthened since the Ukraine conflict in part because of Western sanctions targeting and limiting Russia's ability to source large quantities of components necessary for producing military hardware. This has forced them to source platforms and ammunition from partners such as Iran and North Korea.

https://www.janes.com/defence-news/news-detail/ukraine-conflict-belarus-seeking-to-manufacture-iranian-weapons

#### Science & Technology News



**Ministry of Science & Technology** 

Thu, 03 Aug 2023

# Union Minister Dr Jitendra Singh Says, NIDHI (National Initiative for Developing and Harnessing Innovations) Program under DST has Various Components to Support Innovations, Startups and Startup Incubation Ecosystem in the Country

Dr Jitendra Singh informs that through CSIR incubation centres, 300 startups/Incubatees have been supported so far

Union Minister of State (Independent Charge) Science & Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today said, in order to foster innovation among the startups in the country, Department of Science & Technology launched an umbrella program NIDHI (National Initiative for Developing and Harnessing innovations) in 2016.

In a written reply to a question in the Rajya Sabha, Dr Jitendra Singh informed that NIDHI program has various components to support innovations, startups and startup incubation ecosystem in the country.

The NIDHI- PRAYAS (Promoting and Accelerating Young and Aspiring Innovators and Startups) program at Proof-of-Concept level provides mentoring and financial support to innovator for converting their ideas into prototypes. NIDHI Entrepreneurs-In-Residence (EIR) Program provides fellowships to the students opting for entrepreneurship. The NIDHI Seed Support Program provisions availability of early-stage seed support funding to startups and the NIDHI Accelerator program speeds up the investment readiness of the startups. The NIDHI program has been helpful in creating state-of-the art infrastructure for incubating startups in technology sectors through Technology Business Incubators (TBIs) and Centres of Excellence (CoE).

The Minister also underlined that the Council of Scientific and Industrial Research (CSIR) is playing an active role in conceptualizing and developing state-of-the-art Incubation facilities for translating technology & products and handholding entrepreneurs, start-ups, and MSMEs so as to ensure the transfer of the benefit of S&T interventions to the Society, Industry and the Country.

Dr Jitendra said, CSIR today is one of the leading R&D organizations in the country to set up Incubation Centers across its labs using innovative models/approaches. In addition to the above, few Common Research and Technology Development Hubs (CRTDHs) for industrial R&D innovation, dedicated for MSMEs, start-ups and individual innovators have also been set up at CSIR with the support of DSIR.

Department of Biotechnology through BIRAC (Biotechnology Industry Research Assistance Council) and its various schemes and initiatives encourages startups, entrepreneurs, innovators, scientists, technology experts, academicians to undertake translational research and innovations

leading to development of affordable products & technologies for public at large. BIRAC schemes encourage setting up of biotech enterprises. Support is extended for mentoring, funding, validation/pilot testing of startup innovations and investor connect for the startups in biotechnology domain.

Innovations for Defence Excellence (iDEX) under Ministry of Defence supports creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes & academia. Ministry of Electronics & Information Technology (MeitY) has initiated Technology Incubation and Development of Entrepreneurs (TIDE 2.0) Scheme with an aim to promote technology-based entrepreneurship through financial and technical support to incubators.

National Agriculture Innovation Fund of ICAR (Indian Council of Agricultural Research) promotes the Startups related to agri-tech under incubation activities in ICAR Network wherein it has established Agri-business Incubator (ABIs) centres in 50 Institutes. The progress made in this respect so far that through DST's NIDHI program for promotion of innovation and entrepreneurship, 8 NIDHI CoEs and 40 NIDHI TBIs and 20 NIDHI Inclusive TBIs have been established in academic setups to extend incubation and mentoring support to innovative startups in various technology domains.

Dr Jitendra Singh underlined that through CSIR incubation centres, 300 startups/Incubatees have been supported so far.

The progress made through BIRACs incubation program include setting up of 75 Incubation Centres supported through BIRAC's BioNEST and E-YUVA (Empowering Youth for Undertaking Value Added Innovative Translational Research) schemes of BIRAC across 21 states & UTs of the country, around 900 innovative projects supported under Biotech Ignition Grant (BIG).

DST is supporting TBIs/STEPs primarily in and around academic, research, technical and management institutes to tap innovations and technologies for startup creation. The program helps in crating expertise and S&T entrepreneurial infrastructure at the Host Institute. DST extends holistic end to end support from ideation to POC, Incubation to seed funding, by providing a strong platform for innovators and researchers, S&T faculties and entrepreneurs to form innovative startups.

Measures taken by DST to ensure the success of established network of STEPs & TBIs, includes support via virtual incubation of the startups for a better outreach throughout the country. In addition, NIDHI-Promoting and Accelerating Young and Aspiring Innovators and Startups (PRAYAS) extends support at pre-incubation stage to the innovators and ensures creating a strong pipeline of startups. Another measure taken by the department is through NIDHI-Seed Support Program (NIDHI-SSP) which ensures availability of early-stage funding to incubated startups and strengthen the success of startups in the incubator. In order to motivate students to become job providers rather than job seekers, NIDHI Entrepreneurs-in-Residence (EIR) program is an additional measure taken by DST. In order to strengthen innovation and startup incubation ecosystem in Tier II and Tier III cities, a new program named NIDHI-Inclusive Technology Business Incubators (iTBI) program was launched by DST to support startup incubation centres in academic setups in tier II and tier III cities. The iTBI program has helped increasing entrepreneurial inclusiveness in terms of geographies, gender and persons with special abilities.

https://pib.gov.in/PressReleasePage.aspx?PRID=1945353

### नवभारत टाइम्स

### NRF बिल से क्यों मायूस हैं साइंटिस्ट-रिसर्चर्स

अपनी ऐतिहासिक विरासत को दोबारा पाने के लिए अनुसंधान को पुनर्जीवित किए बिना भारत विश्वगुरु के रूप में नेतृत्व की भूमिका में नहीं आ सकता। इसमें NRF कारगर होगा



फुरकान कमर

पिछले दिनों केंद्रीय मंत्रिमंडल ने राष्ट्रीय अनुसंधान फाउंडेशन बिल को सदन में पेश करने के प्रस्ताव को मंजूरी दे दी। संभावना है कि यह बिल इसी मॉनसून सेशन में पेश हो

जाएगा। बिल का मसौदा तो अभी पटल पर नहीं आया है, लेकिन इस संबंध में सरकार की ओर से जारी प्रेस विज्ञप्ति से जो जानकारियां मिली हैं, उनसे साइंटिस्ट और रिसर्चर मायूस हैं।

हिसाब-किताब: देश के विकास में अनुसंधान के महत्व को समझते हुए 2020 की नई राष्ट्रीय शिक्षा नीति (NEP) ने निर्णय किया कि देश में एक राष्ट्रीय अनुसंधान फाउंडेशन (NRF) स्थापित किया जाना चाहिए। NRF की पूरी प्लानिंग 2019 में जारी कस्तूरीरंगन समिति के मसौदे में दी गई थी। समिति के अनुसार, किसी भी राष्ट्र का विकास बहुत हद तक उसके शोध, अनुसंधान और इनोवेशन पर किए जाने वाले खर्च के अनुपात पर निर्भर करता है।

भारत अपने GDP का केवल 0.65 फीसदी

- अनुसंधान पर खर्च करता है, जबिक अमेरिका 2.8 फीसदी, इस्राइल 4.3 फीसदी और दक्षिण कोरिया 4.2 फीसदी निवेश करते हैं।
- सिमिति ने कहा था कि NRF को केंद्र सरकार हर साल 20 हजार करोड़ रुपये अनुदान दे, जो तब के GDP का 0.1 फीसदी था।
- NRF को 20 हजार करोड़ रुपये सालाना देने की जगह अब अगले पांच वर्षों में पचास हजार करोड़ रुपये का बंदोबस्त किया जाएगा। इसमें 36 हजार करोड़ रुपये उद्योग और निजी क्षेत्र से उगाहे जाएंगे और 14 हजार करोड़ रुपये भारत सरकार देगी।
- साइंटिस्टों को आशा थी कि कस्तूरीरंगन समिति की सिफारिश वाली अनुदान राशि अमेरिकी अनुसंधान निवेश का लेवल पार करने तक जारी रहेगी। मगर अब यह 2800 करोड रुपये सालाना से अधिक नहीं होगी।

कम होता अनुदान: NEP का अनुरोध था कि बाकी की संस्थाएं शोध और अनुसंधान के लिए जो अनुदान देती हैं, वे जारी रहेंगे। प्रस्तावित राष्ट्रीय अनुसंधान फाउंडेशन बिल के अनुसार, साइंस और इंजीनियरिंग रिसर्च बोर्ड (SERB) को समाप्त करके NRF में मिला दिया जाएगा। जब भी किसी पुरानी संस्था का किसी नई संस्था में विलय होता है तो पुरानी संस्था का बजट भी नई संस्था के बजट में शामिल कर दिया



#### ज्ञान-विज्ञान

जाता है। पिछले कुछ वर्षों में SERB का बजट लगभग 1000 करोड़ रुपये सालाना तक पहुंच गया है। ऐसे में संभावना है कि विलय के बाद इसका बजट NRF में समायोजित कर दिया जाए। ऐसा हुआ तो NRF को सालाना 2800 करोड़ रुपये के बजाय केवल 1800 करोड़ रुपये ही मिलेंगे। यानी अनुसंधान में निवेश कस्तूरीरंगन समिति द्वारा प्रस्तावित राशि के 10 फीसदी से भी कम हो सकता है।

रिसर्चरों का जोश : SERB की स्थापना एक अधिनियम बनाकर 2008 में हुई थी। तबसे साइंस और इंजीनियरिंग के क्षेत्र में वही सारे काम कर रहा था, जिसके लिए NRF बनाया जा रहा है, लेकिन एक महत्वपूर्ण अंतर के साथ। NRF का मकसद समस्त विषयों में शोध को प्रोत्साहन देना और वित्तीय सहायता प्रदान करना था। ऐसा सुनिश्चित करने के लिए सिमिति ने सिफारिश की थी कि NRF में प्रमुख रूप से चार विभाग होंगे- विज्ञान, प्रौद्योगिकी, सामाजिक विज्ञान और कला एवं मानविकी। प्रस्तावित बिल में शायद इन विभागों की गुंजाइश नहीं है। साथ ही, NRF को प्रशासनिक तौर पर भारत सरकार के विज्ञान और प्रौद्योगिकी विभाग (DST) के अधीन कर दिया गया है। यही वजह है कि मानविकी, सामाजिक विज्ञान, वाणिज्य, प्रबंधन, कला, भाषा और संस्कृति के क्षेत्र में कार्यरत शोधकर्ताओं, शिक्षाविदों और उच्च शिक्षा संस्थानों में NRF को लेकर उत्साह नहीं दिखता। उन्हें लगता ही नहीं कि NRF में इन विषयों को वरीयता मिल पाएगी।

जरूरी है रिसर्च: NRF अनुसंधान, शोध और इनोवेशन को बढ़ावा देने का कारगर जरिया सिद्ध हो सकता है। प्राचीन भारत में विज्ञान, गणित और कला को बढ़ावा देने की एक गौरवशाली परंपरा रही है। अपनी ऐतिहासिक विरासत और वर्चस्व को दोबारा पाने के लिए अनुसंधान को पुनर्जीवित किए बिना भारत विश्वगुरु के रूप में नेतृत्व की भूमिका में नहीं आ सकता। शोध और अनुसंधान के लिए किफायत का रवैया राष्ट्र निर्माण के लिए घातक नहीं, तो बाधक अवश्य साबित हो सकता है।

(लेखक जामिया मिल्लिया इस्लामिया, नई दिल्ली के प्रबंधन अध्ययन संकाय में प्रफेसर हैं)

