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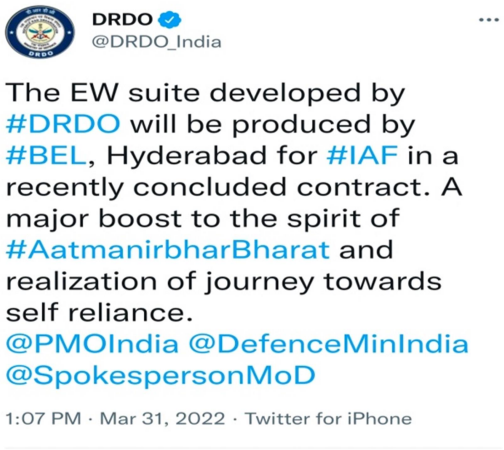

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पत्र सूचना कार्यालय
भारत सरकार

रक्षा मंत्रालय

Thu, 31 Mar 2022 1:17 PM

सेशेल्स में भारत- सेशेल्स संयुक्त सैन्य अभ्यास लामितिये समाप्त हुआ

31 मार्च 2022 को भारत- सेशेल्स के संयुक्त प्रशिक्षण अभ्यास का 9वां संस्करण लामितिये-2022 48 घंटे के सत्यापन अभ्यास के साथ समाप्त हुआ। इससे पहले 22 मार्च, 2022 को यह सेशेल्स स्थित सेशेल्स रक्षा अकादमी में शुरू हुआ था। 10 दिनों तक चलने वाले इस अभ्यास में पेशेवरों के लिए एक मंच प्रदान करने के अलावा अर्ध शहरी वातावरण में संयुक्त परिचालन की क्षमता विकसित करने के लिए अंतर-संचालनीयता बढ़ाने पर ध्यान केंद्रित

किया गया। इसके अलावा सांस्कृतिक शिक्षण ने हिंद-प्रशांत क्षेत्र में सह-अस्तित्व की दिशा में दोनों पक्षों के बीच सहयोग को व्यापक बनाया। इस संयुक्त प्रशिक्षण अभ्यास के लिए चयनित विषयवस्तु अर्ध-शहरी वातावरण में परिदृश्यों के आधार पर परिचालन की योजना व कार्यान्वयन के लिए प्रासंगिक और समकालीन थे। इस अभ्यास ने सशस्त्र बलों के बीच आपसी विश्वास, अंतर-संचालन को मजबूत किया और सर्वश्रेष्ठ अभ्यासों को साझा करने में सक्षम बनाया है।

सेशल्स के साथ लामितिये अभ्यास, मौजूदा वैश्विक परिस्थिति और हिंद महासागर क्षेत्र में बढ़ती सुरक्षा चिंताओं की पृष्ठभूमि में दोनों राष्ट्रों के सामने आने वाली वाली सुरक्षा चुनौतियों को देखते हुए महत्वपूर्ण और सार्थक है। यह संयुक्त सैन्य अभ्यास भारतीय सेना व सेशेल्स रक्षा बलों (एसडीएफ) के बीच रक्षा सहयोग के स्तर को बढ़ाएगा और दोनों देशों के बीच द्विपक्षीय संबंधों को आगे बढ़ाने में सहायक होगा।

https://pib.gov.in/PressReleasePage.aspx?PRID=1811917

पत्र सूचना कार्यालय
भारत सरकार

रक्षा मंत्रालय

Thu, 31 Mar 2022 12:42 PM

भारत और फ्रांस के बीच नौसेना अभ्यास का 20वां संस्करण वरुण– 2022

भारतीय और फ्रांसीसी नौसेनाओं के बीच द्विपक्षीय नौसेना अभ्यास का 20वां संस्करण- 'वरुण' 30 मार्च से 03 अप्रैल 2022 तक अरब सागर में आयोजित किया जा रहा है। दोनों नौसेनाओं के बीच द्विपक्षीय नौसेना अभ्यास की शुरुआत वर्ष 1993 में हुई थी। इस अभ्यास को वर्ष 2001 में 'वरुण' नाम दिया गया था और यह भारत-फ्रांस रणनीतिक द्विपक्षीय संबंधों का एक महत्वपूर्ण हिस्सा बन चुका है।

इस अभ्यास में दोनों देशों की नौसेनाओं के जहाजों, पनडुब्बियों, समुद्री गश्ती विमानों, लड़ाकू विमानों और हेलीकॉप्टरों सहित विभिन्न टुकड़ियां भाग ले रही हैं। ये टुकड़ियां समुद्री क्षेत्र में अपने परिचालन कौशल को बढ़ाने के साथ ही इसे और बेहतर करने का प्रयास करेंगी, समुद्री सुरक्षा व्यवस्था को सुदृढ़ करने के लिए अंतर-संचालन क्षमता को बढ़ाएंगी और एकीकृत बल के रूप में समुद्री क्षेत्र में शांति, सुरक्षा तथा स्थिरता को बढ़ावा देने के लिए अपनी प्रतिबद्धता प्रदर्शित करेंगी। पिछले कुछ वर्षों में अवसरों में बढ़ोतरी और जटिलता में वृद्धि होने के बाद से नौसैन्य अभ्यासों की वरुण श्रृंखला दोनों देशों की नौसेनाओं को एक-दूसरे की सर्वोत्तम कार्य-प्रणालियों से सीखने के अवसर प्रदान करती रही है। यह अभ्यास दोनों नौसेनाओं के बीच परिचालन स्तर की पारस्परिक प्रकिया के लिए एक प्रमुख संचालक रहा है और यह

वैश्विक समुद्री जगत की सुरक्षा, संरक्षा तथा स्वतंत्रता के लिए दोनों देशों की साझा प्रतिबद्धता को रेखांकित करता है।

https://pib.gov.in/PressReleasePage.aspx?PRID=1811937

Press Information Bureau
Government of India

Ministry of Defence

Thu, 31 Mar 2022 12:42 PM

20th edition of India France naval exercise 'VARUNA' – 2022

The 20th edition of the Bilateral Naval Exercise between Indian and French Navies – 'VARUNA' is being conducted in the Arabian Sea from 30 Mar – 03 Apr 22. The Bilateral Naval Exercises between the two Navies were initiated in 1993. The exercise was christened as 'VARUNA' in 2001 and has become a vital part of India – France strategic bilateral relationship.

Various units including ships, submarines, maritime patrol aircraft, fighter aircraft and helicopters of the two navies are participating in the exercise. These units will endeavour to enhance and hone their operational skills in maritime theatre, augment inter-operability to undertake maritime security operations and demonstrate their commitment to promote peace, security and stability in the region as an integrated force.

Having grown in scope and complexity over the years, VARUNA series of exercises continue to provide both the navies opportunities to learn from each other's best practices. The exercise has been a principal driver for operational level interactions between the two navies and has underscored the shared commitment of both nations to security, safety and freedom of the global maritime commons.

https://pib.gov.in/PressReleasePage.aspx?PRID=1811820

DEFENCE AVIATION POST
Your Connect To The World Of Defence And Aviation

Fri, 01 April 2022

Indian army seeks 18 articulated all-terrain vehicles

According to the RFI, 12 cars must be delivered to Nimu in Ladakh and six to Bhuj in Gujarat. This indicates that the Army intends to utilise these vehicles in Ladakh's snow-covered areas as well as the Rann of Kutch's marshy environment. Man Aman Singh says in the RFI that the vehicle should be able to perform at 18,000 feet in glaciated and snow-bound environments, as well as in salty/dry marshes. They should be able to carry a full combat load of 10 soldiers

(minus the crew) and have built-in ballistic protection. It should have a cross-country range of at least 150 kilometres in the lowlands and a mountain operating range of 15,000 to 18,000 feet. Vehicles should have a minimum service life of 15 years. The Hägglunds BV206 is the most well-known, but it is starting to show its age. The BVs10 Beowulf from BAE Systems could be a viable option. Beowulf is based on the BvS10, which has previously been manufactured and delivered on time to Austria. The vehicle has already been deployed in five countries, with the Royal Marines of the United Kingdom being the first to use it in 2005. The Beowulf design is already defined and ready for production when using the BvS10.

https://defenceaviationpost.com/indian-army-seeks-18-articulated-all-terrain-vehicles/

FINANCIAL EXPRESS
Read to Lead

Thu, 31 Mar 2022

Make in India: how Govt is turning to MSMES to make India self-reliant in Defence manufacturing

The government's focus on making India, which is one of the biggest importers of arms, 70 per cent self-reliant in weaponry by 2027 and promoting defence indigenisation has much to do with its MSMEs. Not just the government and large players, but MSMEs themselves have realised their role as an untapped force multiplier for the defence sector. That's not only because MSMEs have been a cog in the defence supply-chain wheel so far but also due to the manufacturing depth they now offer by the virtue of their growing presence across India and technological prowess.
To put that in perspective, the total MSME vendors scattered across the country supplying to the Defence Public Sector Units (DPSUs) were 7,591 in FY18, 8,643 in FY19 and 10,506 till Q2 FY20, according to the data shared by the former MSME Minister Nitin Gadkari in Rajya Sabha in March 2020. By December 2021, the total MSME count had increased to 12,000.

As a result, the procurement value by DPSUs from MSMEs had increased from Rs 4842.92 crore in FY19 to Rs 5463.82 crore in FY21. "MSMEs started their journey with DPSUs as their supply chain partners but today, they have come up to a level where they are playing an important role in discharging offset obligations, revenue procurement, and also in designing, developing, and manufacturing complete defence systems by themselves," said Dr Mayank Dwivedi, Director, Industry Interface & Technology Management (DIITM), DRDO at a panel discussion on the role of MSMEs in making India a defence manufacturing hub. The panel was part of the conference on defence and security organised by the PHD Chamber of Commerce and Industry on Wednesday.

The number of such systems and sub-systems that Indian MSMEs are now capable of manufacturing is more than what one would expect given the limited financial and technology

bandwidth MSMEs work with. Dwivedi said there are a total of 209 items, according to a list released by the Ministry of Defence that would be manufactured within the country. These included components of artillery guns, wheeled armoured fighting vehicles, missile vessels, land-based high power radars, short-range surface-to-air missiles, and more, according to a statement by the Ministry of Defence in February 2022.

In fact, during January-March 2022 period, a total of 450 request for proposals (RFPs) — to provide information to interested parties that may be useful to them in submitting their proposals — had come out, said Colonel KV Kuber (Retd), Director Defence & Aerospace at Ernst & Young India during the panel discussion. These proposals were related to the development of multiple products such as drones, simulators, ammunition, spares, electronics, and more. "If we put a conservative estimate, it would still be a Rs 1,000-crore opportunity, largely in the MSME ambit," added Kuber. To ease and accelerate the process of indigenisation, the government had also launched a Srijan portal in August 2020 to provide information on items that can be taken up for indigenisation by the private sector. Highlighting the significance of the portal, Air Vice Marshall PS Sarin said close to 600 lines of spares are already listed on the Srijan portal while more than 400 lines of spares are in the process of getting onto the portal.

"You simply need to scan the QR code (for the product) and you will be able to access complete details of the requirements…Air force has already indigenised over 60,000 lines of spares of which more than 40,000 lines of spares are regularly being consumed. These are all sourced largely from MSMEs. Out of 12,000 MSMEs in defence, close to 700 MSMEs are registered directly with the Indian Air Force," said Sarin.

The government had also introduced 'MAKE Projects' in Defence Acquisition Procedure (DAP) 2020 to facilitate indigenous design and development of defence equipment both with government funding and industry funding. According to the Make in India portal, the MAKE Projects have been instrumental in enhancing the role of MSMEs in the defence sector with over 40 per cent of the project sanction orders issued to MSMEs and projects amounting to over Rs 1,000 crores reserved for MSMEs. The government had also set up a Technology Development Fund (TDF) to encourage the participation of MSMEs through a provision of grants in developing technology capability for defence systems.

"Point is that any defence system will have multiple technologies and multiple agencies involved. Hence, the first approach is for you (MSMEs) to make a consortium with other companies to develop any product. The second approach is to pick up a product available on Srijan and develop it based on your competence. The third approach is to produce things that are manufactured by DPSUs but at a 50-60 per cent lower cost. DPSUs will welcome this approach of MSMEs. This is where the business is for MSMEs," said Hari Mohan, former Chairman & Director General at Indian Ordnance Factories, Ministry of Defence.

However, there are some areas where buyers need to be cautious while engaging with MSMEs, for instance, in proper documentation. "At DRDO, we have transferred 1,420 technologies so far of which 182 technologies were transferred just last year. But when we go to examine SMEs, we

find challenges such as documentation is not proper. Proper documentation almost ensures quality," added Dwivedi as he also urged MSMEs to patent or copyright their ideas while engaging with buyers and other industry members.

https://www.financialexpress.com/industry/sme/msme-eodb-make-in-india-how-govt-is-turning-to-msmes-to-make-india-self-reliant-in-defence-manufacturing/2477821/

Thu, 31 Mar 2022

India to procure 15 light combat helicopters

India's Cabinet Committee on Security (CCS) has approved the procurement of 15 Light Combat Helicopters (LCHs) developed by Hindustan Aeronautics Limited (HAL). The aircraft will be manufactured under a limited-series production run at a cost of INR38.87 billion (USD513.8 million). The Indian Ministry of Defence (MoD) added in a press statement that an additional INR3.77 billion had been approved for infrastructure. Ten of the new aircraft are intended for the Indian Air Force (IAF), while five will go to the Indian Army. HAL said that the limited-series production variant will have an indigenous content of 45%. However, the regular-series production is expected to increase this content to 55%.

An HAL source told *Janes* that these content calculations are estimates based on the number of domestic vendors able to supply locally manufactured systems or components in the near future. "HAL is confident of increasing the indigenous content of the LCH because the firm has built up expertise in helicopters as opposed to the Tejas [fighter aircraft]," the source said.

https://www.janes.com/defence-news/india-to-procure-15-light-combat-helicopters/

Fri, 01 April 2022

AMCA: India to narrow down engine and SPV partners in 2023

The defense ministry is likely to announce private sector companies that will be part of the consortium under the Special Purpose Vehicle (SPV) model that will be in charge to manufacture 5.5 Gen AMCA fighter jets for the Indian Air Force in 2023. Private players will have a majority stake in the newly formed company so that it does not become a full government entity while

HAL will have a minority stake. The first Two AMCA Prototypes will be manufactured by the State-owned Hindustan Aeronautics Limited (HAL) after which Private sector companies will start assembly under the supervision of the HAL when the program enters the LSP stage at the HAL Facility. Production of the AMCA will later shift to a new upcoming facility that will be located at Coimbatore in Tamil Nadu Defence Industrial Corridor where the Private sector companies will be the lead integrator for the program

IAF will procure 40 AMCA Mk1 jets immediately after completion of flight certification and basic weapons trials to avoid further delays by 2029-30 while AMCA MkII will enter production in 2035 with a new engine generating 125kN of Thrust for which talks with French Safran have progressed and a contract for which might also take place in 2023 with the first flight of the new engine planned in 2030 on a Dassault Rafale Test Bed later on the LSP AMCA before it is cleared for production sometime in 2033. 125kN engine will replace F-414 engines on the AMCA Mk1 and will also be equipped on the TEDBF and as a mid-life engine swap for the Tejas MkII fleet. SPV Model Under the SPV model, private industries are encouraged to take up the design and development of military platforms and equipment in collaboration with the Defence Research and Development Organisation (DRDO) and other organizations. Other than the AMCA program, High Altitude Long Endurance (HALE) Unmanned Aerial Vehicles (UAVs) and Indian Multi-Role Helicopter (IMRH) programs will also be executed through SPV Model.

https://idrw.org/amca-india-to-narrow-down-engine-and-spv-partners-in-2023/

The EurAsian Times

Thu, 31 Mar 2022

India's answer to Chinese J-16D EW aircraft – IAF fighters to get 'Made in India' electronic warfare suite for next-gen battle

The Ministry of Defense and industry partner Bharat Electronics Limited (BEL) recently signed an agreement to supply the Indian Air Force with an advanced Electronic Warfare suite for its fighter aircraft. The contract's total cost is projected to be around Rs 1993 crores (approx $26.5 million) The delivery of modern EW systems will considerably improve the battle-survivability of IAF fighter aircraft while flying operational missions against ground-based and airborne fire control and surveillance radars of opponents. IAF's EW suite deal becomes significant after the 2019 confrontation of the Indian Air Force with Pakistan fighters following the Balakot strikes as well as the standoff with China in the Eastern Ladakh region where both sides had mobilized their respective combat aircraft.

The BEL would be developing the Instrumented Electronic Warfare Range (IEWR), EW equipment at a cost of Rs 1109 crores, The New Indian Express reported. The IEWR will be

used to test and assess airborne electronic warfare (EW) equipment and validate their deployment in an operational setting, according to the Ministry of Defense. The Defence Research and Development Organisation is India's premier defense development agency which had earlier developed the 'Shakti' EW system for the Indian Navy. Designed for Capital Warships of the Indian Navy for the interception, detection, classification, identification and jamming of conventional and modern Radars, it was handed over to the Navy in November last year.

The first Shakti system was deployed on the INS Visakhapatnam and is currently being installed aboard the INS Vikrant, India's indigenous aircraft carrier to become operational later this year.

The DRDO has also developed the 'Uttam' AESA radar to aid Electronic Warfare operations making India one of the few countries with an indigenous force multiplier that is used in electronic warfare. With only one imported subsystem, the Indian AESA radar is 95 percent indigenous. With an ability to track 50 targets in the sky across a distance of more than 100 kilometers and engage four of them at the same time, the Indian home-grown AESA radar 'Uttam' was displayed by the DRDO at India's Republic Day parade this year. This radar is supposed to be integrated onboard the LCA Tejas aircraft.

Electronic Warfare

A powerful electronic warfare capability is required in today's hotly contested battlespace. The Indian Air Force is set to benefit from an advanced EW technology that provides pilots with an information advantage. The goal of EW is to deny the opponent the advantage of having unrestricted access to the Electromagnetic spectrum while ensuring friendly access. EW proved decisive in Vietnam when bombers of the United States Air Force carried jammer pods to minimize losses from surface air missiles. Across the border, India's biggest adversary wields the J-16D aircraft. The J-16D is a Chinese-developed electronic warfare derivative of the J-16 fighter jet that has been updated to improve precision capability and operational maneuver on the axis of information and communication, resulting in the installation of a blanket aviation electronic system.

It's a multi-role, twin-seat aircraft with EW pods mounted under the fuselage. Its purpose is to conduct electronic reconnaissance as well as communication and radar jamming. The EW pods allow it to evade enemy radar systems as well as to conduct seamless monitoring and deception. The J-16 is also equipped with air-to-air missiles, allowing it to engage in both conventional and electronic warfare. On the other hand, the United States has the EA-18 Growler electronic warfare aircraft. The Growler is a F/A-18 Super Hornet variant, which is set to be deployed in Germany to boost NATO's eastern flank as a war is being fought in Ukraine.

The aircraft was designed to counter enemies by providing tactical jamming capabilities as well as land and naval defense against hostile electronic warfare systems. Two Northrop Grumman ALQ-218(V)2 wingtip pods with a wideband receiver and selective reactive jamming capability accomplish this. The wingtip pods shown on the EA-18 Growler are part of the aircraft's internal AN/ALQ-218 system, despite the fact that the aircraft's EW suite is classified. A radar warning receiver, electronic support measures, and electronic intelligence functionality are all included in one comprehensive package.

The Growler can identify, describe, and geo-locate enemy radars because of these qualities. It would also help with data collection on enemy transmissions. As part of its Next Generation

Jammer program, the US Navy is apparently looking at improved EW pods for the EA-18G Growler. Sophisticated militaries the world over use electronic warfare systems as the modern-day battlefields are dependent on information suites. With Indian Air Force getting its own EW system, its operational and combat capability could be expected to rise significantly in a volatile regional security architecture.

https://eurasiantimes.com/j-16d-ew-aircraft-iaf-fighters-to-get-made-in-india-electronic/

Science & Technology News

पत्र सूचना कार्यालय
भारत सरकार

विज्ञान एवं प्रौद्योगिकी मंत्रालय

Thu, 31 Mar 2022 2:21 PM

भारतीय वैज्ञानिकों ने पराग (पॉलेन) एलर्जी की रोकथाम और नियंत्रण के लिए विविध क्षेत्रों से संबंधित रणनीतियों का प्रस्ताव रखा

भारतीय वैज्ञानिकों ने सुझाव दिया है कि पराग (पॉलेन) पूर्वानुमान प्रणाली विकसित करने और स्वास्थ्य देखभाल कर्मियों के प्रशिक्षण जैसे बड़े पैमाने पर उपाय और व्यक्तिगत रूप से किए जाने वाले उपायों- जैसे पराग पूर्वानुमान, फेस मास्क, चश्मा और एयर फिल्टर का उपयोग, नियमित रूप से निर्धारित दवाएं लेना, बाहरी जोखिम को सीमित करना और बागवानी से बचना या अधिकतम पराग वाले मौसम के दौरान घास काटने से परहेज करके पराग से संबंधित एलर्जी रोगों की शुरुआत और उनकी तीव्रता को कम करने में मदद मिल सकती है।

उन्होंने बीमारी के बेहतर समाधान के लिए पराग एलर्जी, एलर्जी से बचाव, उसके लक्षण और प्रबंधन के बारे में उचित ज्ञान के प्रसार की आवश्यकता पर प्रकाश डाला है। मौसम में परिवर्तन के साथ ही वसंत अब पूरी तरह से खिल रहा है, पेड़, घास और खरपतवार अन्य समान पौधों को निषेचित करने के लिए पराग के रूप में जाने वाले महीन बायोएरोसोल कणों को छोड़ते हैं। हालांकि, नाक के रास्ते में प्रवेश करने वाले परागकण विभिन्न लक्षणों के साथ कुछ हद तक सामान्य फ्लू और सर्दी के समान पराग एलर्जी का कारण बन सकते हैं। जैसे-जैसे जलवायु परिवर्तनशीलता बढ़ रही है, यह आशंका भी हो जाती है कि शहरी वातावरण पराग से संबंधित श्वसन और त्वचा रोगों के बोझ को महत्वपूर्ण रूप से बढ़ा देगा।

इसे ध्यान में रखते हुए, स्नातकोत्तर चिकित्सा शिक्षा एवं अनुसंधान संस्थान (पोस्ट ग्रेजुएट इंस्टीट्यूट ऑफ मेडिकल एजुकेशन एंड रिसर्च – पीजीआईएमईआर), चंडीगढ़ से प्रो. रवींद्र खैवाल, सुश्री अक्षी गोयल, पीएच.डी. शोध छात्र, और डॉ. सुमन मोर, अध्यक्ष, पर्यावरण अध्ययन विभाग ने पराग एलर्जी रोग और उसकी पीड़ा को कम करने के लिए कार्यान्वयन संबंधी कमियों की व्यवस्थित रूप से जांच की। भारत सरकार के विज्ञान और प्रौद्योगिकी विभाग (डीएसटी) द्वारा समर्थित उनका अध्ययन, एल्सेवियर की एक अंतरराष्ट्रीय पत्रिका इंटरनेशनल जर्नल ऑफ हाइजीन एंड एनवायर्नमेंटल हेल्थ (आईजेएचईएच) में प्रकाशित हुआ था।

इस अध्ययन का उद्देश्य निम्न और मध्यम आय वाले देशों पर ध्यान केंद्रित कर व्यापक पराग एलर्जी के प्रमुख कारणों को समझना और कार्यान्वयन संबंधी कमियों की पहचान करना है ताकि पराग से संबंधित एलर्जी रोगों की शुरुआत और तीव्रता को कम करने के लिए महत्वपूर्ण अनुकूलन उपायों का सुझाव दिया जा सके।

प्रो. रवींद्र खैवाल ने बताया कि ये "सबमाइक्रोनिक-पराग कण नाक में ऊपरी वायुमार्ग में गहराई तक पहुंचने वाले श्वसन कणों के रूप में कार्य कर सकते हैं, जिससे दमा (अस्थमा), क्रॉनिक ऑब्सट्रक्टिव पल्मोनरी डिजीज (सीओपीडी) और अन्य एलर्जी प्रतिक्रियाएं हो सकती हैं।" उन्होंने कहा कि पराग एलर्जी सांस की एक प्रमुख बीमारी है जो रुग्णता का कारण बनती है और रोगियों के जीवन की गुणवत्ता को प्रभावित करती है। पिछले कुछ दशकों में, पराग एलर्जी की व्यापकता में वृद्धि हुई है। यह दुनिया भर में लगभग 10 प्रतिशत से 30 प्रतिशत वयस्कों और 20 प्रतिशत -25 प्रतिशत बच्चों को प्रभावित करती है और शहरीकरण, वायु प्रदूषण और जलवायु परिवर्तन के कारण बढ़ गई है।

डॉ. सुमन मोर, अध्यक्ष, पर्यावरण अध्ययन विभाग, पंजाब विश्वविद्यालय, चंडीगढ़ ने उनके द्वारा सुझाई गई रणनीतियों के चार स्तरों- व्यक्तिगत स्तर, स्वास्थ्य देखभाल समुदाय और संगठन, स्थानीय सरकारें, राष्ट्रीय/अंतर्राष्ट्रीय सरकार के स्तर, जोखिम को कम करने के लिए पराग एलर्जी से जुड़ी बीमारियों के बारे में प्रकाश डाला।

प्रो. खैवाल ने कहा कि अधिकतम पराग वाले मौसम के दौरान एलर्जी अस्थमा, राइनाइटिस और एक्जिमा के साथ जुड़ी सबसे संवेदनशील उप-आबादी पर ध्यान देने की आवश्यकता है। उन्होंने जोर देकर कहा कि बहु-हितधारक जुड़ाव ही पराग एलर्जी के प्रभाव को कम करने की कुंजी है, जिसमें एरोबायोलॉजिकल अनुसंधान में क्षमता निर्माण, पराग पूर्वानुमान प्रणाली विकसित करने और स्वास्थ्य देखभाल पेशेवरों के प्रशिक्षण के लिए शिक्षा क्षेत्र पर ध्यान केंद्रित करना शामिल है।

सुश्री अक्षी गोयल, डीएसटी-इंस्पायर पीएच.डी. पंजाब विश्वविद्यालय, चंडीगढ़ के विद्वान ने कहा कि शोध ने उन्हें बदलती जलवायु में पराग एलर्जी की गंभीरता को समझने का अवसर प्रदान किया है, और

इस तरह के अध्ययन युवा वैज्ञानिकों को रोकथाम योग्य स्वास्थ्य जोखिमों को कम करने के लिए एरोबायोलॉजी के क्षेत्र में करियर बनाने के लिए प्रोत्साहित करेंगे।

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Indian scientists propose multi-sectorial strategies for the prevention and control of pollen allergy

Indian Scientists have suggested that large scale measures like developing pollen forecast systems and training of health care professionals and personal measures like following pollen forecasts, use of face masks, spectacles, and air filters, regularly taking prescribed medications, limiting outdoor exposure, and avoiding gardening or grass-cutting during peak pollen seasons could help minimize the onset and exacerbation of pollen-related allergic diseases.

They have highlighted the need for dissemination of proper knowledge regarding pollen allergy, allergen avoidance, their symptoms, and management to better address the ailment. Spring is in full bloom as the weather changes, trees, grasses, and weeds release fine bioaerosol particles known as pollen to fertilize other similar plants. However, pollen entering the nasal pathways could cause pollen allergy—with symptoms somewhat similar to common flu and cold. As the climatic variability is increasing, it is expected that the urban environment will significantly add to the burden of pollen-related respiratory and skin diseases.

Considering this, Prof. Ravindra Khaiwal from Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, Ms. Akshi Goyal, Ph.D. research scholar, and Dr. Suman Mor, Chairperson, Department of Environment Studies, systematically examined the implementation gaps to minimize the pollen allergy disease and suffering. Their study, supported by the Department of Science and Technology (DST), Govt of India, was just published in the International Journal of Hygiene and Environmental Health (IJHEH), an international journal by Elsevier. The study aimed to understand the major causes of widespread pollen allergy and identify the implementation gaps to suggest key adaptive measures to minimize the onset and exacerbation of pollen-related allergic diseases, focusing on lower and middle-income countries.

“These submicronic-pollen particles could act as respirable particles reaching deeper into the upper airways leading to exacerbation of asthma, chronic obstructive pulmonary disease (COPD) and other allergic reactions,” Prof. Ravindra Khaiwal pointed out. He added that pollen allergy is a major respiratory illness that causes morbidity and affects patients' quality of life. Over the past few decades, the prevalence of pollen allergy has increased. It affects about 10%–30% of adults and 20%–25% of children worldwide and has increased owing to urbanization, air pollution, and climate change. Dr. Suman Mor, Chairperson, Department of Environment Studies, Panjab University, Chandigarh, highlighted the four levels of strategies suggested by them-- individual level, health care communities and organizations, Local Governments, National/International

Governments levels, to decrease the risk of illnesses associated with pollen allergy. Prof. Khaiwal added that attention needs to be given to the most vulnerable sub-populations with allergic asthma, rhinitis, and eczema during the peak pollen season. He stressed that multi-stakeholder engagement is the key to minimizing pollen allergy's impact, including focusing on the education sector to build capacity in aerobiological research, developing pollen forecast systems, and training of health care professionals. Ms. Akshi Goyal, DST-INSPIRE Ph.D. Scholar, Panjab University, Chandigarh, said that the research provided her an opportunity to understand the severity of the pollen allergy in changing climate, and studies like these would encourage young scientists to build a career in the area of aerobiology to reduce preventable health risks.

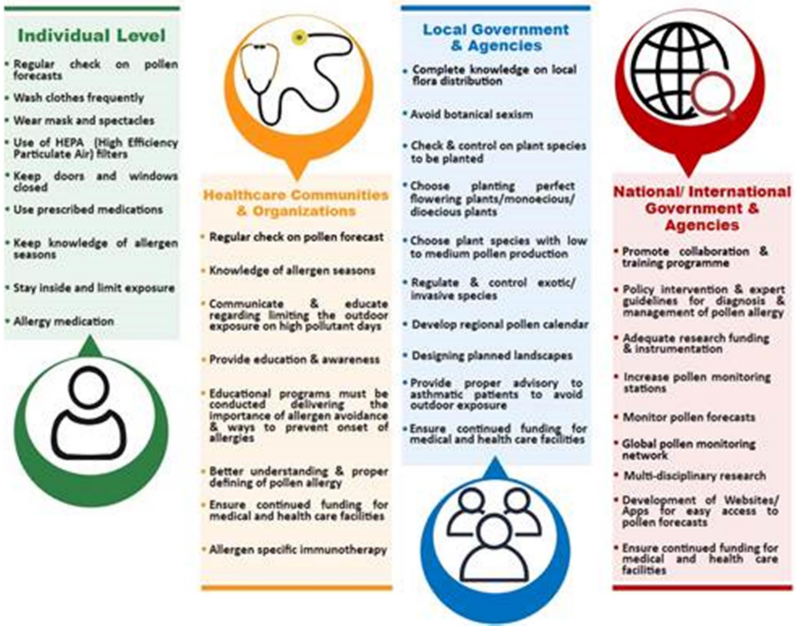

Figure: Key measures and recommendations for preventing and controlling pollen allergy.

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