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India-make equipment costlier, MoD asks why

To examine how public sector firms arrive at cost

Startled at how indigenously produced military equipment was costing more than the same equipment if supplied by foreign makers, the Ministry of Defence has set up a committee to examine how the Indian public sector companies arrive at the cost of each equipment supplied to the armed forces.



Defence Minister Nirmala Sithraman said: “I have asked a panel to look into the costing of products manufactured by the Defence Public Sector Undertakings (DPSUs).”

The Indian Air Force offered to get the price of the Light Combat Aircraft (LCA), the Tejas examined by the committee to start with. The committee, headed by the Director of Costs in the Ministry, has been asked to report back by August-end.

The Army, Navy and the IAF have been complaining about DPSUs pricing higher than what the original manufacturer supplied the same equipment for. Prime

examples have been the Sukhoi-30 MKI fighter jets, Tatra trucks, Dornier-228 surveillance planes and warships, among other items.

The latest trigger was the price quoted by Hindustan Aeronautics Limited (HAL) for the 83 Tejas Mark1A fighter jets. HAL, a company owned by the MoD, quoted a price of Rs 463 crore per jet in April, raising eyebrows. The Swedish Gripen jet was offered for Rs 455 crore and F-16 from the US for Rs 380 crore, and both to be made in India.

The price of the Russian Sukhoi fighter, which HAL assembles at Nashik, is Rs 415 crore while the Russians supply it at Rs 330 crore. Besides these Tejas and Sukhoi prices, the committee will look at each equipment of the DPSUs.

In 2012, the Tatra trucks supplied by Bharat Earth Movers Limited were found to be over-priced. These multi-axel trucks are used to transport missiles. More recently, the purchase of four warships from Russia has been hit as two of these are to be built at Goa Shipyard Ltd. The ones made in India are costing much more. The GSL will require upgrading its facilities and skills, which will add to the cost. Almost similar is the cost of Dornier 228, a plane that was originally made in Germany. It's now much in demand and is flown by the IAF, Navy and the Coast Guard.

The panel will also study the costing formula of artillery guns, trucks, ammunitions, missiles, etc. Calling it a “good” move, Amit Cowshish, ex-Financial Adviser (Acquisition) in MoD, said: “The MoD has every right to know the right price of equipment it gets from DPSUs.”

Army Chief reviews security in Akhnoor

The Chief of Army Staff, General Bipin Rawat, accompanied by Northern Command chief Lt Gen Ranbir Singh visited the Akhnoor sector in Jammu and Kashmir.

He was briefed by Lt Gen Saranjeet Singh, General Officer Commanding (GOC), White Knight Corps (16 Corps), Maj Gen MK Mago, GOC, Crossed Swords Division, and other

formation commanders on the operational preparedness, prevailing security situation and actions being undertaken to ensure a robust and effective counter infiltration grid.

The Army Chief also reviewed the measures and standard operating procedures instituted and being followed by the units and formations. He commended the field commanders for ably confronting the challenges posed by the inimical elements and complemented them for their professionalism and selfless commitment. He exhorted all ranks to continue to work with same zeal, enthusiasm and dedication to overcome the challenges. — TNS



Sun, 15 July 2018

INS Tarangini sets sail for UK Tall Ships Races

Indian Navy ship 'INS Tarangini' today set sail as a participant in the Tall Ships Races from the UK's Sunderland port, where it had docked earlier this week.

The ship is on a Lokayan-18 voyage, which will take in 15 ports across 13 countries, and Sunderland marked the seventh, from where it set off for the annual races along with 13 other ships from the UK.

The ship is part of the first training squadron based at Kochi, under the Southern Naval Command of the Indian Navy. The name 'Tarangini' is derived from the Hindi word 'Tarang', meaning waves, and Tarangini therefore means "the one that rides the waves".



A three-masted 'barque', INS Tarangini was commissioned in 1997

"INS Tarangini is the first ship of the Indian Navy to have circumnavigated the globe in the year 2003-04 and has participated in tall ship races conducted around the world in 2005, 2007 and 2015," an official release said. "This beautiful ship, in her 21st year of service, is once again ready to create history with Lokayan-18," the statement said. The name Lokayan is a combination of two Sanskrit words: 'Lokya' meaning worldwide and 'Yana' meaning travel, with the voyage signifying the ship's global journey.

INS Tarangini commenced 'Lokayan-18' on April 10 from Kochi and is set to cover a distance of over 20,000 nautical miles, with a crew of nine officers, 30 officer sea trainees and 43 sailors. The voyage will take seven months. INS Tarangini is a three-masted 'barque', commissioned in 1997 as a sail training ship for the Indian Navy. It was built in Goa, based on a design by British naval architect Colin Mudie.

Sail Training International organises Tall Ships' Races and regattas, which promote international friendship between young sailors. — PTI

Scientists decode how mustard plants tolerate salt

Thiourea is used to minimise bad effects of salt stress

BY Aswathi pacha

High salinity is one of the major problems in agricultural fields and many countries, including India, use an organic sulphur compound thiourea to minimise the negative effect of salt stress. Now, using molecular biology tools, scientists from Bhabha Atomic Research Centre (BARC), Mumbai have reported how this treatment altered the plant RNA and hormones to facilitate this survival in mustard plants grown with high salt stress (125-150 milliMolar NaCl).

Anthropogenic factors, irregular irrigation and proximity to the sea can cause high salinity in the agricultural fields and this induces redox imbalance and damages the plant. Various studies have shown that thiourea is a good redox stabiliser as it scavenges multiple reactive oxygen species including hydrogen peroxide. The researchers carried out studies to understand how this thiourea activates the tolerance mechanisms.

Mustard seedlings, just 20-day-old plants, grown in a liquid nutrient medium, were given saline treatment with and without thiourea, and their growth was studied for seven days. The plants which were supplemented with 75 micromolar of thiourea showed increased survival and better phenotype with larger leaves compared with the group grown in saline medium.

The researchers then studied the microRNA of the plant as it is an important component that regulates plant transcriptomes according to the environmental conditions.

“We found that down regulated microRNAs were enriched in the thiourea group to facilitate transcriptional activation and adaptation under salt stress conditions,” explains Dr. Ashish Kumar Srivastava, at BARC and first author of the paper published in Scientific Reports.

They also studied different genes and plant hormones that are involved in stress management and identified four key genes responsible for the adaptation. Plant hormones such as ABA, Auxins, jasmonates which have been shown to play important roles in salt tolerance were all found to be co-ordinately regulated upon thiourea treatment.

The team also studied the effect of spraying diluted thiourea directly on the shoot of rice plants grown in arsenic contaminated soil and found it effective in reducing arsenic accumulation in rice grains.

Further studies are underway to validate the effects of thiourea in rice and multiple different crops under varied environmental conditions.

“Thiourea based technology can provide easy-cum-affordable solution to the farmers for minimizing abiotic stress induced losses in crop plants,” explains Dr. Penna Suprasanna at BARC one of the authors of the paper.