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## **BrahMos: Anti-Ship Version**



- Recently, an anti-ship version of the BrahMos supersonic cruise missile has been successfully test-fired jointly by the Indian Navy and the Andaman and Nicobar Command.
- Andaman and Nicobar Command is the only tri-service command of the Indian Armed Forces.

### **About BrahMos:**

- BrahMos is a joint venture between the Defense Research and Development Organization and NPOM of Russia.
- It is named after the Brahmaputra river of India and the Moskva river of Russia.
- It is a two-stage (solid propellant engine in the first stage and liquid ramjet in the second) missile.
- It is a multiplatform missile which can be launched with precision from land, air and sea missile capability which can operate both day and night in spite of bad weather.

- It works on the principle of “fire and forget”, that is, it does not require guidance after launch.
- BrahMos is one of the fastest cruise missiles currently deployed actively with a speed of Mach 2.8 (about 3 times the speed of sound).
- Earlier, the Indian Air Force successfully test-fired the BrahMos missile from a Sukhoi fighter jet.
- Recently the Indian Navy also successfully test-fired an improved version of the BrahMos missile from a stealth destroyer in the Indian Ocean.
- After India’s joining the Missile Technology Control Regime (MTCR) club in June 2016, the missile’s range was increased to 450 km in a later stage and plans expand to 600 kms.

## **Defense equipment purchased by India from Russia:**

- **Submarines:** Six Air Independent Propulsion-AIP-powered conventional submarines under the P75-I Project.
- Negotiations are underway for India to lease two nuclear ballistic submarines.
- **Frigates and Guided-Missile Destroyers:** Four of the Navy’s 10 guided-missile destroyers are of the Russian Kashin class and six of its 17 warships are of the Russian Talwar class.
- **Aircraft Carrier:** INS Vikramaditya, the only aircraft carrier in India’s service, is a Soviet-built Kyiv-class ship that was inducted into the Indian Navy in 2013.
- **Fighter aircraft:** Russia has also been one of the main exporters of fighter jets to India, including hundreds of Sukhoi and MiG jets.
- All six air tanks in service are Russian-made IL-78s.
- **Tanks:** The major battle tank force of the Indian Army is mainly composed of Russian T-72M1 (66%) and T-90S (30%).
- **Missile Defense System:** S- 400 Anti-Missile System.

[Swadeep Kumar](#)

# Indonesia bans palm oil exports



- Recently Indonesia, which is the world's largest palm oil producer, exporter and consumer country, has announced that it will reduce the domestic shortage of cooking oil and its rising prices for the commodity and its products. Ban on all exports of raw materials.
- India imports half of its annual palm oil requirement, ie 8.3 million tonnes, from Indonesia. Thus, the export ban imposed by Indonesia will affect the interests of India.

## **Palm oil and its uses:**

- Palm oil is an edible vegetable oil obtained from the mesocarp (red pulp) of the Fruit of the Oil Palms.
- It is used in everything from cooking, cosmetics, processed foods, cakes, chocolate, spreads, soap, shampoo and cleaning products to biofuels.
- The use of crude palm oil to make biodiesel has been termed as 'Green Diesel'.
- Indonesia and Malaysia together produce about 90% of the global palm oil, with Indonesia also having a large share which produced 45 million tonnes of palm oil in the year 2021.
- The palm oil industry has come under criticism because of its continued production leading to increased deforestation, as well as to colonial-era conditions due to exploitative labor methods.
- Although palm oil is also preferred because it is cheap; Palm oil has a higher production per hectare than some other vegetable oil plants such as soybeans.

## **Importance of Palm Oil for Global Supply Chains:**

- According to the United States Department of Agriculture (USDA), with global production of palm oil exceeding 73 million tonnes (MT) in 2020, it is the most widely used vegetable oil in the world.
- Its production is estimated to be 77 MT in the current financial year 2022-23.

- According to Reuters, palm oil accounts for 40% of the global supply of the four most widely used edible oils (palm, soybean, rapeseed (canola) and sunflower oil).
- Globally 60% of palm oil is supplied by Indonesia.

### **Reasons for the rise in the prices of edible oils:**

- India is the largest importer of palm oil. Palm oil prices have risen this year due to increased demand due to short supply of alternative vegetable oils.
- Soybean, which is the second largest producer of oil, is also likely to be affected this year as the weather is not favorable for soybean production in Argentina, its major producer.
- Canola oil production was affected by drought in Canada last year, and supplies of sunflower oil, which is 80-90% produced by Russia and Ukraine, have been hit hard by the ongoing conflict.
- Global food oil prices have risen sharply since late last year due to pandemic-induced labor shortages and global food inflation linked to the pandemic and the Ukraine crisis.

### **Impact on India:**

- India is the largest importer of palm oil, accounting for 40% of its vegetable oil consumption.
- India imports half of its annual requirement (8.3 metric tonnes) of palm oil from Indonesia.
- This will increase the number of people who are already battling record-high wholesale inflation.
- It is significant that last year the Center launched the National Mission on Edible Oil – Palm Oil to boost India’s domestic palm oil production.

[Swadeep Kumar](#)

**Zero Defect Zero Effect: MSME**



- The Ministry of Micro, Small and Medium Enterprises has launched the MSME Sustainable (ZED- Zero Defect Zero Effect) certification scheme.

## About the plan:

- This scheme motivates and encourages MSMEs to become MSME champions by enabling and facilitating them to adopt ZED methods and ZED certification.
- MSME Sustainable (ZED) certification can be achieved in three levels after taking the **ZED Pledge and registering:**
  - Certification Level 1: Bronze
  - Certification Level 2: Silver
  - Certification Level 3: Gold
- MSME can apply for any certification level after taking the ZED Pledge if it feels that it fulfills the required conditions in each level.
- Taking the ZED Pledge means that MSMEs have to take a “pre-commitment” to follow the values of Zero Effect, Zero Defect and move ahead in the path of ZED.

## Subsidy:

- Under the scheme, MSMEs will get subsidy on the cost of ZED certification as per the following structure:
  - Micro Enterprises: 80%
  - Small Enterprises: 60%
  - Medium Enterprises: 50%
- Rs 5 lakh (per MSME) will be provided for handholding and consultancy support to MSMEs under ZED certification to help them move towards zero defect zero effect solution.
- MSMEs can also take advantage of various other incentives offered by States and UTs, financial institutions etc. for ZED certification and MSMEs can also apply for free ZED certification under Kavach (COVID-19 MADAD) initiative.

## Components of the plan:

- Industry Awareness Program/Workshop.
- Training Program.
- Evaluation and Certification.
- Hand holding.
- Benefits/Incentives.
- PR campaigns, advertising and brand promotion.
- Digital Platforms.

## Potential benefits:

- Through the process of ZED certification, MSMEs can increase their productivity by reducing wastage to a great extent and can make optimum use of natural resources and expand their markets by saving energy by increasing environmental awareness.

## ZED Scheme

- The scheme launched by the Ministry of Micro, Small and Medium Enterprises in the year 2016 is an integrated and comprehensive certification system.
- The scheme is responsible for technical functions including productivity, quality, pollution mitigation, energy efficiency, financial condition, human resources and design and intellectual property rights (IPR) in both products and processes.
- Its mission is to develop and implement 'ZED' culture in India based on the principle of Zero Defect Zero Effect.

## Zero Defect:

- Zero Defect concept is a customer centric concept.
- Zero non-conformity or non-compliance.
- Zero Waste

## Zero Effect:

- Zero air pollution, liquid discharge, solid waste.
- Zero wastage of natural resources.

## Objective of the scheme:

- To develop a 'Zero Defect' ecosystem in the MSME sector.
- To promote optimization of quality equipment/systems and energy efficient manufacturing.
- Enabling MSMEs to manufacture quality products.
- To encourage MSMEs to continuously upgrade their quality standards in products and processes.
- To develop professionals in the field of ZED manufacturing and certification.
- Supporting the 'Make in India' campaign.