Syllabus subtopic: Indigenization of technology and developing new technology.

News: The Defence Acquisition Council (DAC), chaired by Defence Minister Rajnath Singh, met on Thursday and approved the procurement of weapons and equipment worth ₹22,800 crore.

Prelims and Mains focus: about the equipments procured and their use in defence, about DAC, DRDO

About the equipments to be procured:

- Among them are six additional P8I longrange patrol aircraft to be procured from the U.S. for the Navy and additional indigenous Airborne Warning and Control System (AWACS) aircraft for the Indian Air Force (IAF).

- As a followup to the successful indigenous Airborne Early Warning and Control (AEW&C) programme, the DAC revalidated the Acceptance of Necessity (AoN) for the procurement of additional AWACS aircraft. The mission system and subsystems for these aircraft would be indigenously designed, developed and integrated into the main platform by the Defence Research and Development Organisation (DRDO).

- The IAF now operates three Israeli Phalcon AWACS and three smaller indigenous Netra AEW&C systems mounted on Embraer aircraft. A shortage of these force multipliers was felt during the aerial engagement with the Pakistan Air Force, a day after the Balakot air strike in February.

- These platforms would provide onboard command and control and ‘early warning’, which would assist the IAF in achieving effective air space dominance in the least possible time, the statement said. The new systems are likely to be mounted on Airbus aircraft.

Indigenous design

The DAC approved the indigenous design, development and manufacture of ‘thermal imaging night sights’ for assault rifles, and these will be made by the “Indian private industry and used by troops deployed on the front line.” It also approved the procurement of twinengine heavy helicopters for the Coast Guard.
Defence Acquisition Council (DAC):

What is it? To counter corruption and speed up decision-making in military procurement, the government of India in 2001 decided to set up an integrated DAC. It is headed by the Defence Minister.

Objective: The objective of the DAC is to ensure expeditious procurement of the approved requirements of the Armed Forces, in terms of capabilities sought, and time frame prescribed, by optimally utilizing the allocated budgetary resources.

Functions: The DAC is responsible to give policy guidelines to acquisitions, based on long-term procurement plans. It also clears all acquisitions, which includes both imported and those produced indigenously or under a foreign license.

About DRDO

- DRDO works under the administrative control of Ministry of Defence, Government of India.

- It is working to establish world class science and technology base for India and provides our Defence Services decisive edge by equipping them with internationally competitive systems and solutions.

Genesis & Growth

- DRDO was established in 1958 after combining Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO)

- Starting with 10 laboratories, DRDO has now grown to a network of 52 laboratories which are deeply engaged in developing defence technologies covering various disciplines, like aeronautics, armaments, electronics, combat vehicles, engineering systems, instrumentation, missiles, advanced computing and simulation, special materials, naval systems, life sciences, training, information systems and agriculture.

- Presently, the Organisation is backed by over 5000 scientists and about 25,000 other scientific, technical and supporting personnel.
Several major projects for the development of missiles, armaments, light combat aircrafts, radars, electronic warfare systems etc are on hand and significant achievements have already been made in several such technologies.

Mission

- Design, develop and lead to production state-of-the-art sensors, weapon systems, platforms and allied equipment for our Defence Services.

- Provide technological solutions to the Services to optimise combat effectiveness and to promote well-being of the troops.

- Develop infrastructure and committed quality manpower and build strong indigenous technology base.

Issues with DRDO

- The Standing Committee on Defence during 2016-17, expressed concerns over the inadequate budgetary support for the ongoing projects of DRDO.

- The committee notes that out of total defence budget, the share of DRDO was 5.79 per cent in 2011-12, which reduced to 5.34 per cent in 2013-14.

- Government’s lethargic revenue commitments towards DRDO have put major projects involving futuristic technology on hold.

- The DRDO also suffers from inadequate manpower in critical areas to the lack of proper synergy with the armed forces.

- Cost escalation and long delays have damaged the reputation of DRDO.

- Even after 60 years of DRDO formation, India still imports a large share of its defence equipments. In the period 2013-17, India is the world’s largest importer of defence equipment, accounting for 12% of the global total, according to the Stockholm International Peace Research Institute.
• DRDO’s list of successes is short—primarily the Agni and Prithvi missiles. Its list of failures is much longer. The Kaveri Engine is running late by 16 years and the cost has escalated by around 800 per cent.

• DRDO is big on promise and small on delivery. There is no accountability. Nobody is taken to task for time and cost overruns.

• In 2011, the Comptroller and Auditor General (CAG) put a serious question mark on DRDO’s capabilities. "The organisation, which has a history of its projects suffering endemic time and cost overruns, needs to sanction projects and decide on a probable date of completion on the basis of a conservative assessment of technology available and a realistic costing system," its report stated.

• The CAG report also revealed that not all technologies developed by DRDO were suitable for use by the armed forces. The three services have rejected 70 per cent of the products developed at the Armament Research and Development Establishment (ARDE), Pune, in the last 15 years costing Rs 320 crore because the products did not meet their standard and requirement.

• The technology development agency is also largely responsible for the fact highlighted by General V.K. Singh that 97 per cent of the army's air defence is obsolete.

• DRDO is just tinkering with World War II equipment instead of working on cutting-edge technology.

• Even if systems are acquired from abroad and DRDO is meant to service them, if it fails. This leaves critical gaps in national defence.

Way Forward

• DRDO should be restructured in a leaner organisation as suggested by the committee chaired by P. Rama Rao for external review of the agency in February 2007.

• The committee also recommended for setting up a commercial arm of the organisation to make it a profitable entity, besides cutting back on delays in completing projects.
• DRDO former chief V.K. Saraswat has called for the setting up of a Defence Technology Commission as well as a bigger role for DRDO in picking production partners for products developed by the agency.

• DRDO should be able to select a capable partner company from the outset, from the private sector if necessary.

• DRDO has taken some steps in the direction as it is considering long-term contracts with Indian information technology (IT) vendors such as Tata Consultancy Services Ltd (TCS) to build software solutions for defence projects, shifting its strategy of awarding deals to the lowest bidders on short-term projects.

• DRDO’s move to outsource is a right move and will open lot of opportunities benefiting the Indian companies.

• In its document “DRDO in 2021: HR Perspectives”, DRDO has envisaged a HR policy which emphasized on free, fair, and fearless Knowledge Sharing, Open book management style and Participative Management. This is a step in right direction.