

Standing Committee Report Summary

Defence Research and Development Organisation

- The Standing Committee on Defence (Chair: Mr. Jual Oram) presented its report on ‘A Review of the Working of the Defence Research and Development Organisation (DRDO)’ on December 20, 2023. DRDO is involved in developing indigenous defence systems for the armed forces. Key observations and recommendations of the Committee include:
 - **Research budget:** The Committee observed that over the last two years, the budget allocated for research and development to the Department of Defence has been lower than the amount sought. DRDO’s expenditure as a share of total defence expenditure has also continuously decreased. The Committee recommended that adequate funds should be provided to DRDO for research and development. Budgetary grants of DRDO should be enhanced for India to become a global leader in armament and weapon systems. It expressed reservations regarding the utilisation of funds for existing research and development activities in DRDO. It noted that while defence PSUs approach DRDO for upgrades, they should also have in-house centres for research and development.
 - **Delayed projects:** The Committee expressed concern that out of 55 projects, 23 could not be completed in time. In the past, the Committee has also noted that several DRDO projects are affected by time and cost overruns. Certain projects were also closed due to change in qualitative requirements or technological obsolescence. As per DRDO, the reasons for closure of projects include: (i) unanticipated technical complexities, (ii) technological denials, and (iii) price inflation in capital equipment. The Committee noted that projects have been closed despite them being reviewed at various stages. It recommended revisiting all review mechanisms as they may be causing delays in some cases. Reviews should include technical personnel and standard yardsticks to avoid delays and cost overruns.
 - **Indigenisation:** DRDO takes up projects to develop new technology and systems based on evolving threat perception, among other inputs. However, India is still dependent on foreign countries for military platforms. Given the current rate of indigenisation, India may achieve 80%-90% of indigenisation in the next 10 years. The Committee noted that continued dependence on imported weapon systems may discourage the Make in India initiative. It recommended: (i) greater professionalism in defence planning, (ii) management of research and development, and (iii) prioritisation on self-reliance.
- **Training of personnel:** DRDO continuously incorporates new training modules to train personnel in research and development and engineering skills. A targeted training centre has been setup for scientists to keep pace with advancement in technology. The Committee recommended that DRDO should explore collaborating with universities and institutions for its officers to undergo training.
- **Infrastructure development:** DRDO has established high technology infrastructure facilities. Most such facilities have been established with the active participation of Indian industries. Test facilities have also been made available to industries by DRDO. The Committee recommended that DRDO should tie up with a consortium of industries for creating widespread infrastructure. This can ensure that systems created by DRDO become future-ready.
- **Emerging technologies:** DRDO has seven technology cluster laboratories located across India. These laboratories develop technology related to the critical defence needs of the country. The Committee suggested that DRDO should focus on new and emerging areas of technology applications such as artificial intelligence and robotics. It also suggested setting up research laboratories in premier technology institutes. This can motivate students interested in defence technology and help DRDO to tap into young scientists at an early stage.
- **Drone capabilities:** Drones are increasingly becoming important in warfare. DRDO is developing drone-based systems and anti-drone systems based on requirements of user agencies. The Committee noted that after developing the technology, it can be transferred to established private industries and budding ventures. The Committee recommended that DRDO must look into developing interceptive drone and sea drone capabilities. It also noted that new generation of drones operate with lithium-ion batteries which is not available in India. The Committee recommended that DRDO should develop the required battery cells as a mission mode project. This would enable development of drones and anti-drones in a time-bound manner.
- **Technology Development Fund:** The Technology Development Fund aims to develop defence and dual use technologies. Funding is provided through grants to public and private industry with a cap of Rs 10 crore per project. The Committee suggested that the funding provided must focus on developing technologies which can be used in defence equipment and platforms.

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