# Make II Project

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## **Topic- Defence Technology [GS Paper-3]**

**Context-** Recently, the Indian Army has approved five Project Sanction Orders (PSOs) for the development of niche technology by the Indian industry under the Make-II project of defence procurement.

## **Key Highlights**

- Indian Army has led actions to provide impetus to Make Projects as the prime drivers of infusion of niche technologies through indigenous development.
- To give a further boost to the ongoing projects, Indian Army has approved Project Sanction Orders (PSOs) of five Make II projects.
- Make II projects are significant Industry funded projects involving design, development and innovative solutions by Indian vendors for development of prototypes.
- An assurance of order has been given after successful prototype development.

# The five approved Project Sanction Order (PSO)

High Frequency Man Packed Software Defined Radio (HFSDR).

- This project Sanction Order (PSO) under Make II scheme has been issued to fourteen Developing Agencies (DAs).
- 300 HFSDRs are already planned to be procured by the Indian Army, on successful development of the prototype.
- The light weight HFSDR will provide long distance radio communication through

enhanced data capability and band width coupled with enhanced security.

- The HFSDR will facilitate blue force tracking with map based navigation using GIS, thereby increasing real time situational awareneess.
- These radio sets aims to replace the existing HF radio sets in the inventory, which have limited data handling capability and obsolete technology.

#### **Drone Kill System**

- In order to further encourage the indigenous anti-drone ecosystem, the Indian Army has approved Project Sanction Order (PSO) to 18 Developing Agencies (DAs) for procurement of 35 sets of Drone Kill Systems under the Make II scheme, post successful development of Prototype.
- This project is reserved for MSMEs or Start-ups.
- Drone Kill System is a hard kill anti drone system against low Radio Cross Section (RCS) Drone or unmanned Aerial System (UAS), being developed to function in all types of terrains, both during day and night.

## Infantry Training Weapon Simulator (IWTS)

- This Project Sanction Order (PSO) has been issued to four Developing Agencies (DAs) to develop the prototype for subsequent procurement of 125 sets of IWTS under the Make II procedure. The IWTS is the first tri service Make II project with the Indian Army as the lead service.
- It is the first triservice Make-II project where the Army performs as the lead service.
- IWTS will be utilised to augment marksmanship skills of young soldiers on a variety of weapons used by the , providing user friendly graphics to simulate battle scenarios.
- It is a modern training aid, which will reduce recurrent expenditures on live ammunition, besides obviating the challenges of availability of firing ranges and inclement weather.
- Each of the IWTS will facilitate training of 10 personnel at any one point of time.

## **155mm Terminally Guided Munitions (TGM)**

- It has been issued to six Developing Agencies (DAs) for development of 155 mm Terminally Guided Munition (TGM) under Make II scheme.
- Variants of ammunition were held in the inventory of the Indian Army, sans, the precision strike capability.
- The Indian Army hence plans to procure approximately 2000 rounds of 155mm TGM against High Value Targets with assured Precision and Lethality for mission accomplishment and minimum collateral damage.

### Medium Range Precision Kill System (MRPKS)

- Project Sanction Order has been issued to 15 Developing Agencies (DAs) for developing a prototype of MRPKS under the Make-II category.
- Post successful development of this prototype, the Indian Army will procure 10 Sets of MRPKS.
- This System, once launched can 'Loiter' in the air for upto two hours and can acquire,

designate and engage real time high value targets upto 40 km.

#### Other Initiative under Make II procedure

- The Indian Army is already developing 43 ongoing projects under the Make II procedure of Capital Acquisition.
- 17 out of 43 projects have been initiated through suo-moto proposals received from the industry, that has generated enthusiasm and confidence in the Indian defence industry for participation in the "Make procedure".
- Make II procurement scheme has also given an impetus to increase the Design & Development in the defence industry to achieve indigenisation of high end technology systems in various types of weapon systems, ammunition and modern training systems, that are currently not available in the country.
- Multiple measures to expedite the ongoing Make II projects have resulted in tangible outcomes.
- Whereas 22 out of 43 Make II projects are now in prototype development stage, which is 66 % of projects by cost Rs 18,000 Crores out of 27,000 Crores.

#### Make' Category of Capital Acquisition

- The 'Make' category of capital acquisition is the cornerstone of the Make in India initiative that seeks to build indigenous capabilities through the involvement of both public and private sector.
- 'Make-I' includes government-funded projects while 'Make-II' includes industry-funded programmes.
- Make-I is linked in development of big-ticket platforms such as light tank and communication equipment with Indian security protocols.
- Whereas Make-II category involves prototype development of military hardware or its upgrade for import substitution for which no government funding is provided.
- Another sub-category under 'Make' is 'Make-III' that covers military hardware can be manufactured in the country for import substitution, and Indian firms may manufacture these in collaboration with foreign partners.