

CoE – SURVEI

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In news—The Centre of Excellence – Satellite and Unmanned Remote Vehicle Initiative (CoE – SURVEI) has proposed technical parameters for evaluation of the quality of the images obtained by drones which may **serve as the world's first standard for land survey.**

About CoE – SURVEI-

- The CoE-SURVEI, established by Directorate General Defence Estates at National Institute of Defence Estates Management, leverages latest technologies in survey viz. satellite imagery, drone imagery and geo-spatial tools for effective land management and urban planning.
- The CoE was inaugurated by the Defence Minister in December 2021.
- **CoE-SURVEI has developed an Artificial Intelligence-based software which can automatically detect change on ground**, including unauthorised constructions and encroachments in a time series using Satellite Imagery.
- This Change Detection Software has been developed by CoE-SURVEI in collaboration with knowledge partner Bhabha Atomic Research Centre (BARC), Visakhapatnam.
- Presently, the **tool uses National Remote Sensing Centre (NRSC) Cartosat-3 imagery** with trained software. The changes are detected by analysing satellite imagery of different time periods.
- The tool enables Chief Executive Officers (CEOs) of Cantonment Boards to identify changes on ground that are of permanent nature and then enables them to check if such changes are authorised or without due sanction of the competent authority.
- **The software facilitates better control on unauthorised activities, ensures accountability of field staff** and helps in reducing corrupt practices.

- The **change detection tool has resulted in effective defence land management.**
- The CoE-SURVEI has also developed tools for vacant land analysis and 3D imagery analysis of hill cantonments for land management.
- It may be recalled that no uniform parameters exist for evaluation of images obtained by the use of drones for the purpose of land survey at present.
- The COE-SURVEI has solicited comments from the stakeholders in this regard for laying down uniform standards to evaluate quality of output of drone images for the purpose of land survey.