CSIR's Emergency Retrieval System (ERS)

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In news

CSIR's constituent laboratory Structural Engineering Research Centre (SERC) develops an indigenous technology, Emergency Retrieval System (ERS)

What is the Emergency Retrieval System (ERS)?

- ERS is **a lightweight modular system that is used as a temporary support structure to restore power immediately after the collapse of transmission line towers during natural calamities** such as cyclone/earthquake, or manmade disruptions.
- ERS can be assembled quickly at the disaster site for restoration of power in 2-3 days, whereas the permanent restoration may take several weeks.
- Made of structurally highly stable box sections, ERS is lightweight, modular and reusable.
- It provides a complete solution from member connections up to the foundation for different type of soil conditions.
- The ERS system is verified through rigorous structural tests.
- Basic knowledge and tools are enough to assemble and install ERS at the disaster site. With ERS suitable configurations for different voltage-class of transmission line systems are possible.
- The ERS system is compact and yet provides full functionality on erection.
- It is designed as a scalable system for 33 to 800 kV class of power lines and can help in building a disaster resilient society.

Current status its production

At present, the ERS systems are imported. There are very few manufacturers across the world and the cost is relatively high.

Significance

This technological development will enable manufacturing in India for the first time, which will be an import substitute and will cost about 40% of imported systems. ERS has huge market requirement in India as well as in SAARC and African countries. Hence, this technological development is a big leap forward towards Atma Nirbhar Bharat and Make in India