4. Monsoon Mission Coupled Forecast Model (CFS)

Prelims: Science & Technology

Mains: GS-III- Achievements of Indians in science & technology; indigenization of technology and developing new technology.

Why in News?

- The new monsoon model, called the Coupled Forecast Model (CFS), deployed by the IMD under the National Monsoon Mission (NMM) has failed to forecast the excess rainfall received during Aug-Sept 2019.

About:

- An analysis has been suggesting that new monsoon models, called the Monsoon Mission Coupled Forecast Model (CFS), deployed by the IMD over the last decade are not performing better than the older ones in Long-Range Forecasting and its recent failure to predict the excess rainfall stands evidence to it.
- However, the analysis have suggested that the IMD models that forecast two weeks ahead (called extended range prediction) and the short-term forecast models (that gauge weather three days ahead) are functioning well and have predicted the excess rainfall in advance.

About National Monsoon Mission (NMM):

- This Mission was launched by Ministry of Earth Sciences (MoES) in 2012 with a vision to develop a state-of-the-art dynamical prediction system for monsoon rainfall on different time scales.
- Indian Institute of Tropical Meteorology (IITM), Pune is vested with the responsibility of execution and coordination of this mission.
- Climate Forecast System (CFS) of USA has been identified as the basic modelling system for the above purpose, as it is one of the best among the currently available coupled models.

Objective of the Mission:

- To build an ocean atmospheric model for – improved prediction of monsoon rainfall on extended range to seasonal time scale (16 days to one season) and improved prediction of temperature, rainfall and extreme weather events on short to medium range time scale (up to 15 days).

About Coupled Forecast Model (CFS):

- "Climate Forecast System" (CFS) is an American model developed by National Centres for Environmental Prediction (NCEP), USA.
- It is a coupled ocean-atmosphere modelling system that combines data from ocean, atmosphere and land for providing long range forecasting (seasonal prediction of Indian Monsoon).