Smart Auto-Irrigation and Soil Monitoring System

Why in News?

- On June 30, 2022, Scientist Seema Singh of Krishi Vigyan Kendra, Dhanbad informed that IIT (ISM), Dhanbad has launched a new smart auto-irrigation to motivate and engage agriculture and farming for distressed families of farmers affected by COVID-19. and has developed upgradation of soil monitoring system.

Key Points

- It was demonstrated by the **IIT**, **(ISM)** Dhanbad research team at Krishi Vigyan Kendra **(KVK)**, Dhanbad on June 30, 2022. The project has been set up at KVK, Dhanbad.
- The project is part of IEEE HAC (Committee on Humanitarian Activities) and IEEE SIGHT (Special Interest Group on Humanitarian Technology) with an institute in selected developing countries to improve the current COVID-19 situation.
- The focus has been on running this new advanced system and developing it as a permanent source of income. This newly upgraded system will benefit the farmers.
- Scientist Seema Singh said the project will help farmers or Covid-19 migrants who are less skilled at farming in a more efficient way of irrigation.
- The proposed system has been designed to remove unnecessary water runoff in agricultural land using sprinkler system. The readings of temperature, wind speed, sunshine intensity, soil moisture, air moisture and pH are continuously monitored using sensors. Solar panels have been used to supply power to the system, which will make it more durable.
- It is easily managed by an Android application developed by the students, which will be available on **Google Play Store** under the name 'AgroPro 2.0'. The interface is designed for minimal use, with easy-to-use interfaces most functions are automated, which do not require human intervention.
- The new system is cost effective and can be easily afforded by the farmer. The cost of maintenance is also very low. The system comes with many features, including automatic irrigation, control through multi-language Android app, farmer-irrigation assistance **24×7** monitoring, etc.