

News Analysis (05 Oct, 2018)

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First Soil Moisture Forecast in India

For the first time, IIT Gandhinagar and the India Meteorological Department (IMD), have come out with a country-wide soil moisture forecast at seven and thirty day lead times. The joint collaboration uses a land surface model to forecast soil moisture content.

- The product, termed 'Experimental Forecasts Land Surface Products', is available on the IMD website and has been developed using the hydrological model that takes into consideration soil, vegetation, land use and land cover among other parameters.
- India has been working on its own high-resolution soil database that is essential for soil parameters used in the modelling. However, the database is not available for the entire country currently.

Land Surface Model

- It includes the complex interactions (biophysical, hydrological, and biogeochemical) between the land-surface and the atmosphere.
- The ultimate goal is to integrate such knowledge to improve prediction of the impacts of land-surface processes on regional weather, climate, and hydrology.

Significance of the Exercise

- Soil moisture is crucial for agriculture since it directly affects crop growth and **amount of irrigation** required for the area.
- Timely soil moisture forecasts will help target interventions, in terms of seed varieties for **better planning in agriculture**.
- For eg. based on observed conditions at present, Gujarat, parts of Maharashtra, Chhattisgarh, Jharkhand, Tamil Nadu and parts of Andhra Pradesh are deficient in terms of soil moisture which means that if there is not enough rainfall in one or two months, these are regions which will demand heavy irrigation from sources like groundwater or surface water storage (reservoirs).

- Forecasting of soil moisture becomes significant for the rabi season. As per official data, the total area sown under rabi crops is around 625 lakh hectares of which wheat takes up 300 lakh hectares.
- Crucial information needed for agriculture is not revealed only through rainfall data. Even in a normal rainfall, if the temperature is abnormally high, it can rapidly deplete the soil moisture. So essentially soil moisture gives us more information on what is needed for crop growth in different parts of the country.

Important Facts for Prelims (05th October 2018)

Integrated Criminal Justice System (ICJS)

- ICJS is an OTP-enabled web platform that integrates police, prison, and court records for government and police use.
- The ICJS covers suspect profiles combining data from prisons, FIR data from Crime and Criminal Tracking Network and Systems (CCTNS), and courts.
- In its present form, it enters details such as a photo, state, religion, gender, nationality, age, type of case, marital status, whether or not the suspect is a drug addict, and biometric data.
- ICJS now proposes to include social media profiles, and details of immigration, prosecution, and National Investigative Agency records, allowing a "360 profile view".
- It is proposed to introduce a "risk score" (a score ranking threat-level of a criminal) for the profiles. The Ministry of Home Affairs, state governments, district authorities, and police stations will be able to view the statistics relevant to their geographies.
- This project is in alignment with the government's vision of the Smart policing and Digital India of the Government of India.

Crime and Criminal Tracking Network and Systems (CCTNS)

- Crime and Criminals Tracking Network and Systems (CCTNS) Project interconnects
 about 15000 Police Stations and additional 5000 offices of supervisory police officers
 across the country and digitize data related to FIR registration, investigation and
 charge sheets in all Police Stations.
- It will lead to the development of a national database of crimes and criminals.

India International Science Festival

• The **4th India International Science Festival-2018 (IISF-2018)** will be held in Lucknow from 5th to 8th October.

- As part of the event, a "science village" will be set up at National Botanical Garden in Lucknow where common people will get to know about the progress of science.
- The theme of this edition of Science Festival is "Science for Transformation".
- In IISF 2018, a World Record attempt will be made to **"isolate DNA"** by 500 students from 8th to 10th standard.
- The **1st IISF** was held at **Indian Institute of Technology (IIT) New Delhi** in December, 2015.
- IISF 2018 is being organized by Ministry of Science and Technology, Ministry of Earth Sciences in association with Vijnana Bharati at Indira Gandhi Pratishthan, Lucknow.

National Swachh Survekshan Grameen 2018

- Prime Minister gave awards to top ranked state and districts as well as districts and states with maximum citizen participation based on the National Swachh Survekshan Grameen 2018.
- The **Ministry of Drinking Water and Sanitation** had commissioned "Swachh Survekshan Grameen-2018" (SSG 2018) through an independent survey agency to develop ranking of all districts of India on the basis of quantitative and qualitative sanitation (Swachhata) parameters.
- This ranking was done based on a comprehensive set of parameters including surveys of public places like schools, Anganwadis, Primary Health Centres (PHCs), Haat/Bazaars, Panchayats.
- Citizens were mobilised to provide feedback on sanitation relation related issues online using an application developed for the purpose.
- Top 3 States
 - Haryana
 - Gujarat
 - Maharashtra
- Top 3 Districts
 - Satara, Maharashtra
 - Rewari, Haryana
 - o Pedapalli, Telangana
- States with maximum citizen participation
 - Uttar Pradesh
 - Gujarat
 - Maharashtra
- Districts with maximum citizens' participation
 - Nashik, Maharashtra
 - Solapur, Maharashtra
 - Chittorgarh, Rajasthan.

Pictorial Warning on Tobacco Products

- **India has been ranked fifth**, jointly with Hong Kong and Thailand in the listing of countries that have pictorial health warning on tobacco products.
- Recently the Canadian Cancer Society released a report titled "The Cigarette Package
 Health Warnings: International Status Report" which documents global progress
 on plain packaging.
- It has ranked 206 countries and territories on the size of their health warnings on cigarette packages, and lists countries and territories that require graphic picture warnings.
- **East Timor is ranked first** with 85% of the front and 100% of the back of the packaging being used for pictorial warnings.
- **Nepal and Vanuatu** follows with 90% coverage on both sides and New Zealand at fourth with 87.5 percent. Indian packaging has the warning on 85% of both sides.
- The report found that 118 countries and territories have now made picture health warnings on cigarette packages mandatory, up from 100 in 2016.
- Canada was the first to insist on picture health warnings in 2001.
- India is the only SAARC country to have a **Quit-Line number** on tobacco products and the fourth in Asia after Thailand, Malaysia and Singapore.

Loo Review Campaign

- The Ministry of Housing and Urban Affairs, under the aegis of Swachh Bharat Mission
 Urban (SBM U), has partnered with Google to launch the Loo Review campaign to encourage all local guides in India to rate and review public toilets on Google Maps.
- The campaign will involve and engage Local Guides in India to rate and review public toilets on Google Maps, and use the hashtag (**#LooReview**) for the chance to be featured on Google Local Guides' social channels.
- Local Guides are people who share reviews, photos, and knowledge on Google Maps to help people explore the world.