

## **General Studies-2**

### **National Water Informatics Centre**

#### **Why in News?**

Consequent upon approval of the Cabinet, National Water Informatics Centre (NWIC) has recently been created by Ministry of Water Resources, River Development and Ganga Rejuvenation at New Delhi.

#### **About NWIC:**

NWIC would be a repository of nation-wide water resources data and would work as a Subordinate Office under the Ministry of Water Resources, River Development and Ganga Rejuvenation.

The centre would be headed by a Joint Secretary level officer.

#### **How will it Help in Water Management?**

The management of water resources is a highly complex and tedious task that involves expertise of multidisciplinary domains and depend on historical and real time reliable data and information.

For this, the first requirement is to develop, maintain and update regularly a comprehensive "Water Resources Information System" (WRIS) in public domain for awareness and involvement of all concerned for effective integrated water resources management.

This is also prerequisite for scientific assessment, monitoring, modelling and Decision Support System (DSS) and Integrated water resource Management.

In this back drop NWIC is expected to provide a 'Single Window' source of updated data on water resources & allied themes; and provides value added products and services to all stake holders for its management and sustainable development.

Besides the centre will also collaborate with leading research institutes nationally as well as internationally to provide technical support to other central and state organizations dealing with water, emergency response for hydrological extremes.

#### **SWAYAM Portal:**

The Ministry of Human Resource Development has launched a major and unique initiative of online professional development of 1.5 million higher education faculty using the MOOCs platform SWAYAM.

In the first phase, 75 discipline-specific National Resource Centres have been identified which are tasked to prepare online training material with focus on latest

developments in the discipline, new & emerging trends, pedagogical improvements and methodologies for transacting revised curriculum.

Under this initiative, all in-service teachers, irrespective of their subject and seniority will have an enabling opportunity to keep abreast of the latest developments in their disciplines through the technology based online refresher course.

Faculty can benefit from this initiative as it is highly flexible and can be done at one's own pace and time.

The NRCs will revolutionize professional development of faculty by catering to massive numbers by leveraging ICT and online technology platform of SWAYAM.

### **About SWAYAM:**

SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality.

The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged.

SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

This is done through an indigenous developed IT platform that facilitates hosting of all the courses, taught in classrooms from 9th class till post-graduation to be accessed by anyone, anywhere at any time.

All the courses are interactive, prepared by the best teachers in the country and are available, free of cost to the residents in India.

### **IBM to Help in improving Crop Productivity:**

NITI Aayog and IBM signed a Statement of Intent (SoI) today to develop a crop yield prediction model using Artificial Intelligence (AI) to provide real time advisory to farmers in Aspirational Districts.

The partnership aims to work together towards use of technology to provide insights to farmers to improve crop productivity, soil yield, control agricultural inputs with the overarching goal of improving farmers' incomes.

Bringing in future technologies like Artificial Intelligence into practical use will have tremendous benefits for the practice of agriculture in the country, improving efficiency in resource-use, crop yields and scientific farming.

The ten Aspirational Districts chosen will be invigorated with cutting-edge technological support to leap-frog development of agri-based economies”.

First phase of the project will focus on developing the model for 10 Aspirational Districts across the States of Assam, Bihar, Jharkhand, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh.

The scope of this project is to introduce and make available climate-aware cognitive farming techniques and identifying systems of crop monitoring, early warning on pest/disease outbreak based on advanced AI innovations.

IBM will be using Artificial Intelligence to provide all the relevant data and platform for developing technological models for improving agricultural output and productivity for various crops and soil types, for the identified districts.

NITI Aayog, on its part, will facilitate the inclusion of more stakeholders on the ground for effective last mile utilisation and extension, using the insights generated through these models.

### **General Studies-3**

#### **Goods and Services Tax Network**

The Goods and Services Tax Network - Special Purpose Vehicle (GSTN-SPV) was created as a private limited, not-for-profit company under Section 25 of the Companies Act, 1956 (Section 8 of the Companies Act, 2013) by Govt. of India on 28th March, 2013 with an objective to provide shared IT infrastructure and services to Centre and States Governments, tax payers and other stakeholders for implementation of Goods and Services Tax (GST) in the country.

Presently, the Central Government and State Government are holding 24.5% equity shares respectively and the remaining 51% are held by non-Governmental institutions and through various mechanisms.

GSTN is under strategic control of government.

Considering the nature of 'state' function performed by GSTN, Council felt that GSTN be converted into be a fully owned government Company.

Thus Cabinet has decided for:

Acquisition of entire 51% of equity held by the Non-Governmental Institutions in GSTN amounting to Rs. 5.1 crore, equally by the Centre and the States governments

and allow GSTN Board to initiate process for acquisition of equity held by the private Companies; *and*

GSTN Board shall be allowed to continue the existing staff at existing terms and conditions for the a period upto five years, and shall have the flexibility of hiring people through contract on the terms and conditions similar to those used by GSTN till now while hiring regular employees.

### **National Mission for Clean Ganga**

National Mission for Clean Ganga has brought on board Survey of India, the oldest scientific department in the country set up in 1767, to facilitate the Ganga rejuvenation task by using Geographic Information System (GIS) technology.

The project includes use of Digital Elevation Model (DEM) technology which ensures accurate data collection, an important aspect for river basin management planning.

DEM technology enables identification of entire topography of an area making it easy for policy makers to analyse the available data thereby supporting the decision-making process.

Critical hotspots are also easily identified through this technology. The use of GIS technology for Namami Gange programme will also ensure decentralisation.

The data collected and subsequent actions taken by the government can easily be shared with the local public through geo portals and mobile apps.

The technology will also enable people to send their feedback up to the national level thereby providing an interactive and transparent platform.

In addition, the high resolution GIS enabled data will help in regulating the proposed protected and regulatory zones along the banks of river.

### **About NMCG:**

National Mission for Clean Ganga(NMCG) was registered as a society on 12th August 2011 under the Societies Registration Act 1860.

It acted as implementation arm of National Ganga River Basin Authority(NGRBA) which was constituted under the provisions of the Environment (Protection) Act (EPA),1986.

NGRBA has since been dissolved with effect from the 7th October 2016, consequent to constitution of National Council for Rejuvenation, Protection and Management of River Ganga (referred as National Ganga Council).

The Act envisages five tier structure at national, state and district level to take

measures for prevention, control and abatement of environmental pollution in river Ganga and to ensure continuous adequate flow of water so as to rejuvenate the river Ganga as below:

1. National Ganga Council under chairmanship of Hon'ble Prime Minister of India.
2. Empowered Task Force (ETF) on river Ganga under chairmanship of Hon'ble Union Minister of Water Resources, River Development and Ganga Rejuvenation.
3. National Mission for Clean Ganga(NMCG).
4. State Ganga Committees and
5. District Ganga Committees in every specified district abutting river Ganga and its tributaries in the states