

04 July 2019: PIB Summary & Analysis

Earth Observation Satellite RISAT-2B

Context

- RISAT-2B is an indigenously developed Synthetic Aperture Radar (SAR) Imaging Satellite operating in the X-band.

About the satellite

- RISAT-2B is a Radar Imaging satellite; it can be operated effectively during day / night / all weather conditions.
- The satellite is capable of operating in different modes including Very High-Resolution RADAR imaging modes of 1m x 0.5m resolution and 0.5m x 0.3m resolution.
- The Satellite will be used for high resolution spot imaging of locations of interest. Apart from this, data from RISAT-2B will also be utilized for agriculture applications and disaster management support.
- Applications of X-Band SAR imagery include Hydrology, Crops, Forestry, Geosciences and Cryosphere. During the time of exigencies, very high resolution, day/night/all-weather imaging capabilities of RISAT-2B could be utilized for Disaster Management Support.

Electricity generation through atomic energy

Context

- The share of atomic energy in the overall electricity generation in the country was about 2.93% in the year 2017-18.

Low share in electricity generation

- Nuclear share has remained around 3% of the total electricity generation in the country. The main reason for low share has been the low installed capacity base.
- The reasons for low capacity base are:
 - Technology development and international embargo regime that persisted from 1974 to 2008. As a result, all the technologies for nuclear power including the fuel cycle technologies had to be developed within the country, thus took time.
 - Another constraint faced during the first two decades was availability of financial

resources, as it had to solely depend on budgetary support. However, the earlier constraints have now been overcome and nuclear power programme is poised for rapid expansion.

Steps taken by Government to increase share

- Resolution of issues related to Civil Liability for Nuclear Damage (CLND) Act & Creation of Indian Nuclear Insurance Pool (INIP).
- Accord of administrative approval and financial sanction of - ten (10) indigenous 700 MW Pressurized Heavy Water Reactors (PHWRs) to be set up in fleet mode & two (02) units of Light Water Reactors (LWRs) to be set up in cooperation with Russian Federation.
- Amendment of the Atomic Energy Act to enable Joint Ventures of Public Sector Companies to set up nuclear power projects.
- Entering into enabling agreements with foreign countries for nuclear power cooperation including supply of fuel.

Initiatives taken to promote digital learning

Context

- 'National Mission on Education through Information and Communication Technology' (NMEICT) is a program to make the best quality content accessible to all learners in the country, free of cost.

Programs under the initiative NMEICT

SWAYAM

- The 'Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM) is an integrated platform for offering online courses and covering school (9th to 12th) to Post Graduate Level.
- The online courses are being used not only by the students but also by the teachers and non-student learners, in the form of lifelong learning.

SWAYAM Prabha

- SWAYAM Prabha is an initiative to provide 32 High Quality Educational Channels through DTH (Direct to Home) across the length and breadth of the country on 24X7 basis.
- It has curriculum-based course content covering diverse disciplines. This is primarily aimed at making quality learning resources accessible to remote areas where internet

availability is still a challenge.

National Digital Library (NDL):

- The National Digital Library of India (NDL) is a project to develop a framework of virtual repository of learning resources with a single-window search facility. There are more than 3 crore digital resources available through the NDL
- The contents cover almost all major domains of education and all major levels of learners including life-long learners.

Spoken Tutorial:

- They are 10-minute long, audio-video tutorial, on open source software, to improve employment potential of students. It is created for self learning, audio dubbed into all 22 languages and with the availability of online version.
- The Spoken Tutorial courses are effectively designed to train a novice user, without the support of a physical teacher.

Free and Open Source Software for Education (FOSSEE):

- FOSSEE is a project promoting the use of open source software in educational institutions
- It does through instructional material, such as spoken tutorials, documentation, such as textbook companions, awareness programmes, such as conferences, training workshops, and Internships.
- Textbook Companion (TBC) is a collection of code for solved examples of standard textbooks.

Virtual Lab:

- The Virtual Labs Project is to develop a fully interactive simulation environment to perform experiments, collect data, and answer questions to assess the understanding of the knowledge acquired.
- In order to achieve the objectives of such an ambitious project, it is essential to develop virtual laboratories with state-of-the-art computer simulation technology to create real world environments and problem handling capabilities.

E-Yantra

- e-Yantra is a project for enabling effective education across engineering colleges in India on embedded systems and Robotics.
- The training for teachers and students is imparted through workshops where

participants are taught basics of embedded systems and programming.

Implementation of Centrally Sponsored Schemes

Context

The Ministry of Women and Child Development is implementing two Centrally Sponsored Umbrella schemes - Umbrella ICDS and Mission for Empowerment and Protection for Women across the country.

Umbrella ICDS:

- The Anganwadi Services Scheme is a unique programme for early childhood care and development.
- It offers a package of six services, viz. Supplementary Nutrition, Pre-School Non-Formal Education, Nutrition and Health Education, Immunization, Health Check-Up and Referral Services.
- The beneficiaries under the Scheme are children in the age group of 0-6 years, pregnant women and lactating mothers.
- **Poshan Abhiyaan** (National Nutrition Mission) targets to reduce the level of stunting, under-nutrition, anemia and low birth weight babies by reducing mal-nutrition/under nutrition, anemia among young children, adolescent girls, pregnant women and lactating mothers.
- **Pradhan Mantri Matru Vandana Yojana (PMMVY)** scheme provides cash incentive amounting to Rs.5,000/- in three installments directly to the Bank/Post Office Account of Pregnant Women and Lactating Mother.
- **Scheme for Adolescent Girls** aims at out of school girls in the age group 11-14, to empower and improve their social status through nutrition, life skills and home skills.
- The scheme has nutritional and non nutritional components which include nutrition; iron and folic acid supplementation; health check up and referral service;
- **National Creche Scheme** provides day care facilities to children of age group of 6 months to 6 years of working women. The facilities are provided for seven and half hours a day for 26 days in a month.
- **Child Protection Services Scheme** aims to contribute to the improvement and the well-being of children in difficult circumstances, as well as, reduction of vulnerabilities to

situation and actions that leads to abuse, neglect, exploitation, abandonment and separation of children from parent.

Mission for Empowerment and Protection for Women:

- **Mahila Shakti Kendra scheme** empowers rural women through community participation by involvement of Student Volunteers.
- The scheme is envisaged to work at various levels and at the national and state level technical support to the respective government on issues related to women is provided.
- **Swadhar Greh scheme** targets the women victims of unfortunate circumstances who are in need of institutional support for rehabilitation so that they could lead their life with dignity.
- **Ujjawala** is a comprehensive scheme to combat trafficking with the objective to prevent trafficking of women and children for commercial sexual exploitation, to facilitate rescue victims and placing them in safe custody.
- **Working Women Hostel** aims at providing safe and affordable accommodation to working women. These hostels have Day care facility for the children of inmates too.
- BetiBachaoBetiPadhao (BBBP) scheme is a tri-ministerial initiative of Ministries of Women and Child Development, Health & Family Welfare and Human Resource
- Focus on awareness and advocacy campaign for changing mindsets, multi-sectoral action in select districts, enabling girls' education and effective enforcement of Pre-Conception & Pre Natal Diagnostic Techniques (PC&PNDT) Act.
- **One Stop Centre (OSC)** facilitates access to an integrated range of services including police, medical, legal, psychological support and temporary shelter to women affected by violence. The Scheme is funded through Nirbhaya Fund.