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News: ISRO's own Next Gen Launch Vehicle may assume PSLV's role

Next Gen Launch Vehicle (NGLV)

- Next Gen Launch Vehicle (NGLV) is a three stage, reusable heavy lift vehicle with a payload capability of 10 tonnes to Geostationary Transfer Orbit.
- Correspondingly, the Low Earth Orbit (LEO) capability will be twice that.
- NGLV will feature semi cryogenic propulsion for the booster stages which is cheaper and efficient than PSLV.
- NGLV will feature a simple, robust design that allows bulk manufacturing, modularity in systems, subsystems and stages and minimal turnaround time.
- Potential uses will be in the areas of launching communication satellites, deep space missions, future human space flight and cargo missions.
- The NGLV is set to be in a "business model", so that it can be a potential income generator for the nation. This will include launching commercial satellites and national missions as well as ensuring industry participation from the start.
- The NGLV is set to replace the PSLV, once the latter retires.

PSLV

- Polar Satellite Launch Vehicle (PSLV) is the third generation launch vehicle of India.
- It is a four-staged launch vehicle with first and third stages using solid rocket motors and second and fourth stages using liquid rocket engines.
- It is the first Indian launch vehicle to be equipped with liquid stages.
- Initially, PSLV had a carrying capacity of 850 kg but has been enhanced to 1.9 tonnes.
- The PSLV has helped take payloads into almost all the orbits in space including Geo-Stationary Transfer Orbit (GTO), the Moon, Mars and would soon be launching a mission to the Sun.
- Between 1994 and 2019, the PSLV launched 50 Indian satellites and 222 foreign satellites for over 70 international customers from 20 countries.
- It has a history of successful launches of payloads that include Chandrayaan-1, Mars Orbiter Mission (MOM) and the space recovery mission, etc.
- The PSLV has failed only twice in its history — the maiden flight of the PSLV D1 in 1993 and the PSLV C-39 in 2017.

- PRADAN Portal is the portal launched by ISRO, hosted by Indian Space Science Data Centre (ISSDC). It gives the information about space missions to the general public.

News: International day for Disaster Risk Reduction

International day for Disaster Risk Reduction

- International Day for Disaster Risk Deduction is celebrated 13th October of every year by UN General Assembly.
- The day is also called World Calamity Control Day.
- The day celebrates how people and communities around the world are reducing their exposure to disasters and raising awareness about the importance of reining in the risks that they face.
- It focuses on the targets of Sendai 7 Framework.
- In 2022, the day is celebrated under the theme "Substantially increase the availability and access to multi-hazard early warning systems and disaster risk information and assessment for people by 2030".

Sendai Framework for Disaster Risk Reduction /

Sendai - 7

- Sendai framework for Disaster Risk Reduction, or simply Sendai – 7 is an international non-binding document adopted by UN member states in 2015.
- Place and Conference: World Conference on Disaster Risk Reduction, Sendai, Japan

The Sendai Framework sets four specific priorities for action

- Understanding disaster risk;
- Strengthening disaster risk governance to manage disaster risk;
- Investing in disaster risk reduction for resilience;
- Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation and reconstruction.

Seven objectives have been set by the conference by the Name Sendai-Seven which have to be obtained by 2030

- Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality in 2020-2030 compared to 2005-2015;

- Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 in 2020-2030 compared to 2005-2015;
- Reduce direct disaster economic loss in relation to global gross domestic product by 2030;
- Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030;
- Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020;
- Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of the framework by 2030;
- Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.