Big data for disaster Management

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Why in news?

- UN Asia Pacific social agency has said that big data can be used to mitigate disasters

How does this work?

- There are four primary disaster management processes such as stopping, planning, coping and recovering.
- A network of Big Data sensors can help to alleviate disasters by focusing on computer simulations for flooding and cyclone prediction and by forecasting the location and severity of floods. Machine learning can help.
- Early warning systems can be powerful across sensor networks and through the Internet of Things.
- Satellite and drone remote sensing provides rapid damage assessments and affected individuals to prioritize disaster response.
- Public data such as Indian Digital ID (Aadhar) will enable millions of small and marginal farmers impacted by droughts to gain targeted benefits.
- Big data systems have resulted in significant mortality declines and economic loss in northern and eastern Asian typhoons.

What is big data?

- Big data is largely distinguished from data sets so large that traditional data storage and processing methods cannot be stored and analysed.
- It has three features, known as volume, speed and versatility, which differentiate Big Data from other

forms.

- In particular, the development of Big Data was due to a reduction in sensory and mass digitization costs of systems and processes world-wide.