2. Dark Matter

Why in News?

- A researchers have recently created a detailed map of the invisible dark matter that makes up 85% of the universe.

Highlights

- Dark matter is a hypothetical form of matter that is believed to exist in the universe but is invisible and does not interact with light.
- Dark matter is essential to explaining the observed structure of the universe.
- It helps to account for the distribution of matter in galaxies and the cosmic web. Understanding dark matter is important for developing a complete understanding of the universe and its evolution.
- It Is a type of energy that is thought to be responsible for the accelerating expansion of the universe.
- It is a form of energy that fills the entire universe and exerts a negative pressure, pushing galaxies and other matter away from each other.
- Dark energy is estimated to make up about 68% of the total energy content of the universe.
- There is strong indirect evidence, as reflected in various levels like distance scales:
- For example, as we move from the centre of the galaxy to its periphery, there is a significant disparity between the observed plot of star speeds and their estimated figure.
- This implies that the galaxy has a significant amount of dark matter