2) The recent core loading of India's 1st Indigeneous Prototype Fast Breeder Reactor (PFBR) marks a historic milestone in India's Nuclear power Programme. In this context, critically examine the Challenge associated with Nuclear waste management in India? (250 words)

India recently launched its indigeneous prototype Fast Breeder Reactor (PFBR) in Kudankulam Nuclear plant, TN. Became the 3rd country to have PFBR after Russia, in the world.

Historic milestone:

* Now, it became the 3rd country to have commercial PFBR after Russia.
* Capable of producing 500 MeW Nuclear power.
* Using Sodium cooled plant to produce the energy.
* It would produce more energy than the conventional one, with less time.

* Can be used in India's Nuclear Energy Production.

* Can be used in producing Nuclear Atom Bomb.

* It would generate more electricity which is considered as Renewable.

* So, It marks the milestone in India's Renewable energy production.

Challenges:

* cost is more than the conventional.

* Not eco-friendly.

* Generate more Nuclear waste.

* many countries across the world have given up this Reactor.

* US, Germany, Japan & France have given up this.

* India doesn't have the capability to reuse, recycle this much nuclear waste.

* It leads to severe health Hazard to microorganisms as well as Humans.

Way Forward :

* Focus more on Nuclear waste management.
* To generate more Nuclear waste management Technology.
* To construct storage capacity to store such Nuclear waste.
* Integrate this programme as PPP model
* Enable the best practises in the world to manage Nuclear waste.

GS-III (Environment).

3) After cape Town, Bengaluru is marching towards day zero. In this context, examine the causes for Bengaluru's water crisis & suggest measures to overcome the situation. (250 words).

Bengaluru now became the severe water crisis city in India as well as in the world. Karnataka govt announced it as the drought hitting city.

marching towards Day - zero :

* Due to Industrialisation, cape Town in South Africa became the water less or scarcity city in the world.

* Now, Bengaluru is marching towards it

* Although more employment opportunities and standard living, it became the water scarcity city.

* It might leads to the situation where no one can stay there

Causes :-

1) Urbanisation :-

* Rampant Urbanisation in the city leads to the increasing population Density.

* Further, it leads to the increasing Demand of Drinking water.

2) Unsustainable city planning :-

* Leads to the second cause for water shortage.

* construction activities, development Projects without think of the EIA leads to the crisis.

3) No Rain water Harvesting :-

* Running in the Software world, no people in the city thought of the Harvesting practises in their houses.

* Leads to the Groundwater Depletion & water shortage.

Suggestions :-

* Rainwater Harvesting is the need of the Hour.
* EIA should made compulsory in the sensitive areas
* Sustainable urban planning is the most significant step.
* Depletion of rivers, lakes & water Bodies should be stopped.
* Focus more on devolution of jobs and opportunities among other cities.
* It would help in reducing population density in the major cities.
* Keep monitor the level of water, quality of water in the water bodies.
* Take steps accordingly