

#### **Prelim Bits 02-12-2017**

### **Coastal Shipping Agreement**

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• Member Countries of BIMSTEC recently discussed the draft text of Coastal Shipping Agreement drafted by the Ministry of Shipping, Government of India.

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• It would apply to coastal shipping (i.e) shipping within 20 nautical miles of the coastline.

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- The objective is to facilitate coastal shipping by promoting lot of cargo movement between the member countries through the cost effective, environment friendly and faster coastal shipping routing.
- It is expected to give a boost to trade between the member countries.
- Coastal ship movements require smaller vessels and lesser draft, and therefore, involve lower costs.
- BIMSTEC grouping Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand

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# Sharavathi Project

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 Sharavathi Project is a pumped storage scheme planned by Karnataka Power Corporation.

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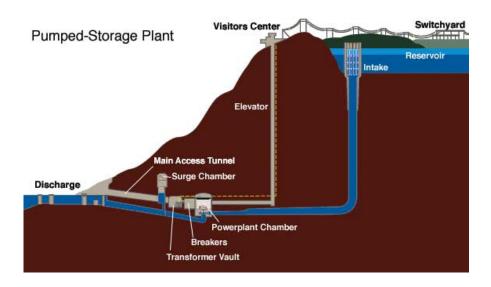
• It involves constructing an upstream reservoir across one of the tributary of Sharavathi River.

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- $\bullet$  There will be one underground power station which will utilise the water from the upstream and downstream reservoir for power generation with a capacity of 2000 MW of electricity. \n
- The underground pipeline connects two reservoirs such as Talakalale and Gerusoppa reservoir. And a power plant is situated underneath a reserve forest.

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- The forest comes between the sharavathi wildlife sanctuary near Jog forest reserve and Aghanashini Lion Tailed Macaque conservation reserve.
- It got pre-construction clearance from the Ministry of Environment and Forests.

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## **Pumped Storage Scheme**

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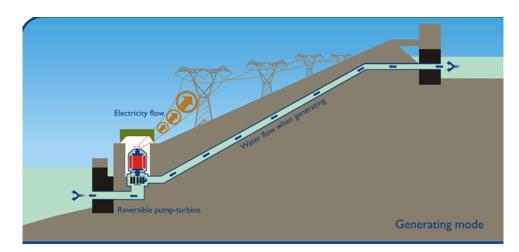
- Pumped storage hydro plants store and generate energy by moving water between two reservoirs at different elevations.
- During times of low electricity demand, such as at night or on weekends, excess energy is used to pump water to an upper reservoir.

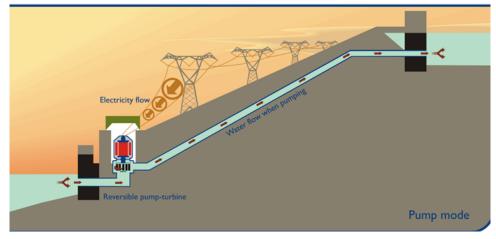
- The turbine acts as a pump, moving water back uphill.
- During periods of high electricity demand, the stored water is released through turbines.

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• A pumped-storage plant works much like a conventional hydroelectric station, except the same water can be used over and over again.

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## **Floating Solar Power Plant**

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- India's largest floating solar power plant project at the Banasura Sagar Dam in Wayanad district is completed and going to be commissioned soon.
- $\bullet$  It has the generating capacity of 500 Kilo watt and it will be fed to the Kerala State Electricity Board grid using underground cables. \n
- It can be more efficient than their ground-mount counterparts due to the

water body's cooling effect on the modules.

- $\bullet$  They collect less dust which cuts down on maintenance and they also preserve water levels through shading. \n
- Earlier in the year NETRA (NTPC Energy Technology Research Alliance), installed a 100kW floating solar plant at Kayamkulam, which is also in Kerala.

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#### Frequent cyclones in Arabian Sea

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• A recent study by researchers has found that extremely severe cyclones are becoming more frequent in the Arabian Sea.

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• Researchers pointed global warming as a reason for increasing frequency of cyclones.

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• Normally, Arabian Sea sees one extremely severe cyclone in every 4 years.

• Cyclones in Arabian Sea -

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1. 1998 - 2013 - Only 5 extremely severe cyclones

2. 2014 - Cyclone Nilofar hitting Gujarat.

3. 2015 - Two cyclones Chapala and Megh hitting the Yemeni island of Socotra.

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4. 2017 - Cyclone Ockhi.

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- There are two factors contributed to the increased severity of Arabian Sea cyclones, particularly post-monsoon.
- First, Arabian Sea surface becomes warmer than the other ocean basins during this period.

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 Second, due to the interplay of global warming, climate variability and weather changes, winter monsoon circulation has been weakening over the years.

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Source: The Hindu, PIB, BusinessLine

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