

25 June 2020: PIB Summary & Analysis

Atma Nirbhar Uttar Pradesh Rojgar Abhiyan

Context:

PM launches Atma Nirbhar Uttar Pradesh Rojgar Abhiyan.

About Atma Nirbhar Uttar Pradesh Rojgar Abhiyan:

- In the wake of the COVID-19 pandemic and the ensuing lockdown, many migrant workers returned to their native places.
- In order to generate employment with thrust towards creating infrastructure in the backward regions of the country, the Garib Kalyan Rojgar Abhiyan was launched by the GOI.
- In Uttar Pradesh, nearly 30 lakh migrant workers returned. 31 districts of Uttar Pradesh have more than 25,000 returnee migrant workers. These include 5 aspirational districts.
- The Government of Uttar Pradesh envisaged a unique initiative “Atma Nirbhar Uttar Pradesh Rojgar Abhiyan” which dovetails programmes of the Government of India and the State government while creating partnerships with Industry and other organizations.
- This Abhiyan is intensely focused towards providing employment, promote local entrepreneurship and create partnership with industrial associations and other organizations to provide employment opportunities.

To know more about the Garib Kalyan Rojgar Abhiyan, check [CNA dated June 19, 2020](#).

Product Application and Development Centre (PADC)

Context:

Product Application & Development Centre (PADC) setup by Indian Oil at Paradip, Odisha inaugurated.

About PADC:

- Indian Oil has set up the PADC adjacent to its refinery and petrochemicals complex.
- There are 4 laboratories in PADC namely Polymer Processing Lab, Analytical Testing Lab, Chemical Analysis Lab and Characterisation Lab.
- The Technical centre is equipped with 50 latest sophisticated polymer testing and processing equipment to cater to the needs of customers and new investors.
- PADC, Paradip is recognized as a research centre by the Department of Scientific and Industrial Research (DSIR), Ministry of Science & Technology, Govt of India.
- PADC will act as an incubation centre for new entrepreneur development in and around Odisha in the field of plastics.
- The centre will render assistance to customers and investors in product and application development for polymer finished products such as molded furniture, houseware, wovensacks for packaging cement, fertiliser, healthcare applications like baby diaper, personal protective suit, mask, etc.
- The centre will carry out testing and developmental activities for investors of Paradeep Plastic Park and other clusters like Balasore and Khurda.
- The centre will impart requisite product and process training to the prospective and budding investors including hand holding activities for plant set-up, selection of machinery and material.
- PADC will provide quality assurance, complaint handling, customer support, benchmarking studies, new & niche grade development and application development activities.

Gravel geometry of the Indus river

Context:

Gravel geometry of the Indus river unravels its paleoclimatic history.

Details:

- Researchers from Wadia Institute of Himalayan Geology (WIHG), Dehradun, an autonomous institute under the Department of Science and Technology, Govt. of India, have traced the paleoclimatic history of the Indus River in Ladakh Himalaya with the help of geometric data from overlapping gravels of channel fills.
- They studied the discharge during periods in which the river experienced an increase in land elevation, due to the deposition of sediment, and its incision.
- River Terraces are ubiquitous in mountains that nourish and help sustain past, present, and future human societies.
 - These terraces are part of valley-wide aggradations, which have been studied extensively in the Himalaya to understand the processes driving such a periodic increase in river valley land elevation and incision.
 - Scientists are still debating whether wetter climate intervals with increased rainfall and glacial melting promote river aggradation through increased discharge and enhanced sediment load, or instead, is it during drier conditions when aggradation occurs through increased sediment to water ratio.
- The study shows that aggradation took place in the Indus River when sediment to water ratio was higher during MIS-3 and incision initiated when sediment to water ratio reduced during post-glacial climatically wet phase (early Holocene).
 - Marine isotope stages (MIS): Marine oxygen-isotope stages are alternating warm and cool periods in the Earth's paleoclimate, deduced from oxygen isotope data reflecting changes in temperature derived from data from deep-sea core samples.

Decline in Arctic sea ice

Context:

The National Centre of Polar and Ocean Research (NCPOR) has found a dramatic decline in the Arctic sea ice due to global warming.

Details:

- The decline of ice has led to localised increase in evaporation, air humidity, cloud cover and rainfall.
 - Arctic sea ice is a sensitive indicator of climate change and has strong retaliatory effects on other components of the climate system.
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Role of ancient algae in building a healthy global marine ecosystem

Context:

A study of a microscopic ancient marine algae (Coccolithophores) led by the NCPOR has found that there is a decrease in the concentration of oceanic calcium carbonate (CaCO_3) in the Southern Indian ocean.

Details:

- This decrease in CaCO_3 is attributed to the increase in the concentration of another single-celled algae known as diatoms.
- This, in turn, will affect the growth and skeleton structure of coccolithophores, with potential significance for the world ocean ecosystem.

Coccolithophores:

- Coccolithophores are single-celled algae living in the upper layers of the world's oceans.
- They have been playing a key role in marine ecosystems and the global carbon cycle for millions of years.
- Coccolithophores calcify marine phytoplankton that produces up to 40% of open ocean calcium carbonate and responsible for 20% of the global net marine primary productivity.
- Coccolithophores build exoskeletons from individual CaCO_3 plates consisting of chalk and seashells building the tiny plates on their exterior.

- Though carbon dioxide is produced during the formation of these plates, coccolithophores help in removing it from the atmosphere and ocean by consuming it during photosynthesis.
- At equilibrium, coccolithophores absorb more carbon dioxide than they produce, which is beneficial for the ocean ecosystem.

About the study:

- The research team has revealed that the abundance and diversity enrichment of coccolithophores in the southern Indian Ocean is highly dependent on time and influenced by various environmental factors such as silicate concentrations, calcium carbonate concentration, diatom abundance, light intensity and availability of macro and possibly micronutrient concentrations.
- The research team's analysis revealed that the reduction of coccolithophore diversity in the early summer and late summer periods is due to an increase in the presence of diatom algae, which occurs after sea ice breakdown with climate change and ocean acidification, and increases the silicate concentration in the waters of the Southern Ocean.
- The scientists also analyzed the maximum coccolithophore diversity during mid-summer in the Subtropical Zone (STZ) and Sub-Antarctic Zone (SAZ), which is controlled by elevated silicate, low temperature, and low salinity conditions.
- Scientists found that the biogeographic boundaries of coccolithophores in the southern Indian Ocean are highly variable, controlled by environmental factors in early and mid-austral summer, and grazing pressure in late austral summer.
- Also, physical forcing may play an important role in the transport of coccoliths and coccospheres at high latitudes, indicating that the southward extension of coccolithophores is important and may occur for short periods during hot summer.
- The results of the study point to climate change as a major reason for the altered coccolithophore calcification rate.
- Different environmental factors and the ability of the species to adapt to those environmental changes would ultimately determine the future coccolithophore calcite production.
- These investigations are important for future intervention to bring positive changes in the marine ecosystem and global carbon cycle.

Proposed Electricity (Amendment) Bill 2020

Context:

The Ministry of Power has prepared a draft proposal for Amendments in Electricity Act 2003 in the form of draft Electricity (Amendment) Bill 2020.

Details:

- The broad objectives of the proposed amendments:
 - Ensure consumer centricity
 - Promote Ease of Doing Business
 - Enhance sustainability of the power sector
 - Promote green power

For more on the proposed amendments, check [CNA dated May 19, 2020](#).

