Prelim Bits 20-08-2021 | UPSC Daily Current Affairs

India Cooling Action Plan

- The 20-year India Cooling Action Plan (ICAP) was released by Ozone Cell of the Environment Ministry in 2019.
- The ICAP aims to bring down the refrigerant demand by 25 to 30% in the next 20 years.
- It aims to recognize "cooling and related areas" as a thrust area of research under the National S&T Programme.
- It describes cooling as a "developmental need" and seeks to address the rising demand in cooling, from buildings to transport to cold-chains, through sustainable actions.
- The plan estimates that the national cooling demand would grow 8 times in the next 20 years, which would result in a corresponding 5 to 8-fold rise in the demand for refrigerants that involve the use of HFCs.
- As part of the ICAP, the government has also announced targeted R&D efforts aimed at developing low-cost alternatives to HFCs.
- Such efforts are already underway at the Hyderabad-based Indian Institute of Chemical Technology and IIT Bombay.
- **Other objectives** - It will assess the cooling requirements across sectors and the associated refrigerant demand and energy use.
- The goals emerging from the suggested interventions stated in ICAP are,

Goals	Targets
Reduction of cooling demand across sectors	20% to 25 % by 2037-38
Reduction of refrigerant demand	25% to 30% by 2037-38
Reduction of cooling energy requirements	25% to 40% by 2037-38
Skilling and certifying 100,000 Refrigeration and AC servicing sector technicians, in synergy with Skill India Mission	2022-23

Kigali Amendment

Recently, India has ratified the Kigali Amendment to the 1989 Montreal Protocol for protection of the ozone layer.

- Despite being one of the main architects of the Kigali Amendment, India was the last major country to announce its decision to ratify it.
- Kigali Amendment, negotiated in Rwanda (2016), to the Montreal Protocol is for phasing out hydrofluorocarbons (HFCs) - A greenhouse gas.
- Under this amendment, countries agreed to include HFCs in the list of controlled substances under Montreal Protocol.
- **Target** - Under the Kigali Amendment, current HFC use has to be curtailed by 85% before

2050.
- India has to achieve this target by 2047 while the developed countries have to do it by 2036. China has a target of 2045.
- While the reductions for the rich countries have to begin immediately, India has to begin cutting their HFC use only from 2031.
- **Significance** - If implemented successfully, the Kigali Amendment may prevent about 0.5°C rise in global warming by 2100.
- It is crucial to achieve Paris Agreement target of restricting temperature rise to within 2°C from pre-industrial times.
- To know more about Kigali Amendment, click here.

Montreal Protocol

- It aims to protect the ozone layer by taking measures to control total global production and consumption of substances that deplete it.
- The protocol's objective is to eliminate Ozone Depleting Substances (ODS) on the basis of developments in scientific knowledge and technological information.
- It mandated the complete phase-out of CFCs and other ODSs, which it has successfully did in the last 3 decades.
- Their phase-out has already avoided an estimated 135 billion tonnes of CO_2 equivalent emissions between 1990 and 2010.
- The UNEP estimates that, with Kigali Amendment, the avoided emissions could touch 420 billion tonnes of CO2 equivalent by 2100.

Hydrofluorocarbons

- HFCs are a family of chemicals used extensively in the air-conditioning, refrigeration and furnishing foam industry.
- HFCs, though benign to the ozone layer, were powerful greenhouse gases.
- They are known to be much worse than CO_2 in causing global warming.
- According to the UNEP, the average global warming potential of 22 of the most used HFCs is about 2,500 times that of CO_2.
- CFCs were gradually replaced, first by hydrochlorofluorocarbons (HCFCs), and eventually by HFCs.
- The transition from HCFCs to HFCs is still happening, particularly in the developing world.

Narsinh Mehta

A documentary called 'Gandhi's Song' sheds new light on the saint who inspired the Mahatma Gandhi.

- Mahatma Gandhi's favourite bhajan, 'Vaishnav jan to', was written by Narsinh Mehta [@ Narsi Mehta/Narsi Bhagat (1414-1480)].
- He is a 15^{th} Century poet-philosopher of the Vaishnava sect, from the Bhakti era who hailed from Junagadh, Gujarat.
- Born in an upper-caste family, Narsinh has "angered" his community by "mingling" with everyone and considering all humanity as equal.
- Narsinh wrote in ecstasy about Krishna, and he is known as an 'Adi Kavi' or 'the primary poet' of Gujarat.
- He is known for his literary forms called "pada (verse)", "Akhyana" and "Prabhatiya" (morning devotional songs).

Vaishnav jan to

- This bhajan was first introduced by Gandhi to fellow residents of the Phoenix Settlement and Tolstoy Farm in South Africa around 1907.
- This bhajan was played in all his prayer meetings and was Gandhi's moral weapon. It is at the epicentre of his Ahimsa philosophy.

River Pollution in Africa

A new report has found that rivers in some African countries are turning the colour of ink, and fast fashion is behind it.

- The report claimed that the untreated or partially treated effluent from textile factories (blue or indigo in colour) is killing the African rivers.
- Trade agreements, tax incentives and cheap labour have spurred rapid growth of the industry, mainly in Tanzania, Ethiopia, Lesotho and Madagascar.
- The report flagged two major problems,
    1. Production of cotton and leather as inputs - that extensively use chemical, insecticides and fertiliser - pose significant water risks.
    2. Lack of transparency on who sources and manages these raw materials.

In 2015 alone, the global textiles and clothing industry was responsible for the consumption of 79 billion cubic metres of water.

- Producing cotton burdens water resources and leads to salinisation, soil erosion and degradation.
- Other stages of production entail many water-polluting activities like,
    1. Unsafe management of solid waste and sludge,
    2. Unsafe handling of chemicals used,
    3. Shipping of products causing water pollution on the waterways,
    4. Release of microplastic in water,
    5. Fast-fashion, which makes most of our collection disposable.

Sugarcane Price being Static in Punjab

Price of sugarcane in Punjab, which is decided by Punjab government under its State Agreed Price (SAP) policy, has not been hiked since 2017-18.

- This despite the fact that the input cost for growing cane has gone up manifolds in these years.
- The neighbouring states like Haryana, Uttarkhand and UP have fixed prices higher than Punjab.
- Even the Fair and Remunerative Price (FRP), decided by the government of India, is increasing to some extent every year or in a couple of years but there is no hike in SAP in the state for the past four years.
- Punjab farmers are now demanding an increase in the SAP before the beginning of crushing.
- If the price of the cane is not increased this year the area under sugarcane will go down further in the coming planting season which is a big challenge for the much needed diversification in the state.

Fair and Remunerative Price

- FRP, which is fixed under sugarcane control order, 1966, is the Minimum price that sugar mills are supposed to pay to the farmers.
    - But main cane growing states determine their own SAP which is generally higher than the FRP.
- The FRP has been determined on the basis of recommendations of Commission for Agricultural Costs and Prices (CACP) and after consultation with State Governments and other stake-holders.
- It is used in sugarcane industry and is fixed by the government but is paid by the mill owner.
- Recommended FRP has been arrived at by taking into account various factors such as
    1. Cost of production,
    2. Overall demand-supply situation,
    3. Domestic and international prices,
    4. Inter-crop price parity,
    5. Terms of trade prices of primary by-products
    6. Likely impact of FRP on general price level and resource use efficiency.

Source: PIB, The Hindu, The Indian Express