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Infrastructure for Resilient Island States

India and UK will together launch the initiative for the Resilient Island States (IRIS) for developing infrastructure of small island nations in COP26.

- IRIS aims to **strengthen critical infrastructure in small island states against disasters** induced by climate change.
- IRIS is the first major initiative by India under the Coalition for Disaster Resilient Infrastructure (CDRI) started in 2019.
- IRIS seeks to operationalize the CDRI initiative, as Small Island states are the most vulnerable to the impacts of climate change.
- Major threats to Small Island states - Rising seas, and major weather events such as large storms triggered by climate change.

Coalition for Disaster Resilient Infrastructure

- CDRI is India's second international climate initiative by India in 2019; the first was the International Solar Alliance, launched in 2015.
- CDRI was launched as a global partnership to promote **resilient climate-proof critical infrastructure** in member countries.
    - 26 countries, including US, Germany, UK, Australia, Brazil, Bangladesh, Afghanistan, Nepal, Bhutan, and Sri Lanka are already part of the coalition.
- The coalition will not create any new infrastructure - rather, it will serve as a '**knowledge centre**' for member countries to share and learn best practices with respect to disaster-proofing of infra.
- It will work towards making existing and upcoming infrastructure in member countries more robust and resilient against climate disasters such as floods, heat, cyclones, forest fires, and rain.
- The aim of CDRI is to minimise the damage and disruptions.

> According to CDRI estimates, every one dollar invested in making infrastructure more resilient in low- and middle-income countries can potentially save losses of over $4 when a disaster strikes.

Wolbachia Mosquitoes

Researchers from the World Mosquito Program (WMP) have found a way to fight disease-bearing mosquitoes by breeding Aedes aegypti mosquitoes, which carries Wolbachia bacteria.

- Wolbachia is a common bacterium that occurs naturally in 60% of insect species, including some mosquitoes, fruit flies, moths and butterflies.
- But, it is not found in dengue-carrying Aedes aegypti mosquitoes, the primary species

responsible for transmitting human viruses such as Zika, dengue, chikungunya and yellow fever.

- Now, the lab-bred mosquitoes with Wolbachia will mate with mosquitoes with dengue, which will produce Wolbachia mosquitoes.
- Wolbachia bacteria in the mosquitoes prevent viruses like dengue from growing inside them. So even if they bite people, it won't affect them.
- Trial results showed that deploying mosquitoes with Wolbachia reduced dengue cases by as much as 77% and hospitalisations by up to 86%.
- Wolbachia method helps to protect communities from mosquito-borne diseases like Zika, dengue, chikungunya and yellow fever, and does so without posing a risk to natural ecosystems or human health.

According to the World Health Organization (WHO), global dengue infections have risen rapidly in recent decades, with about half of the world's population now at risk. An estimated 100-400 million infections are reported every year.

India's five-point Climate Action Plan

Indian Prime Minister announced as part of a five-point Climate Action plan at the COP26 summit in Glasgow.

- By 2070, India will achieve the target of net zero emissions. (India's first commitment towards net-zero emissions.)
- [Going 'Net Zero' indicates a situation where all the carbon dioxide or greenhouse gases produced by a country is completely absorbed via natural solutions or through the use of advanced technology.]
- By 2030, India will increase its non-fossil fuel power capacity to 500 gigawatts (GW) up from 450GW.
- By 2030, India will ensure 50% of its energy will be sourced from renewable energy sources.
- India will reduce its carbon emissions by 1 billion tonnes from business as usual by 2030.
- By 2030, India will reduce its carbon intensity goal - measured as carbon dioxide emissions per unit of GDP - by less than 45% (increased from 35% to 45%).
- **Related Links** - Net-zero Targets of Countries

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