

Environment and Biodiversity – Dec'18**UN Momentum For Change Climate Action Award****In News**

- Indian group **Help Us Green** is one of the fifteen game-changing initiatives that were recently awarded the **UN 'Momentum for Change' climate action award** at the UN Climate Change Conference (COP 24).
- These projects showcase how ideas, big and small, are successful in tackling climate change.
- Winning activities include a mobile app that promotes the fight against food waste and hunger worldwide to an entire government that is taking 100% responsibility for its greenhouse gas emissions.
- 15 game changing initiatives are:
 - Climate-Efficient School Kitchens and Plant-Powered Pupils | Germany: Two initiatives which are providing healthy, climate-friendly meals in German schools
 - Santiago Biofactory | Chile: is transforming Santiago's three wastewater treatment plants into "biofactories" that convert wastewater and sewer sludge, a wastewater treatment by-product, into clean energy
 - Composting Waste Treatment: An Ecological Solution to Poverty and Climate Change | Haiti: Sustainable Organic Integrated Livelihoods (SOIL) is building composting toilets in Haiti
 - Sri Lanka Mangrove Conservation Project | Sri Lanka: is helping Sri Lanka become the first nation in history to preserve and replant all of its mangrove forests.
 - Creating the Greenest Football Club in the World - Forest Green Rovers | United Kingdom
 - Monash's Net Zero Initiative | Australia: Australia's largest university, has committed to reach net zero emissions by 2030 for all four of its Australian campuses
 - Klimanjarø – Climate Neutral Supply Chain | Norway: Fjordkraft, the second largest electricity retailer in Norway, is using its purchasing power to inspire all its suppliers to be climate neutral by 2019.
 - Carbon Neutral Government Program | Canada: In 2010, British Columbia became the first government at the provincial, territorial, or state level in North America to take 100% responsibility for the greenhouse gas pollution from all 128 of its public-sector organizations.
 - "Yalla Let's Bike" Initiative | Syria: Women are defying traditional gender roles and combatting overcrowded streets by promoting cycling as a healthy and sustainable mode of transportation in the war-ridden city of Damascus.
 - Women Leading a Food Sharing Revolution! | UK, Sweden, USA: Women are leading a food revolution with OLIO, the world's only neighbor-to-neighbor food sharing app
 - HelpUsGreen | India: Women are creating compost from ceremonial flowers and simultaneously cleaning up the River Ganges.
 - Feminist Electrification: Ensuring Pro-Women Outcomes in Rural Energy Access | Haiti: Energy poverty, a lack of access to modern energy services, is disproportionately affecting women in rural areas. This project is meeting this challenge head on by approaching all its energy access projects with a gender lens, referring to this as "feminist electrification."

- Rwanda Green Fund – FONERWA | Rwanda: The Rwanda Green Fund (FONERWA) is investing in public and private projects that drive transformative change. It is one of the first national environment and climate change investment funds in Africa.
- The MAIS Program | Brazil: is helping family agricultural operations adapt to climate change in the Jacuípe Basin, Brazil's semi-arid region. It is one of the first ever climate smart agricultural programmes to mainstream climate disruptive technologies among farmers in Brazil.
- Catalytic Finance Initiative | Global: Bank of America is working with partners to mobilize approximately USD 10 billion for innovative and high-impact climate mitigation and sustainability-focused investments.

Help Us Green

- Help Us Green has come up with the world's first profitable solution to the monumental temple waste problem: **flowercycling**.
- It has specifically been identified for its **potential to clean up river Ganga and empower thousands of women in Uttar Pradesh by giving them a secure life** by engaging them into an eco-friendly recycling works round the year.
- Women working with Help Us Green collect floral-waste daily from temples. The waste is up-cycled to produce **organic fertilizers, natural incense and biodegradable packaging material**.
- Till date, 11,060 metric tonnes of temple-waste has been flowercycled and 110 metric tonnes of chemical pesticides that enter the river through temple waste have been offset.
- In the process the income of 73 manual scavenger families has increased at least six-fold. A total of 365 families have been impacted through increased living standards and stable incomes.
- By 2021, it plans to expand to Bangladesh and Nepal and has aims to provide livelihoods to 5,100 women and recycle 51 tonnes of temple waste daily. Further, it is in talks with the government to scale up across the country.

Momentum for Change

- Momentum for Change is an initiative spearheaded by the **UN Climate Change** secretariat to shine a light on the enormous groundswell of activities underway across the globe that are moving the world towards a highly resilient, low-carbon future.
- **Areas of Focus include** – Planetary Health, Climate Neutral Now, Women for Result, Financing our Climate friendly Investments, Urban Poor, ICT solutions.
- It recognizes innovative and transformative solutions that address both climate change and wider economic, social and environmental challenges.
- These solutions are called **Lighthouse Activities**. They are some of the most practical, scalable and replicable examples of what people, businesses, governments and industries are doing to tackle climate change.

India Water Impact Summit 2018

In News

- The India Water Impact Summit 2018 jointly organized by the **National Mission for Clean Ganga (NMCG) and the Centre for Ganga River Basin Management and Studies** was recently held in New Delhi.

- The Summit is an annual event where stakeholders get together to discuss, debate and develop model solutions for some of the biggest water related problems in the country.
- This year the discussions were on **rejuvenation of the Ganga River Basin**. Multi-country dialogue on the subject, with showcasing of technological innovations, research, policy frameworks and funding models from India and abroad were held.

The focus was on three key aspects:

- **Spotlight on 5 states:** Uttarakhand, Uttar Pradesh, West Bengal, Delhi and Bihar. The objective was to showcase the efforts and works going on within the respective states.
- **Ganga Financing Forum:** Introduction of the inaugural Ganga Financing Forum that will bring a number of institutions to a common knowledge, information and partnership platform.
- **Technology and Innovation:** Implementation of the pilot/demonstration programme known as the Environment Technology Verification (ETV) process. This will provide an opportunity to technology and innovation companies from around the world to showcase their solutions for addressing the problems prevalent in the river basin.
- The efforts may take various forms including data collection (sensors, LIDAR, modelling etc), hydrology, e-flows, agriculture, waste water and more.

National Mission for Clean Ganga (NMCG):

- National Mission for Clean Ganga (NMCG) was registered as a society in August 2011 under the Societies Registration Act 1860.
- It acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment (Protection) Act (EPA), 1986.
- NGRBA has since been dissolved with effect from the 7th October 2016, consequent to constitution of **National Council for Rejuvenation, Protection and Management of River Ganga (referred as National Ganga Council)**.
- NMCG has a two tier management structure and comprises of Governing Council and Executive Committee. Both of them are headed by Director General, NMCG.

MNRE Conferred SKOCH Award

In News

- **Ministry of New and Renewable Energy** has been recently conferred the SKOCH Award for National Significance.
- The Ministry was selected considering its purpose and **critical role played in installing about 73 GW renewable energy** capacity in the country. With 21 per cent of total installed capacity, within the year renewable energy grossed a figure of providing one billion units of electricity in the country.
- Presently, India is ranked fourth in the world in wind energy capacity and fifth in total solar and renewable power capacity.

SKOCH Awards

- The SKOCH awards celebrate human excellence and agents of change in Indian society. The Awards are based on the philosophy of **spearheading positive socio-economic changes through recognising persons who have contributed immensely to salutary transformations in society and governance by displaying exemplary leadership abilities.**

- They are the **highest independently instituted civilian honours in India** since 2003, when these were instituted.

SKOCH Group

- SKOCH Group is a think tank dealing with socio-economic issues with a focus on inclusive growth since 1997.
- The repertoire of services includes field interventions, consultancy, research reports, impact assessments, policy briefs, books, journals, workshops and conferences.

1st International Conference on Sustainable Water Management

In News

- The first International Conference under the aegis of **National Hydrology Project**, Union Ministry of Water Resources, River Development and Ganga Rejuvenation was recently organised by **Bhakra Beas Management Board (BBMB) at Indian School of Business (ISB), Mohali**.
- The theme of the conference was **Sustainable Water Management** which deals with promoting integrated and sustainable development and management of water resources.
- The aim of the Conference is to foster the participation of and dialogue between various stakeholders so as to promote sustainable policies for water management, to create awareness of water-related problems, motivate commitment at the highest level for their solution and thus promote better management of water resources at local, regional, national and international levels.

Ground Water Extraction

In News

- The Central Ground Water Authority of the Union Ministry of Water Resources, River Development and Ganga Rejuvenation has **notified revised guidelines for ground water extraction**.
- The guidelines were revised in the wake of the directions issued by the National Green Tribunal (NGT) to address various shortcomings in the existing guidelines of ground water extraction.
- The revised guidelines, which will be effective from June 1, 2019, *aim to ensure a more robust ground water regulatory mechanism in the country*.

Guidelines

- One of the important features of the revised guidelines is the introduction of **the concept of Water Conservation Fee (WCF)**. The WCF payable varies with the category of the area, type of industry and the quantum of ground water extraction.
- It is designed to **progressively increase** from safe to over-exploited areas and from low to high water consuming industries as well as with increasing quantum of ground water extraction.
- Through this design, the high rates of WCF are expected to discourage setting up of new industries in over-exploited and critical areas as well as act as a deterrent to large scale ground water extraction by industries, especially in over-exploited and critical areas.

- Other salient features of the revised guidelines include **encouraging use of recycled and treated sewage water** by industries.
- **Provision of action against polluting industries**, mandatory requirement of digital flow meters, piezometers and digital water level recorders (with or without telemetry depending upon quantum of extraction), **mandatory water audit by industries abstracting ground water 500 m³/day** or more in safe and semi-critical and 200 m³/day or more in critical and over-exploited assessment units.
- **Mandatory roof top rain water harvesting except for specified industries** and measures to be adopted to ensure prevention of ground water contamination in premises of polluting industries/projects.

Exemptions

- As per the revised guidelines, exemption from requirement of NOC has been given to *agricultural users, users employing non-energised means to extract water, individual households (using less than 1 inch diameter delivery pipe) and Armed Forces Establishments during operational deployment or during mobilization in forward locations.*
- Other exemptions (with certain requirements) have been granted to **strategic and operational infrastructure projects** for Armed Forces, Defence and Paramilitary Forces Establishments and Government water supply agencies.

Ground Water Extraction Scenario in India

- Ground water extraction in India is **primarily for irrigation in agricultural activities**, accounting for nearly 228 BCM (Billion Cubic Meter), which amounts to 90% of the annual ground water extraction.
- The remaining 10% of extraction (25 BCM) is for drinking & domestic as well as industrial uses. Industrial use is estimated to account for only about 5% of the annual ground water extraction in the country.
- **India is the largest user of ground water in the world**, extracting ground water to the tune of 253 bcm per year, which is about 25% of the global ground water extraction.
- **Central Ground Water Authority (CGWA)**, constituted **under the Environment (Protection) Act of 1986** has the mandate of regulating ground water development and management in the country.

Eco-Sensitive Zone

In News

The Supreme Court has directed the Centre to declare "at the earliest" 10 km area around 21 National Parks and Wildlife Sanctuaries in the country as **Eco-Sensitive Zone (ESZ) to protect wild birds and animals.**

Who decides the ESZ?

- The Union Ministry of Environment, Forests and Climate Change (MoEFCC) notifies areas close to National Parks and Wildlife Sanctuaries as ESZ, aimed at creating "shock absorbers" for protected animals and birds by regulating and managing activities there.
- It can direct that certain industries and operations are not carried out, or subjected to safeguards, in ESZs.

More Details Of The Order

- The 21 National Parks and Wildlife Sanctuaries, without ESZ are in Assam, Jammu and Kashmir, Karnataka, Maharashtra, Manipur, Meghalaya, Nagaland, Uttar Pradesh and West Bengal.
- **There are 662 national parks and wildlife sanctuaries in the country.** The proposals for declaring areas around these National Parks and Wildlife Sanctuaries as Eco Sensitive Zone have been received from state governments/UT Administrations for 641 National Parks and Wildlife Sanctuaries. No proposals have been received in respect of 21 National Parks and Wildlife Sanctuaries.
- The Centre has accepted and notified ESZs for 289 National Parks and Wildlife Sanctuaries as on November 2018, and draft notifications for 206 were ready.
- Some **prominent national Parks and wildlife sanctuaries without operational ESZs** include Pobitora Sanctuary of Assam, Hemis High Altitude National Park and Kishtewar National Park of Jammu and Kashmir, Jogimatti Sanctuary of Karnataka, Deolgaon Rehekuri Sanctuary of Maharashtra, Sirohi National Park of Manipur, Baghmara Pitcher Plant Sanctuary of Meghalaya, Fakim Sanctuary of Nagaland and Pilibhit Sanctuary of Uttar Pradesh.

About ESZ:

- **ESAs are defined as those areas ‘that are ecologically and economically important**, but vulnerable even to mild disturbances, and hence demand careful management’. Therefore ‘ecologically and economically important’ areas are those areas that are biologically and ecologically ‘rich’, ‘valuable’ and or ‘unique’, and are largely irreplaceable if destroyed.
- **Section 3 of the Environment (Protection) Act 1986 (EPA) gives power to the Central Government i.e. the Union Ministry of Environment and Forests to take all measures that it feels are necessary for protecting and improving the quality of the environment and to prevent and control environmental pollution.** To meet this objective, the Central Government can restrict areas in which any industries, operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards. **Thus the government came up with the concept of Eco Sensitive Zones.**
- There are three important categories of attributes that need to be considered in defining the ecological salience/significance/sensitivity of an area: physico-climatic features (geo-climatic features), biological features and social relevance (including cultural, economic and historical importance) of the area.
- All these may be grouped as (a) **abiotic attributes**, (b) **biotic attributes** and (c) **anthropological or socio-cultural attributes.**

India, Nepal, Bhutan Plan Joint Task Force To Protect Wildlife**What is the Plan?**

The governments of India, Nepal and Bhutan are actively considering having a joint task force for allowing free movement of wildlife across political boundaries and checking smuggling of wildlife **across the Kanchenjunga Landscape**, a trans-boundary region spread across Nepal, India and Bhutan.

Need for Joint Task Force

- The landscape stretches along the southern side of Mount Kanchenjunga covers an area of 25,080 sq km spread across parts of eastern Nepal (21%), Sikkim and West Bengal (56%) and western and south-western parts of Bhutan (23%).

- Other than seven million people, the Kanchenjunga Landscape is also home to 169 species of mammals and 713 species of birds.
- **According to the International Centre for Integrated Mountain Development (ICIMOD),** a regional knowledge development and learning centre, 1,118 sq km of riverine grassland and tree cover were lost in the landscape between 2000 and 2010.
- 74 % of the area was converted into rangeland and 26% to agricultural land.
- Studies by the ICIMOD suggest that between 1986 and 2015, as many as 425 people were killed by elephants (an average of 14 human deaths every year) and 144 elephants were killed between 1958 and 2013 (an average of three elephants every year).
- Every few months there were cases of elephants, rhino and gaurs and other mammals crossing over political boundaries, triggering panic among locals across the border and also posing danger to the wildlife.

- **South Asia Wildlife Enforcement Network (SAWEN) is an inter-governmental wildlife law enforcement support body of South Asian countries namely - Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.** SAWEN was officially launched in January, 2011 in Paro Bhutan.
- It promotes regional cooperation to combat wildlife crime in South Asia. It focuses on policy harmonization; institutional capacity strengthening through knowledge and intelligence sharing; and collaboration with regional and international partners to enhance wildlife law enforcement in the member countries. SAWEN operates its activities from the Secretariat based in Kathmandu, Nepal.

Centre To Give Indian Forest Act A Facelift

In News

The Ministry of Environment, Forest and Climate Change (MoEF&CC) has started the process of “comprehensively amending” the backbone of forest governance in India—the **Indian Forest Act, 1927 (IFA)**.

Highlights

- The process would involve the examination of all the sections of the Act. The obsolete provisions will be weeded out and provisions fit for the present will be introduced.
- The amendments will also include definitions of terms like forests, pollution, ecological services etc.
- There is **no definition of forest** in any Indian law pertaining to forest or its governance. According to the 1996 Supreme Court order, the dictionary definition of the word forest is taken to be the legal definition too.
- The legal definition of forests will have huge ramifications on the conservation of forests as well as the implementation of the Scheduled Tribes and **Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006**.
- The amendments will include changes to punishments and fines prescribed in the IFA, incorporate provisions related to carbon sequestering, ecological services etc.

What the Supreme Court Had Said

- The word forest must be understood according to its **dictionary meaning**. This description covers **all statutorily recognised forests**, whether designated as **reserved, protected or otherwise** for the purpose of Section 2(i) of the Forest Conservation Act (1980).
- The term forest land, occurring in Section 2, will not only include forest as understood in the dictionary sense, but also any area recorded as forest in the government record irrespective of the ownership," the apex court had said in its order dated December 12, 1996.
- Many reports like the **MB Shah report of 2010 and the TSR Subramanian report of 2015**, have talked about amending the IFA.

Indian Forests Act, 1927

- **The Indian Forest Act, 1927 was largely based on previous Indian Forest Acts implemented under the British.** The most famous one was the Indian Forest Act of 1878.
- Both the 1878 act and the 1927 sought to consolidate and reserve the areas having forest cover, or significant wildlife, to regulate movement and transit of forest produce, and duty leviable on timber and other forest produce.
- It also defines the procedure to be followed for declaring an area to be a Reserved Forest, a Protected Forest or a Village Forest.
- It defines what is a forest offence, what are the acts prohibited inside a Reserved Forest, and penalties leviable on violation of the provisions of the Act.

Tiger Conservation

In News

According to the National Tiger Conservation Authority (NTCA), India saw 92 tiger deaths in 2018, with Madhya Pradesh topping the list at 23, and Maharashtra ranking second.

Analysis

- In most of the states, the specific reason behind a majority of tiger deaths could not be ascertained. In a few cases, the reason is based on opinion or circumstances but the forest department in every state should focus on a holistic mortality investigation.
- It is necessary to know the accurate reason of death to identify the pattern and work on minimizing mortality.
- Veterinarians are unable to diagnose the cause of death if the carcass is decomposed. Timely detection of carcass is necessary.

Battle For Space

- Tigers have lost more than 93% of their historical range, according to WWF, due to habitat degradation.
- As forest covers across the globe continue to shrink, humans and tigers have been left to compete for space to survive.
- The fallout has been calamitous for all wildlife globally. **WWF's 2018 Living Planet Index shows an overall decline of 60% in the population of vertebrates between 1970 and 2014.**
- **Linear infrastructure development** has emerged as the single-largest threat to the demographic viability of tigers, as per a study published in February by non-profit Wildlife Conservation Trust.
- Simply put, more tigers equals more opportunity for conflict with people. Add to that increasing human populations in India and it is no surprise that human-tiger conflict (HTC) will increase.

- Hence, as India's conservation efforts become ever more successful, there must be an **increased focus on managing HTC** (e.g. tiger-proof livestock enclosures and livelihoods programmes that reduce human and livestock dependency on forests where tigers occur), first with measures to prevent it from happening and second with measures to rapidly address conflict when it does happen.
- Tigers are definitely **indicators of the amount of protection** (in wildlife areas) and the **health of the primary ecosystem**. They also have an umbrella effect in terms of conservation.
- By conserving tigers, we will end up conserving species that need areas which are similar to what tigers need. So a lot of species benefit, indirectly, from tiger conservation.

Way Forward

- If the tiger and other species that form its ecosystem have to be saved in India, the effort has to continue to intensify and involve everyone from conservationists and forest departments to citizens and the media.
- We need to ensure that a **proper zonation is done** where development and wildlife conservation have boundaries.
- A big threat that looms over conservation activities is **wildlife trade**. Tiger activists were driven up the wall earlier this year when China decided to ease a 25-year-old ban on the trade of tiger bones and rhino horns. After a global outcry, the decision to ease this ban was postponed.

IN BRIEF

► Started in 1973, Project Tiger has been largely successful. **India had 2,226 tigers as per the 2014 All India Tiger Estimation**—a near 60% jump in population compared with 2006, and an increase of around 30% from 2010.

► However, human-tiger conflict is on the rise. On 2 November, **Avni, an alleged man-eater tigress was shot** down by a sharp shooter after a failed plan to capture her.

► Experts have called for **proper zonation when it comes to development near ecologically sensitive areas**. Tiger corridors, too, need to be preserved.

Emergency Campaign Launched To Save The Great Indian Bustard

In News

Wildlife organisations have got together to launch a campaign to save the Great Indian Bustard which in recent years has come **under the critically endangered list**.

Conservation Effort

- The wildlife organisations that have launched the campaign are **The Corbett Foundation in collaboration with Conservation India and Sanctuary Nature Foundation**.
- **The campaign aims at highlighting the overhead power transmission lines that result in the death of these low flying birds with a limited field of vision**. This is the primary threat to the survival of the species especially in the Great Indian Bustard Habitat.
- The campaign petitioned the Ministry of Power and Ministry of New and Renewable Energy for action to be taken to place these power transmission lines underground.
- The Wildlife Institute of India's Endangered Species Recovery Program recommended this solution. The campaign also draws attention to the ecological importance of grasslands which are tragically designated as wastelands.

Need For Conservation

- With the total global population of the Great Indian Bustard reaching and all time low at **fewer than 150 individuals**, this campaign is the need of the hour.
- Many experts believe that these birds might be the first species to become extinct in Independent India. This grassland species is extinct from 95% of its range now.

- **Rajasthan** is the **last stronghold of the Great Indian Bustard**. Fewer than 150 birds survive, of which about 100 live in the Thar Desert.
- **Gujarat** has the next largest population of the bird – between 10 and 25 individuals.

India's Second Biennial Update Report (BUR)

In News

The Union Cabinet chaired by Prime Minister has approved Submission of India's second Biennial Update Report (BUR) to the United Nations Framework Convention on Climate Change (UNFCCC) towards fulfilment of the reporting obligation under the Convention.

Salient Features

- The scope of BUR is to provide an **update to India's first BUR to UNFCCC**.
- The BUR contains **five major components** — *National Circumstances; National Greenhouse Gas Inventory; Mitigation Actions; Finance, Technology and Capacity Building Needs and Support Received and Domestic Monitoring, Reporting and Verification (MRV) arrangements*.
- In 2014, a total of 26,07,488 Gigagram (Gg) CC-2 equivalent (around 2.607 billion tonnes of CC-2 equivalent) of GHGs were emitted from all activities (excluding Land use, land-use change, and forestry (LULUCF)) in India.
- The net national GHG emissions after including LULUCF were 23,06,295 Gg CO₂ equivalent (around 2.306 billion tonnes of CO₂ equivalent).
- Out of the total emissions, **energy sector** accounted for 73%, **Industrial Process and Product Use (IPPU)** 8%, **agriculture** 16% and **waste sector** 3%.
- About 12% of emissions were offset by the carbon sink action of forestland, cropland and settlements

Background

- **India is a Party to the United Nations Framework Convention on Climate Change (UNFCCC)**.
- The Convention, in accordance with its Article 4.1 and 12.1, enjoins upon all Parties, both developed country Parties and developing country Parties to furnish information, in the form of a National Communication regarding implementation of the Convention.
- Conference of Parties to the UNFCCC in its sixteenth session decided that developing countries, consistent with their capabilities and the level of support provided for reporting, should also submit biennial update reports containing updates of national greenhouse gas inventories and information on mitigation actions, needs and support received.
- It was decided that Biennial Update Reports shall be submitted every two years

REDD+ Has Failed To Achieve Its Objectives

In News

A new study by Delhi-based non-profit **Centre for Science and Environment (CSE)** has revealed that **Reducing Emissions from Deforestation and Forest Degradation (REDD+)** - the programme initiated by the United Nations in 2005 to mitigate climate change through enhanced forest management in developing countries - **has largely failed to achieve its objectives**.

Highlights Of The Report Titled 'Rethinking REDD+'

- Large-scale finance for REDD+ has been a major issue as **carbon markets have not materialised** and international funding commitments for REDD+ have been much lower than expected.
- REDD+ implementation costs have been high and benefits for local communities from REDD+ projects have been minimal.
- The report is an assessment of the REDD+ implementation experiences in India, Kenya and Tanzania.
- It highlights the need to rethink the REDD+ mechanism based on these experiences and the findings emerging from new research on the potential of forests to mitigate climate change.

About REDD+

- Since its formalisation in 2006, REDD+ had emerged as the most prominent global mechanism to integrate the role of forests in climate change. It was touted as a win-win situation for biodiversity conservation, carbon sequestration and local livelihoods.
- More than 300 REDD+ initiatives have taken off since 2006. The mechanism has been enshrined in **the Paris Agreement of 2015**, and its implementation is transitioning from smaller, isolated projects to larger, jurisdictional programmes with support from bilateral and multilateral agencies.
- However, **the CSE report reveals that the performance of REDD+ in halting or reversing deforestation remains questionable.**

COP24: Long-Term Vision For Climate Finance Missing At Katowice

In News

After two weeks of crunch negotiations the 197 parties gathered in **Katowice, Poland**, for the United Nations COP24 climate change conference, adopted a “robust” set of implementing guidelines for the 2015 Paris agreement. It was aimed at keeping global warming well below 2^o C compared to pre-industrial levels

What Was Agreed At COP24?

- **Countries settled on most of the tricky elements of the “rulebook” for putting the 2015 Paris agreement into practice.**
- This includes how governments will measure, report on and verify their emissions-cutting efforts, a key element because it ensures all countries are held to proper standards and will find it harder to wriggle out of their commitments.

Why Did It Take So Long?

- **There was a row over carbon credits, which are awarded to countries for their emissions-cutting efforts and their carbon sinks, such as forests, which absorb carbon.**
- These credits count towards countries’ emissions-cutting targets. Brazil, which hopes to benefit from its large rainforest cover, insisted on a new form of wording that critics said would allow double counting of credits, undermining the integrity of the system. **This issue has been put off until next year.**

What Was Not Agreed?

- Largely absent from these talks, which had a technical focus, was the key question of how countries will step up their targets on cutting emissions.

- On current targets, the world is set for 3^o C of warming from pre-industrial levels, which scientists say would be disastrous, resulting in droughts, floods, sea level rises and the decline of agricultural productivity.

When Will That Be Agreed

The key deadline is 2020, when countries must show they have met targets set a decade ago for cutting their emissions, and when they must affirm new, much tougher targets.

What Does The Science Say

The Intergovernmental Panel on Climate Change (IPCC), the global body of the world's leading climate scientists, warned two months ago that allowing warming to reach 1.5C above pre-industrial levels would have grave consequences, including the die-off of coral reefs and devastation of many species.

How Long Have We Got

If we extrapolate from the IPCC's findings, the world has little more than a decade to bring emissions under control and halve them, which would help to stabilise the climate.

Are We Getting There

- After years in which the world's carbon emissions appeared to be stabilising, they are on the rise again. Coal use continues and oil is still the engine of much of the world's economy. Clean energy is coming on-stream at a faster rate than many predicted, and the costs of it have come down rapidly, but its adoption needs to be speeded up.
- Infrastructure, such as energy generation plants, transport networks and buildings, is a central issue: infrastructure built now to rely on high-carbon energy effectively locks in high emissions for decades to come

Were Countries United At The Talks

- The US, Russia, Saudi Arabia and Kuwait joined forces to prevent the conference fully embracing the IPCC's findings, watering down a statement to a weak commendation of the timing of the scientists' report.
- Australia joined with the US in a celebration of coal, and Brazil signalled its climate scepticism under Jair Bolsonaro by withdrawing its offer to host next year's talks.
- But the EU, a handful of other developed countries and scores of developing nations including the poorest and most vulnerable affirmed that they would strive to meet the IPCC's advice on limiting warming to no more than 1.5C.

What Happens Next

- The UN will meet again next year in Chile to thrash out the final elements of the Paris rulebook and begin work on future emissions targets.
- But the crunch conference will come in 2020, when countries must meet the deadline for their current emissions commitments and produce new targets for 2030 and beyond that go further towards meeting scientific advice.