

Environment Current Affairs & Conventions

PARIS & MARRAKESH(CoP22)

INDC

The term 'Intended Nationally Determined Contributions' is sometimes seen in the news in the context of

- (a) pledges made by the European countries to rehabilitate refugees from the war-affected Middle East
- (b) plan of action outlined by the countries of the world to combat climate change
- (c) capital contributed by the member countries in the establishment of Asian Infrastructure Investment Bank
- (d) plan of action outlined by the countries of the world regarding Sustainable Development Goals

‘अंभीष्ट राष्ट्रीय निर्धारित अंशदान (Intended Nationally Determined Contributions)’ पद को कभी-कभी समाचारों में किस संदर्भ में देखा जाता है?

- (a) युद्ध-प्रभावित मध्य-पूर्व के शरणार्थियों के पुनर्वास के लिए यूरोपीय देशों द्वारा दिए गए वचन
- (b) जलवायु परिवर्तन का सामना करने के लिए विश्व के देशों द्वारा बनाई गई कार्य-योजना
- (c) एशियाई अवसंरचना निवेश बैंक (एशियन इंफ्रास्ट्रक्चर इन्वेस्टमेंट बैंक) की स्थापना करने में सदस्य राष्ट्रों द्वारा किया गया पूंजी योगदान
- (d) धारणीय विकास लक्ष्यों के बारे में विश्व के देशों द्वारा बनाई गई कार्य-योजना

Timeline

1972 Stockholm Conference (UN conference on Human Environment), Club of Rome: Silent of Spring

The first World Climate Conference (WCC) (विश्व जलवायु सम्मेलन) takes place-1979 by WMO

Brundland Commission- Our Common Future 1987

Rio 1992 United Nations Conference on Environment and Development

Kyoto 1997

Timeline Contd..

Kyoto entered into force 2005 (MAP)

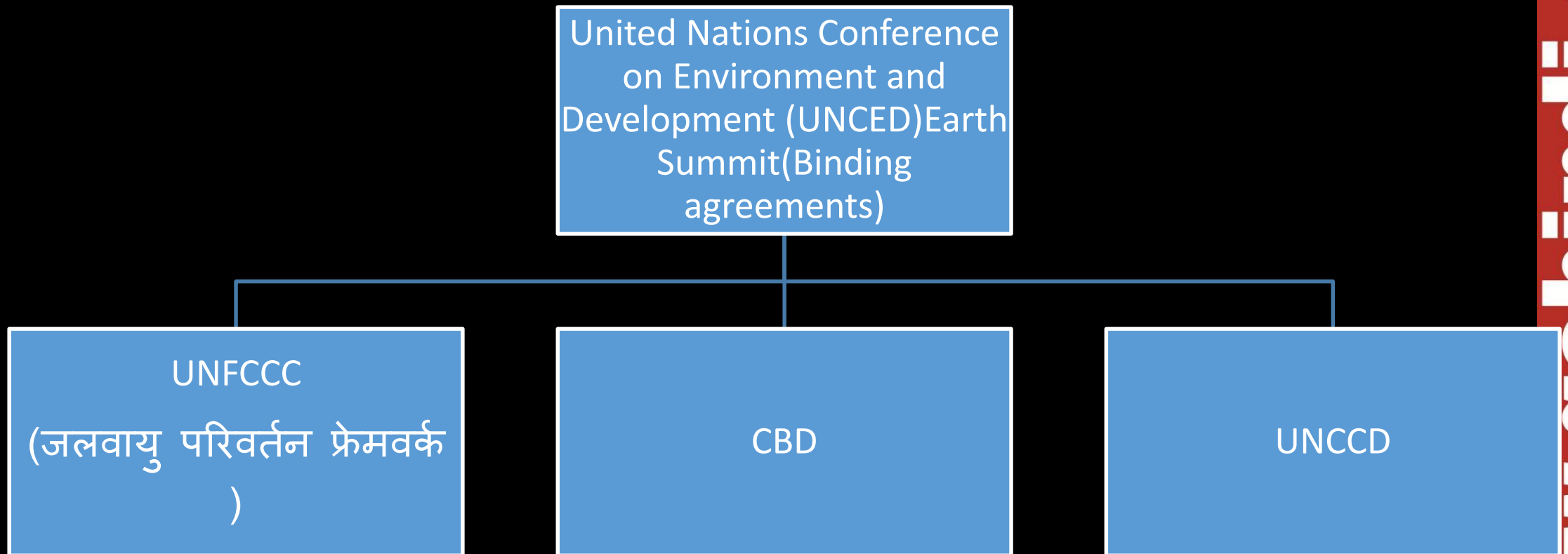
2010 Cancun Summit : GCF (हरित जलवायु निधि)

2012 Doha

2013 Warsaw : Warsaw international mechanism
for loss & Damage, REDD+

2015 Paris

BACKGROUND



Other Work at Rio Summit

Rio Declaration on
Environment and
Development

- 27 Principle
- to guide sustainable development in future

AFENDA 21

- “Voluntary” action plan (स्वैच्छिक कार्य योजना)
- Meeting challenge of 21st century (२१वि सदी की चुनौतियों से निपटना)

Forest Principle

- Sustainable management of forests worldwide.
- Non–legally binding statement

AGENDA 21

With reference to 'Agenda 21', sometimes seen in the news, consider the following statements :

1. It is a global action plan for sustainable development.
2. It originated in the World Summit on Sustainable Development held in Johannesburg in 2002.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

समाचारों में कभी-कभी दिखने वाले 'एजेंडा 21' (Agenda 21) के संदर्भ में निम्नलिखित कथनों पर विचार कीजिए :

1. यह धारणीय विकास के लिए एक वैश्विक कार्य-योजना है।
2. 2002 में जोहानसबर्ग में हुए धारणीय विकास पर विश्व शिखर सम्मेलन (World Summit on Sustainable Development) में इसकी उत्पत्ति हुई।

उपर्युक्त कथनों में से कौन-सा/से सही है/हैं?

- (a) केवल 1
- (b) केवल 2
- (c) 1 और 2 दोनों
- (d) न तो 1, न ही 2

Commission on Sustainable Development

By UNGA for follow up of Earth Summit



Replaced in 2013 by the High-level Political Forum on Sustainable Development which meets both under the **General Assembly** every four years and the **ECOSOC** (United Nations Economic and Social Council) in other years.

GREEN CROSS INTERNATIONAL:

❑ Mikhail Gorbachev



UNFCCC

- ❑ Agreement is binding but don't set binding limits on GHG Emission
- ❑ All subsequent multilateral negotiation on CC on the principle outlined in UNFCCC
- ❑ Parent treaty of the 1997 Kyoto Protocol
- ❑ 197 Parties to the Convention and 192 Parties to the Kyoto Protocol.

Kyoto

- ❑ Only Parties to the UNFCCC can become Parties to the Kyoto Protocol.
- ❑ Cuts in emissions of about 5.5%, compared with 1990 levels, by 2012.
- ❑ Does not include the emissions by the **International aviation and shipping.**

Basic Structure

- ❑ **Marrakesh Accords** : The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." ‘ **ADAPTATION FUND**’
- ❑ The US has not ratified the Kyoto Protocol, while Canada denounced it in 2012. The Kyoto Protocol has been ratified by all the other Annex I Parties.
- ❑ Its first commitment period started in 2008 and ended in 2012.
- ❑ The second one runs from 2013-2020 and is based on the Doha Amendment to the Protocol

Annex in kyoto

Annex Countries	Annex 1	OECD (Organisation for Economic Co-operation and Development) Members in 1992, plus countries with economies in transition (संक्रमंशील अर्थव्यवस्था), including the Russian Federation, the Baltic States, and several Central and Eastern European States. Pledged to reduce their greenhouse gas emissions to 1990 levels by the year 2000.
	Annex II (23)	Required to provide financial resources to enable developing countries to undertake emissions reduction activities under the Convention and to help them adapt to adverse effects of climate change. They have to "take all practicable steps" to promote the development and transfer of environmentally friendly technologies to EIT Parties and developing countries
Non Annex		mostly developing countries. 49 Parties classified as least developed countries (LDCs) by the United Nations are given special consideration under the Convention
Annex A		six gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.
Annex B		Lists the 39 countries and their respective emission target for the first commitment period.

Flexibility Under Kyoto

Carbon Credits

Project Based

Quantitative restriction of emissions

Mechanism

Clean development mechanism स्वच्छ विकास प्रणाली (CER)-> प्रमाणित उत्सर्जन कटौती

Joint Implementation Mechanism संयुक्त क्रियान्वयन (ERU)-> उत्सर्जन कटौती इकाई

International Emissions Trading(अंतर्राष्ट्रीय उत्सर्जन व्यापार) (Selling of excess AAU)

30. Consider the following pairs :

<i>Terms sometimes seen in the news</i>	<i>Their origin</i>
1. Annex-I Countries	: Cartagena Protocol
2. Certified Emissions Reductions	: Nagoya Protocol
3. Clean Development Mechanism	: Kyoto Protocol

Which of the pairs given above is/are correctly matched?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

30. निम्नलिखित युग्मों पर विचार कीजिए :

कभी-कभी समाचारों में देखे जाने वाले शब्द उनका मूल स्रोत

- 1. एनेक्स-I देश : कार्टाजेना प्रोटोकॉल
- 2. प्रमाणित उत्सर्जन कटौतियाँ
(सर्टिफाइड एमिशंस
रिडक्शंस) : नागोया प्रोटोकॉल
- 3. स्वच्छ विकास क्रियाविधि
(क्लीन डेवलपमेंट
मेकेनिज्म) : क्योटो प्रोटोकॉल

उपर्युक्त में से कौन-सा/से युग्म सही सुमेलित है/हैं?

- (a) केवल 1 और 2
- (b) केवल 2 और 3
- (c) केवल 3
- (d) 1, 2 और 3

Kyoto Continue..(Warsaw)

- **WIM:** (हानि और नुकसान के लिए वारसा अंतर्राष्ट्रीय तंत्र): Aims to find ways to address the issue in developing countries that are particularly vulnerable to the adverse effects of climate change.
- **First review in Paris & Next 2019**

- **the Warsaw Framework for REDD+**(वनोन्मूलन और वन निम्नीकरण उत्सर्जन कम करने)
- **Plus:** Deforestation
 - ❖ sustainable management of forests
 - ❖ Increasing forest carbon stocks
 - ❖ Forest conse
 - ❖ rvation
- **Fund:** Forest Carbon Partnership Facility (WB)
- **Forest Investment Program**

FCPF(वन कार्बन भागीदारी सुविधा)

Readiness Fund

- **focuses on providing support to developing countries with tropical forests to help them get ready for REDD+**

Carbon Fund

- **Provide performance-based payments to about five countries that have made significant progress in their REDD+ readiness endeavors.**

Forest Investment Program



- **By World Bank**
- **Under banner of Climate Investment fund**

BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL)

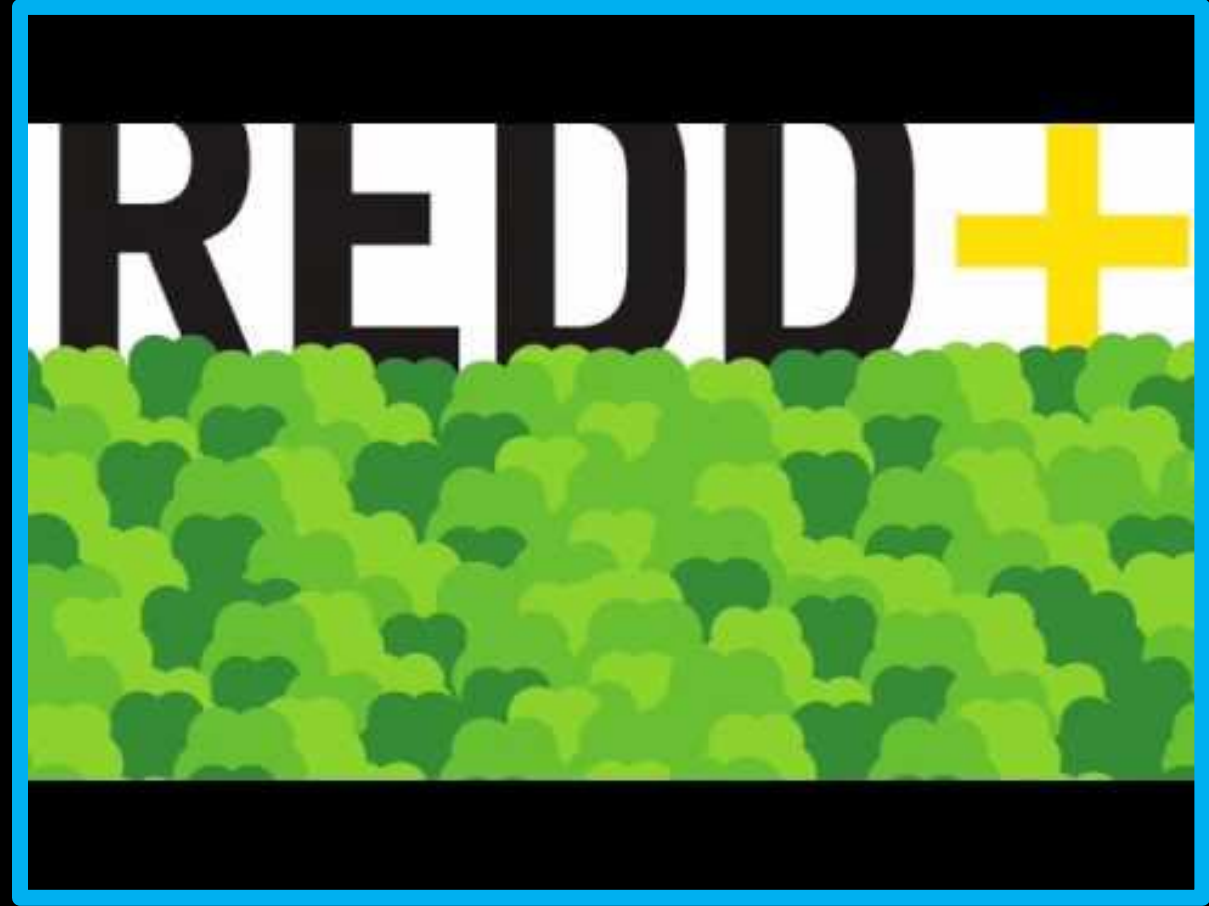


- सशक्त वन परिदृश्य के लिए पहल
- **Managed by :WB**
- **promotes reducing greenhouse gas emissions from the land sector, from deforestation and forest degradation in developing countries (REDD+)**

www.gshindi.com

REDDPlus facts

- **UN-REDD Programme** UNDP, UNEP and FAO jointly established the [UN-REDD Programme](#) in 2007



FCPF

With reference to 'Forest Carbon Partnership Facility', which of the following statements is/are correct?

1. It is a global partnership of governments, businesses, civil society and indigenous peoples.
2. It provides financial aid to universities, individual scientists and institutions involved in scientific forestry research to develop eco-friendly and climate adaptation technologies for sustainable forest management.
3. It assists the countries in their 'REDD+ (Reducing Emissions from Deforestation and Forest Degradation+)' efforts by providing them with financial and technical assistance.

Select the correct answer using the code given below.

- (a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

6. 'वन कार्बन भागीदारी सुविधा (फॉरेस्ट कार्बन पार्टनरशिप फेसिलिटी)' के सन्दर्भ में, निम्नलिखित में से कौन-सा/से कथन सही है/हैं?

1. यह सरकारों, व्यवसायों, नागरिक समाज और देशी जनों (इंडिजिनस पीपल्स) की एक वैश्विक भागीदारी है।
2. यह धारणीय (सस्टेनेबल) वन प्रबन्धन हेतु पर्यावरण-अनुकूल (ईको-फ्रेंडली) और जलवायु अनुकूलन (क्लाइमेट ऐडेप्टेशन) प्रौद्योगिकियों (टेक्नोलॉजीज़) के विकास के लिए वैज्ञानिक वानिकी अनुसंधान में लगे विश्वविद्यालयों, विशेष (इंडिविजुअल) वैज्ञानिकों तथा संस्थाओं को वित्तीय सहायता प्रदान करती है।
3. यह देशों की, उनके 'वनोन्मूलन और वन-निम्नीकरण उत्सर्जन कम करने+ [(रिड्यूसिंग एमिशन फ्रॉम डीफॉरेस्टेशन ऐंड फॉरेस्ट डिग्रेडेशन+)] (REDD+)' प्रयासों में वित्तीय एवं तकनीकी सहायता प्रदान कर, मदद करती है।

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) केवल 1
(b) केवल 2 और 3
(c) केवल 1 और 3
(d) 1, 2 और 3

REDD+

Which of the following statements is/are correct?

Proper design and effective implementation of UN-REDD+ Programme can significantly contribute to

1. protection of biodiversity
2. resilience of forest ecosystems
3. poverty reduction

Select the correct answer using the code given below.

- (a) 1 and 2 only
(b) 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

निम्नलिखित कथनों में से कौन-सा/से सही है/हैं?

UN-REDD+ प्रोग्राम की समुचित अभिकल्पना और प्रभावी कार्यान्वयन महत्वपूर्ण रूप से योगदान दे सकते हैं

1. जैव विविधता का संरक्षण करने में
2. वन्य पारिस्थितिकी की समुत्थानशीलता में
3. गरीबी कम करने में

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) केवल 1 और 2
(b) केवल 3
(c) केवल 2 और 3

PARIS Summit

- ❑ Entered into force on 4 November 2016
- ❑ Indian Approval 2nd Oct
- ❑ पूर्व-औद्योगिक स्तरों की तुलना में ग्लोबल वार्मिंग को कम से कम 2 डिग्री सेल्सियस (डिग्री सेल्सियस) तक सीमित करने का लक्ष्य
- ❑ Parties to put forward their best efforts through “nationally determined contributions” (NDCs) (राष्ट्रीय निर्धारित अंशदान)

PARIS (Elimination)

With reference to the Agreement at the UNFCCC Meeting in Paris in 2015, which of the following statements is/are correct?

1. The Agreement was signed by all the member countries of the UN and it will go into effect in 2017.
2. The Agreement aims to limit the greenhouse gas emissions so that the rise in average global temperature by the end of this century does not exceed 2°C or even 1.5°C above pre-industrial levels.
3. Developed countries acknowledged their historical responsibility in global warming and committed to donate \$ 1000 billion a year from 2020 to help developing countries to cope with climate change.

Select the correct answer using the code given below.

- (a) 1 and 3 only
- (b) 2 only
- (c) 2 and 3 only

वर्ष 2015 में पेरिस में UNFCCC बैठक में हुए समझौते के संदर्भ में निम्नलिखित कथनों में से कौन-सा/से सही है/हैं?

1. इस समझौते पर UN के सभी सदस्य देशों ने हस्ताक्षर किए और यह वर्ष 2017 से लागू होगा।
2. यह समझौता ग्रीनहाउस गैस के उत्सर्जन को सीमित करने का लक्ष्य रखता है जिससे इस सदी के अंत तक औसत वैश्विक तापमान की वृद्धि उद्योग-पूर्व स्तर (pre-industrial levels) से 2°C या कोशिश करें कि 1.5°C से भी अधिक न होने पाए।
3. विकसित देशों ने वैश्विक तापन में अपनी ऐतिहासिक जिम्मेदारी को स्वीकारा और जलवायु परिवर्तन का सामना करने के लिए विकासशील देशों की सहायता के लिए 2020 से प्रतिवर्ष 1000 अरब डॉलर देने की प्रतिबद्धता जताई।

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) केवल 1 और 3
- (b) केवल 2
- (c) केवल 2 और 3
- (d) 1, 2 और 3

Marrakesh Cop22

- ❑ Negotiated to prepare the fine print for Paris deal
- ❑ Rule book by 2018
- ❑ five-year work plan for the Warsaw International Mechanism for Loss and Damage.
- ❑ Established Marrakech Partnership for Global Climate Action वैश्विक जलवायु कार्रवाई के लिए माराकेच भागीदारी: : a platform that facilitates the involvement of non-state actors in pre-2020 climate action
- ❑ Climate Vulnerable Forum (48)- 100 % renewable energy between 2030 and 2050
- ❑ Under2s

Adaptation of African Agriculture (AAA)

- **The triple-A initiative (पहल) seeks to climate-proof agriculture in Africa**
- **By promoting sustainable soil management, better water management, and risk mitigation strategies (जोखिम प्रबंधन रणनीतियां)**
- **27 African countries are already on the platform.**
- **International agencies like the Food and Agriculture Organisation are supporting the alliance.**

2050 Pathway Platform

- ❑ Effort to get countries, cities and businesses to accept long-term targets for climate action.**
- ❑ At least 20 countries, 17 states, 15 cities and 196 businesses joined the platform in Marrakesh.**
- ❑ Each promised to come up with climate objectives for 2050 and strive to work towards achieving those targets.**

Other

- ❑ Climate vulnerable forum
- ❑ Orphan Issues
- ❑ Mission Innovation (अभिनव)

CBD जैव विविधता पर अभिसमय

- **Synthetic Biology**(संश्लेषित जीव विज्ञान): New life forms can potentially be made in labs and existing life forms
- **Legally Binding**
- **CBD Secretariat, based in Montreal, operates under the United Nations Environment Programme.**

- **GOAL:**
- **Conservation of biological diversity**
- **the sustainable use of its components** (अवयवों का सतत उपयोग)
- **The fair and equitable sharing of benefits arising from genetic resources.** (आनुवंशिक ससाधनों से उत्पन्न होने वाले लाभों का निष्पक्ष और न्यायसंगत साझाकरण)

CBD



Cartagena

- ❑ 'जीवित संशोधित जीवों' का सुरक्षित रख-रखाव और उपयोग)
- ❑ **Bio Clearing House**
- ❑ **Don't nullify other international agreement**
(अन्य अंतर्राष्ट्रीय समझौता रद्द नहीं करता)
- ❑ **Allow GM to use in Medicines**
- ❑ **Don't have provision to address health issue arising out of use of GM food**
- ❑ **Finance: GEF**

International Plant Protection Convention (IPPC)

Likelihood of pest groups being carried and introduced with seeds

Arthropods (pre-harvest): Pests feed on seeds during the seed development period	Arthropods (post-harvest): Pests infest seeds after harvest, if the seeds are stored in poor conditions	Fungi: Fungal and fungal-like organisms are associated with seeds without causing disease in the plants	Bacteria: They can be found on or within seeds as external or internal infections	Viruses: They are seed-transmitted only if the seed embryo is infected
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- Overseen by FAO
- Aims to secure coordinated, effective action to prevent and to control the introduction and spread of pests
- Commission on Phytosanitary Measures
- Primary focus : Plants and plant products moving in international trade

Nagoya

- ❑ Aim: Far equitable use of resources लाभों का निष्पक्ष और न्यायसंगत साझाकरण
- ❑ Strategic Plan for Biodiversity 2011-2020".is Aichi->a set of 20 ambitious yet achievable targets, collectively known as the *Aichi Targets*.
- ❑ Nagoya Protocol Implementation Fund

UNCCD

- ❑ Only internationally legally binding framework set up to address the problem of desertification
- ❑ legally binding international agreement linking environment and development to sustainable land management
- ❑ Based on the principles of participation, partnership and decentralization
- ❑ UNCCD is the only convention that was directly recommended by Agenda 21 of the Earth Summit
- ❑ Finance: GEF

UNCCD

What is/are the importance/importances of the 'United Nations Convention to Combat Desertification'?

1. It aims to promote effective action through innovative national programmes and supportive international partnerships.
2. It has a special/particular focus on South Asia and North Africa regions, and its Secretariat facilitates the allocation of major portion of financial resources to these regions.
3. It is committed to bottom-up approach, encouraging the participation of local people in combating the desertification.

Select the correct answer using the code given below.

- (a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

'मरुस्थलीकरण को रोकने के लिए संयुक्त राष्ट्र अभिसमय (United Nations Convention to Combat Desertification)' का/के क्या महत्व है/हैं?

1. इसका उद्देश्य नवप्रवर्तनकारी राष्ट्रीय कार्यक्रमों एवं समर्थक अंतर्राष्ट्रीय भागीदारियों के माध्यम से प्रभावकारी कार्रवाई को प्रोत्साहित करना है।
2. यह विशेष/विशिष्ट रूप से दक्षिणी एशिया एवं उत्तरी अफ्रीका के क्षेत्रों पर केंद्रित होता है तथा इसका सचिवालय इन क्षेत्रों को वित्तीय संसाधनों के बड़े हिस्से का नियतन सुलभ कराता है।
3. यह मरुस्थलीकरण को रोकने में स्थानीय लोगों की भागीदारी को प्रोत्साहित करने हेतु ऊर्ध्वगामी उपागम (बॉटम-अप अप्रोच) के लिए प्रतिबद्ध है।

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) केवल 1
(b) केवल 2 और 3
(c) केवल 1 और 3
(d) 1, 2 और 3

RMASAR

- ❑ Adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.
- ❑ Upon joining, each Contracting Party is obliged to designate at least one wetland site for inclusion in the List of Wetlands of International Importance
- ❑ **Montreux Record:** Changes occurring
- ❑ Not part of UN
- ❑ In India no specific legal framework for wetland conservation Under EPA

Works closely with NGOs

- ❑ BirdLife International -> *World Birdwatch*
- ❑ Wetlands International
- ❑ IUCN
- ❑ IWMI(*International Water Management Institute*): HQ **Colombo**
- ❑ WWF

Wetland International

- ❑ Not-for-profit organisation dedicated to the conservation and restoration of wetlands**
- ❑ Research and community-based field projects**
- ❑ Asian Waterbird Census: From 1987, In Jan**
- ❑ 50th International waterbird Census (IWC)**
- ❑ India Partner : BNHS**

INDIA & RAMSAR

- ❑ **'National Plan for Conservation of Aquatic Eco-systems'** - 'जलीय पारिस्थितिकी प्रणालियों के संरक्षण के लिए राष्ट्रीय योजना'
- ❑ **26 Site: Ramsar**
- ❑ **2 Montreux**

WETLAND INTERNATIONAL

‘वेटलैंड्स इंटरनेशनल’ नामक संरक्षण संगठन के सन्दर्भ में निम्नलिखित में से कौन-सा/से कथन सही है/हैं?

1. यह रामसर अभिसमय के हस्ताक्षरकर्ता देशों द्वारा बनाया गया एक अन्तःसरकारी संगठन है।
2. यह ज्ञान के विकास और संग्रहण के लिए तथा व्यावहारिक अनुभव का बेहतर नीतियों हेतु पक्षसमर्थन करने के लिए क्षेत्र स्तर पर कार्य करता है।

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) केवल 1
- (b) केवल 2
- (c) 1 और 2 दोनों
- (d) न तो 1 और न ही 2

With reference to a conservation organization called 'Wetlands International', which of the following statements is/are correct?

1. It is an intergovernmental organization formed by the countries which are signatories to Ramsar Convention.
2. It works at the field level to develop and mobilize knowledge, and use the practical experience to advocate for better policies.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

HABITAT III

- **U.N. Conference On Housing And Sustainable Urban Development**
- **1st 1976**
- **Every 20 Years**
- **New urban Agenda (NUA)**
- **Non binding**

- **The sustainable development of towns, cities and other human settlements, both rural and urban**

CITES

- ❑ **CHINA & Tiger Farming**
- ❑ **Inter-governmental**
- ❑ **legally binding agreement.**
- ❑ **Plants & Animal**
- ❑ **Administered through: UNEP**
- ❑ **According to the degree of protection**

Appendix I	threatened with extinction.(विलुप्त होने) Trade in specimens of these species is permitted only in exceptional (अपवाद)circumstances.
Appendix II	not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilization incompatible with their survival
Appendix III	protected in at least one country, which has asked other CITES

Quick

- **Basel: Hazardous Waste**
खतरनाक अपशिष्ट GEF No
radioactive
- **Rotterdam Convention:** shared
responsibilities in relation to
importation of
hazardous chemicals , Not
legally Binding
- खतरनाक रसायनों के आयात के
संबंध में साझा जिम्मेदारियाँ और
सूचना का आदान प्रदान
- **Prior Informed Procedure (PIC)**
- पूर्व सूचनात्मक प्रक्रिया

- **Stockholm Convention:**
PoP (Persistent
Organic pollutant)
- **Minamata : Hg**
- **BONN: Conservation of
Migratory Species
(1979, India 1983)**
**Framework Convention
Under UNEP**

Conservation of Migratory Birds of Prey in Africa and Eurasia'

- **Raptor MoU**
- **India 56 Country**
- **legally non-binding agreement**
- **legally non-binding agreement**



Marine Convention

- **London:** Not legally Binding; *Prevention of Marine Pollution by Dumping of Wastes and Other Matter*

(पदार्थों के डंपिंग द्वारा समुद्री प्रदूषण की रोकथाम)

•

- **MARPOL :** International Convention for the Prevention of Pollution From Ships.

The scientific view is that the increase in global temperature should not exceed 2°C above pre-industrial level. If the global temperature increases beyond 3°C above the pre-industrial level, what can be its possible impact/impacts on the world?

1. Terrestrial biosphere tends toward a net carbon source.
2. Widespread coral mortality will occur.
3. All the global wetlands will permanently disappear.
4. Cultivation of cereals will not be possible anywhere in the world.

Select the correct answer using the code given below.

(a) 1 only

(b) 1 and 2 only

वैज्ञानिक दृष्टिकोण यह है कि विश्व तापमान पूर्व-औद्योगिक स्तर से 2°C से अधिक नहीं बढ़ना चाहिए। यदि विश्व तापमान पूर्व-औद्योगिक स्तर से 3°C के परे बढ़ जाता है, तो विश्व पर उसका सम्भावित असर क्या होगा?

1. स्थलीय जीवमण्डल एक नेट कार्बन स्रोत की ओर प्रवृत्त होगा।
2. विस्तृत प्रवाल मर्त्यता घटित होगी।
3. सभी भूमण्डलीय आर्द्रभूमि स्थायी रूप से लुप्त हो जाएँगी।
4. अनाजों की खेती विश्व में कहीं भी सम्भव नहीं होगी।

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

(a) केवल 1

(b) केवल 1 और 2

(c) केवल 2, 3 और 4

(d) 1, 2, 3 और 4

Aviation Climate Deal

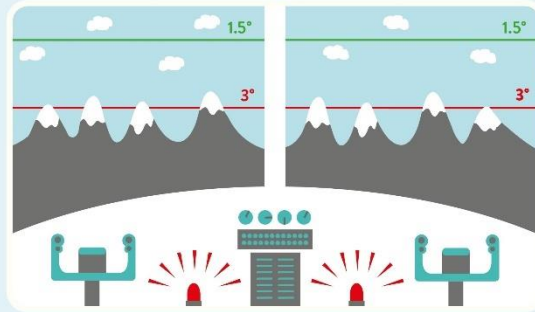
- ❑ Aims to limit rising airline pollution to 2020 levels after it takes effect in 2021
- ❑ Voluntary for 5 years
- ❑ Mandatory by 2027 not for small
- ❑ Review after 3 starting from 2022
- ❑ Backed by China & USA
- ❑ Will apply to passenger and cargo flights that generate more than 10,000 tonnes of annual greenhouse gases.
- ❑ Will only apply to international flights->responsible for around 62% of total aviation emissions.

Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

Flight Safety Card: Global Market Based Measure (GMBM) to address aviation emissions

AVIATION IS NOT ON TARGET TO REACH THE 1.5°C PARIS GOAL.
FOLLOW THESE INSTRUCTIONS FOR A ROBUST GMBM.

KEEP AMBITION HIGH! AIM FOR 1.5°C TO AVOID CLIMATE DISASTER

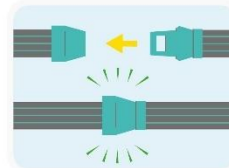


Under the Paris Agreement, countries -including ICAO Member States- are committed to pursue efforts to limit global warming to 1.5°C. A robust market based measure is a first step to put ICAO on the right flight path. If you see aviation's emissions leading to warming of 2°C or more, increase the GMBM's ambition.

1

KEEP YOUR TARGET BINDING

A binding target for aviation is needed to ensure confidence in and effectiveness of the GMBM.



NO BAD OFFSETS ALLOWED. THE GMBM SHOULD ONLY USE CREDITS THAT FULFILL MINIMUM QUALITY STANDARDS

2

Mitigation projects must ensure environmental and social integrity. Projects that violate quality criteria, such as forestry, industrial gas, nuclear, fossil fuel, large hydro, or those that violate human rights should be banned.



GMBM-2021

3

NO DOUBLE COUNTING: LIAISE WITH EXPERIENCED UN CREW MEMBERS FOR PROPER ACCOUNTING



Double counting is a danger when weak accounting rules allow reductions from mitigation projects to count towards more than one climate commitment.

KEEP CALM, IMPLEMENT THE GMBM BY 2021



4

If the global market based measure is not up and running in 2021, the target will automatically be missed.

IN CASE OF A LOSS OF TRANSPARENCY, FOLLOW THE ILLUMINATED PATH TO OPEN GOVERNANCE



5

The technical and political policy process to develop aviation's climate response should expand public participation and make all information publicly available on the ICAO website.

International Bodies

UNEP

- **After Stockholm Conference**
- **BY UNGA**
- **Environment FUND**

- **Clean Up the World**
- **Implementing agency of GEF**
- **Established IPCC (WMO)**
- **HELI:Health Environment Link Initiative (With WHO)**
- **World Environment Day (WED) (5 june) 2017**
Connecting People to Nature

WWF

- **International NGO**
- जंगल संरक्षण, और पर्यावरण पर मानवता के पदचिह्न की कमी।
- **Symbol: Giant Panda**
- **living Planet Report** (लन्दन सर्वेक्षण)
- **Tx2 Tiger Initiative**
To double wild tigers by 2022. (+ Global Tiger Forum (GTF))

- **Debt-for-Nature Swap**
- **Earth Hour**
- **Healthy Grown (Eco brand)**
- **Marine Stewardship Council (Standard for Sustainable Fishing)**
- **TRAFFIC**(the wildlife trade monitoring network): **IUCN+ CITES**

Earth Hour

Consider the following statements regarding 'Earth Hour' :

1. It is an initiative of UNEP and UNESCO.
2. It is a movement in which the participants switch off the lights for one hour on a certain day every year.
3. It is a movement to raise the awareness about the climate change and the need to save the planet.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

'पृथ्वी काल' के सन्दर्भ में निम्नलिखित कथनों पर विचार कीजिए :

1. यह UNEP तथा UNESCO का उपक्रमण है।
2. यह एक आन्दोलन है, जिसमें प्रतिभागी प्रतिवर्ष एक निश्चित दिन, एक घण्टे के लिए बिजली बन्द कर देते हैं।
3. यह जलवायु परिवर्तन और पृथ्वी को बचाने की आवश्यकता के बारे में जागरूकता लाने वाला आन्दोलन है।

उपर्युक्त कथनों में से कौन-सा/से सही है/हैं?

- (a) केवल 1 और 3
- (b) केवल 2
- (c) केवल 2 और 3
- (d) 1, 2 और 3

INDIAN ACTS

- **Prevention of Cruelty to Animals Act (पशु क्रूरता की रोकथाम के लिए अधिनियम) 1960**->
Animal Welfare board;
- **supervision and Control of Experiments on Animals (CPCSEA)** पशु प्रयोगों की निगरानी और नियंत्रण

Wild-life Act, 1972

- **Protection of wild animals, birds and plants**
- **Setting aside protected areas,**
- **NP, Wildlife sanctuary, Community reserve, Conservation Reserve**
- **Central zoo Authority (1991**
- **Wildlife Crime Control (2007)**
- **NTCA (2006)**
- **National Board for Wild Life (Advisory (सलाह) PM CHAIRMAN**

Wildlife act schedule

- **Six Schedule**
- **Schedule I and part II of Schedule II** provide absolute protection (पूर्ण संरक्षण) and offences under these are prescribed the highest penalties

- **Schedule V** includes the animals which may be hunted.
- **Schedule VI** contains the plants, which are prohibited from cultivation and planting

Other Act

- **The National Environment Tribunal Act 1995** (राष्ट्रीय पर्यावरण न्यायाधिकरण अधिनियम): खतरनाक पदार्थों के प्रबंधन से होने वाली दुर्घटनाओं से होने वाली क्षति के लिए सख्त देयता
- **Biological Diversity Act, 2002** → CBD → NBA (राष्ट्रीय जैव विविधता प्राधिकरण)
- **Forest Rights Act 2006**

- **Water (Prevention and Control of Pollution) Act, 1974** → CPCB (केन्द्रीय प्रदूषण नियंत्रण बोर्ड)
- **Forest (Conservation) Act, 1980** → Deforestation
- **Environment (Protection) Act, 1986**: → NGRBA (राष्ट्रीय गंगा नदी घाटी प्राधिकरण)
- **GEAC** (आनुवंशिक इंजीनियरिंग मूल्यांकन समिति)

‘पारिस्थितिक-संवेदी क्षेत्रों’ के सन्दर्भ में निम्नलिखित में से कौन-सा/से कथन सही है/हैं?

1. पारिस्थितिक-संवेदी क्षेत्र वे क्षेत्र हैं, जिन्हें वन्यजीव (संरक्षण) अधिनियम, 1972 के अधीन घोषित किया गया है।
2. पारिस्थितिक-संवेदी क्षेत्र को घोषित करने का प्रयोजन है, उन क्षेत्रों में केवल कृषि को छोड़कर सभी मानव क्रियाओं पर प्रतिबन्ध लगाना।

With reference to ‘Eco-Sensitive Zones’, which of the following statements is/are correct?

1. Eco-Sensitive Zones are the areas that are declared under the Wildlife (Protection) Act, 1972.
2. The purpose of the declaration of Eco-Sensitive Zones is to prohibit all kinds of human activities in those zones except agriculture.

Consider the following statements :

1. Animal Welfare Board of India is established under the Environment (Protection) Act, 1986.
2. National Tiger Conservation Authority is a statutory body.
3. National Ganga River Basin Authority is chaired by the Prime Minister.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 2 only
- (d) 1, 2 and 3

निम्नलिखित कथनों पर विचार कीजिए :

1. भारतीय पशु कल्याण बोर्ड, पर्यावरण (संरक्षण) अधिनियम, 1986 के अधीन स्थापित है।
2. राष्ट्रीय बाघ संरक्षण प्राधिकरण एक सांविधिक निकाय है।
3. राष्ट्रीय गंगा नदी द्रोणी प्राधिकरण की अध्यक्षता प्रधानमंत्री करते हैं।

उपर्युक्त कथनों में से कौन-सा/से सही है/हैं?

- (a) केवल 1
- (b) केवल 2 और 3
- (c) केवल 2
- (d) 1, 2 और 3

Compensatory Afforestation Fund Bill

- **Compensatory Afforestation Fund Management and Planning Authority** (क्षतिपूर्ति वनीकरण वित्तीय प्रबंधन और योजना प्राधिकरण)
- **Under the Public Account of India** (सार्वजनिक खाता)

COMPENSATORY AFFORESTATION FUND BILL

PRINCIPLE OBJECTIVE

SETTING UP OF A

1 National Compensatory Afforestation Fund

2 State Compensatory Afforestation Fund

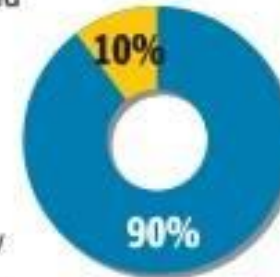
These authorities will monitor the utilisation of funds

Any user agency which diverts forest land for non-forest purpose is required to deposit prescribed amount

90% of collected payments will go to state fund

10% of collected payments will go to national fund

(This provision may be amended as standing committee wants state fund to get 95% of the payments)



Funds will be used for

1. Increasing forest cover
2. Forest regeneration
3. Wildlife protection
4. Related activities to protect green cover

Bill is also meant for setting up

1. A national management and planning authority at the Centre
2. State-level authority in respective states

Wildlife Crime Control

- Coordinated “**OPERATION THUNDER BIRD**” in India, from January 30-February 19, 2017 in its fight to end poaching of India’s wildlife animals.
- Code-name for INTERPOL’s multi-national and multi-species enforcement operation
(बहुराष्ट्रीय और बहु-प्रजाति प्रवर्तन कार्रवाई)

- **OPERATION SAVE KURMA:**
A species specific operation on turtles,

BODIES & Terms

- **Indian Board for Wildlife :** Wildlife Protection Act, 1972
- **Centre for Biodiversity Policy and Law (जैव विविधता नीति और कानून के लिए केंद्र):** In NBA
- **Salim Ali Centre for Ornithology & Natural History (SACON):** BNHS & MoEF

- **Botanical Survey of India (BSI)**
- **India Biodiversity Award : To Pakke (By MOEF+UNDP+NBA)**
-

International Agrobiodiversity Congress 2016

- **1st ever**
- **India Society of Plant Genetic Resources** was founded in **1987** as a multidisciplinary scientific body to provide a forum to all those interested in plant genetic resources to express their views, publish their findings and interact with different stakeholder

- **Biodiversity International** is a global research-for-development organization. Bioversity International delivers scientific evidence, management practices and policy options to use and safeguard agricultural and tree biodiversity to attain sustainable global food and nutrition security

www.gshindi.com

South Asia Biosafety Conference

- In HYD
- 4th
- To share international experience amongst scientists and regulators in biotechnology, environmental risk assessment and biosafety regulation in South Asia.



www.gshindi.com

Consider the following statements :

1. The International Solar Alliance was launched at the United Nations Climate Change Conference in 2015.
2. The Alliance includes all the member countries of the United Nations.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

निम्नलिखित कथनों पर विचार कीजिए :

1. अंतर्राष्ट्रीय सौर गठबंधन (International Solar Alliance) को 2015 के संयुक्त राष्ट्र जलवायु परिवर्तन सम्मेलन में प्रारम्भ किया गया था।
2. इस गठबंधन में संयुक्त राष्ट्र के सभी सदस्य देश सम्मिलित हैं।

उपर्युक्त कथनों में से कौन-सा/से सही है/हैं?

- (a) केवल 1
- (b) केवल 2
- (c) 1 और 2 दोनों
- (d) न तो 1, न ही 2

IUCN

- International NGO
- 1948
- But no Mobilisation but influence decision
- Involved in establishing the World Wide Fund for Nature and the World Conservation Monitoring Centre.

- Monitoring the Killing of Elephants (MIKE)
- Global Species Programme produces, maintains and manages The IUCN Red List of Threatened Species

IUCN

With reference to the International Union for Conservation of Nature and Natural Resources (IUCN) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which of the following statements is/are correct?

1. IUCN is an organ of the United Nations and CITES is an international agreement between governments.
2. IUCN runs thousands of field projects around the world to better manage natural environments.
3. CITES is legally binding on the States that have joined it, but this Convention does not take the place of national laws.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

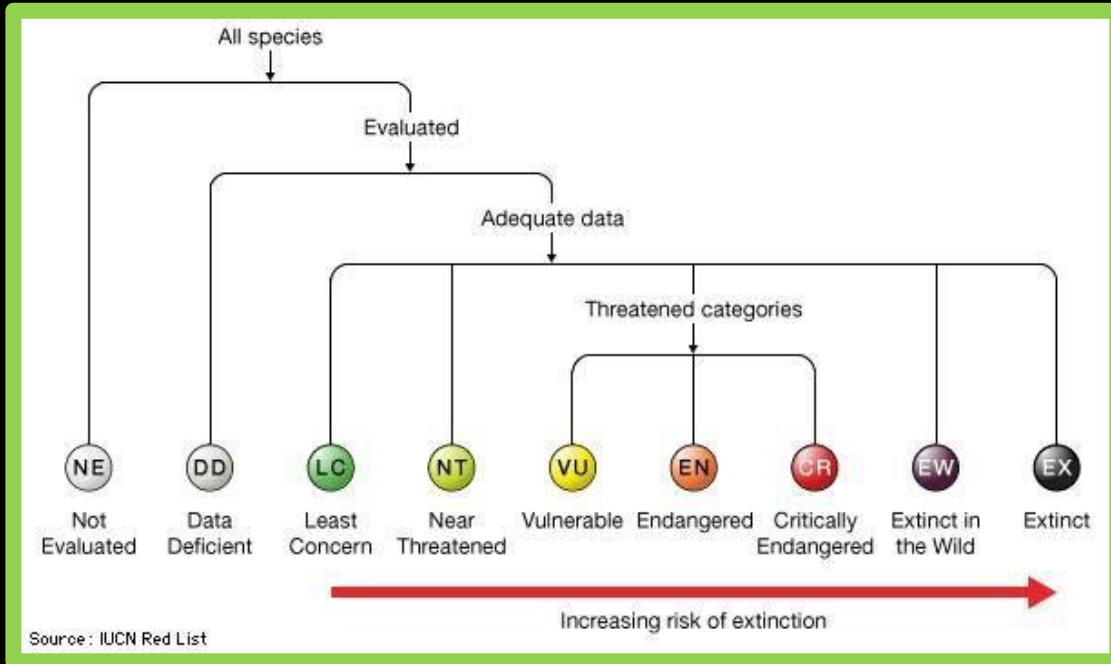
प्रकृति एवं प्राकृतिक संसाधनों के संरक्षण के लिए अन्तर्राष्ट्रीय संघ (इंटरनैशनल यूनियन फॉर कन्जर्वेशन ऑफ नेचर ऐंड नेचुरल रिसोर्सेज) (IUCN) तथा वन्य प्राणिजात एवं वनस्पतिजात की संकटापन्न स्पीशीज के अन्तर्राष्ट्रीय व्यापार पर कन्वेंशन (कन्वेंशन ऑन इंटरनैशनल ट्रेड इन एन्डेंजर्ड स्पीशीज ऑफ वाइल्ड फॉना ऐंड फ्लोरा) (CITES) के सन्दर्भ में, निम्नलिखित कथनों में से कौन-सा/से सही है/हैं?

1. IUCN संयुक्त राष्ट्र (UN) का एक अंग है तथा CITES सरकारों के बीच अन्तर्राष्ट्रीय करार है।
2. IUCN, प्राकृतिक पर्यावरण के बेहतर प्रबन्धन के लिए, विश्व भर में हजारों क्षेत्र-परियोजनाएँ चलाता है।
3. CITES उन राज्यों पर वैध रूप से आबद्धकर है जो इसमें शामिल हुए हैं, लेकिन यह कन्वेंशन राष्ट्रीय विधियों का स्थान नहीं लेता है।

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) केवल 1
- (b) केवल 2 और 3
- (c) केवल 1 और 3
- (d) 1, 2 और 3

IUCN



- **Extinct (EX)** – No known individuals remaining.
- **Extinct in the Wild (EW)** – Known only to survive in captivity, or as a naturalized population outside its historic range.
- **Critically Endangered (CR)** – Extremely high risk of extinction in the wild.
- **Endangered (EN)** – High risk of extinction in the wild.
- **Vulnerable (VU)** – High risk of endangerment in the wild.
- **Near Threatened (NT)** – Likely to become endangered in the near future.
- **Least Concern (LC)** – Lowest risk. Does not qualify for a more at risk category. Widespread and abundant taxa are included in this category.
- **Data Deficient (DD)** – Not enough data to make an assessment of its risk of extinction.
- **Not Evaluated (NE)** – Has not yet been evaluated against the criteria.

GIANT PANDA



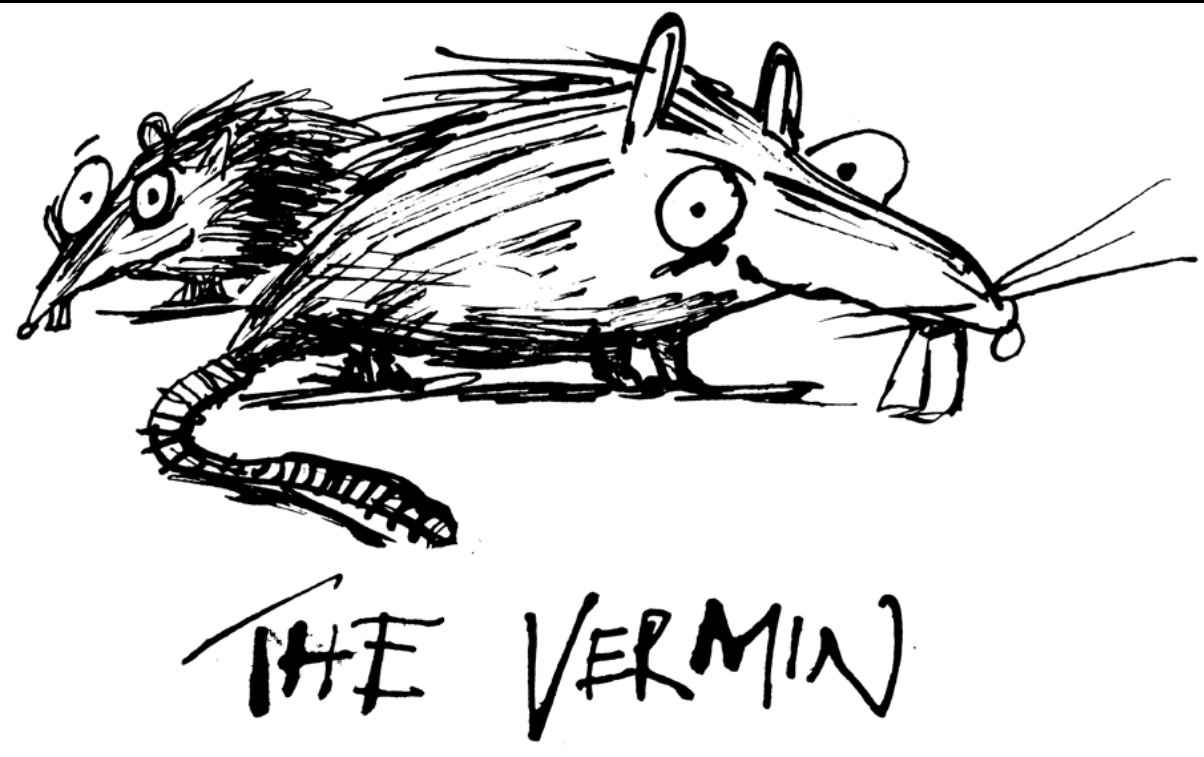
- Removed from Endangered list to Vulnerable
- Restricted to around 20 isolated patches of bamboo forest in
- Improved in their conservation status thanks to effective conservation efforts.
- INDIA **RED PANDA**

Tibetan Antelope /CHIRU



- **Endangered to Near Threatened**
- **Commercial poaching for *shahtoosh***
- ***Musk Deer:* Endangered**

Vermin



- Threat to crop, property or humans.
- Any animal declared as vermin can be killed or hunted down without inviting any jail term or punishment.
- State list to centre
- Schedule V of the Wildlife Protection Act are vermins.
- Nilgai, wild boar, rhesus, : common crow, fruit bats, mice and rats

PIKA: Mammal Belonging to Rabbit



- **New species of it discovered: In Sikkim**
- **Habitat: mountains or in temperate regions.**
- **Considered indicators of climate change based on studies in North America**
- **Do not hibernate unlike other mammalian**
- **Keystone species**

With reference to 'dugong', a mammal found in India, which of the following statements is/are correct?

1. It is a herbivorous marine animal.
2. It is found along the entire coast of India.
3. It is given legal protection under Schedule I of the Wildlife (Protection) Act, 1972.

Select the correct answer using the code given below.

- (a) 1 and 2
- (b) 2 only
- (c) 1 and 3
- (d) 3 only

भारत में पाये जाने वाले स्तनधारी 'ड्यूगोंग' के सन्दर्भ में, निम्नलिखित कथनों में से कौन-सा/से सही है/हैं?

1. यह एक शाकाहारी समुद्री जानवर है।
2. यह भारत के पूरे समुद्र तट के साथ-साथ पाया जाता है।
3. इसे वन्य जीव (संरक्षण) अधिनियम, 1972 की अनुसूची I के अधीन विधिक संरक्षण दिया गया है।

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) 1 और 2
- (b) केवल 2
- (c) 1 और 3
- (d) केवल 3

Keystone species

Often, but not always, a predator. A keystone species' disappearance would start a domino effect. Other species in the habitat would also disappear and become extinct. The keystone species' disappearance could affect other species that rely on it for survival. For example, the population of deer or rabbits would explode without the presence of a predator

Hibernation

- ❑ A state of inactivity
- ❑ Why: To conserve energy during a period when sufficient food is unavailable.
- ❑ Before entering hibernation, animals need to store enough energy to last through the entire winter.
- ❑ Ex. Rodent, Polar bear, Bat

Hibernation

Consider the following :

1. Bats
2. Bears
3. Rodents

The phenomenon of hibernation can be observed in which of the above kinds of animals?

- (a) 1 and 2 only
- (b) 2 only
- (c) 1, 2 and 3
- (d) Hibernation cannot be observed in any of the above

निम्नलिखित पर विचार कीजिए :

1. चमगादड़
2. भालू
3. कृन्तक (रोडेन्ट)

उपर्युक्त में से किस प्रकार के जन्तु में शीतनिष्क्रियता की परिघटना का प्रेक्षण किया जा सकता है?

- (a) केवल 1 और 2
- (b) केवल 2
- (c) 1, 2 और 3
- (d) शीतनिष्क्रियता उपर्युक्त में से किसी में भी नहीं प्रेक्षित की जा सकती

Indian Roller Bird/Neelkanth



- **A Schedule IV protected bird**
- **State bird : Karnataka, Telangana, Andhra Pradesh and Orissa.**
- **Displayed : Dussehera festival in Telangana.**
- **Protected under Sch. IV of WPA 1972**
- **Threat: Poaching**

Smooth Coated Otter



- **In news: Sighted for the first time in Krishna WS**
- **Presence: key indicator for rise of the mangrove cover.**
- **Distributed throughout south Asia and southeast Asia**
- **In Flood plain & Wetlands**
- **Vulnerable**
- **Threat: Destruction of Wetland habitats due to construction of large-scale hydroelectric projects, reclamation of wetlands for settlements and agriculture, reduction in prey biomass, poaching and contamination of waterways by pesticides**

Kashmir Red stag (Hangul)



- known for its giant antlers
- Confined to the Greater Dachigam Landscape
- Critically endangered: J & K
- Different from Musk Deer

Olive ridely



- **Distribution : found only in warmer water**
- **carnivores**
- **Arribadas : synchronised mass nesting**
- **Vulnerable**
- **Male sea turtle embryos can't stand the heat**

Indian Rhinoceros & Plains Zebra



- **Vulnerable**
- **Kaziranga & Pobitora**
- **Threat: poaching, Flood**
- **White Rhinos: Extinct in the wild**

- **Plains Zebra**
- **LC to NT**
- **Hunting**

Eastern Gorilla /Grauer's gorilla/



- **Also known as Lowland Gorilla**
- **Tropical rainforest : Congo**
- **Critically Endangered**
- **Threat: Poaching, Habitat loss and degradation, Conflict & Instability,**

Bornean orangutan

- **Critically endangered**
- **Population of Bornean orangutans has dropped by nearly two third since the early 1970s.**
- **Native to Borneo**
- **Highly intelligent**
- **share approximately 97% of their DNA with humans**



Irrawaddy dolphins



- **Census report of Odessa**
- **Also snubfin dolphin**
- **Threat**
- **Vulnerable Species**

Mahseer



- **tiger of water**
- **State fish of MP**
- **Golden Mahseer, Tor Khurdee and Tor To**
- **Struggling to survive**

Ganga Dolphin

- **Assam became the first city in the country to declare Gangetic River dolphin as the city animal.
In Assam Known as Sihu'**
- **India, Bangladesh, Nepal and Pakistan**
- **generally blind and use ultrasonic sound**
- **Endangered**



Sushu

Other than poaching, what are the possible reasons for the decline in the population of Ganges River Dolphins?

1. Construction of dams and barrages on rivers
2. Increase in the population of crocodiles in rivers
3. Getting trapped in fishing nets accidentally
4. Use of synthetic fertilizers and other agricultural chemicals in crop-fields in the vicinity of rivers

Select the correct answer using the code given below.

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1, 3 and 4 only
(d) 1, 2, 3 and 4

गंगा नदी डॉल्फिन की समष्टि में हास के लिए शिकार-चोरी के अलावा और क्या सम्भव कारण हैं?

1. नदियों पर बांधों और बराजों का निर्माण
2. नदियों में मगरमच्छों की समष्टि में वृद्धि
3. संयोग से मछली पकड़ने के जालों में फँस जाना
4. नदियों के आस-पास के फसल-खेतों में संश्लिष्ट उर्वरकों और अन्य कृषि रसायनों का इस्तेमाल

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) केवल 1 और 2
(b) केवल 2 और 3
(c) केवल 1, 3 और 4
(d) 1, 2, 3 और 4

Great Indian Bustard

Great Indian Bustard

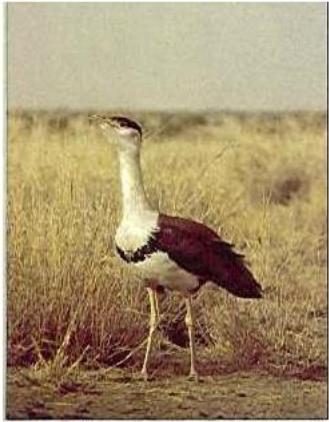


Image by LR Burdak
<http://en.wikipedia.org/wiki/File:Sonchiriya.jpg>

Common Name: Great Indian Bustard

Scientific Name: *Ardeotis nigriceps*

Population: 300 individuals.

(as per In: IUCN 2012. IUCN Red List of Threatened Species.
Version 2012.2.)

Status: Critically Endangered

Habitat: Dry Grassland and scrubs.

Threats: Habitat loss and fragmentation due to
agriculture, mining and industrialisation



www.indiasendangered.com

- Rajasthan Govt & WII
- One of heaviest flying birds.
- Critically Endangered

www.gsniindia.com

BLACK NAKED CRANE (BNC)



- **Lives on High Altitude**
- **Vulnerable**
- **Distributed over the alpine regions of India, China and Bhutan**
- **WWF-India in collaboration with the Department of Wildlife Protection, Jammu & Kashmir,**

With reference to 'dugong', a mammal found in India, which of the following statements is/are correct?

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3. It is given legal protection under Schedule I of the Wildlife (Protection) Act, 1972.

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- (a) 1 and 2
- (b) 2 only
- (c) 1 and 3
- (d) 3 only

भारत में पाये जाने वाले स्तनधारी 'ड्यूगोंग' के सन्दर्भ में, निम्नलिखित कथनों में से कौन-सा/से सही है/हैं?

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नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) 1 और 2
- (b) केवल 2
- (c) 1 और 3
- (d) केवल 3

In which of the following regions of India are you most likely to come across the 'Great Indian Hornbill' in its natural habitat?

- (a) Sand deserts of northwest India
- (b) Higher Himalayas of Jammu and Kashmir
- (c) Salt marshes of western Gujarat
- (d) Western Ghats

भारत के निम्नलिखित क्षेत्रों में से 'ग्रेट इंडियन हॉर्नबिल' के अपने प्राकृतिक आवास में पाए जाने की सबसे अधिक सम्भावना कहाँ है?

- (a) उत्तर-पश्चिमी भारत के रेतीले मरुस्थल
- (b) जम्मू-कश्मीर के उच्चतर हिमालय क्षेत्र
- (c) पश्चिमी गुजरात के लवण कच्छ क्षेत्र
- (d) पश्चिमी घाट

Not In news

Critically Endangered

Jerdon's Courser



- **Only in the northern part of the State of Andhra Pradesh**
- **Habitat: Undisturbed scrub jungle with open areas**

Forest Owlet



- **Habitat:** Dry deciduous forest.
- **Distribution:** South Madhya Pradesh, in north-west Maharashtra and north-central Maharashtra.

White-bellied Heron



- **Habitat:** Rivers with sand or gravel bars or inland lakes.
- **found in five or six sites in Assam and Arunachal Pradesh, one or two sites in Bhutan, and a few in Myanmar**

Bengal Florican



- **Habitat:** Grasslands sometimes interspersed with scrublands.
Distribution: Native to
- only 3 countries in the world - Cambodia, India and Nepal. In India, it occurs in 3 States namely Uttar Pradesh, Assam and Arunachal Pradesh.

Pygmy Hog



- world's smallest wild pig
- This species constructs a nest throughout the year
- **Habitat:** Relatively undisturbed tall 'terai' grasslands
- **Southern Himalayan** foothills but now is restricted to only a single remnant population in **Manas Wildlife Sanctuary** and its buffer reserves.

Ghariyal



- **Habitat:** Clean rivers with sand banks
- **National Chambal Sanctuary**, spread across three States of Uttar Pradesh, Rajasthan and Madhya Pradesh in India. Small non-breeding populations exist in Son, Gandak, Hoogly and Ghagra rivers. Now extinct in Myanmar, Pakistan, Bhutan and Bangladesh

Leatherback turtles



- largest of living sea turtles
- **Habitat:** Tropical and subtropical oceans

Four-toed river terrapin



- **Habitat:** Freshwater rivers and lakes.
- **Distribution:** Bangladesh, Cambodia, India, Indonesia, Malaysia

Gliding Frog



- **Endemic to the Rainforest of Western Ghats**
- **Occurs at elevations of greater than 1000 m**
- **Distribution: Indira Gandhi National Park and surrounding areas of Anamalai hills, Tamil Nadu**

Birds

Himalayan Quail (*Ophrysia superciliosa*)
Pink-headed Duck (*Rhodonessa caryophyllacea*)
Siberian Crane (*Grus leucogeranus*)
Sociable Lapwing (*Vanellus gregarius*)
Spoon-billed Sandpiper (*Eurynorhynchus pygmeus*)

Mammals

Andaman White-toothed Shrew
(*Crocidura andamanensis*)
Jenkin's Shrew (*Crocidura jenkinsi*)
Nicobar Shrew (*Crocidura nicobarica*)
Large Rock-rat (*Cremnomys elvira*)
Malabar Civet (*Viverra civettina*)
Namdapha Flying Squirrel
(*Biswamoyopterus biswasi*)

Fish

Knifetooth Sawfish (*Anoxypristis cuspidata*)
Ganges Shark (*Glyphis gangeticus*)
Pondicherry Shark (*Carcharhinus hemiodon*)
Largetooth Sawfish (*Pristis microdon*)
Deccan Labeo (*Labeo potail*)

Reptiles

Hawksbill Turtle (*Eretmochelys imbricata*)
Red-crowned Roof Turtle (*Batagur kachuga*)

Amphibians

Fejervarya murthii
Indirana gundia
Philautus sanctisilvaticus
Raorchestes shillongensis

FAUNA

www.gshindi.com

ZINGIBER PSEUDOSQUARROSUM



- By BSI
- In A & N
- Variety of Ginger

Red Sandal Wood



- southern parts of the Eastern Ghats
- Dry hill areas of Palakonda range & Seshachalam hill
- 150 - 900 mt Altitude
- often rocky ground, and occasionally found on precipitous hill sides also
- Critically endangered
- Not aromatic.
- The tree is commercially valuable for its timber and for the extraction of dye, medicine and cosmetics. It has been overexploited in the past.

If you travel through the Himalayas, you are likely to see which of the following plants naturally growing there?

1. Oak
2. Rhododendron
3. Sandalwood

Select the correct answer using the code given below.

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

यदि आप हिमालय से होकर यात्रा करते हैं, तो आपको वहाँ निम्नलिखित में से किस पादप/किन पादपों को प्राकृतिक रूप में उगते हुए दिखने की सम्भावना है?

1. बांज
2. बुरुश
3. चंदन

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) केवल 1 और 2
- (b) केवल 3
- (c) केवल 1 और 3
- (d) 1, 2 और 3

Chir Pine



- **UK & Forest fire**
- **Turpentine oil**
- **Inflammable leaves**
- **Chirpine was in the Himalayas since time immemorial**

Neurocalyx calycinus

- **shrub endemic to South**
- **used by the Cholanaickan tribe**
- **leaves of N.calycinus possess wound-healing properties comparable to the standard drug Povidone/ Iodine**
- **presence of high Vitamin E content**
- **the prospects of developing an anti-cancer drug**



Seemai Karuvelam trees

- **Native to West Africa**
- **disrupts the local ecosystem**
- **Sucks a lot of water**
- **Cannot even shelter birds as it produces less oxygen and more carbon dioxide.**



Also in News

www.gshindi.com

Neerdhur

NEERDHUR

Multi-fuel Natural Draft Improved Domestic Cookstove



Conventional Chulha



NEERDHUR by CSIR-NEERI



- **NEERI & CSIR**
- **Multi-fuel domestic cooking stove**
- **Women & Neerdhur**

Project CAT



- **Private conservation effort to save tiger in Bhutan & Nepal**
- ***Discovery Communications and NGO World Wildlife Fund (WWF)***

www.gshindi.com

Ethanol: BIO-REFINERY IN PUNJAB 2G

- **Ethyl alcohol**
- **India : 2001**
- **Now Price Free Market Structure**
- **Burns cleaner and burns more completely than petrol.**
- **Derived from Sugar cane juice and molasses.**
- **carbon monoxide emissions by up to 30 percent**

- **HPCL 2 G in Bhatinda**
- **Various Generation**
- **1G: Crop Plants**
- **2G: Croplands unsuitable for food production**
- **3G: Non Arable land, Algae**
- **4G: In research phase**

Global Rise of Temperature

- **Soil & Co2 Release**
- **Tundra and Boreal forests.**
- **Microbial activity picks up and carbon or methane**

- **Arctic & Domino Effect**
- **Melting & Sea rise**
- **Jet Stream**
- **Heat Balance**
- **Thermo Haline Currents**
- **BD**

Hypoxia: Goa Symposium

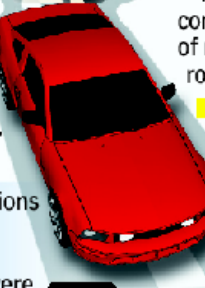
- **CO₂ & ocean warming,**
- **Acidification**
- **The slowing down of the ocean's circulation system**
- **Less Phytoplankton**

Record High CO2 Level in 2016

- **The growth spurt in CO2 was fuelled by the El Niño event, which started in 2015 and had a strong impact in 2016.**
- **Triggered droughts in tropical regions and reduced the capacity of “sinks” like forests, vegetation and the oceans to absorb CO2.**

Bharat Stage

STEPS TO IMPROVE AIR QUALITY



- Vehicular emission norms were **first introduced in 1991** and **tightened further in 1996**
- Fuel specifications based on environmental considerations were notified for the **first time by the ministry of environment and forests in April 1996**
- Based on Supreme Court's order in April 1999, the Ministry of surface transport notified in April 1999 Bharat Stage (BS 2000) and **Bharat Stage II vehicle emission norms, broadly equivalent to Euro I and Euro II**
- **Better road maintenance**
- Framing guidelines for construction and maintenance of roads to reduce silt on the road surface
- **Strict implementation of emission regulations**
- Use of BS IV norms all through the country and subsequently introduction of BS V regulations
- **Ensuring nation-wide quality of fuel**
- Restricting entry of pollution-causes trucks and heavy duty goods vehicles besides banning old commercial vehicles in cities
- **Prepare a comprehensive vehicle scrapping policy**
- Mandatory periodical inspection and maintenance for the existing PUC system
- Synchronising traffic signals, staggering business hours, restricting vehicular movement in certain areas with high pollution levels, fiscal incentives/disincentives, banning of odd/even vehicles on major roads
- Development of mass rapid transport system
- Financial incentives for non-polluting vehicles like electric, hybrid etc
- Identification of highly polluted areas as low emission zones
- A ban on setting garbage on fire

(REPORT OF THE EXPERT COMMITTEE ON "AUTO FUEL VISION AND POLICY - 2025")

IMPLEMENTATION OF BS NORMS IN PUNE CITY

➤ Bharat Stage III from	1 APRIL 2003
➤ Bharat Stage IV from	1 APRIL 2010

BS NORMS IN THE COUNTRY

➤ BS IV norms to be implemented across the country from	1 APRIL 2017
➤ Proposed introduction of BS V norms in northern region from	1 APRIL 2019

Rural Pune to get fuel with less sulphur content by 2016

CLEANING UP THE AIR

➤ Vehicle emission norms were first introduced in 1991 and tightened in 1996

➤ Fuel specifications based on environmental considerations were notified for the first time by the ministry of environment and forests in April 1996 to be implemented by 2000

➤ Based on Supreme Court's order in April 1999, the Ministry of surface transport notified in April 1999 Bharat Stage (BS 2000) and Bharat Stage II vehicle emission norms, broadly equivalent to Euro I and Euro II

➤ Fuel quality and sulphur content norms came into effect in phases from 2008

IMPLEMENTATION OF BHARAT STAGE NORMS IN PUNE

➤ Bharat Stage III from

➤ Bharat Stage IV from

TOI report on July 22, 2014

- limit of pollutant that a vehicle can emit. (CO₂, nitrogen oxide, sulfur and suspended particulate matter)
- **1991: Vehicle emission norms introduced in India**
- **2010 : STAGE III entire India**

BHARAT STAGE

- ❑ BS-IV norms are currently applicable in 33 cities in which the required grade of fuel is available; the rest of India still conforms to BS-III standards.**
- ❑ BS IV April 2017 to Entire India**
- ❑ BS VI from April 2020**
- ❑ Skipping BS V**
- ❑ Alternatives: Methanol & Ethanol**

Methanol

- Methyl alcohol
- Alternative fuel for internal combustion engines
- Used directly or by blending with petrol
(सीधे या पेट्रोल के साथ मिश्रण करके)

- High toxicity (विषाक्तता) in humans.
- Methanol fire burns invisibly, while petrol burns with a visible flame.
- Difficult to detect methanol fire hazard.
- Pure methanol is corrosive (संक्षारक) to engine and fuel lines

Endosulphan

- ❑ Review the use of 66 pesticide in 2013**
- ❑ Govt has decided to ban the use of 18 pesticides**
- ❑ 12 pesticides would come into effect from January 1, 2018 while the rest 6 would be banned from December 31, 2020.**
- ❑ Endosulfan not reviewed: Decision pending in SC**

OIL SPILL

- **Ecological impact:**
- **Fishes**
- **livelihood to fisherman**
- **Consumers and sea food**
- **Heavy metals and Marine life**
- **Chocolate mousse:** Along the shore, the oil mixes with sand and debris to form a thick viscous sludge that gradually oxidizes into a toxic brown mass that experts call this.

- **Solution**
- **Bioremediation techniques:**
Olizapar (Feeds on Hydrocarbon Compound)
- **Oilivorous-S (High S Content)**

With reference to 'fly ash' produced by the power plants using coal as fuel, which of the following statements is/are correct?

1. Fly ash can be used in the production of bricks for building construction.
2. Fly ash can be used as a replacement for some of the Portland cement contents of concrete.
3. Fly ash is made up of silicon dioxide and calcium oxide only, and does not contain any toxic elements.

Select the correct answer using the code given below.

- (a) 1 and 2
- (b) 2 only
- (c) 1 and 3
- (d) 3 only

ईंधन के रूप में कोयले का उपयोग करने वाले शक्ति संयंत्रों से प्राप्त 'फ्लाई ऐश' के सन्दर्भ में, निम्नलिखित कथनों में से कौन-सा/से सही है/हैं?

1. फ्लाई ऐश का उपयोग भवन निर्माण के लिए ईंटों के उत्पादन में किया जा सकता है।
2. फ्लाई ऐश का उपयोग कंक्रीट के कुछ पोर्टलैंड सीमेंट अंश के स्थानापन्न (रिप्लेसमेंट) के रूप में किया जा सकता है।
3. फ्लाई ऐश केवल सिलिकॉन डाइऑक्साइड तथा कैल्सियम ऑक्साइड से बना होता है और इसमें कोई विषाक्त (टॉक्सिक) तत्व नहीं होते।

नीचे दिए गए कूट का प्रयोग कर सही उत्तर चुनिए।

- (a) 1 और 2
- (b) केवल 2
- (c) 1 और 3
- (d) केवल 3

LEED Transit rating system

- ❑ DMRC & US Green Building Council**
- ❑ First metro network in the world to pursue the pilot transit rating for its station.**
- ❑ LEED: International certification run by USGBC. Five Key Area: Energy efficiency, Indoor environmental quality, materials selection, sustainable site development and water savings.**
- ❑ GRIHA**

Indian Seasonal Energy Efficiency Ratio

- ❑ introduced new star rating methodology for AC**
- ❑ by Bureau of energy efficiency (BEE) which**
- ❑ takes into account different climatic zones in India**
- ❑ usher in higher energy efficiency of appliances and reduce energy consumption**

Other terms

- ❑ **Fly Ash**
- ❑ **largest floating solar photovoltaic : Kerala**
- ❑ **Mission 41K: Indian Rail to save in energy**
- ❑ **GLOF**
- ❑ **Atmospherics rivers and low level Jets**
- ❑ **Kukrail**
- ❑ **Clouds and the climate system: The dual nature**

National Parks/Wildlife Sanctuary

- ❑ Loktak
- ❑ Kaziranga
- ❑ Bhitarkanika National Park
- ❑ Dandeli Wildlife: KN
- ❑ Bandipur National Park
- ❑ Kaval Tiger reserve AP
- ❑ Largest Marine National Park: Ross Sea

Which one of the following National Parks has a climate that varies from tropical to subtropical, temperate and arctic?

- (a) Khangchendzonga National Park
- (b) Nandadevi National Park
- (c) Neora Valley National Park
- (d) Namdapha National Park

निम्नलिखित नैशनल पार्कों में से किस एक की जलवायु उष्णकटिबंधीय से उपोष्ण, शीतोष्ण और आर्कटिक तक परिवर्तित होती है?

- (a) कंचनजंघा नैशनल पार्क
- (b) नंदादेवी नैशनल पार्क
- (c) नेवरा वैलि नैशनल पार्क
- (d) नामदफा नैशनल पार्क

Consider the following pairs :

1. Dampa Tiger : Mizoram Reserve
2. Gumti Wildlife : Sikkim Sanctuary
3. Saramati Peak : Nagaland

Which of the above pairs is/are correctly matched?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

निम्नलिखित युग्मों पर विचार कीजिए :

1. दाम्पा टाइगर : मिज़ोरम रिज़र्व
2. गुम्टी वन्यजीव : सिक्किम अभयारण्य
3. सारामती शिखर : नागालैण्ड

उपर्युक्त युग्मों में से कौन-सा/से सही सुमेलित है/हैं?

- (a) केवल 1
- (b) केवल 2 और 3
- (c) केवल 1 और 3
- (d) 1, 2 और 3

कार्बन डाइऑक्साइड (CO_2), नाइट्रस ऑक्साइड (N_2O), क्लोरोफ्लुरोकार्बनस् (CFCs) और मीथेन (CH_4) गैसों का ग्लोबल वार्मिंग के प्रति आपेक्षिक योगदान है :

(1) $\text{CO}_2 > \text{CFCs} > \text{CH}_4 > \text{N}_2\text{O}$

(2) $\text{CO}_2 > \text{CH}_4 > \text{CFCs} > \text{N}_2\text{O}$

(3) $\text{CO}_2 > \text{CH}_4 > \text{N}_2\text{O} > \text{CFCs}$

(4) $\text{CO}_2 > \text{N}_2\text{O} > \text{CH}_4 > \text{CFCs}$