

TRACKING ENVIRONMENTAL ISSUES AND ACTIONS

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ABSTRACT

Life support system or environment of Earth is undergoing rapid &unprecedented changes in recent decades. How to follow up and understand emerging environmental issues and concerns from local to global level employing new and emerging tools and technologies is presented in this communication. An experiential perspective for the benefit of students, professionals, researchers and citizens is presented here in to further the debates regarding actions and programmes to be taken up.

Keywords: Anthropocene, global warming, climate change, biodiversity, ground water depletion, pollution, GM organisms, crops, fruits and vegetables, depletion of ozone layer, ozone build up near surface of Earth, wastes, E-wastes, pollution in outer space, interlinking of rivers, sustainable agriculture, forestry, energy, plastics, human-animal conflicts, nuclear weapons, bioweapons, alien species /invasive species, rivers: Ganga, Yamuna, disconnect with nature, value of ecological services, industrial & nuclear accidents, population pressure, pandemics and syndemics, space debris orbiting Earth, and declining number of pollinators, largely bees.

INTRODUCTION

Environment and contemporary issues are concerns of people of all walks of life. How to keep oneself aware about the happenings and actions towards environment protection and addressing environmental issues at local, regional and global levels is to be learnt and devised by people as per their experiences, interests and resources. An experiential account using mass communication media like television, radio, newspapers, journals, magazines, internet, mobile phone, laptop or desktop is being presented in this paper.

Contemporary Environmental Issues

In the present age, Anthropocene, much-discussed environmental concerns, issues and developments are as follows:

Global warming, climate change– Global warming is rise in average global temperature because of increasing concentration of greenhouse gases in the atmosphere. Long term changes in climate parameters such as precipitation, temperature and wind patterns have direct bearing on global warming and climate change.

Biodiversity – the variety and variability at species, genetic and ecosystem levels of all forms of life on Earth constitutes biodiversity.

Ground water depletion– refers to drop in groundwater levels due to sustained withdrawal by pumps and other means for various uses. This situation occurs when withdrawals exceed the replenishment of underground aquifers.

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Pollution – denotes contaminants in natural environment that result in harmful changes in the life support system – air, soil, water (freshwater and marine water). Pollution is due to various chemical substances and forms such as mercury and heavy metals, energy, noise, thermal, light, municipal and industrial wastes, plastics, radioactive or nuclear remains and different kinds of data in present times of digital age.

GM organisms, crops, foods– A genetically modified organism (GMO) is one whose genetic material has been altered using genetic engineering techniques to produce better quality products and fulfil the needs of mankind all over the world.

Depletion of ozone layer – Gradual thinning of Earth's ozone layer in the upper atmosphere, caused by chemical compounds - gaseous chlorine or bromine released from industry and other human activities. Thinning of ozone layer is most marked in the polar regions, especially over Antarctica. Ozone depletion is of concern because it leads to increased amount of ultraviolet (UV) radiation that reaches Earth's surface, due to which health problems like skin cancer, cataracts, genetic and immune system damages reportedly occur.

Ozone build up near surface of Earth – Since 1900, ozone concentration near the Earth's surface has been increasing mainly due to vehicular exhausts and emissions from factories, power plants, and refineries. This is an issue of immense concern in present times.

Wastes (solid, semisolid, liquid, gaseous, municipal, industrial, construction, biomedical, commercial, mining, radioactive and agricultural) refers to garbage, detritus, sludge, and other discarded materials.

E-wastes are electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes. [Published in The Gazette of India, Extraordinary Part-II, Section 3, Sub-Section (I)].

Government of India, Ministry of Forest and Climate Change 23rd March, 2016.

Pollution in outer space of Earth –The increasing number of debris, junk, wastes, trash, garbage, chemicals due to defunct manmade objects in space, or in Earth's orbit, because of accidents of space crafts or

their destruction as the spacecrafts have become defunct – all these have polluted the outer space and are also posing grave threat to the weather forecasting, communication, and military satellites.

Interlinking of rivers – it is a civil engineering mega project in our country that envisages to interlink various rivers in the country by forming a series of reservoirs and canals with an aim that water is equitably available to all and to mitigate the problems of drought and flooding in several parts of the country.

Sustainable agriculture, forestry– is farming in sustainable ways, whereby society's present food, feed and textile needs, without compromising ability of current or future generations to meet their needs. Whereas sustainable forestry is the management of forests according to the principles of sustainable development. It has to keep a balance between ecological, economic and socio-cultural paradigms.

Energy (renewable, alternative energy sources) – Energy moves the wheel of life. All kinds of processes require energy. Energy can be obtained from various sources which can be divided into non-renewable and renewable resources. Fossil fuels – oil, natural gas and coal are non-renewable resources of limited availability. Alternate sources of energy – renewable resources, such as solar energy, wind energy, hydropower, energy from biomass, geothermal energy have been widely tapped in recent times.

Plastics –The term plastic is derived from Greek word 'plastikos' meaning fit for molding. These are synthetic materials made from organic polymers like polyethylene, PVC, and nylon. Being easily moldable they are used to make various objects such as toys, medical devices, automobiles, packaging materials, buildings and various fixtures in them, bottles, household articles and several products used in modern life.

Human wildlife conflicts –Are abbreviated as HWC. It refers to varied interactions between people and wild animals, with consequences for people, their resources, wildlife and their habitats (IUCN 2020). HWC are caused by competition for shared natural resources between people and wildlife. These influence food security and the well-being of both people and animals. In many regions these conflicts have intensified over recent decades as a result of human population growth and the transformation of land use. HWC are serious global threats, hampering

sustainable development, food security and conservation in urban and rural landscapes.

Nuclear weapons – Nuclear weapons (= atom bomb, nuke, atomic bomb, nuclear warhead, A-bomb, or nuclear bomb) are explosive devices that derive their destructive force from nuclear reactions – either fission (fission bomb) or from a combination of fission and fusion reactions (thermonuclear bomb). Both types of bombs release huge amounts of energy from relatively small amounts of matter.

Bioweapons – Also known as Biological Weapons, Biological Warfare, Bioterrorism attacks and Germ Warfare are biological organisms, and substances (toxins or infectious agents such as bacteria, viruses, insects, fungi and replicating entities) derived directly from living organisms, that can be used to cause death or injury to humans, animals, or plants.

Biological agents, like anthrax, botulinum toxin and plague can pose a difficult public health challenge causing large numbers of deaths in a short amount of time while being difficult to contain. Bioterrorism attacks also result in epidemics, for example, Ebola or Lassa viruses have been used as biological agents.

Bioweapons constitute a subset of a larger class of weapons referred to as weapons of mass destruction, which also includes chemical, nuclear and radiological weapons. The use of biological agents is a serious problem, and the risk of using these agents in a bioterrorist attack is increasing in recent years.

Alien species /invasive species – Invasive alien species are ones that are/get introduced, accidentally or intentionally, outside their natural habitats and in long run they invariably threaten biological diversity. Alien species /invasive species are from all taxonomic groups, including animals, plants, fungi and microorganisms. Many of them lead to extinction of native species and eventual ecological disturbance. These impacts have marked socio-economic value. Invasive species adversely affect the invaded habitats and bioregions, causing ecological, environmental, and/or economic damage. On the other hand, many a times, their spread has beneficial effects too.

Rivers: Ganga, Yamuna – Yamuna is the second-largest tributary river of the Ganga and the longest tributary in India. It travels a total length of 1,376 kilometres. Ganga, a trans-boundary river of Asia, flows through India and Bangladesh. It flows to a length of 2,525 kms

and empties into the Bay of Bengal. These rivers are lifelines of the places through which these pass. On the other hand, they are also conduits of various by products of societies.

Disconnect with nature, value of ecological services – With growing urbanization, and globalization, humans are increasingly being disconnected with nature. People are realizing and are reconnecting with nature. Ecological services such as supporting (nutrient cycling, soil formation), provisioning (food, fresh water, medicines, oils, fats, essential oils, gums & resins, wood, fibre, fuel), regulating (climate, flood, drought, disease, water purification), cultural (aesthetic, spiritual, educational, recreational), security (personal safety, ensured resources access, security from disasters), basics for a fulfilling life (adequate livelihood, nutrition, shelter), health (strength, vitality, wellness, pure air, water and food), social relations (cohesion, respect, helping attitude), freedom (individual's values, being self).

Industrial & nuclear accidents – Three Mile Island accident (1979), SL-1 accident (1961), The Bhopal disaster (night of 2–3 December 1984), Chernobyl disaster (1986), and Fukushima Daiichi nuclear disaster (2011) are notable industrial and nuclear accidents. Such accidents involved loss of precious life and large monetary costs for remediation of the affected sites.

Population pressure – The world population is growing by more than 90 million per year, of which 93% is in developing countries. This could hamper their economic development. Population increase in past decades has been a gradual phenomenon and Earth's natural resources were being replenished by nature for this increase. Recent studies indicate that besides population increase natural resources are being consumed in greater amounts than their rate of replenishment. The increase in human population has become a major cause of environmental concern of late.

Pandemics and Syndemics – Pandemic is global epidemic or infectious disease that spreads to more than one continent. Syndemic, a synergistic epidemic, is aggregation of two or more concurrent or sequential epidemics or disease clusters in a population with biological interactions, which lead to burden of disease. This term was developed by Merrill Singer in mid 1990s.

Space debris orbiting Earth– Millions of pieces of debris (defunct satellites, pieces of rockets and spacecrafts, equipments, chemicals and tools that astronauts accidentally dropped in space) are swirling around at high speeds in space near Earth. These are matters of concern as they have caused accidental collisions in space damaging communications, weather and other satellites and rockets causing environmental and economic damage. There are objects greater than 10cm 34,000 in number; objects 1-10cm in size 900,000 in number; and objects 1mm to 1cm in size 128 million in number (Source: European Space Agency, 8 January 2021), (LiveMint, 16.01.2021).

Declining number of pollinators, largely bees – because of loss of habitat, use of agrochemicals, pesticides and climate change has bearing on production of crops, fruits and vegetables.

The list as above may not be complete as of now. It could be expanded and updated every now and then.

One needs to be aware that following actions are being taken and realised for the safeguard of both living beings and Earth's environment.

S.No.	Actions taken
1.	Local, national, regional, global
2.	Institutions & organizations – UN (United Nations), UNEP (United Nations Environment Programme), IPCC (Intergovernmental Panel on Climate Change)
3.	Bills, legislations, policies, Protocols
4.	Governance/ monitoring – Ministry, NGT (National Green Tribunal), EPCA [Environmental Pollution (Prevention and Control)] Authority, CPCB (Central Pollution Control Board)
5.	NGO (Non-governmental organization)
6.	Environment days – House sparrow, forestry, water, meteorological, migratory birds, ozone, oceans & no tobacco day.
7.	Environment years – April 2019 to March 2020 Construction Technology Year
8.	Green buildings
9.	Forests Rights Act – Forest Act (Schedule Tribes and other traditional forest dwellers (recognition of forest rights Bill, 2006)
10.	Civil nuclear liability bill
11.	Rejuvenation & restoration of defunct water bodies
12.	Environment education
13.	E-waste (management) Amendment Rules, 2018
14.	National Mineral Policy
15.	Mass awareness campaigns
16.	Green budgets
17.	Non-conventional & renewable energy resources
18.	Green political agendas
19.	Smart cities

To be an informed citizen and how to track environmental issues, and be an environmental protection soldier, the following resources can easily be tapped:

- World Wide Web
- Mobile phone
- Laptop/desktop
- Internet

How to track? – modes of mass communication

- News papers

The above-mentioned resources have following attributes:

S.No.	Nuances
1.	Latest issues, decisions developments
2.	Written medium
3.	Powerful medium
4.	Responsible
5.	Specific thrust
6.	Powerful media for molding opinions
7.	Affordable
8.	Fast evolution taking place, paper to digital sources are increasing day by day
9.	Daily tracking is essential
10.	Record keeping is a must
11.	Information and facts are retrievable
12.	Interpretations need to be holistic and sound
13.	Different perspectives need to be considered
14.	Tracking with newspaper – with www / original source is of immense help
15.	Article can be retrieved with the help of google any time
16.	Editorials add mature, objective analyses to ones insight
17.	+ &– aspects of one and all may be taken into account too

Following figures exemplify latest updates about environment.

The screenshot displays two news articles side-by-side in a web browser. The left article, from the Government of India, Ministry of Environment, Forest and Climate Change, is titled "GOVERNMENT OF INDIA MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE VOLUNTARY DISCLOSURE SCHEME FOR EXOTIC LIVE ANIMALS". It outlines a scheme for the voluntary disclosure and registration of stock of exotic live animals in India, with a last date for voluntary disclosure extended to 15 March 2021. The right article, from the Times of India, is titled "To stall his extradition, NiMo cites Assange case" and reports on the arrest of a man named NiMo and his legal strategy to delay extradition by citing the Assange case.

One gets to know of the current announcements and schemes by the Ministry of Environment, Forest and climate change.

The following screen shot displays how making quality water available in market turns out to be a profitable enterprise.



Information regarding mass vaccination for protection against Covid 19 has been reported variedly by different newspapers.

Economic Times Newspaper: To... Economic Times 23-01.pdf +Financial Express 23.01.2021

vk.com/doc562341376_586420474?hash=4884b479600485d36&id=66137657e1274d0d91

Economic_Times_23_01.pdf 4 / 10

LIABILITY IN CASE OF SECURITY BREACH

Telcos Worried over Security Note on Gears

Delhi When it comes to security, telcos are not taking any chances. They are taking the necessary steps to ensure the security of their networks and data. The Ministry of Communications has issued a security note on gears, which is a significant step towards ensuring the security of the country's communication infrastructure. The note is aimed at ensuring that the gears used in the country's communication infrastructure are secure and reliable. The note is a result of a security audit conducted by the Ministry of Communications. The audit found that there were several vulnerabilities in the gears used in the country's communication infrastructure. The Ministry has issued the security note to ensure that these vulnerabilities are addressed. The note is a significant step towards ensuring the security of the country's communication infrastructure. The note is aimed at ensuring that the gears used in the country's communication infrastructure are secure and reliable. The note is a result of a security audit conducted by the Ministry of Communications. The audit found that there were several vulnerabilities in the gears used in the country's communication infrastructure. The Ministry has issued the security note to ensure that these vulnerabilities are addressed.

TV Ratings Scam: Times Network Mulls Legal Action Against BARC

Network may initiate legal proceedings against individual perpetrators, too

Delhi Times Network, which operates India's leading English news channel, has decided to take legal action against the Broadcast Audience Research Council (BARC) for its role in the alleged ratings scam. The network has also decided to take legal action against individual perpetrators of the scam. The network has filed a complaint with the Delhi Police and is seeking a search warrant to raid the offices of the individuals involved in the scam. The network has also decided to take legal action against the individuals involved in the scam. The network has filed a complaint with the Delhi Police and is seeking a search warrant to raid the offices of the individuals involved in the scam. The network has also decided to take legal action against the individuals involved in the scam. The network has filed a complaint with the Delhi Police and is seeking a search warrant to raid the offices of the individuals involved in the scam.

India can be a Model on Vaccinating a Billion People at Scale, Says Nilekani

Delhi India will be a role model on how to vaccinate a billion people at scale, said Nandan Nilekani, Infosys co-founder. He said that India has successfully vaccinated over 100 million people in a matter of weeks, which is a significant achievement. He said that India has successfully vaccinated over 100 million people in a matter of weeks, which is a significant achievement. He said that India has successfully vaccinated over 100 million people in a matter of weeks, which is a significant achievement.

CoWin's Reach Getting a Booster Shot

Delhi The CoWin app, which is used for booking COVID-19 vaccines, has been downloaded by over 100 million people. The app has been downloaded by over 100 million people, which is a significant achievement. The app has been downloaded by over 100 million people, which is a significant achievement. The app has been downloaded by over 100 million people, which is a significant achievement.

Financial Express Delhi, Sat 23-01-2021

epaper.financialexpress.com/2968425/Delhi/January-23-2021#page/4/2

4 FINANCIAL EXPRESS

Companies

SATURDAY, JANUARY 23, 2021

Quick View

JSW Steel's net profit jumps nearly 14 times to ₹2,669 cr

Robust automotive sales, increased offtake from industrial, engineering, solar and appliances segment boost demand

FE BUREAU Mumbai, January 22

BACKED BY A strong recovery in steel demand, JSW Steel on Friday reported a stellar set of numbers for the three months of October-December, as the net profit increased nearly 14 times on a year-on-year basis.

RIL's consolidated profit rises 12.5% to ₹13,101 cr

FE BUREAU New Delhi, January 22

RELIANCE INDUSTRIES (RIL) on Friday reported consolidated net profit of ₹13,101 crore for the three months to December, 2020, an increase of 12.5% y-o-y.

The oil-to-retail conglomerate's consolidated revenue from operations for the quarter went down 2.3% y-o-y to ₹1.23 lakh crore. The RIL stock, which is trading below its record September highs, closed at ₹2,047.95 on Friday, down 2.4% on a day when the markets were weak.

In a quarter in which the economy was recovering from the disruption caused by the pandemic, RIL's performance was somewhat mixed. Its Refineries (and notably well), the subsidiary has received ₹1.52 lakh crore from investors for a combined stake of 3.28%.

Tata Motors hikes PV prices by up to ₹20k

Tata Motors on Friday said it has increased prices of its passenger vehicle (PV) range by up to ₹20,000 to offset rising input costs and semiconductor. The company joins others like Maruti Suzuki and Mahindra & Mahindra, which have also hiked their vehicles' prices.

Report card

Revenue (₹ cr) **Profit** (₹ cr) **EPS** (₹)

Company	Revenue (Q3 2021)	Revenue (Q3 2020)	Profit (Q3 2021)	Profit (Q3 2020)	EPS (Q3 2021)	EPS (Q3 2020)
JSW Steel	34,600	24,521	2,669	187	37.3	13.4
RIL	1,23,000	1,25,000	13,101	11,645	11.8	10.5

production grew by 1.6% y-o-y. Cons-

Financial Express Delhi, Sat, 23 Jan 2021

epaper.financialexpress.com/2968425/Delhi/January-23-2021#page/2/2

strengthen R&D activities in madagascar and the Chair professor is expected to provide leadership in conducting and coordinating research, development and teaching in the area of development of highway infrastructure, the ministry said in a statement.

operating special trains. The service was suspended on 22 March, 2020, due to the Covid-19 pandemic and the lockdown. The service allows passengers to order an array of food of their choice from reputed brands as well as popular regional and local delicacies of phone or online while traveling on trains and get the same delivered to their seats at railway station. During the pre-Covid period, IRCTC had started clocking 30,000 e-catering orders per day.

has also given the go-ahead to resume the services which will commence in a phased manner from February, 2021. The services will start in over 30 railway stations catering to approximately 250 trains and the IRCTC is ensuring that all its partners ensure proper health and hygiene protocols.

making registration compulsory for agencies implementing CSR activities on behalf of firms. Besides, firms have been permitted to set off the excess amount spent under CSR up to three succeeding financial years and they have also been allowed to invest a capex capital assets through CSR in the name of beneficiaries or a public authority or registered trust, among others.

Non-compliance with CSR provisions has been decriminalised by shifting such offences to penalty regime, while companies having CSR obligation below ₹50 lakhs have been exempted from constituting a CSR Committee, according to the corporate affairs ministry. Under the Companies Act, 2013 – being implemented by the corporate affairs ministry – certain class of profitable companies are required to shell out at least two per cent of their three-year annual net profit towards CSR (corporate social responsibility) activities in a financial year.

supply and install communication system Delhi-Ghaziabad corridor. Alatom's installation, test, train control, telecommunication will be the first in India, from hybrid level 3 signaling and train traffic management.

Varanasi and the between New Delhi. The race for the participation from with Media 50% emerging as the with the lowest offer. In 2020, the Railways called the tender for manufacturing of the after the Chinese state-owned company CSR Electric (India) was the only foreigner among six companies manufacturing high-speed train. In the tender was

India will be role model on how to vaccinate billion people at scale, in trusted manner: Nandan Nilekani

PRESS TRUST OF INDIA New Delhi, January 22

AADHAAR ARCHITECT NANDAN NILEKANI on Friday said with the ongoing effort around systematic rollout of Covid-19 vaccine to citizens, India will be a role model on how to vaccinate a billion people at scale and in a trusted manner.

The Infosys co-founder also noted that the pandemic has brought changes in consumer behaviour and accelerated adoption of digital services across sectors like healthcare and education that has brought down the cost of customer acquisition for startups.

Speaking at RedBus's General Assembly 4.0 event, Nilekani spoke on how to build for scale in India that presents a massive opportunity with a booming internet penetration and rising adoption of digital services.

Nilekani said while the ongoing vaccination is focusing on healthcare and frontline workers, the vaccine production in India in the next four to five months will be more than ample to vaccinate more people.

"What's important is that the vaccination should be recorded online, real-time with proper authentication and identity, so that we can make sure that the person gets the message that they have to come back in three weeks for the next round, and that everybody should be issued a vaccination certificate," he said.

Nilekani highlighted that the government has done a great job by issuing digital vaccination certificates to those getting vaccinated as these can be stored in mobile phone and be presented when asked for.

From the Front Page

Adani Total, Torrent pick 50% stake each

though Budget FY21 assumed a growth of 2.1% in the Centre's tax deviation to states, the transfer actually fell by the same

Q3 results: Jio beats estimates, net

undertook restructuring of CSR by merging and disinvestment of schemes, along with altered during pattern between the Centre and States with Government

accepted our proposal. The minister, vended, added: "Some who are used to opposing are now in line."

Editorial on E-waste, given below, expands ones understanding of this issue.

Financial Express Delhi, Sat, 23 Jan 2021

epaper.financialexpress.com/2968425/Delhi/January-23-2021#page/6/2

Opinion

SATURDAY, JANUARY 23, 2021

Get e-waste management right

NGT order on central monitoring good; producer responsibility must encourage partnering with informal waste-processors

THE NATIONAL GREEN Tribunal (NGT) lamenting the state of management of electronic waste (e-waste) in the country, saying that the current situation makes it appear that "violation of environmental law is not the priority", should serve as a wake-up call to the authorities. The tribunal observed that there were "large gaps" in compliance, with the State Pollution Control Boards and local authorities having failed to implement the E-Waste (Management) Rules, 2016. It was hearing three cases centred on the enforcement of the extended producer responsibility (EPR) as envisioned in the policy as also other aspects such as collection, dismantling, safe storage, etc. One of the three cases was based on a report by The Indian Express on 5,000 illegal e-waste processing units operating within and in the periphery of the national capital, while the Delhi and Uttar Pradesh pollution authorities acted in the matter of the illegal e-waste processing units by ordering the closure of many such units, they have barely made a dent. But what really spurs us on how poor India's e-waste watch has been is the fact that as per data with the Central Pollution Control Board (CPCB), while e-waste generation had shot up from 7.7 lakh tonnes in 2017-18 to 10.14 lakh tonnes in 2018-19, merely a fifth of the waste generated in 2018-19 was dismantled that year. Indeed, the actual collection under EPR was merely half of the target.

Against such a backdrop, the NGT did well to vest significant monitoring authority with the CPCB with regards to the implementation of the policy on controlling e-waste; the tribunal has directed the CPCB to update e-waste status periodically at least

Budget must address the needs of the disabled

INCLUSION TARGET

A SUPPORT ECOSYSTEM WITH TAILORED EDUCATION AND SKILLING FOR PERSONS WITH DISABILITIES WILL ENSURE EQUAL OPPORTUNITIES FOR THEM IN THE MAINSTREAM

RAMADORAI

Former CEO & MD of FICSI, and former chairman, Skill Development Agency. Views are personal

ever, it needs to be seen how well it is implemented to bring about the inclusion of children with disabilities. Inclusive schooling is the best practice that promotes inclusive learning, involving long-term inclusion that helps school-age children and economic growth. Some groups may require targeted attention if they are to benefit from education, training, and employment opportunities. This is particularly the case for persons with health disabilities and people in need.

famous personalities include dancer Sudha Chandran, singer Ravindra Jain, AS Chopra in Hindi, badminton champion Gopichand, tennis ace V. Ravi Sundaresan is a torch-bearer for the employment of people with physical and mental challenges. In 2005, 4% of Titan's employees were recorded to have some form of disability. The company set out not just to employ them but also to integrate them completely into the organisation. Technology giant IBM also has a "Human Ability and Accessibility Center" in India. The main purpose of the initiative is to modify and use technology to make the workforce more inclusive.

The power of technology's deployment in getting quick and reliable data like count of elephants from space is demonstrated by the following screen shot of Live Mint, 22.01.1021.

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https://vk.com/doc562341376_586286589?hash=570b116e4a7ac9855f&dl=55ffddaa0932e7d19

Livemint 22 Jan 2021.pdf

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4 of 25

Counting elephants, but from space

SCIENTISTS ARE using images to count African elephants from space. The pictures come from an Earth-observation satellite orbiting 600km above the planet's surface says the BBC. The breakthrough could allow up to 5,000 sq km of elephant habitat to be surveyed on a single cloud-free day. And all the laborious elephant counting is done via machine learning - a computer algorithm trained to identify elephants in a variety of backdrops. According to Dr Olga Isupova, from the University of Bath, scientists just have to present examples to the algorithm and tell it, 'This is an elephant, this is not an elephant.' By doing that, they can train the machine to recognise small details that humans wouldn't be able to pick up with the naked eye. Scientists looked first at South Africa's Addo Elephant National Park because of its high density of elephants, areas of thickets and of open savannah.



Curated by Sohini Sen. Have something to share with us?

Various dimensional data on climate change as of now can be noted from the following newspaper report.

MINT DELHI 27--01.pdf · Google

drive.google.com/file/d/1EOOH_RH2KEmIuTwLO2KZHrD4hrKtshs/view

FACTS

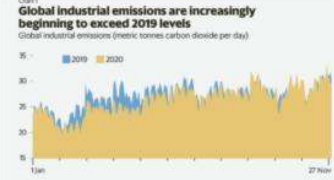
MINT DELHI 27--01.pdf

Sign In

Climate change beyond the pandemic

Despite a lull in economic activity last year, there was no let-up in industrial emissions. But there are enough clues on how to do better for planet Earth

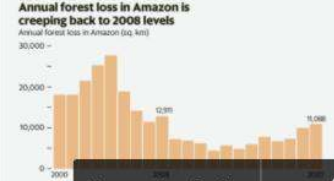
Global industrial emissions are increasingly beginning to exceed 2019 levels
Global industrial emissions (metric tonnes carbon dioxide per day)



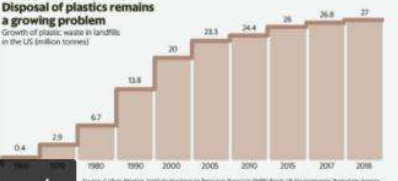
India's emissions saw a sharp drop, but are now back above 2019 levels
Monthly average of industrial emissions (carbon dioxide) related to corresponding 2019 levels

	China	India	US	EU and UK	Brazil
January	84	100	100	100	100
February	80	100	100	100	100
March	57	77	85	87	86
April	100	30	80	70	80
May	104	60	84	78	76
June	104	80	89	80	80
July	102	88	90	81	87
August	106	100	94	84	87
September	108	100	94	84	100
October	110	100	96	85	100
November	108	100	96	85	100

Annual forest loss in Amazon is creeping back to 2008 levels
Annual forest loss in Amazon (sq km)



Disposal of plastics remains a growing problem
Growth of plastic waste in landfills in the US (million tonnes)



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This account has demonstrated how a regular tracking using the simplistic sources of data and information on environment and its different issues can be recorded by an environmentally-conscious person.

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