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News Analysis (24 Apr, 2019)

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Iran Oil Import Waiver Lifted

The US has said that it will not renew exemptions from its sanctions for importing oil from Iran. There will be no **Significant Reduction Exceptions (SREs)** to any nation anymore.

- The **exemptions were granted last November** for a 180-day period for India and seven other countries, and are due to expire on May 2.
- India, China, and US allies Japan, South Korea, and Turkey will be the most impacted by the non-renewal of waivers.
- The other three currently exempted countries — Italy, Greece, and Taiwan — have already reduced their imports to zero.

Impact of Sanctions

- **On Iran:** The significant reduction in oil export will **deny Iran its principal source of revenue.**
- **On Global Oil Supplies:** Iran has a Sanctions on Iran are likely to impact **global oil supply chains.**
 - Disruption in supply may also lead to **a significant rise in oil prices.**
 - However, the United States, Saudi Arabia, and the United Arab Emirates, three of the world's largest energy producers have said that they are committed to ensuring that global oil markets remain adequately supplied.

Threatened sanctions on India

- The US has said that **India's "escrow account" used for Rupee-Rial trade cannot be operated** after May 2 deadline.
 - **Escrow Account:** An escrow account is a **temporary pass-through account held by a third party during the process of a transaction** between two parties.
 - However, there is **no change in the exemption given for India's investments**

in Chabahar port as a trade route to Afghanistan.

- US has said that it will place **financial curbs** on any entities or companies violating the oil sanctions, including a **ban on the use of the SWIFT banking international transaction** system by the companies, **seizure of any US assets** of those companies, and curtailing any other dollar transactions.

Impact on India

- **Oil Supply for Refineries:** The decision of the US is likely to irk India, particularly since the US has also imposed sanctions on another of India's top suppliers, Venezuela.
- **Current account deficit:** Higher crude oil prices will **widen the trade deficit and current account deficit**, given that the value of imports goes up with crude oil.
Each dollar increase in the price of oil raises India's annual import bill by over Rs 10,500 crore, any spike in global crude prices could have a bigger impact on India's deficit numbers in the absence of the Iranian oil.
- **Rupee and Inflation:** The currency could be impacted if the trade and current account deficits were to widen. An increase in the import bill will tend to put pressure on the rupee. The rise in crude oil prices passed on to the consumer will increase inflation.

India's Response

- **Indian oil companies have almost halved** their Iranian oil purchases since November when the sanctions came into effect.
- India's petroleum Minister has said that **India will diversify its imports** from major oil-producing nations other than Iran.

India and Iranian Oil

- **India is the world's third-biggest oil consumer.** It meets more than 80% of its crude oil requirements and around 40% of its natural gas needs through imports.
- **India is Iran's top oil buyer after China.** In 2018-19, it imported 23.5 million tonnes from Iran; in the previous year, almost 10% of its total 220.4 million tonnes of crude import was from Iran.
- Iran was the **fourth largest supplier of oil to India in 2018-19**, and other suppliers may not provide the same benefits in the form of price and credit facilities.

Sixth Mass Extinction

An international team of scientists has published a way forward known as the **Global Deal for Nature (GDN)** to prevent the **sixth mass extinction on Earth**.

- GDN's mission is to save the diversity and abundance of life on the earth at the **cost of \$100 billion a year.**
- The **three goals of the GDN** are to protect biodiversity by conserving at least 30% of the Earth's surface by 2030; mitigate climate change by conserving the Earth's natural carbon storehouses; and reduce major threats.
- The large-scale loss of species like the one we are currently witnessing have also happened earlier, even before humans appeared on the scene.
- During the long period (> 3 billion years) since the origin and diversification of life on earth there were five episodes of mass extinction of species. However the '**Sixth Extinction**' presently in progress different from the previous episodes.
 - The difference is in the **e rates**; the current species extinction rates are **estimated to be 100 to 1,000 times faster** than in the pre-human times and our activities are responsible for the faster rates.
 - Ecologists warn that if the present trends continue, **nearly half of all the species on earth** might be **wiped out within the next 100 years.**

History of Mass Extinction

Era	Impact and Possible Reasons
End Ordovician, 444 million years ago	<ul style="list-style-type: none"> • 86% of species lost • Severe ice age that lowered sea levels, possibly triggered by the uplift of the Appalachians. The newly exposed silicate rock sucked CO₂ out of the atmosphere, chilling the planet.
Late Devonian, 375 million years ago	<ul style="list-style-type: none"> • 75% of species lost • With the emergence of land plants, their deep roots stirred up the earth, releasing nutrients into the ocean. This might have triggered algal blooms which sucked oxygen out of the water, suffocating bottom dwellers like the trilobites.
End Permian, 251 million years ago	<ul style="list-style-type: none"> • 96% of species lost • A cataclysmic eruption near Siberia blasted CO₂ into the atmosphere. Methanogenic bacteria responded by belching out methane, a potent greenhouse gas. Global temperatures surged while oceans acidified and stagnated, belching poisonous hydrogen sulfide.
End Triassic, 200 million years ago	<ul style="list-style-type: none"> • 80% of species lost • No clear causes have been found.

End Cretaceous, 66 million years ago

- 76% of all species lost
- volcanic activity and climate change along with asteroid species

All About Mass Extinction

- **What has gone wrong**

Increased human foot-print has resulted in habitat loss, overhunting and overfishing, the introduction of invasive species into new ecosystems, toxic pollution, and climate change.

populations of vertebrates have fallen by an average of 60 percent since 1970.

- **How many species are already extinct?**

Out of Vertebrate species at least 338 have gone extinct, with the number rising to 617 when one includes those species "extinct in the wild" and "possibly extinct."

- Recent vertebrate extinctions in the wild include the northern white rhino, which lost its last male member in 2018, and Spix's macaw, a blue parrot native to Brazil.
- 99 percent of Earth's species are invertebrates, and 40 percent of the species known to have died off.

- **How many species are endangered?**

There are 26,500 species threatened with extinction, according to the International Union for Conservation of Nature (IUCN).

- This includes 40 percent of amphibian species, 33 percent of reef-building corals, 25 percent of mammals, and 14 percent of birds.
- Since 1993, only 43% of African Lion are left. The number for cheetah is only 7000 and that of Amur leopard is just 100.

- **What are the consequences?**

The loss of species can have catastrophic effects on the food chain on which humanity depends. Ocean reefs, which sustain more than 25 percent of marine life, have declined by 50 percent already — and could be lost altogether by 2050. This is almost certainly contributing to the decline of global marine life, down — on average — by 50 percent since 1970.

In general, loss of biodiversity in a region may lead to (a) decline in plant production, (b) lowered resistance to environmental perturbations such as drought and (c) increased variability in certain ecosystem processes such as plant productivity, water use, and pest and disease cycles

Broader Definition of 'Conflict Diamonds'

India is concerned over **widening of definition of 'conflict diamonds' under the Kimberley Process**, as suggested by developed countries such as the US and Canada.

The proposal is to **include human right abuses and child labour issues**. This may end up as a **non-tariff barrier** for developing countries.

Non-tariff Barrier

- A nontariff barrier is a **trade restriction, such as a quota, embargo or sanction**, that countries use to further their political and economic goals.
- Countries commonly use **nontariff barriers in international trade**.
- Nontariff barriers often release countries from paying added tax on imported goods and create other barriers that have a meaningful yet different monetary impact.
- Countries can use nontariff barriers in place of, or in conjunction with, standard tariff barriers.

India's Stand

- While the concerns are largely based on reports of human rights abuses in the **diamond fields of Zimbabwe and Angola** which includes killing of villagers.
India is afraid that once the **exercise of broadening the definition of conflict diamond begins**, many other issues could get incorporated and a **lot of subjectivity may flow in**.
- This becomes more important since India is the **world's largest centre for cut and polished diamonds** and **accounts for 75% of the world's polished diamonds exports**.
The sector is **labour-intensive** and employs over 4.64 million workers, which is expected to go up to 8.23 million by 2022.
- India is against human rights abuse and labour law violations, but there are other agencies including the **UN Human Rights Commission** and the **International Labour Organization (ILO)** to address them.
The Kimberly Process was never meant to address such issues. While countries like Zimbabwe and Angola need to be checked, India and some other **developing countries engaged in peaceful trade should not be at the receiving end**.

Background

- Over the last couple of years, a number of members including Canada, the EU and the US have been complaining that the Kimberley process **addresses a very narrow band of issues and ignores the rest**.
- Thereby, Canada, in last year's plenary meeting in Brussels, put forward a **proposal to**

expand the definition of conflict diamonds to include **rough diamonds used by public security forces or private (including criminal or mercenary) armed groups** to acquire wealth through the **illegal control, bribery, taxation, extortion or dispossession of people.**

- **India is the chair of the Kimberley System Certification Scheme (KPCS) for the year 2019**, and will have to mobilise **other developing countries such as Sri Lanka, Bangladesh, Brazil and Vietnam to oppose unintended barriers to trade.**

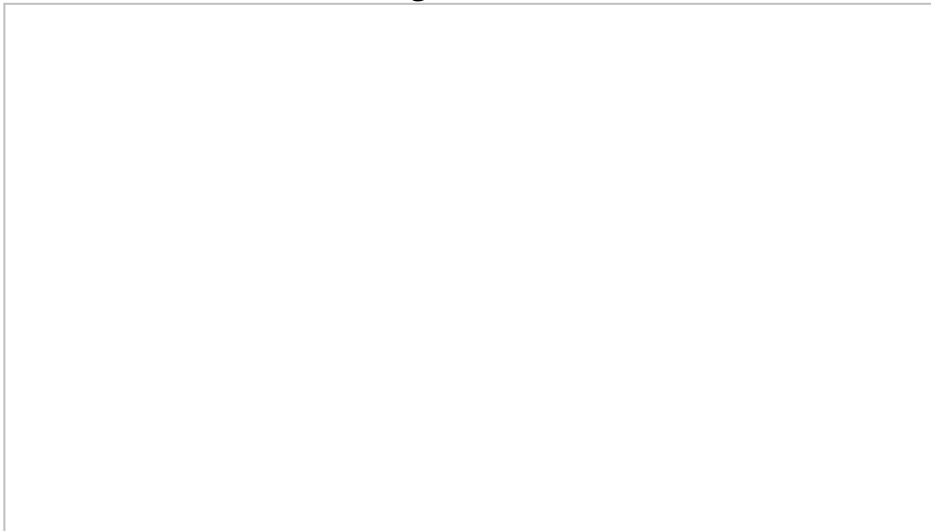
Olive Ridley Turtles

Recently, Olive ridley turtle eggs that were laid in March began hatching and thousands of baby olive ridley turtles have entered the bay of Bengal.

According to officials, **4.5 lakh turtles had arrived at beaches under Gahirmatha Marine Sanctuary** to lay eggs in 2019. It is expected that **millions of baby turtles** would make their way into the sea.

Olive Ridley

- The **Olive ridley turtles are the smallest and most abundant of all sea turtles** found in the world, inhabiting warm waters of the Pacific, Atlantic and Indian oceans.



- They are best known for their unique mass nesting called **Arribada**, where thousands of females come together on the same beach to lay eggs.
- The species is listed as **Vulnerable in the IUCN Red List, Appendix 1 in CITES, and Schedule 1 in Wildlife Protection Act, 1972.**
- Olive-ridleys **face serious threats** across their migratory route, habitat and nesting beaches, due to human activities such as **unfriendly turtle fishing practices, development, and exploitation of nesting beaches for ports, and tourist centers.**

Bhitarkanika National Park

- Bhitarkanika National Park is one of Odisha's finest biodiversity hotspots and is famous for its **mangroves, migratory birds, turtles, estuarine crocodiles, and countless creeks.**
- The Bhitarkanika is represented by 3 Protected Areas, **the Bhitarkanika National Park, the Bhitarkanika Wildlife Sanctuary and the Gahirmatha Marine Sanctuary.**
- Bhitarkanika is located in the estuary of **Brahmani, Baitarani, Dhamra, and Mahanadi river systems.**
- It is said to house 70% of the country's estuarine or saltwater crocodiles, conservation of which was started way back in 1975.

Rushikulya River

- Rushikulya rookery coast in Ganjam district of Odisha.
- The Rushikulya River is one of the major rivers in the state of Odisha and covers entire catchment area in the districts of Kandhamal and Ganjam district of Odisha

Devi River

Devi river is one of the principal distributaries of Mahanadhi. It flows through Jagatsinghpur district and Puri district across Odisha state in India and joins the Bay of Bengal.

Future Proofing

Future-proofing is the **process of anticipating the future and developing methods of minimizing the effects of shocks** and stresses of future events.

- In view of the increasing vagaries of weather due to climate change demands are being made to future proof the agricultural product as mysterious pathogen are reducing yield and ruining and killing crops across the world.
- For example, **Rapid apple decline or sudden apple decline** is being witnessed in many states across the USA. Scientists are not able to find any pathogen that is responsible for such decline, but largely they concur on the impact of climate change and the impact of it on bacteria, fungi, and viruses.
- Even in India, rapid decline in wheat production is being witnessed due to "wheat blast".

Blast disease

- The increased outbreak of pests, diseases and abiotic stresses due to climate change

pose a high risk to global food security. Emergence in fungal diseases has been increased 4-fold in the last four decades.

- One of the devastating threats to food security is the epidemic outbreaks of blast diseases in major food crops.
- **Blast is a worrisome plant disease of 50 species of grasses including two major food crops, rice, and wheat.**

One of the recent examples was the first outbreak of a **devastating wheat blast in Bangladesh in 2016** which damaged wheat crop in 8 districts with yield losses up to 100%. Wheat blast epidemic was aggravated by the untimely rainfall and warmer winter weather which is associated with the changing climate.

In view of these problems, the scientists are calling for **future-proofing of agricultural products.**

Need for future-proofing

Centuries of selective breeding have refined the genomes of most high valued crops. These breeds help in attaining the goal of high yield, at the cost of genetic diversity.

Genetic Diversity

- **Genetic diversity is important because it helps maintain the health of a population, by including alleles (a form of mutated genes) that may be valuable in resisting diseases, pests, and other stresses.**
- Maintaining diversity gives the population a buffer against change, providing the flexibility to adapt. If the environment changes, a population that has a higher variability of alleles will be better able to evolve to adapt to the new environment. In extreme situations (e.g. drought, disease epidemics) diversity could even mean the survival of the population.
- The process of domestication tends to decrease the genetic diversity of selected crop species, due in part to the genetic bottleneck imposed when only a few plants are selected and propagated.

How it should be future proofed

All crops have **wild relatives that are ill-suited to agriculture but which have vastly more genetic diversity** than their domesticated counterparts. Using the biotechnological methods, the genes of these pest-resistant varieties can be used to future –proof the existing varieties.

Important Facts For Prelims (24th April 2019)

Press Freedom Index

- Press Freedom Index measures the **level of media freedom in 180 countries** and is being published annually by **Reporters Without Borders since 2002**.
- India **ranked 140 out of 180 in the Press freedom Index of 2019**.
- **Higher ranks and scores** indicate **lower freedom of the Press**.
- The degree of freedom is determined by compiling responses of media professionals, lawyers and sociologists to a questionnaire.
- The parameters that are evaluated include the **level of pluralism, media independence, environment and self-censorship, legal framework, transparency, and the quality of the infrastructure that supports the production of news and information**.

Rank/Country	Score
1. Norway	7.82
2. Finland	7.90
3. Sweden	8.31
4. Netherlands	8.63
5. Denmark	9.87
