



CURRENT AFFAIRS



Argasia Education PVT. Ltd. (GST NO.-09AAPCAI478E1ZH)
Address: Basement C59 Noida, opposite to Priyagold Building gate, Sector 02,
Pocket I, Noida, Uttar Pradesh, 201301, CONTACT NO:-8448440231

Date - 23 October 2021

21st Century Technologies: Challenges & Opportunities for India (GS 3, Science & Tech, The Hindu, Indian Express)

The new technologies invented over the last few decades such as **Information and Communication Technology, Nanotechnology, Space Technology, Biotechnology, Genetic Engineering, Quantum Technology, 3-D printing** etc have revolutionized nearly all aspect of our lives, be it trade and commerce, transportation, communication, delivery system, Banking, insurance or governance. It has opened an ocean of opportunities of enhancing prosperity and security for almost everyone. But alongwith this many challenges have also arisen.

The joblessness due to increased automation is one the biggest challenges in the indian context. But the reality that technologies can provide solutions to almost every problem of the society, is widely accepted. The general perception is that Micro, Medium and Small Enterprises(MSMEs) or any small

businesses provide more employment opportunities as they use less automation in comparison to bigger companies. But the moment these MSMEs adapt modern and innovative technologies of their scale, its productivity will increase and it will be able to produce more. More resources would be mobilised during the process of production and obviously the system will be needing more human resources as the scale of production is increased now. Hence it is not like general misconception that machine will take the jobs of human. Machines and Humans should be seen as complementing each other during the process of production, not as a kind of substitute.

The nature of the modern technologies is different from what we had there in the ancient times in the field of mathematics, astronomy, medicine, metallurgy etc. Today the center for fundamental scientific advances and technology still remains the West, available in western languages and patented by the west.

Technologies are being used to fight against corruption and also sorting internal security issues. Protection of personal liberty and privacy could be a challenge while sorting the matter related to corruption and internal security.

The movement of technology across the border is limited to the bilateral or multilateral political relationship. Otherwise we witness sanction in technology sharing as well.

The big companies, invest billions of dollars in research and thus own the technology. They use country like India as market and also as a source of talent. Internet giants control the big data through their Artificial intelligence and thus get the knowledge of the changing behaviour of people. They exploit this knowledge for their own benefits. The Indian R&D sector mostly in public sector lacks the innovation ecosystem, which seriously hinders the development of our own high tech products.

Coping Strategies: The challenge for policymakers include the need to: (1) keep pace with rapidly evolving technologies; (2) build capabilities for law enforcement; (3) protect critical infrastructure; (4) devise counter-radicalisation strategies; (5) resolve jurisdictional issues; (6) ensure monitoring; and (7) deal with legal challenges. All these elements have a strong technology element in them. Police reforms and modernisation have proceeded slowly. The issue of training of police and armed police requires serious attention.

The question is that what India should do to meet these challenges and also to harness the vast potential of these technologies:

- Become a provider of technologies rather than remain a mere consumer. This will require a fundamental shift in our thinking and behavior. Government and private sector should work together. Learn from the experience of other countries, particularly China in this regard.
- Revise the science and technology policy of 2013. Bring it line with our national priorities. Prepare a strategy and a roadmap to make India a science and technology power ranking among top countries.

There should be talent hunt programs for the vast sections of the underprivileged. They should have unfettered affordable access to the highest quality education.

- Develop the eco-system of innovation in which the gap between academia, industry, and the government is bridged. Incentivize start-ups, MSMEs, and venture capital funding.
- Spend more on R&D but in a judicious manner. Presently we spend less than a percent of GDP on R&D. This should be increased to 2 percent in a gradual manner and according to a strategy and plan. The entire R&D policy needs a relook. Link up R&D with socio-economic priorities of the country.

- Focus on technologies that improve agriculture, food, water, clean energy, health, disasters, education, housing, environment, etc. Incentivize research in rural technologies.
- Improve science and technology literacy in the country. Get people interested in science. This will require making science teaching interesting and joyful in schools, increasing the number of science museums, having public lectures and demonstrations on science, etc.
- Strengthening science policy and linking it up with foreign policy and defence diplomacy closely to the acquisition of strategic technologies, materials, rare earth and strategic minerals and other technology security initiatives.
- Private sector participation in science and technology. Useful models for creating an ecosystem of innovation and entrepreneurship through the Atal Innovation Mission, starting tinkering labs in schools and the Start-Up India/Stand-Up India are being created. These should be scaled up in Mission mode.
- Initiatives on Making India a maritime power need to be put in place. Technological innovations in blue economy, shipbuilding, scaling up maritime trade including regional trade, marine ecology, deep-sea mining, maritime domain awareness, etc. need to be encouraged. History has shown that no nation has become a major power without fully exploiting the maritime dimension.

India cannot go in isolation in respect of the knowledge economy. It would be difficult for a country like India to reinvent everything of its own. Today, in a globalized world global cooperation is a prerequisite for almost everything, be it developing technologies. But it is also to be understood that no country will share strategic and core technologies. Here India has to develop capacity building of its own by investing more in research and development.

Md Layeeque Azam, Economics Faculty

Crude Oil Prices GS-3 Mobilization of Resources, Growth & development

CONTEXT

As the global recovery gains strength, the **price of crude oil is nearing its highest level since 2018.**

- **Brent crude oil** prices rose to USD 85.89 a barrel, the highest price since October 2018. **US West Texas Intermediate (WTI) crude** prices climbed to USD 83.40 a barrel, highest since October 2014.
- On the other side the **price of natural gas and coal are hitting record highs** amid an **intensifying energy shortage.**

Difference between Brent and WTI

- **Origin:-**Brent crude oil **originates from oil fields in the North Sea** between the Shetland Islands and Norway. West Texas Intermediate (WTI) is sourced from **US oil fields**, primarily in Texas, Louisiana, and North Dakota.
- **Light and Sweet:-** Both oils are relatively light, but **Brent has a slightly higher API gravity**, making WTI the lighter of the two. American Petroleum Institute (API) gravity is an indicator of the density of crude oil or refined products. **WTI with a lower sulphur content (0.24%)** than Brent (0.37%), is **considered “sweeter”**.
- **Benchmark Prices:-**Brent crude price is the international benchmark price used by OPEC while WTI crude price is a benchmark for US oil prices. Since India imports primarily from OPEC countries, **Brent is the benchmark for oil prices in India.**
- **Cost of Shipping:-**Cost of shipping for Brent crude is typically lower, since it is produced near the sea and it can be put on ships

immediately. Shipping of **WTI is priced higher since it is produced in landlocked areas** like Cushing, Oklahoma where the storage facilities are limited.

Oil Pricing: Generally, the **Organization of the Petroleum Exporting Countries (OPEC)** used to **work as a cartel** and fix prices in a favourable band. **OPEC is led by Saudi Arabia**, which is the **largest exporter of crude oil in the world** (single-handedly exporting 10% of the global demand).

OPEC has a **total of 13 Member Countries** viz. Iran, Iraq, Kuwait, United Arab Emirates (UAE), Saudi Arabia, Algeria, Libya, Nigeria, Gabon, Equatorial Guinea, Republic of Congo, Angola, and Venezuela. **OPEC could bring down prices by increasing oil production** and raise prices by cutting production.

The global oil pricing mainly **depends upon the partnership between the global oil exporters** instead of a well-functioning competition. Cutting oil production or completely shutting down an oil well is a difficult decision, because restarting it is immensely costly and complicated.

Moreover, if a country cuts production, it risks losing market share if other countries do not follow the suit. Recently, OPEC has been working with Russia, as **OPEC+** to fix the global prices and supply.

In 2016, **OPEC allied with other top non-OPEC oil-exporting nations** to form an even more powerful entity named OPEC+ or OPEC Plus.

Reasons for High Prices:

Slow Production: Key oil producing countries have kept crude oil supplies on a **gradually increasing production** schedule despite a **sharp increase**

in global crude oil prices. OPEC+ had agreed to sharp cuts in supply in 2020 in response to **Covid-19** global travel restrictions in 2020 but the organisation has been slow to boost production as demand has recovered.

Supply Side Issues: Supply side issues in the US including **disruptions caused by hurricane Ida** and **lower than expected natural gas supplies from Russia** amid increasing demand in Europe have raised the prospect of natural gas shortages in the winter.

Impact on India:

Current Account Deficit: The increase in oil prices will increase the country's import bill, and further disturb its current account deficit (excess of imports of goods and services over exports).

Inflation: The increase in crude prices could also further increase inflationary pressures that have been building up over the past few months.

Fiscal Health: If oil prices continue to increase, the government shall be forced to cut taxes on petroleum and diesel which may cause loss of revenue and deteriorate its fiscal balance. The growth slowdown in the last two years has already resulted in a precarious fiscal situation because of tax revenue shortfalls. The revenue lost will erode the government's ability to spend or meet its fiscal commitments in the form of budgetary transfers to states, payment of dues and compensation for revenue shortfalls to state governments under the Goods and Services Tax (GST) framework.

Economic Recovery: Although the rising prices have impacted the world, India is particularly at a disadvantage as any increase in global prices can affect its import bill, stoke inflation and increase its trade deficit, which in turn will slow its economic recovery. India and other oil importing nations have

called on OPEC+ to boost oil supply faster, arguing that elevated crude oil prices could undermine the recovery of the global economy.

Natural Gas Price: The increase in gas prices has put upward pressure on the price of both **Compressed Natural Gas (CNG)** used as a transport fuel and **Piped Natural Gas (PNG)** used as a cooking fuel.

BY ANSHUM VERMA

(FACULTY- POLITY, GEOGRAPHY & ENVIRONMENT)

The New museum opened in Oslo (Norway) dedicated to the great painter Edvard Munch (GS Paper 1 : Art and Culture)

Context : One of the great painters of Norway Edvard Munch Whose famous painting was “The Scream” will be shown in a new museum opened in Oslo, the capital of Norway . This new museum of Oslo is dedicated Norwegian modernist painter Edvard Munch. In this article we mention about The New museum opened in Oslo (Norway) dedicated to the great painter Edvard Munch (GS Paper 1 : Art and Culture)

About the Munch’s Work “The Scream”

- This painting of Munch is his the most iconic image in art
- This was painted between the period of 1893 and 1910
- In this painting various types of techniques were used
- If we observe the setting of the painting, we observe that this painting suggests to the artist by a walk along the roads overlooking Oslo, the capital city of Norway
- This image also describes that this painting was made when Munch was departing from the mental hospital where her sister was admitted. In fact, it is difficult whether Munch was thinking or not about himself when he made painting
- In this painting the picture image of the nature when sun is tending towards set is painted very well and the red colour which is used to show the redness of the sky at the time of sun set is ultimate
- The red sunset was inspired by a stay in Berlin in 1892 when he was of 28 and leading light of the Symbolist movement
- Though the gender of the person painted in this painting is not clear, there is something with that directness and the strong colours and lines, all of it suggesting the figure and the landscape fusing into a very strong symbol.

Other Important Works of Munch

- "Puberty", "Madonna", Spring Ploughing, Night in Saint Cloud and the Sick Child are also other important works of the Munch
- "Puberty" and "Madonna" are one of the most erotic paintings of the Munch

About Munch

- Born in the village of Adalsbruk, in Norway in 1863
- He belonged from one of the most reputed families of his village as his father was a physician and well-respected person

- Since His father was a fundamentalist Christian therefore it was very difficult to make such type of natural painting and the painting of Nude women
- In fact , his mother, sister and other members of the family were died after illness therefore his father explained these death as the divine punishment for the anti christian works of the Munch
- He was the follower of impressionism

Legacy of the Munch

- He was one of the most proficient artists and painters of not only Europe but also of America also. Many painters of America, Europe and the other regions of the western world had followed the techniques and subjects of this great painter .
- The painters like Kirchner , kandinsky and Beckmann are the followers of this great Painter. They learnt the technique of intense colour and making the human figure in semi abstract tonalities.
- Therefore this is great work done by the founder of this Museum who dedicated this Musium to the great artist Munch . Indian art lovers also should do such types of works and they should promote Indian old art by establishing museums in the name of our great artists, painters and musicians. Private sectors and big corporations should come forward in this regard.

Dr. Anshul Bajpai