

WAR IMPACT ON UKRAINE AGRICULTURAL EXPORT

- ❖ **First grain cargo ship has left Ukraine since war began — how big a deal is this?**
- ❖ **CONTEXT:** A Sierra Leone-registered ship, 'Razoni', carrying 26,527 tonnes of corn (maize) set sail from Ukraine's Odesa port. This was the first time since Russia's invasion on February 24 that any vessel loaded with Ukrainian grain had departed from its ports on the Black Sea. The bulk carrier, destined for Tripoli in northern Lebanon, passed through a specially-cleared "safe humanitarian maritime corridor" near Ukraine's ports on the Black Sea, whose waters it had mined in order to protect against amphibious attacks by Russia.
- ❖ **How significant a milestone is this shipment? Is there anything beyond symbolic value?**
 - The M/V Razoni ship, which anchored near the Bosphorus entrance off Turkey's coast and was cleared for further voyage after inspection, is the first under a United Nations-backed agreement enabling resumption of Ukrainian farm produce exports through its Black Sea ports.
 - The so-called Black Sea Grain Initiative – involving signing of separate accords by Russia and Ukraine with the UN and Turkey on July 22 – provides for exports from three ports: Odesa, Chornomorsk and Yuzhny.
 - Under the deal, the ships are to be guided through the Black Sea waters by Ukraine's navy to avoid mined areas. The vessels will then proceed to Turkey's Bosphorus Strait along an agreed corridor and, from there, to various ports of the world.
 - The ships are to also be inspected (to ensure only commercial foodstuffs and fertiliser are carried) by teams from a Joint Coordination Centre set up in Istanbul with representatives of the UN, Ukraine, Russia and Turkey.
 - As far as effectiveness goes, everything hinges upon the agreement's smooth implementation in the midst of a war that's showing no signs of ending. For now, the resumption of maritime exports from Ukraine – there are about 17 other ships in the three designated ports with already loaded grain and "waiting permission to leave" – seems to have created some optimism. Since 29th July, prices of wheat at the Chicago Board of Trade commodities exchange have fallen from \$296.79 to \$280.63 per tonne. So have corn, from \$242.61 to \$232.86 per tonne.
- ❖ **How important is Ukraine to the global agricultural trade?**
 - Ukraine, before the war, was the world's fifth largest exporter of wheat (after Russia, European Union, Australia and the US) and barley (after Australia, EU, Argentina and Russia), while No. 4 in corn (after the US, Argentina and Brazil); No. 1 in sunflower oil, oilcake/meal and seed; and No. 2 in rapeseed (after Canada).
 - According to the US Department of Agriculture, Ukraine's total agricultural exports were valued at \$27.8 billion in 2021. That included sunflower oil (\$6.4 billion), corn (\$5.9 billion), wheat (\$5.2 billion), rapeseed (\$1.7 billion), barley (\$1.3 billion) and sunflower meal (\$1.2 billion).
 - The country's top three markets were the EU (\$7.7 billion), China (\$4.2 billion) and India (\$2 billion).
 - Exports to India largely comprised sunflower oil, which was worth \$1.9 billion. Given that much of Ukraine's trade happens through the Black Sea, the un-blocking of routes is a big deal – both for itself and the world.
- ❖ **How much does Ukraine matter to India?**
 - The country, is a major supplier of sunflower oil. India imported 21.76 lakh tonnes (lt) of it in 2020-21 (April-March) and 20.45 lt in 2021-22, valued at \$1.96 billion and \$2.88 billion, respectively.
 - Out of this, Ukraine's share was 17.40 lt (\$1.60 billion) in 2020-21 and 14.83 lt (\$2.09 billion) in 2021-22. Russia and Argentina were a distant No. 2 and No. 3, at 3.40 lt (\$479.16 million) and 1.85 lt (\$258.66 million) respectively, in 2021-22.
 - Sunflower oil is India's fourth largest consumed vegetable oil (22-23 lt), after palm (80-85 lt), soyabean (45 lt) and mustard/rapeseed (30 lt).
 - An estimated 70% of sunflower oil consumption is in the South, with Maharashtra (10-12%) and the rest of India accounting for the balance.
 - The bulk of imports, too, are through the four southern ports of Kakinada, Krishnapatnam, Chennai and Mangalore, with some tanker vessels also coming to Kandla and Nhava Sheva/JNPT in the West.
 - The top three domestic sunflower oil brands players are the Hyderabad-based Gemini Edibles & Fats ('Freedom' brand), Chennai-based Kaleesuwari Refinery ('Gold Winner') and Adani Wilmar Ltd ('Fortune').
- ❖ **What has been the war's impact on this segment?**
 - Before the war, nearly 2 lt of sunflower oil was being imported every month into India, 70-80% of it from Ukraine. These were mostly in bulk vessels of 35,000-45,000 tonnes from the ports of Odesa and Mariupol. Following the invasion, imports collapsed to hardly one lt, even as landed prices (cost plus insurance and freight) in Mumbai crossed \$2,200 per tonne, from \$1,450-1,500 levels till mid-March.
 - Imports have since recovered, though, to about 1.5 lt a month. But roughly 50% of it is coming from Russia, 30% from Argentina and only 20% from Ukraine. "Russia has stepped up exports, mainly through its ports of Taman and Rostov-on-Don on the Sea of Azov. Landed prices have also eased to \$1,500-1,550 per tonne,"
- ❖ **Will the reopening of Ukraine's Black Sea ports make a difference?**
 - Currently, Ukrainian exports are taking place entirely through the overland route or ports in Romania, Bulgaria and Turkey. "Freight costs from Odesa to Indian ports pre-war were \$40-50 per tonne. Now, it is \$150-200 per tonne to simply move oil cargo from Ukraine (by road or in small 2,000-3,000 tonne barges) to ports such as Mersin in Turkey.

- Freight from those ports to India is another \$90-100 per tonne.”. Resumption of direct trade from Odesa and other Ukrainian ports would definitely be welcome, but may take time: Under the UN deal, evacuation of wheat and corn will receive priority over sunflower oil.
- ❖ **Are there any other commodities that India imports from Ukraine?**
- It is mainly ammonia used for manufacture of fertilisers. In 2021-22, India imported 3.63 lt of ammonia worth \$220.44 million from Ukraine.
- The country, in the past, was also a significant wheat exporter to India. These amounted to 29.04 lt (\$603.25 million) in 2016-17 and 6.92 lt (\$149.93 million) in 2017-18.
- But any import of wheat is unlikely today. Black Sea origin wheat from Russia for August-September delivery is quoting at \$340-360 per tonne, exclusive of freight that will be another \$40-50. At these prices, imported wheat will cost Rs 31-32/kg just at the ports. For India, Ukraine’s (and the UN deal’s) importance is essentially limited to sunflower oil.

SC AND TECH

- ❖ **What are rare earth elements, and why is India keen to join a global alliance to ensure their supply?**
- ❖ **CONTEXT:** As part of a global ‘China-plus-one’ strategy adopted post the Covid-19 pandemic that caused massive supply-chain disruptions, a group of western nations are cooperating to develop alternatives to China to ensure key industrial supplies. A new US-led partnership initiative of 11 nations aims to bolster critical mineral supply chains. India is not part of this arrangement — called the Minerals Security Partnership (MSP) — but India is working through diplomatic channels to fetch an entry.
- ❖ **What is the Minerals Security Partnership (MSP)?**
- The US and 10 partners — Australia, Canada, Finland, France, Germany, Japan, the Republic of Korea (South Korea), Sweden, the United Kingdom, and the European Commission — have come together to form the MSP. The new grouping is aimed at catalysing investment from governments and the private sector to develop strategic opportunities.
- “Demand for critical minerals, which are essential for clean energy and other technologies, are projected to expand significantly in the coming decades. The MSP will help catalyse investment from governments and the private sector for strategic opportunities — across the full value chain — that adhere to the highest environmental, social, and governance standards.”
- The new grouping, could focus on the supply chains of minerals such as Cobalt, Nickel, Lithium, and also the 17 ‘rare earth’ minerals. The alliance is seen as primarily focused on evolving an alternative to China, which has created processing infrastructure in rare earth minerals and has acquired mines in Africa for elements such as Cobalt.
- ❖ **What are rare earth elements?**
- The 17 rare earth elements (REE) include the 15 Lanthanides (atomic numbers 57 — which is Lanthanum — to 71 in the periodic table) plus Scandium (atomic number 21) and Yttrium (39). REEs are classified as light RE elements (LREE) and heavy RE elements (HREE).
- Some REEs are available in India — such as Lanthanum, Cerium, Neodymium, Praseodymium and Samarium, etc. Others such as Dysprosium, Terbium, and Europium, which are classified as HREEs, are not available in Indian deposits in extractable quantities.
- Hence, there is a dependence on countries such as China for HREEs, which is one of the leading producers of REEs, with an estimated 70 per cent share of the global production.
- According to the US Geological Survey, supplies from China had started to become erratic as early as 1990, as Beijing kept changing the amounts that it would allow to be produced and exported. Also, according to the USGS, the Chinese government began to limit the number of companies, both Chinese and Sino-foreign joint ventures that could export REEs from China.
- ❖ **Why are these minerals important?**
- Minerals like Cobalt, Nickel, and Lithium are required for batteries used in electric vehicles. REEs are an essential — although often tiny — component of more than 200 consumer products, including mobile phones, computer hard drives, electric and hybrid vehicles, semiconductors, flatscreen TVs and monitors, and high-end electronics.
- India is seen as a late mover in attempts to enter the lithium value chain, coming at a time when EVs are predicted to be a sector ripe for disruption.
- The year 2022 is likely to be an inflection point for battery technology — with several potential improvements to the Li-ion technology, with alternatives to this tried-and-tested formulation being in advanced stages of commercialisation. India has an ambitious plan to convert a large percentage of its transport to electric, and would require these minerals.
- According to the plan, 80 per cent of the country’s two- and three-wheeler fleet, 40 per cent of buses, and 30 to 70 per cent of cars will be EVs by 2030.
- ❖ **What is India’s major concern at this moment?**
- According to experts if India is not able to explore and produce these minerals, it will have to depend on a handful of countries, including China, to power its energy transition plans to electric vehicles. That will be similar to our dependence on a few countries for oil.

- According to Industry watchers the reason India would not have found a place in the MSP grouping is because the country does not bring any expertise to the table. In the group, countries like Australia and Canada have reserves and also the technology to extract them, and countries like Japan have the technology to process REEs.

ENVIRONMENTAL ISSUE

❖ **The coal mining protests in the Hasdeo Aranya region**

- ❖ **The story so far: The Hasdeo Aranya forests are called the lungs of Chhattisgarh. Over the past one year, protests against mining in this region have erupted several times and some still continue to sit-in demanding a complete stop to mining. Amidst this, on July 26, the Chhattisgarh Legislative Assembly unanimously passed a private member resolution urging the Centre to cancel allocation of all coal mining blocks in the ecologically sensitive area.**

❖ **What is a private member resolution?**

- An MLA who is not a Minister — whether she happens to be from the ruling party or not — is a private member. A private member resolution can be brought in by a private member and if passed, it becomes an expression of what the House thinks. This is different from a private member bill which would become law in case of approval.
- Such private member resolutions were passed by the State Assemblies of Punjab and Kerala, during the farm law agitation, where both state legislatures had expressed their displeasure against the then proposed (now withdrawn) farm laws. In the given case, the Chhattisgarh Assembly has passed a resolution urging the Centre to cancel allocation of all coal mining blocks in the Hasdeo region.

❖ **Who moved the resolution and why?**

- Dharmjeet Singh, an MLA who represents Lormi, a segment of the Bilaspur Lok Sabha constituency introduced the resolution. Mr. Singh has been a vocal supporter of the protests going on in the Hasdeo region and had also tried to move the resolution in the last Assembly session.

❖ **What is the importance of the Hasdeo-Aranya region?**

- The Hasdeo Aranya (Aranya means forest) lies in the catchment area of the Hasdeo river and is spread across 1,878 sq km in North-Central Chhattisgarh. The Hasdeo river is a tributary of the Mahanadi river which originates in Chhattisgarh and flows through Odisha into the Bay of Bengal.
- The Hasdeo forests are also the catchment area for the Hasdeo Bango Dam built across the Hasdeo river which irrigates six lakh acres of land, crucial to a State with paddy as its main crop. Besides, the forests are ecologically sensitive due to the rich biodiversity they offer and due to the presence of a large migratory corridor for elephants.

❖ **When did the controversy surrounding coal mining start?**

- Underneath the Hasdeo Aranya is a coalfield that comprises of 22 coal blocks.
- In 2010, the Centre categorised Hasdeo Aranya to be a “no-go” zone for mining.
- It ruled out mining in any of these blocks. However, only a year later, the Ministry of Environment, Forest and Climate Change (MoEF) granted clearance for the mining for one coal block.
- At present, of the 22 blocks, seven blocks have been allotted to different companies. Of these, two — the Parsa East Kete Basan (PEKB) and Chotia (I and II) — are operational.
- The PEEKB Phase I has been completely mined while there has been local opposition to mining and deforestation in Parsa, PEEKB Phase II and Kete Extension — all three allotted to the Rajasthan Rajya Vidyut Utpadan Nigam Ltd (RRVUNL).
- After the gram sabhas opposed mining in the Madanpur South and Gidmudi Paturia blocks that were allotted to the Andhra Pradesh Mineral Development Company (APMDC) and Chhattisgarh State Power Generation Company (CSPGC) respectively, clearances were withdrawn.
- Four other blocks had been listed for auction by the Centre but were taken off the list after the State government wrote a letter requesting the Centre to not allow mining in these blocks located in the catchment areas of the two important rivers Hasdeo and Mand.
- In his resolution, Mr. Singh has urged the State government to use the same principle to stop mining in the already allocated Hasdeo coal blocks where no activity has started thus far. He suggested that these companies may be allotted coal blocks elsewhere in Chhattisgarh or in rest of the mining-rich areas in the country.

❖ **Will mining stop after the resolution is passed?**

- Despite the members of both the ruling Congress and the principal Opposition BJP — that is in power at the Centre — adopting it, the resolution isn't expected to change the status quo. While the Congress says the onus is on the Centre to stop mining, the BJP has been asking the State government to withdraw the clearances it has issued to mine developers and operators (MDOs) who handle all mining activities on behalf of the companies that hold the mining lease. According to the activist MLA due to mining in PEEKB and Parsa, three lakh trees will be felled which would be detrimental to Chhattisgarh. While urging the Centre to stop mining, also mentioned the clearances provided by the State government such as the final clearance from the forest department and those under the Air Pollution Act and the Water Pollution Act.
- During the discussion on the private member resolution, Chief Minister Mentioned it was for the Centre to decide to whom a coal block should be allocated and that the State government had no role in it.
- Activists, believe Mr. Singh's speech are like a veto power held by the State government that can stop mining activities from starting.

PRELIMS

1. Energy Conservation (Amendment) Bill 2022

- The Bill 2022 seeks to amend the Energy Conservation Act, 2001.
- The Bill will help meeting the five targets announced by Indian Prime Minister at UNFCCC COP26 (Glasgow) in 2021.
- The main objective of the proposed amendments is to reduce India's power consumption via fossil fuels and thereby minimize the nation's carbon footprint.
- The Bill seeks to mandate minimum use of non-fossil sources, including Green Hydrogen, Green Ammonia, Biomass and Ethanol for energy and feedstock.
- It also seeks to establish carbon credit trading markets in order to incentivise the private sector for emission reduction.
- Under the Carbon trading scheme for reduction of carbon emissions, certificates will be issued to those who meet their emission targets.
- These certificates can then be traded with those unable to meet their emission targets.
- This carbon trading scheme will subsume all present tradable green and white tags.
- The Bill seeks to make large residential buildings comply mandatorily with the energy efficiency code.
- Currently, only commercial buildings are required to follow the energy efficiency code.
- Other Provisions under the Bill
 - Enhance the scope of Energy Conservation Building Code;
 - Amend penalty provisions,
 - Strengthening institutions set up originally under the Act, such as the Bureau of Energy Efficiency,
 - Empower the State Electricity Regulatory Commissions to make regulations for smooth discharge of its functions.

2. National Anti Doping Agency (NADA)

- It is under the Ministry of Youth Affairs & Sports.
- It was set up as a registered society under the Societies Registration Act of 1860 in 2005 with a mandate for Dope free sports in India.
- The primary objectives are to implement anti-doping rules as per WADA code, regulate dope control programmes, to promote education and research and create awareness about doping and its ill effects.
- NADA includes scientists and representatives from the Indian Olympic Association (IOA).
- Recent activities by NADA:
 - NADA has developed an anti-doping education and awareness generation toolkit with the use of technology.
 - Awareness generation right down the school level about what comprises doping and related aspects.

3. DESH Bill 2022

CONTEXT: The government plans to table the Development of Enterprise and Service Hubs (DESH) Bill in the monsoon session of the Parliament, which will overhaul the Special Economic Zones (SEZ) Act of 2005.

- The DESH Bill will overhaul the existing SEZ law of 2005, aiming to revive interest in SEZs and develop more inclusive economic hubs.
- Through this, the government is seeking to go beyond export-oriented manufacturing and focus on broad-based parameters such as boosting additional economic activity, and integrating various industrial hubs.
- The new law will allow units to manufacture for both domestic and international markets.
- Development Hubs - Through this, the SEZs will be revamped and renamed Development Hubs.
- The developmental hubs will be classified into two types - Enterprise and services hubs.
- The enterprise hubs will have land-based area requirements and be allowed for both manufacturing and services activities.
- The services hubs will have built-up area requirements and be allowed for only services-related activities.
- These hubs, which will come up under the regional boards of states, could be created by Centre or states or jointly by both or by any goods and services provider.
- These hubs will be free from several laws that currently restrict them.
- These hubs will facilitate both export-oriented and domestic investment.
- Criteria - Evaluation based on net foreign exchange and direct tax incentives have been done away with in order to comply with WTO rules.
- Under the DESH Bill, net positive growth criteria will be used to judge performance.
- Duty and Tax - The customs duty would only be paid on the inputs used and not on the expensive final goods.
- An equalisation levy may be imposed on goods or services supplied to the domestic market to bring taxes at par with those provided by units outside.
- Significance - One of the key aspects of the new DESH Bill is also to promote the expansion of the gambit of service sector units.
- Currently, only specified services such as IT, ITeS are allowed in special economic zones.

Shortcomings of the SEZ Act

- According to the WTO's dispute settlement panel, India's export-related schemes, including the SEZ Scheme, were inconsistent with WTO rules since they directly linked tax benefits to exports.
- In its report in 2019, the WTO's dispute settlement panel ruled that India's export-related schemes were in the nature of prohibited subsidies under the Agreement on Subsidies and Countervailing Measures.
- The SEZ Act was implemented in 2006 in a bid to create export hubs and boost manufacturing in the country.
- However, these zones started losing their sheen after the imposition of a minimum alternate tax and the introduction of a sunset clause for the removal of tax incentives.

4. Diammonium Phosphate

CONTEXT: As part of the Atma Nirbhar Bharat initiative, the Government of India has been supporting the Indian fertiliser companies including those producing Diammonium Phosphate to strengthen their backend supply chain.

- Di-ammonium Phosphate (DAP) $[(NH_4)_2HPO_4]$ is the world's most widely used **phosphorus fertilizers**.
- It is a preferred fertilizer in India because it contains both Nitrogen (18% N) and Phosphorus [46% P_2O_5 (20% P)] that are primary macronutrients and part of 18 essential plant nutrients.
- DAP is manufactured by reacting Ammonia with Phosphoric acid under controlled conditions in fertilizer plants.
- Uses - DAP is an excellent source of P and N for plant nutrition.
- It is highly soluble and thus dissolves quickly in soil to release plant-available phosphate and ammonium.
- To prevent the possibility of seedling damage, care should be taken to avoid placing high concentrations of DAP near germinating seeds.
- DAP is used in many applications as a fire retardant to prevent a forest from burning. It then becomes a nutrient source after the danger of fire has passed.
- DAP is used in various industrial processes, such as metal finishing.
- It is commonly added to wine to sustain yeast fermentation and to cheese to support cheese cultures
- India is the largest agricultural consumer of DAP in the world.

ANSWER WRITING

Q. Why is India taking keen interest in the Arctic region?

Although India may be far from the Arctic region physically, yet the impact of melting of the Arctic ice on the global climate is likely to be significant. India also understands the geo-strategic importance of the Arctic region. Importance of arctic region for India:

- To study monsoon pattern: To study the hypothesized tele-connections between the Arctic climate and the Indian monsoon by analyzing the sediment and ice core records from the Arctic glaciers and the Arctic Ocean.
- To characterize sea ice in Arctic using satellite data to estimate the effect of global warming in the northern polar region.
- To conduct research on the dynamics and mass budget of Arctic glaciers focusing on the effect of glaciers on sea-level change.
- To carry out a comprehensive assessment of the flora and fauna of the Arctic vis-à-vis their response to anthropogenic activities. In addition, it is proposed to undertake a comparative study of the life forms from both the Polar Regions.
- For exploration of hydrocarbons: The opening of the sea routes and the exploration of hydrocarbons present economic opportunities which Indian companies can also exploit.
- China's ability to navigate the Northern Sea Route (NSR) is another factor in India's military strategy in that region.
- Observer role of India Arctic Council: India which has a significant expertise in this area from its association with the Antarctic Treaty System can play a constructive role in securing a stable Arctic.

India in its new role as a permanent observer in the Arctic Council is committed to contribute to the deliberations of the council to develop effective cooperative partnerships that can contribute to a safe, stable and secure Arctic. India cannot remain immune from the developments in the region even though the area is remote and far away. India has a long tradition of polar research. It maintains a permanent research station in Svalbard. On the negative side, the enhancement of economic activity in the Arctic Region will accelerate global warming and lead to large sea level rise impacting the global climate to which India cannot remain indifferent

MCQs

- Which of the following is/are the possible consequence/s of heavy sand mining in riverbeds?
 - Decreased salinity in the river
 - Pollution of groundwater
 - Lowering of the water-table

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
- Recently two rivers Hasdeo and Mand are in news, these two rivers are the tributaries of which of the following river?

a) Mahanadi b) Tapi c) Narmada d) Son
- Consider the following statements

“Rule of Law Index” is released by which of the following?

a) Amnesty International b) International Court of Justice

c) The office of UN Commissioner for Human Rights d) World Justice Project

4. Consider the following ports recently mentioned in news
 1. Chornomorsk - Ukraine
 2. Yuzhny - Russia
 3. Taman - Poland
 4. Rostov-on-Don - Russia
 How many above pair/s is/are correctly matched?
 - a) Only one pair
 - b) Only two pairs**
 - c) Only three pairs
 - d) All the four pairs
5. Bosphorus Strait recently seen in news, it connects which of the following seas
 - a) Black Sea with the Sea of Marmara**
 - b) Sea of Marmara with sea of Azov
 - c) Black sea with sea of Azov
 - d) Sea of Marmara with Aegian sea
6. Consider the following Indian ports recently mentioned in news
 1. Kandla port
 2. Chennai port
 3. Krishnapatnam port
 4. Kakinada port
 Arrange the above ports from north to south using the codes given below
 - a) 1,3,4,2
 - b) 2,4,1,3
 - c) 1,4,2,3
 - d) 1,4,3,2**
7. Consider the following statements
 1. Sunflower oil is India's largest consumed vegetable oil followed by palm and soyabean.
 2. Nearly 70% of sunflower oil consumption is in the South India.
 Choose the correct statement using the codes given below
 - a) 1 only
 - b) 2 only**
 - c) Both 1 and 2
 - d) Neither 1 nor 2
8. Consider the following countries
 1. Australia
 2. Canada
 3. Finland
 4. Japan
 5. Chile
 Which of the above countries are associated with Minerals Security Partnership (MSP) grouping?
 - a) 1,2, and 3 only
 - b) 1,3,4, and 5 only
 - c) 1,2,3, and 4 only**
 - d) All of the above
9. Consider the following statements
 1. Heavy Rare Earth Elements are available in India but not in a extractable quantities
 2. China is the leading producer of Rare Earth Elements
 Choose the correct statement using the codes given below
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2**
 - d) Neither 1 nor 2
10. Consider the followings
 1. In India, State Governments do not have the power to auction non-coal mines.
 2. Centre decides to whom a coal block should be allocated
 3. Andhra Pradesh and Jharkhand do not have gold mines.
 4. Rajasthan has iron ore mines.
 Which of the statements given above is/are correct?
 - a) 1 and 2
 - b) 2 only**
 - c) 1 and 3
 - d) 3 only
11. Consider the following statement with reference to Energy conservation (amendment) bill
 1. The Bill seeks to mandate minimum use of non-fossil sources, including Green Hydrogen, Green Ammonia.
 2. The Bill for the first time seeks to make large residential buildings comply mandatorily with the energy efficiency code.
 Choose the correct statement using the codes given below
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2**
 - d) Neither 1 nor 2
12. Consider the following statements with regards to National Anti Doping Agency
 1. It is a statutory body under the Ministry of Youth Affairs & Sports.
 2. It was set up under the National Anti Doping Act 2005 with a mandate for Dope free sports in India.
 3. NADA includes scientists and representatives from the Indian Olympic Association (IOA).
 Which of the above statement/s is /are correct?
 - a) 1 and 2 only
 - b) 2 and 3 only
 - c) 2 only
 - d) 3 only**
13. Consider the following statements
 1. Di ammonium phosphate(DAP) contains micronutrients like Nitrogen and phosphorus
 2. DAP is can be used as a fire retardant to prevent a forest fire
 Which of the above statement is/are not correct?
 - a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2**
14. Which of the following is/are the objectives of SEZs?
 - a) Generation of economic activity
 - b) Promotion of export of services
 - c) Investment from Foreign sources
 - d) All of the above**
15. Consider the following statements:
 1. As per the Right to Education (RTE) Act, to be eligible for appointment as a teacher in a State, a person would be required to posses the minimum qualification laid down by the concerned State council of Teacher Education.
 2. As per the RTE Act, for teaching primary classes, a candidate is required to pass a Teacher Eligibility Test conducted in accordance with the National Council of Teacher Education Guidelines.
 3. In India, more than 90% of teacher education institutions are directly under the State Governments.
 Which of the statements given above is/are correct?
 - a) 1 and 2
 - b) 2 only**
 - c) 1 and 3
 - d) 3 only