

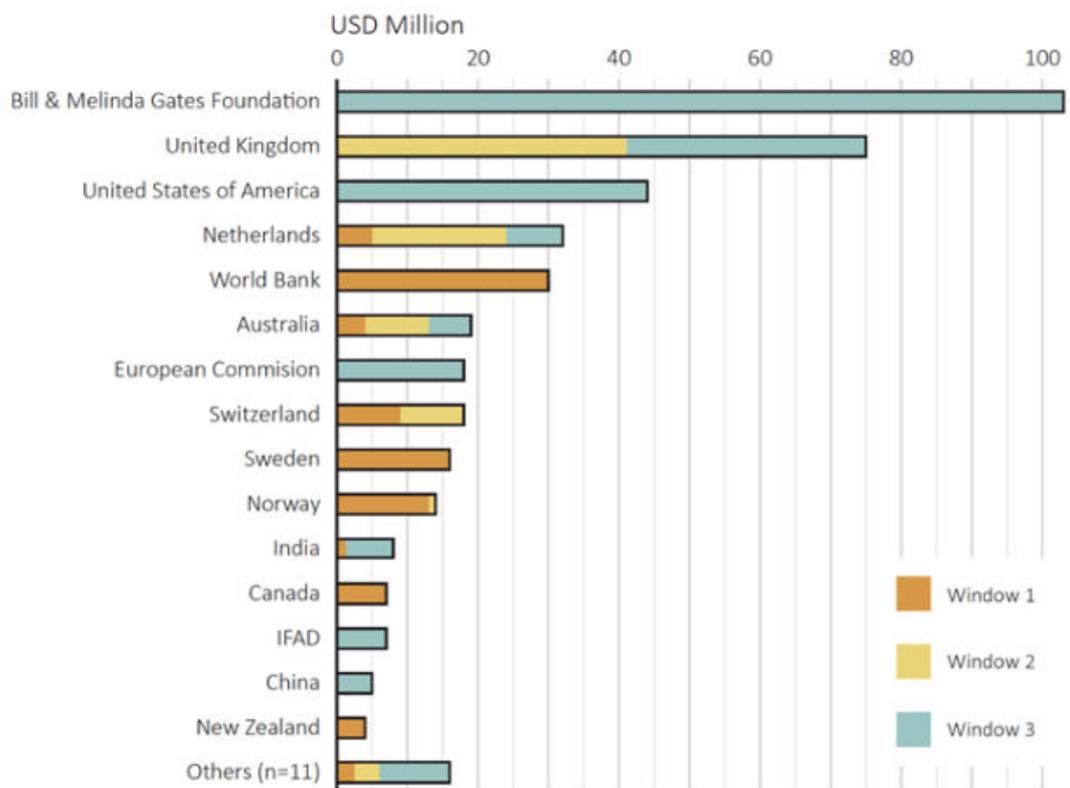
ECONOMY

- ❖ **Global Hunger Index and Indian govt's response**
- ❖ **CONTEXT:** Concern Worldwide and Welthungerhilfe released the latest edition of the Global Hunger Index report. It ranked India 107th out of 121 countries that could be ranked and 136 countries that were assessed; for 15 countries, individual scores could not be calculated and ranks could not be determined owing to lack of data.
- The Indian government responded by summarily dismissing the report, going so far as to claim that it was done to “taint India’s image”. This is not the first time the Indian government has responded like this when faced with India’s poor ranking in the GHI.
- ❖ **When was GHI started, and who brings it out?**
- The GHI is an annual publication and was started in 2006 by Welthungerhilfe and the International Food Policy Research Institute (IFPRI).
- Welthungerhilfe is one of the largest private aid agencies in Germany. It claims to be politically and religiously independent. It was founded in 1962 and works to achieve the United Nations Sustainable Development goal of “Zero Hunger by 2030”.
- According to Welthungerhilfe, it has provided funding of Euro 4.46 billion (1 euro is equal to Rs 80) for more than 10,895 overseas projects in 70 countries.
- IFPRI was established in 1975 and provides research-based policy solutions to sustainably reduce poverty and end hunger and malnutrition in developing countries. It is a research centre of CGIAR (formerly known as the Consultative Group for International Agricultural Research), a worldwide partnership engaged in agricultural research for development. The CGIAR, in turn, is funded by many entities and countries including India.



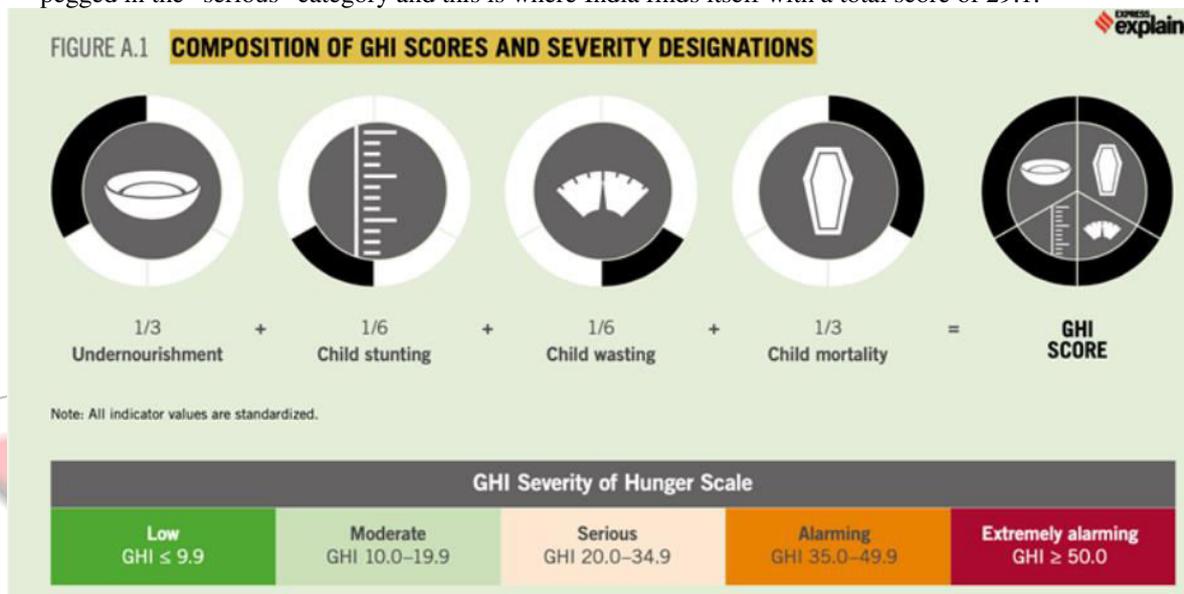
Figure 2. Principal Funders and main funding channels in 2017

A- PRINCIPAL FUNDERS OF CGIAR TRUST FUND



- In 2007, Concern Worldwide, an international humanitarian organisation that has been fighting hunger and poverty across the world since 1968, joined as the third co-publisher.
- In 2018, IFPRI stopped being a publisher. As such, since then the GHI has been brought out by just Welthungerhilfe and Concern Worldwide.
- ❖ **What is the Global Hunger Index?**

- In common parlance, hunger refers to discomfort due to a lack of food. However, the GHI is not such a simplistic measure. Instead, it uses four separate measures to “capture the multidimensional nature of hunger”.
- To be sure, it has used multiple measures since its inception in 2006. The last update to the methods happened in 2015.
- These are the four measures it uses:
 - **Undernourishment**: the share of the population whose caloric intake is insufficient. This is closest to the everyday notion of hunger. This makes up 1/3 of the GHI score.
 - **Child stunting**: the share of children under the age of five who have low height for their age, reflecting chronic undernutrition; this makes up 1/6 of the GHI score.
 - **Child wasting**: the share of children under the age of five who have low weight for their height, reflecting acute undernutrition; this makes up 1/6 of the GHI score.
 - **Child mortality**: the share of children who die before their fifth birthday, reflecting in part the fatal mix of inadequate nutrition and unhealthy environments. This makes up 1/3 of the GHI score.
- The overall score is placed on a 100-point scale and a lower score is better. A score between 20 and 34.9 is pegged in the “serious” category and this is where India finds itself with a total score of 29.1.



❖ **Why does GHI look at all these variables for hunger?**

- The problem of hunger is complex. The GHI includes four indicators to reflect the multidimensional nature of hunger. Together, they reflect deficiencies in calories as well as in micronutrients.”
- The report explains why using this combination of indicators to measure hunger offers several advantages.
- The indicators included in the GHI formula reflect caloric deficiencies as well as poor nutrition. The undernourishment indicator, for instance, captures the food access situation of the population as a whole, while the indicators specific to children reflect the nutrition status within a particularly vulnerable subset of the population for whom a lack of dietary energy, protein, and/or micronutrients (essential vitamins and minerals) leads to a high risk of illness, poor physical and cognitive development, and death.
- Further, by combining multiple indicators, the index “minimizes the effects of random measurement errors”.
- Moreover, these four indicators are all part of the indicator set used to measure progress toward the United Nations Sustainable Development Goals (SDGs).

❖ **What has GHI 2022 found?**

- Typically, GHI ranks and scores are not comparable from one year to another. That’s because data is often revised and methodology changes over time.
- However, each year, the report provides data for three reference years, making the data comparable, to provide a trend for different countries.

TABLE 1 PROPORTION OF UNDERNOURISHED IN THE POPULATION (%)					TABLE 2 PREVALENCE OF WASTING IN CHILDREN UNDER FIVE YEARS (%)				
	'00-'02	'06-'08	'13-'15	'19-'21		'98-'02	'05-'09	'12-'16	'17-'21
India (107)	18.4	17.5	14.8	16.3	India (107)	17.1	20.0	15.1	19.3
Bangladesh (84)	15.9	13.9	14.1	11.4	Bangladesh (84)	12.5	17.5	14.4	9.8
Brazil (20)	10.7	5.6	2.5	4.1	Brazil (20)	2.3	1.8	1.5	1.3
China (1*)	10.0	5.0	<2.5	<2.5	China (1*)	2.5	2.6	1.9	1.9
Indonesia (77)	19.2	18.5	7.9	6.5	Indonesia (77)	5.5	14.8	13.5	10.2
Nigeria (103)	8.9	6.6	9.2	12.7	Nigeria (103)	14.0	10.1	7.9	6.5
Pakistan (99)	21.1	15.8	13.4	16.9	Pakistan (99)	14.1	12.0	10.5	7.1
South Africa (59)	3.9	3.6	4.8	6.9	South Africa (59)	4.5	4.8	3.5	3.4

TABLE 3 PREVALENCE OF STUNTING IN CHILDREN UNDER 5 YEARS (%)					TABLE 4 UNDER-FIVE MORTALITY RATE (%)				
	'98-'02	'05-'09	'12-'16	'17-'21		2000	2007	2014	2020
India (107)	54.2	47.8	38.7	35.5	India (107)	9.2	6.8	4.6	3.3
Bangladesh (84)	51.1	43.2	36.2	28.0	Bangladesh (84)	8.6	5.8	4.0	2.9
Brazil (20)	9.9	7.0	6.8	6.5	Brazil (20)	3.5	2.2	1.6	1.5
China (1*)	17.8	9.8	8.1	4.8	China (1*)	3.7	2.0	1.2	0.7
Indonesia (77)	42.4	40.1	36.4	30.8	Indonesia (77)	5.2	3.8	2.9	2.3
Nigeria (103)	48.3	41.1	33.6	31.5	Nigeria (103)	18.3	14.6	12.8	11.4
Pakistan (99)	41.4	42.0	45.0	37.6	Pakistan (99)	10.8	9.3	7.8	6.5
South Africa (59)	30.1	24.9	21.4	21.4	South Africa (59)	7.2	7.5	3.8	3.2

*In parentheses, the overall GHI rank; *17 countries collectively ranked at 1-17 because all have a GHI score less than 5. Source: Global Hunger Index*

Tables 1-4: How India performed across the four markers of Global Hunger Index

- India has made significant improvements in under-5 mortality and even child stunting has improved a bit. However, the proportion of undernourished population has gone up over the past few years.
- But most worrisome is the trend on child wasting where India has slid back to a level worse than what it was three decades ago; worse still, at over 19%, India's child wasting is the worst among all countries in the world.

❖ **What is child wasting?**

- According to the World Health Organisation, wasting is a reduction or loss of body weight in relation to height. It is a major health problem and, owing to its associated risks for morbidity, requires urgent attention from policymakers. Some of the main causes of wasting include:

- poor access to appropriate, timely and affordable healthcare
- inadequate caring and feeding practices
- poor food security
- lack of a sanitary environment

- According to WHO "Poor diet leads to increased risk of infection, and infection has a profound effect on nutritional status. A previously healthy child can quickly become wasted when faced with a severe infection, potentially leading to a loss of appetite. As wasting worsens, children become more susceptible to infections. This is known as the 'vicious cycle' between infection and wasting.

❖ **Why has the Indian government criticised GHI 2022?**

- This is the second year running when the Indian government has criticised the GHI report. Based on the press release, dated October 15 2022, there are three essential parts of the government's reaction.
- **First**, it claims that a "consistent effort" is yet again visible "to taint India's image as a Nation that does not fulfill (sic) the food security and nutritional requirements of its population"
- **Secondly**, it has questioned the methodology of GHI, claiming that "misinformation seems to be the hallmark" of the annually released report. There are three sub-parts to the government's contention:
 - That GHI uses "an erroneous measure of hunger". In other words, it defines hunger in terms of other variables beyond the lack of food.
 - That 3 out of the 4 variables used are related to children, and as such, cannot be representative of the entire population.
 - Lastly, the government claims that the fourth indicator, the proportion of undernourished population is "based on an opinion poll conducted on a very small sample size of 3000".
- **Thirdly**, the government details how it has been providing additional free-of-cost foodgrains to 80 crore Indians since March 2020, over and above the entitlements under the National Food Security Act. It also mentions the supplementary nutrition provided to 1.78 crore women and 7.7 crore children via the Angandwadi scheme as well as the monetary help (Rs 5000) provided to 1.5 crore women at the time of the birth of their first child.

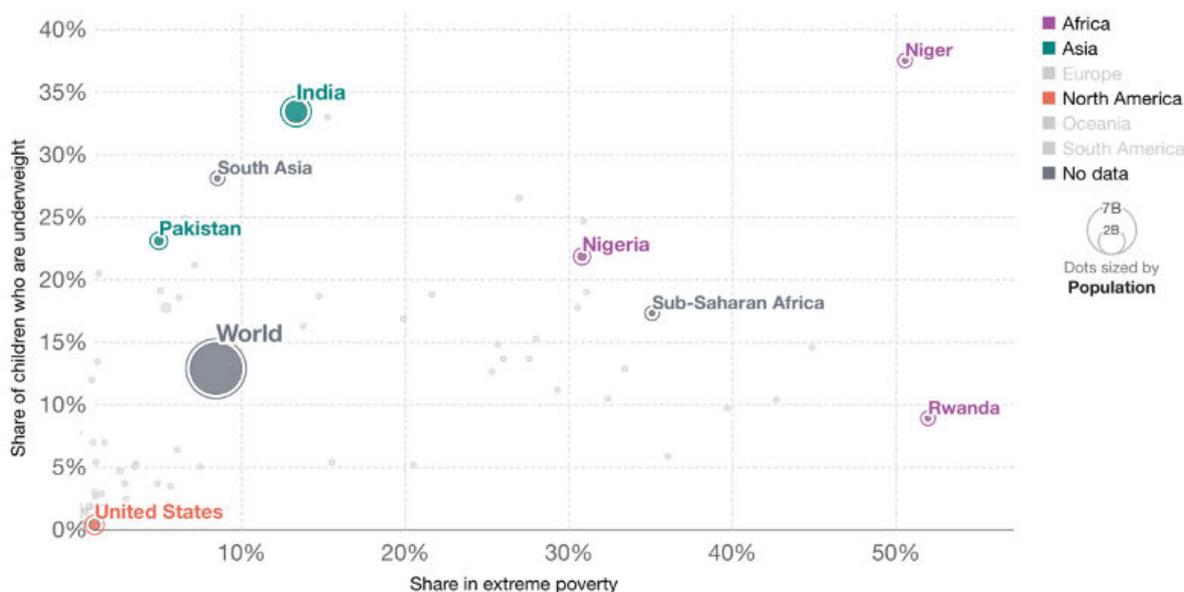
❖ **Upshot**

- India has a severe malnourishment problem that needs to be tackled head-on. India can do better if its government rids itself of what increasingly resembles a persecution complex. That's because the Global Hunger Index is just one in the long list of surveys and reports — all pointing in the same direction.
- For instance, in this controversy about what qualifies as “hunger”, people have paid little attention to another survey — this one brought out by Unicef on October 16 2022.
- It is called “Child Food Poverty: A Nutrition Crisis in Early Childhood”. The box below provides a quick understanding of what child food poverty is and how it is being measured.
- But here is the bottom line: Unicef found that in 13 countries across the world, more than 2 in 5 children live in “severe food poverty”. India is one among those 13, giving company to countries such as Chad, South Sudan, Ethiopia, Somalia, Myanmar and Afghanistan.

Prevalence of underweight children vs. share in extreme poverty, 2019



Prevalence of underweight children is the share of children younger than 5 whose weight for age is more than two standard deviations below the median for the international reference population. Extreme poverty is defined as living below the International Poverty Line of \$2.15 per day.



Notice above that where India is vis-a-vis sub-Saharan Africa. India has a much higher prevalence of underweight children even though it has much lower levels of extreme poverty.

- If stunting and wasting numbers are anything to go by, India might have the largest pool of malnourished kids in the world. In less than a couple of decades, these malnourished children (with associated deficiencies and vulnerabilities) will enter the workforce. The undernourished girls among these will likely become undernourished mothers.

PRELIMS

1. Green crackers

❖ **CONTEXT:** Chandigarh allows the use of green crackers

❖ **What is the difference between green crackers and traditional crackers?**

- Both green crackers and traditional crackers cause pollution.
- However, the only difference is that green crackers cause 30 per cent less air pollution as compared to traditional ones.
- Green crackers reduce emissions substantially and absorb dust and don't contain hazardous elements like barium nitrate.
- Toxic metals in traditional crackers are replaced with less hazardous compounds.
- According to the National Green Tribunal (NGT), green crackers are permitted only in cities and towns where air quality is moderate or poor
- There is reduction in emission of sound as well in green crackers.

❖ **With the UT only allowing use of green crackers, how does one identify and differentiate them?**

- One should look for green crackers falling only in these three categories- SWAS, SAFAL and STAR: the crackers developed by the Council of Scientific and Industrial Research (CSIR). “SWAS that is “safe water releaser” should have have a small water pocket/droplets which get released when burst, in the form of vapour.

- “SWAS is safe water releaser, which suppresses the dust released by releasing water vapour in the air. It does not comprise potassium nitrate and sulphur and the particulate dust released will reduce approximately by 30 per cent.
- Similarly, STAR is the safe thermite cracker, which does not comprise potassium nitrate and sulphur, emits reduced particulate matter disposal and reduced sound intensity.
- SAFAL is safe minimal aluminium which has minimum usage of aluminium, and used magnesium instead. It ensures reduction in sound in comparison to traditional crackers.
- The identification of green crackers can be done through the CSIR NEERI logo. The scanner may be downloaded using the CSIR NEERI green QR code app from Google Play store.
- ❖ **What are the toxic metals that traditional crackers release?**
- Crackers release several toxic metals that can be harmful for health. The white color emitted through crackers is aluminium, magnesium and titanium, while the orange colour is carbon or iron. Similarly, yellow agents are sodium compounds while blue and red are copper compounds and strontium carbonates. The green agent is barium mono chloride salts or barium nitrate or barium chlorate.
- ❖ **What damage and harm can these chemicals do when a person is exposed? Who is vulnerable to the exposure?**
- Lead in crackers impact the nervous system while copper triggers respiratory tract irritation, sodium causes skin issues and magnesium leads to mental fume fever.
- Cadmium not just causes anemia but also damages the kidney while nitrate is the most harmful that causes mental impairment.
- The presence of nitrite causes irritation in mucous membrane, eyes and skin.
- The most vulnerable population though are infants, children, pregnant women, elderly and people with underlying medical conditions.
- ❖ **Why are green crackers being preferred over conventional ones?**
- Firecrackers made with reduction in size of shell, elimination of ash usage, reduced usage of raw materials, uniform acceptable quality, etc., leading to reduction of particulate matter and gaseous emission is why green crackers are being preferred.
- 2. Dr Dilip Mahalanabis and his discovery**
- ❖ **CONTEXT: This physician, Dr Dilip Mahalanabis, passed away recently. Was suffering from lung infection and other age-related ailments.**
- While Oral Rehydration Solution (ORS) as a simple, effective remedy for dehydration is known around the world, the physician who pioneered the treatment is less famous.
- According to the World Health Organisation (WHO), diarrhoeal diseases, such as cholera, are among the leading causes of mortality in infants and young children in many developing countries, where the patient dies of dehydration. ORS, a combination of water, glucose and salts, is a simple and cost-effective method of preventing this.
- Dr Mahalanabis was working in overflowing refugee camps during the 1971 Bangladesh Liberation war when he came up with ORS, which The Lancet called “the most important medical discovery of the 20th century.” From 1975 to 1979, Dr Mahalanabis worked in cholera control for WHO in Afghanistan, Egypt and Yemen. During the 1980s, he worked as a WHO consultant on research on the management of bacterial diseases.
- In 2002, Dr Dilip Mahalanabis along with Dr Nathaniel F Pierce was awarded the Pollin Prize by Columbia University (considered the equivalent of Nobel in paediatrics).
- Oral rehydration is still the mainstay of treatment for diarrhoeal diseases in children. Before the use of ORT, the only treatment was intravenous fluid infusion, which was neither cost-effective nor easy.
- ❖ **About Dr Mahalanabis**
- Born on November 12, 1934 in West Bengal, Dr Mahalanabis studied in Kolkata and London, and joined the Johns Hopkins University International Centre for Medical Research and Training in Kolkata in the 1960s, where he carried out research in oral rehydration therapy.
- When the 1971 war broke out, millions of people from then East Pakistan took refuge in India. Clean drinking water and sanitation were problems at these refugee camps, and cholera and diarrhoea broke out among people anyway exhausted and dehydrated.
- Dr Mahalanabis and his team were working in one such camp at Bongaon. Stocks of intravenous fluids were running out, on top of which there weren't enough trained personnel to administer the IV treatment.
- ❖ **His discovery**
- From his research, Dr Mahalanabis knew that a solution of sugar and salt, which would increase water absorption by the body, could save lives. He and his team then prepared solutions of salt and glucose in water and began storing them in large drums, from where patients or their relatives could help themselves.

- In 1971 cholera outbreak the huge amounts of intravenous fluids that was required, plus the problems of transport and lack of trained personnel for their administration, represented an almost insurmountable logistical problem in treating cholera effectively under such circumstances by the standard methods to use of oral fluids as the only recourse in that situation.
- To convince people the new treatment would work, they were told it was an oral form of saline. “The oral solution that we elected to use consisted of 22 gm glucose (as commercial monohydrate), 3.5 gm sodium chloride (as table salt) and 2.5 gm sodium bicarbonate (as baking soda) per liter of water. This was the simplest formula, containing the minimum number of ingredients, previously found to be effective in severely ill patients with cholera.
- Soon the fatality rate in Dr Mahalanabis’s camp was down to 3 per cent, compared with the 20 and 30 per cent in camps that used only intravenous fluids. Dr Dhiman Barua, head of the Bacterial Diseases Unit of WHO, visited the camp managed by Dr Mahalanabis, and started popularising the ORS method of treatment.

❖ **The legacy**

- While initially, the medical fraternity was septical, the WHO eventually adopted ORS as the standard method for treating cholera and other diarrhoeal diseases. The WHO recommends a combination of sodium chloride, anhydrous glucose, potassium chloride and Trisodium citrate dihydrate as the ORS formula. In India, July 29 is observed as ORS Day.
- One of the advantages with ORS is that even untrained people can administer it and keep the crisis in check till the patient is admitted to the hospital. It contains electrolytes in right proportions and is given to babies and adults suffering from diarrhoea.

3. Pradhan Mantri Bhartiya Jan Urvarak Pariyojana-One Nation One Fertilizer scheme

❖ **Context: The Prime Minister, Shri Narendra Modi inaugurated PM Kisan Samman Sammelan 2022 at Indian Agricultural Research Institute. The Prime Minister also inaugurated 600 Pradhan Mantri Kisan Samruddhi Kendras (PMKSK) under the Ministry of Chemicals & Fertilizers and launched the Pradhan Mantri Bhartiya Jan Urvarak Pariyojana-One Nation One Fertilizer scheme.**

- Under the new “One Nation One Fertiliser” scheme, companies are allowed to display their name, brand, logo and other relevant product information only on one-third space of their bags.
 - On the remaining two-thirds space, the “Bharat” brand and Pradhanmantri Bhartiya Jan Urvarak Pariyojana logo will have to be shown.
 - The government is mandating fertilizer producers to promote their products under the brand name 'Bharat'.
 - For all fertilizer companies, State Trading Entities (STEs), and Fertilizer Marketing Entities (FMEs), the one brand name for UREA, Di-Ammonium Phosphate (DAP), Muriate of Potash (MOP), and Nitrogen Phosphorus Potassium (NPK), etc. would be BHARAT UREA, BHARAT DAP, BHARAT MOP, and BHARAT NPK, etc.
 - The government’s logic for introducing a single ‘Bharat’ brand for all subsidised fertilisers being marketed by companies.
 - There are some 26 fertilisers (inclusive of urea), on which government bears subsidy and also effectively decides the MRPs; Apart from subsidising and deciding at what price companies can sell, the government also decides where they can sell.
 - This is done through the Fertiliser (Movement) Control Order, 1973.
 - Under this, the department of fertilisers draws an agreed monthly supply plan on all subsidised fertilisers in consultation with manufacturers and importers.
 - When the government is spending vast sums of money on fertiliser subsidy (the bill is likely to cross Rs 200,000 crore in 2022-23), plus deciding where and at what price companies can sell, it would obviously want to take credit and send that message to farmers.
- ❖ **Pradhan Mantri Kisan Samruddhi Kendras.**
- More than 600 Pradhan Mantri Samruddhi Kendra have been inaugurated and aimed at develop more than 3.25 lakh fertiliser shops across the country as Pradhan Mantri Kisan Samruddhi Kendras.
 - These will be centres where farmers can buy not only fertilisers and seeds but also implement soil testing and avail useful information about farming techniques

ANSWER WRITING

Q. Critically examine the procedures through which the Presidents of India and France are elected.

France is one of the earliest republics of the modern world. India adopted the word republic from France constitution. President of India and President of France are executive head of the state. As the executive head of the state both the offices enjoy certain ceremonial positions as commander-in-chief of their respective armed forces.

Commonalities between election procedure of President of India and France

- Election is held after every 5 years.
- There are rounds of election procedures till the candidate secures absolute majority.
- Both the Presidents have to secure absolute majority though from different college of electors to win the election.

Dissimilarities between election procedure of President of India and France

- The President of France is elected by universal adult franchise. On the other hand, the President of India is elected by the elected members of Parliament and State Legislative Assemblies.
- The nomination of President of India requires 50 electors as proposers and 50 electors as seconders, whereas President of France requires 500 elected officials as proposers.
- The French presidential election is split up into two rounds. In the first round, people can vote for any of the candidates that have gathered the 500 signatures. If no candidate receives an absolute majority, then in second round candidate can vote for only remaining candidate who emerged first and second in first and second round.
- There is no procedure of security deposits in French Presidential elections unlike Indian Presidential election.

Thus, we can say that there are some similarities as well as dissimilarities in election procedure of Presidents India and France. However, the procedure of election may be different but their role as head of the respective republics to embark on the road of growth and development of nation and their ability to maintain social harmony in diverse nation are equally similar.

MCQs

1. With reference to Green Crackers consider the following
 1. 'Green' crackers have a small shell size compared to traditional crackers.
 2. They are produced using less harmful raw materials and have additives which reduce emissions by suppressing dust
 3. Green crackers don't contain banned chemicals such as lithium, arsenic, barium and lead.
 4. Green crackers release water vapour

Which of the above statement/s is/are correct?

- a) 1,3 and 4 only
 - b) 1 and 4 only
 - c) 2 and 3 only
 - d) **All of the above**
2. Recently Prime Minister launched 'Indian Edge', an e-magazine on which of the following?
 - a) Generic medicine
 - b) Organic Farming
 - c) **Fertilizer**
 - d) Innovation in the field of space technology

3. With reference to PM Kishan Samruddhi Kendras consider the following
 1. These are established to ratify the problems of beneficiary farmers related to Direct Benefit Transfer (DBT) under Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme.
 2. Ministry of Agriculture is the nodal ministry to administer the kendras

Which of the above statement/s is/are not correct?

- a) 1 only
 - b) 2 only
 - c) **Both 1 and 2**
 - d) Neither 1 nor 2
4. With reference to the PM-KISAN, Consider the following statements:
 1. Centre transfers an amount of Rs 6,000 per year directly into the bank accounts of Small and Marginal Farmers only.
 2. It is a Central Sector Scheme with 100% funding from the Government of India.
 3. The entire responsibility of identification of beneficiary farmer families rests with the State/UT Governments.

Which of the statements given above are correct?

- a) **2 and 3 only**
 - b) 1 and 2 only
 - c) 1 and 3 only
 - d) 1, 2 and 3
5. Consider the following statements in regard to Headline inflation
 1. It provides an accurate picture of the inflation in the country.

2. It is affected by short term transitory effect on prices of products.

Which of the statement/s given above is/are correct?

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

6. With reference to 'Financial Action Task Force (FATF)', consider the following statements:

- 1. It is global money laundering and terrorist financing watchdog.
- 2. It is an inter-governmental organization established by G7 countries.
- 3. India is member of Financial Action Task Force.

Which of the statement/s given above is/are correct?

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

7. Which one of the following is not the most likely measure the Government/RBI takes to stop the slide of Indian rupee?

- a) Curbing imports of non-essential goods and promoting exports
- b) Encouraging Indian borrowers to issue rupee denominated Masala Bonds
- c) Easing conditions relating to external commercial borrowing
- d) Following an expansionary monetary policy**

8. Consider the following statements:

The effect of devaluation of a currency is that it necessarily

- 1. Improves the competitiveness of the domestic exports in the foreign markets
- 2. Increases the foreign value of domestic currency
- 3. Improves the trade balance

Which of the above statements is/are correct?

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

9. Consider the following statement with reference to wheat cultivation in India

- 1. This is the second most important cereal crop in India after rice.
- 2. Wheat is a Kharif crop that requires a cool growing season and bright sunshine at the time of ripening
- 3. Western disturbances are beneficial for wheat cultivation in the north west region

Which of the above statement/s is/ are correct?

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

10. Terms like "SWAS, SAFAL and STAR" of mentioned in news are related to which of the following?

- a) Fertilizer branding
- b) Celestial body
- c) GM- crops
- d) Green crackers**