

The Ukraine war and the global food crisis

(GS Paper 2, International Relation)

Why in news?

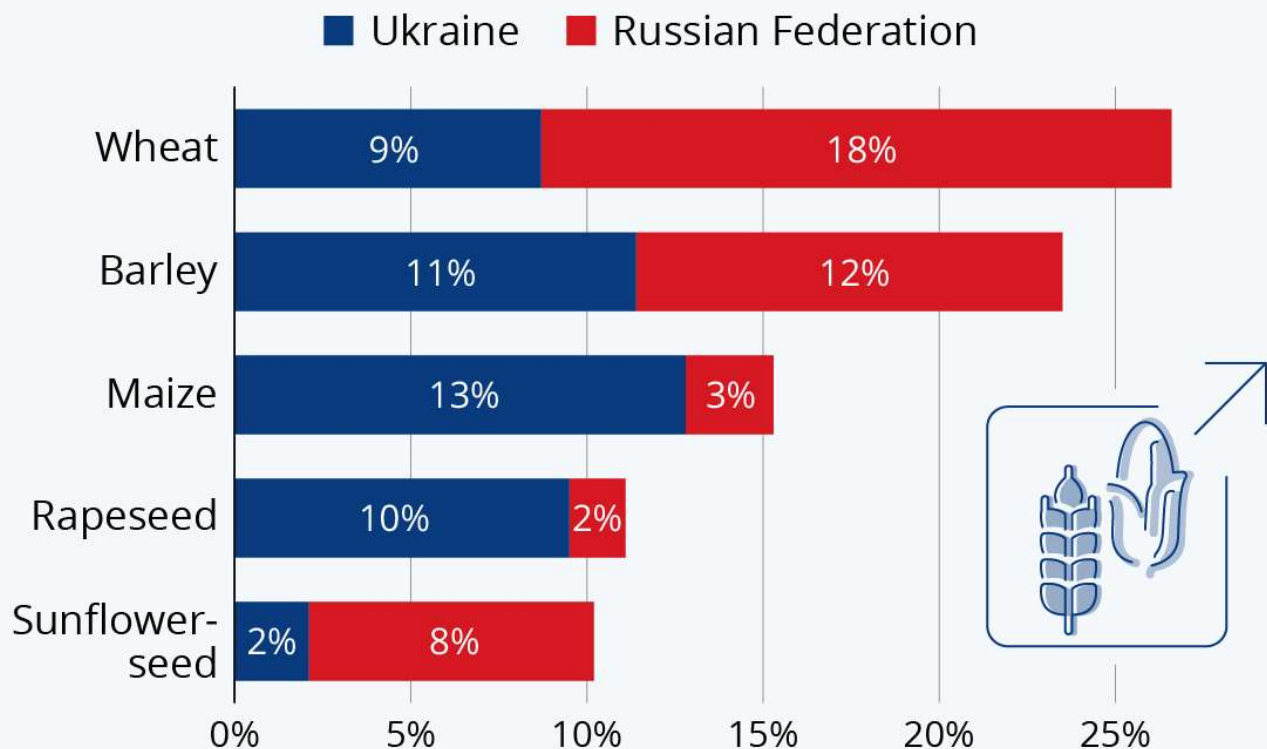
- Russia's invasion of Ukraine and the subsequent sanctions on its economy have sent **global food prices soaring**, threatening to push millions of people, especially those in low-income countries, into starvation.

UN intervention:

- Ukraine and its allies in the West have accused Russia of weaponising food, saying that its blockade of Ukraine's Black Sea ports is the primary reason for the rising prices, while Russia has blamed Western sanctions for the crisis.
- As the war, in its fourth month now, is still raging in Ukraine's east with no political solution on the horizon, the **United Nations and Turkey have initiated talks with the Russian leadership** to facilitate the exports of grains and fertilizers from Russia and Ukraine.

Why the War in Ukraine Threatens Global Food Security

Ukraine's and Russia's share in global exports of selected crops (2016-2020 average)



Source: Food and Agriculture Organization of the United Nations

How serious is the food crisis?

- Many countries were facing growing food insecurity even before Russia's war. **Climate shocks, conflicts and the COVID-19 pandemic** had disrupted supply chains, pumping up prices of both commodities and crops. The war in Ukraine has aggravated this situation.
- As of June 1, 2022, the **Agricultural Price Index was 40% higher compared to January 2021**, according to the World Bank. Maize and wheat prices rose 42% and 60%, respectively, from the levels of January 2021. Global food, fuel and fertilizer prices are projected to be sharply higher this year and will remain elevated into 2024.

Developed nations:

- **Almost all economies in the world have been hit by higher food prices.** Across the western world, there's a cost-of-living crisis with food and energy prices rocketing.
- In the U.S., Treasury Secretary told senators that the country was facing "unacceptable levels of inflation" which would stay so in the coming years.
- In the U.K., inflation numbers have already hit a 40-year high. Almost 90% of emerging markets and developing economies experienced food price inflation greater than 5% this year.

Low-income countries:

- Low-income countries that are reliant on imports for basic food consumption, are the hardest hit.
- According to the UN World Food Programme (WFP), **Ethiopia, Nigeria, South Sudan and Yemen remain at 'highest alert'** as hotspots with "catastrophic conditions", **as Afghanistan and Somalia are added to this category.**

How important are Russia and Ukraine for global food security?

- Russia and Ukraine together account for more than a quarter of the world's wheat supplies. **Russia's share in the global exports of wheat**, the world's most widely grown crop, **is some 20%**, while Ukraine accounts for 8%, according to the U.S. Food and Drug Administration's Foreign Agricultural Service (FAS).
- Wheat is a staple food for at least 35% of the world's population, as per the estimates of the UN Food and Agriculture Organization (FAO). About 50 countries depend on Russia and Ukraine for more than 30% of their wheat imports, according to the FAO.
- If Azerbaijan and Georgia source more than 80% of their imported wheat from Russia and Ukraine, Turkey, Egypt, Bangladesh and Lebanon meet over 60% of their imports from these two countries.
- Besides wheat, **Ukraine is the world's eighth largest producer and fourth largest exporter of corn**, accounting for 16% of global exports.
- Furthermore, Ukraine, which produces up to 46% of sunflower-seed and safflower oil is the world's largest exporter of sunflower oil. So, the war and the sanctions have clearly hit the world's bread basket region, adding pressure on food prices.

What is causing the crisis?

- Before the Russian invasion of Ukraine started, Ukraine had the capacity to export up to six million tonnes of wheat, barley and maize a month, mainly through its ports in the Black Sea/Sea of Azov.
- But **exports have collapsed since the invasion as the Russian war effort** is entirely focused on Ukraine's eastern and southern parts along the Black Sea/Sea of Azov coast.
- Now, several Ukrainian port cities, including Mariupol, Kherson and Berdyansk, are under Russian control.

Blockade in Black Sea:

- Although the southern cities of Mykolaiv and Odessa, which is known as the **'Pearl of the Black Sea'**, are still with the Ukrainians, commercial ships cannot dock at these ports because of two reasons;
- Ukraine has mined the waters around these ports as a deterrent against potential Russian attacks and Russia has enforced a naval blockade in the waters of the Black Sea.

Western sanction on Russia:

- Besides the blockade, the western sanctions on Russia are also contributing to the crisis. Russia, besides being the world's top wheat exporter, is also a leading exporter of fertilizer, an essential commodity for food production.

- Russia and its ally Belarus together account for some 38% of potassic fertilizers, 17% of compound fertilizers, and 15% of nitrogenous fertilizers. Fertilizer prices are also on the rise, which would make food production costlier.
- Russia's food and fertilizer sectors were not directly targeted by western sanctions, but the sanctions on its financial sector, which made payments difficult for Russia, has complicated its exports, including food grains. Also, the targeted sanctions on Russian oligarchs have choked finances for the agricultural industry.

Is there a way out?

Russia's stand:

- Russia has suggested that it would resume exports (not sure whether Ukrainian or Russian grains) from the ports on the Sea of Azov that it controls (Mariupol and Berdyansk) and that it would open a corridor for commercial vessels in the Black Sea if Ukraine demines the ports it controls (mainly Odessa and Mykolaiv).
- But these proposals could be implemented only as part of a deal between Russia and Ukraine, with blessings from the West as Russia seeks sanctions relief in return for opening the maritime corridor. No breakthrough has been achieved so far.

Options before Ukraine:

- Ukraine has little good options to ship its grains out of the country if its ports remain blockaded.
- One option is to transfer the grains overland to the Baltic States, either through Poland or Belarus, and then ship them out from the Baltic Sea ports. It has dismissed the proposal to seek help from Belarus, a Russian ally that also faces western sanctions.
- The U.S. State Department also stays staunchly opposed to giving any concession to Belarus in return for help for moving food grains. Moving them overland via Poland is challenging because the rail track gauge in Poland is smaller than that of former Soviet countries such as Ukraine and the Baltic states, this means cargoes will have to be moved to different trains at the Polish-Ukraine border and then again at the Polish-Lithuania border to start exporting them from the Baltic ports.

Way Forward:

- So, the only practical solution to take Ukrainian grains to the global markets is to open the Black Sea routes.
- And to ease the pressure on global food items, Russia will also have to step up exports of both grains and fertilizers. For this, Ukraine and its allies may have to strike a deal with Russian President Vladimir Putin.

The science behind the cancer cure and the therapy's future in India

(GS Paper 3, Science and Tech)

Why in news?

- Recently, in a medical trial, 12 patients in the United States were completely cured of rectal cancer without requiring any surgery or chemotherapy.

Details:

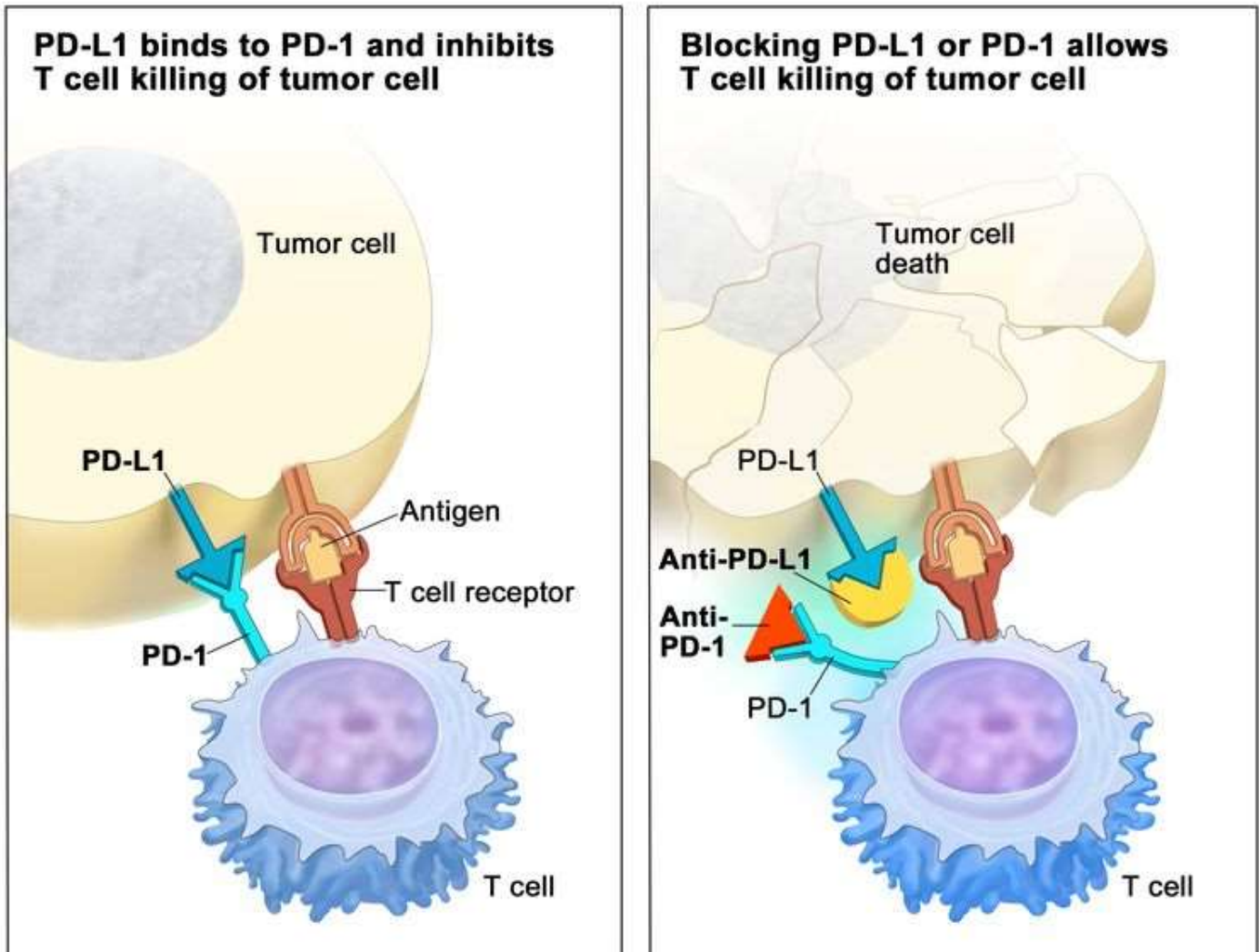
- The trial used a **monoclonal antibody called dostarlimab** every three weeks for six months for the treatment of a particular kind of stage two or three rectal cancer.
- The study was done by doctors from the Memorial Sloan Kettering Cancer Centre in New York.

What are the findings?

- The trial showed that **immunotherapy alone** without any chemotherapy, radiotherapy, or surgery that have been staples of cancer treatment could completely cure the patients with a particular kind of rectal cancer called 'mismatch repair deficient' cancer".
- All 12 patients had completed the treatment and were followed for six to 25 months after.
- No cases of progression or recurrence had been reported during the follow-up. The response too was rapid, with symptoms resolving in 81% of the patients within nine weeks of starting the therapy.

What is this deficiency, and how was it cured?

- ‘Mismatch repair deficient’ cancer is most common among **colorectal, gastrointestinal, and endometrial cancers**. Patients suffering from this condition lack the genes to correct typos in the DNA that occur naturally while cells make copies.
- The immunotherapy belongs to a category called **PD1 blockades** that are now recommended for the treatment of such cancers rather than chemotherapy or radiotherapy.
- **PD1 is a type of protein** that regulates certain functions of the immune system, including by suppressing T cell activity, and PD1 blockade therapy looks to release the T cells from this suppression.
- The first immunotherapy treatment in India was conducted at AIIMS in 2015.
- India has a couple of PD1 blockades available, although not the one used for this study.



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If PD1 therapy was already in use, what's new in the trial?

- Earlier, this therapy was used post-surgery, but the study has shown that a surgery may not be required.
- Although the therapy is usually used for cancers that have metastasised (spread to locations other than where the cancer formed), it is now recommended for all mismatch repair deficient cancers as they result in quicker improvement and lesser toxicity as compared to traditional chemo and radiotherapy.
- Eliminating other treatments can improve a patient's quality of life by preserving fertility, sexual health, and bladder and bowel functions.

When can such a treatment be accessible in India?

- The problem with immunotherapies is that they are expensive and unaffordable for most people in India, and certainly for those coming to AIIMS. A genetic test can also cost up to Rs 30,000, the patients here cannot afford all this.
- The precision medicine, such as using particular immunotherapy drugs for particular types of cancers, is still at a nascent stage in India. Precision medicine for cancer treatment is happening in India, but it is still in nascent stages. It would take at least ten years for it to become commonplace.

Future prospects:

- It is expected that in future, cancer will be like any other chronic disease. The future of cancer treatment is molecular oncology.

Spain’s ‘only yes is yes’ Bill to counter all forms of sexual violence

(CS Paper 2, Social Justice)

Why in news?

- Recently, the **Congress of Deputies**, Lower House of Spain’s Parliament voted to approve a Bill that makes consent a key factor in sexual assault cases.
- The Comprehensive Guarantee of Sexual Freedom Bill was led by Irene Montero, the Equality Minister of Spain. Preparation of the Bill had been under way for two years, and the Council of Ministers approved its referral to the Parliament in July 2021.

About Comprehensive Guarantee of Sexual Freedom Bill:

- The **Comprehensive Guarantee of Sexual Freedom Bill**, popularly known as “**only yes is yes**” or “**Ley sólo sí es sí**” in Spanish, frees victims from having to prove that violence or intimidation was used against them.
- It defines consent as an explicit expression of a person’s will—silence or passivity does not count as consent. Under the draft law, **non-consensual sex can be considered aggression** and perpetrators can be subject to **imprisonment for up to 15 years**.
- The Bill was approved by 201-140 votes with three abstentions in the Lower House. The Bill now awaits the approval of the Senate.

What are the highlights of the Bill

The draft law **eliminates the legal distinction between ‘sexual assault’ and ‘sexual abuse’**. It classifies all behaviours that violate sexual freedom without the consent of the other person as sexual assault.

The Bill notes that sexual violence is one of the most common forms of human rights violations committed in Spain and disproportionately affects women and girls.

The Bill also brings female genital mutilation, forced marriage, harassment with sexual connotations, and trafficking for the purpose of sexual exploitation within the ambit of sexual violence.

It details the availability of care and guidance for victims of sexual assault, including legal assistance, medical and psychological care, and economic and other needs.

Once the law is enacted, 24-hour crisis centres will be set up to provide support and assistance in crisis situations for victims and their family members. The Bill also says minors who commit sexual crimes have to undergo sex education and gender equality training.

Under the proposed law, any person who addresses another person with “expressions, behaviours or propositions of a sexual nature that create an objectively humiliating, hostile or intimidating situation for the victim, without constituting other more serious crimes”, will be liable to a penalty.

What prompted the discussion on sexual violence?

- Spain's La Manada rape case is considered to be the primary reason that indicated the need for a law like the Comprehensive Guarantee of Sexual Freedom.
- In 2016, an 18-year-old girl was gang-raped in Pamplona at the start of the San Fermin bull-running festival. The defendants argued that the woman never said "no" during the act, while the woman said that she was paralysed by fear.
- The men were instead found guilty of sexual abuse, which is a "lesser offence" according to current law, and sentenced to nine years in prison. The verdict sparked massive protests across the country.
- The ruling was overturned by the Supreme Court of Spain in 2019, and the five accused were sentenced to 15 years in prison on rape charges.

Spain's stand on International guidelines regarding sexual violence

- Non-consensual sexual acts are defined as rape under the Council of Europe Convention on preventing and combating violence against women and domestic violence, commonly known as the Istanbul Convention. Spain has signed and ratified it. Article 36 of the Istanbul Convention urges signatories to criminalise non-consensual sexual acts.
- Spain is also a signatory to the Convention for the Elimination of All Forms of Discrimination against Women of the United Nations (CEDAW), and the Council of Europe Convention on Combating Trafficking in Human Beings (Warsaw Convention).

RBI raises rates to tame inflation

(GS Paper 3, Indian Economy)

Why in news?

- Recently, the Reserve Bank of India's Monetary Policy Committee (MPC) voted unanimously to **raise the repo rate** in a bid to slow inflation.



Key Highlights:

- The central bank hiked repo rate by 50 basis points (bps) to 4.90 per cent since inflation is above the central bank's upper tolerance limit.

- The standing deposit facility (SDF) rate and marginal standing facility rate (MSFR) stood at 4.65 per cent and 5.15 per cent respectively.
- India's real GDP growth is pegged at 7.2 per cent for 2021-22 and inflation forecast for 2022-23 stands at 6.7 per cent.

How hike in policy rate will help?

- **Repo is the rate at which banks take loans from RBI** to meet their immediate needs. The change in this rate has a **direct effect on retail loans**, increasing the repo rate means that banks will get loans from RBI at a higher rate.
- This will increase the EMI of other loans like home loan, car loan and personal loan etc., because banks will pass on the increased repo rate directly to the customers.
- This decision is being considered positive from an economic point of view. The objective is to spur economic growth while keeping high inflationary pressures under control, yet it will be helpful to some extent in moderating inflation which has remained above the target of 6 percent for the last five months.
- Also **positive for Bank, NBFC deposits and Fixed income investors** will get benefit from returns on savings products such as small savings schemes.

How does it work?

- The **prices are determined by the supply and the demand for goods and services** in an economy. As such, the price rise in any given situation may be caused by either an increase in demand or lack of supply or both.
- Now, the RBI MPC has only monetary tools which arrest demand by making money more expensive or by reducing its supply. Typically, it raises the repo rate, which is the interest rate at which RBI lends overnight money to commercial banks against government securities.
- This transmits into an increase in interest rates, both lending and deposit depending on the given situation, of lenders though with a lag.
- **RBI also has other monetary instruments in its hands such as cash reserve ratio (CRR)** which is a portion of a commercial bank's total deposits that needs to be maintained with the RBI.
- In the off-cycle decision, the MPC had raised the repo rate by forty basis points and CRR by 50 in May. Both these measures, as cited above, reduce demand in the economy.

So, a repo rate and CRR hike ought to help tame inflation?

- It depends on certain situations. **Inflation is not affected by money supply alone.** The current high inflation has more to do with disruption of supply, caused by the ongoing Russia-Ukraine war which has raised commodity prices such as that of crude oil, fertiliser.
- This in turn has an impact on food inflation. Besides, it has reduced the supply of sunflower oil as Ukraine was the world's biggest exporter before the war.
- There are **seasonal factors too** which have raised inflation in lemons, tomatoes, and wheat. MPC's monetary tools cannot tame this kind of inflation. However, part of inflation is also due to some revival of demand in the economy as it gradually recovers.
- Monetary policy reduces this demand which will negatively impact economic growth. Monetary tools also prevent inflation from entering other areas such as from food to wages to rent etc. In other words, it reduces inflationary expectations in the economy.

What needs to be done?

- Oil is the biggest reason for inflation, recently the government has reduced oil prices but it should be reduced further. The tax revenue collection of the government at this time is good.
- In March, the government got revenue of Rs 1 lakh 42 thousand 95 crore. This is the highest in the last five years, in addition, there is a need for rationalization of GST in some categories. On the other hand, if the government wants to increase tax revenue, it can increase taxes like corporate tax, property tax.
- Food prices should fall, the focus should be on increasing the supply of agricultural commodities. The prices of the products of the FMCG sector have increased rapidly, affecting thousands of shopkeepers as well as millions of customers.

Strong manufacturing & agriculture sector:

- Now that the rupee continues to depreciate against the US dollar, India's economy needs a strong manufacturing and agriculture sector as the country's major services sector is struggling and yet to return to normalcy after two deadly waves of the Covid-19 pandemic.
- Any sustainable inflation control requires a focus on production. India may in future make itself the next 'global manufacturing hub' which is anyway fed up with China and is looking for alternative manufacturing hubs. There is a need to free the manufacturing sector from cumbersome rules.
- Inflation is at its peak and it doesn't seem to be ending yet. If the government and the central bank fail to control inflation, there will be a possibility of the economy becoming unstable.