



# Repercussions of Russia-Ukraine Conflict: Indian Response to Attain Trade and Industrial Sustainability

Vijay Joshi<sup>a++</sup>, Manish Pitke<sup>b#</sup>, Sukanta Kumar Baral<sup>ct\*</sup>,  
Anupkumar Dhore<sup>a++</sup>, Amir Hafizullah Khan<sup>d++</sup>  
and Vivek Pimplapure<sup>at</sup>

<sup>a</sup> Dr. Ambedkar Institute of Management Studies and Research (DAIMSR), Deeksha Bhoomi Nagpur, Maharashtra, India.

<sup>b</sup> Prin. L. N. Welingkar Institute of Management Development and Research (WeSchool), Matunga, Mumbai, Maharashtra, India.

<sup>c</sup> Department of Commerce, Faculty of Commerce and Management, Indira Gandhi National Tribal University (A Central University), Amarkantak, Madhya Pradesh, India.

<sup>d</sup> Department of Management Technology, Shri Ramdeobaba College of Engineering and Management, Nagpur, Maharashtra, India.

## Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

## Article Information

DOI: 10.9734/AJEBA/2023/v23i12983

## Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/99069>

Original Research Article

Received: 25/02/2023

Accepted: 27/04/2023

Published: 04/05/2023

## ABSTRACT

The Russia-Ukraine conflict has created caused great “uncertainty” and has challenged many assumptions about the existence of the nation and bilateral relations. It has given rise to geopolitical tensions influencing international trade. Given the significant contribution of petroleum-based

<sup>++</sup> Assistant Professor;

<sup>#</sup> Freelance Faculty;

<sup>†</sup> Professor;

<sup>‡</sup> Associate Professor;

\*Corresponding author: E-mail: [sukanta.baral@igntu.ac.in](mailto:sukanta.baral@igntu.ac.in);

products in India's import basket, this study examines the changing international trade pattern for India. It ultimately seeks to highlight key opportunities, challenges, and suggestions for India's aim to become 'Atmanirbhar' or 'self-reliant'. We reviewed trade and economic data (for imports and exports, inflation) in the context of India. Data from sources like the International Monetary Fund (IMF) and government sources such as the Reserve Bank of India (RBI), and the Ministry of Commerce, is reviewed. The analysis highlights an increasing trade deficit (i.e., imports higher than exports). The lessons India can learn from this battle to go forward and truly become "Atmanirbhar" are the main topic of this essay. The purpose of this study is to explain the significant effects of the aforementioned dispute on and impacting numerous aspects like the economy, trade, bilateral relations, and manufacturing capacities, we adopt an evidence-based approach. The current research (study) just presents one point of view; more sector-specific research using an empirical methodology is advised to explore the manufacturing sector segments (in the context of India) that have strong potential to turn India into "Atmanirbhar."

*Keywords: Atmanirbhar and self-reliant India; lessons for India from the Russia-Ukraine conflict; Enhancing local manufacturing base; participation in alliances; taking advantage of China-plus-one; green economy.*

## 1. INTRODUCTION

A surprising event that occurred in Feb. 2022 is the Russian invasion of Ukrainian territory. With the world going through development and cooperation phases in the context of global trade, it was an unexpected happening. In 2022, it was almost unimaginable that two sovereign nations are standing face-to-face against each other. This has made the world more horrified and pessimistic. The global political scenario is completely disturbed by this war-like situation. The leaders are holding conferences, and peace talks to find ways to resolve this issue amicably.

The authors believe that this war has opened up some bitter truths about life, and humanity for the entire world. The following are some of these lessons (as visualized from the prevailing circumstances):

- Strong domestic manufacturing capabilities are a plus point. It doesn't matter how moral or how ethical you are in these situations. Russia with immense defence power and capabilities is tumbling Ukraine as the war is progressing. Think of strong capabilities rather than sympathy and compassion (from others) to handle adverse situations [1-3].
- Trust no one, you have to fight alone. Ukraine had nuclear weapons earlier. Under pressure from the West, it discontinued nuclear activities. They fall to the promises of the West and now are on the verge of losing their sovereignty because nobody is firmly standing with Ukraine. If they have nuclear weapons,

they could have avoided this situation or handled it much better [4].

- The most heartless is the most powerful. This sound ridiculous but is true. The recent speech during the party conference by the Chinese supremo has indicated that he will not hesitate to use military force in the Taiwan matter. Another stark example is the US. With its unmatched technology, latest weapons, and superior defence forces it is one of the tough nuts to crack. Russia is a very similar type too. With dictatorship in the genes, it will not care for others and their lives. Ongoing threats of nuclear attacks are looming all over the world due to such kind of heartless, unempathetic, and brutal leaders because they are the most powerful better [5].
- The fragile world riding on social media. Social media is not good in this situation as it is driven by extreme emotions and hyper mentality. It is required to have conscious use of such social media. This is because just supporting pots for Ukraine on Twitter and videos on Instagram, and protesting Russia on Facebook won't result in anything [4,6].

### 1.1 Need of the Study

Given the above circumstances, the Indian government is making multi-pronged efforts to insulate the country from this conflict. This requires a comprehensive understanding of all related aspects such as the economy, trade, bilateral relations, and domestic manufacturing activity. The study will provide inputs on these aspects in the context of the present conflict.

## 2. LITERATURE REVIEW

This section elaborates on what are the diverse impacts of the present Russia-Ukraine conflict on the world including India. This ranges from disruptions in the global economy to disruptions in supply chains. Excerpts from some of the literature are presented herewith.

### 2.1 Disruption in the Global Economy

Covid has disrupted the world economy significantly. In the post-Covid period, the growth of the world economy is stagnant. Developed countries are facing the heat due to their country-specific issues. Each country has its (own) problems. For example, even if the US dollar is getting stronger, the US economy is in bad shape. The eurozone has growth problems with high inflation. Italy was the first to blink followed by Britain now. All these developed countries are impacted by inflation, a decrease in life expectancy, and the negative or slow growth of (their) economies. The world is now staring down the barrel and looking at the recession. Even the International Monetary Fund (IMF) is not optimistic. The hope is resting on India, oil-rich gulf countries, and the (developing) African countries fighting all the adversities. India is the only bright spot says IMF, in its January 2023 World Economic Outlook [7,8]. It has been predicted that the Indian economy will grow at 6.8% in 2022. (See Table 3) amidst the gloomy outlook, IMF's forecast for India remains robust. For India, the values are for the financial year – FY 2022-23 and FY 2023-24.

The effect of war on both these countries is going to be adverse cites IMF. IMF warns that

Ukraine's economy will shrink up to 35% in 2022, but this estimate comes with a high degree of uncertainty. Russia, as shown in Table 1, will also have a negative correction in its gross domestic product - GDP in the year 2023. (See Table 1).

### 2.2 Disruption in Supply Chains

*"We are rightly worried about what comes from there, and what will happen to our exporters who are doing well, especially those in the farm sector. We are assessing the situation as it is going to have an impact on the essentials like edible oils and fertilizers, among others."* [9].

The above quotes from our Finance Minister Nirmala Sitaraman indicate the implications of the recent Ukraine-Russia tussle for the Indian business sector. When one reads between the lines, one will understand and have more clarity.

It is no wonder that the outcome of this war-like situation is now felt by the entire world. This is appearing in the form of rising inflation and disruptions in the supply chains. The industries or sectors depending on both these countries will bear the most of the impact. With the firms in both countries not in operation, their supply (of raw materials) and (their) finished products to the other countries has been discontinued.

Here, the problem is not about the availability of the product but is more about the extended supply chain – due to the interconnected world today [10]. Over the past few months, some food items or commodities have become extremely expensive or are not available. For example, onions and salami in Japan; lettuce in Australia;

**Table 1. Real GDP Annual Percentage Change for 2022 and 2023 [7,8]**

Country	Estimate for 2022 - GDP Growth (In %)	Projections for 2023 - GDP Growth (In %)
India	6.8%	6.1%
China	3.0%	5.2%
Saudi Arabia	8.7%	2.6%
Nigeria	3.0%	3.2%
World Output	3.4%	2.9%
Euro Area	3.5%	0.7%
South Africa	2.6%	1.2%
United States	2.0%	1.4%
Brazil	3.1%	1.2%
Russia	-2.2%	0.3%

Source: IMF, World Economic Outlook, January 2023

and even bottled beer in Germany. This is an unexpected scenario for businesses, especially the manufacturing industry, which is struggling to find alternatives (and sources of supply) to cater to the demand (and feed their customers). This is an outcome of a combination of factors, from climate change (weather) to the pandemic to geopolitical tensions, and rebounding demand.

When the manufacturers are not able to produce any raw material (say, glass bottles and aluminium cans); it seeps down to the people's ability to buy the finished goods (such as packaged drinks - soda and beer). A shipping container shortage and a tight labour market are adding to supply chain challenges. Russia's invasion of Ukraine aggravated those, cutting off supplies of natural gas, grains, and cooking oils. In turn, this has caused food and energy prices to increase gradually.

There are diverse ways this conflict could impact global supply chains. The following are some of the generic-level effects:

- A rise in prices of energy products such as crude oil, and natural gas.
- Additional worries about the transportation costs.
- A rise in electricity costs.
- Chances of food inflation.
- Increase in the prices of some industrial/essential metals.
- Uncertainty looming over semiconductor supply.

### 2.3 Governments taking steps to Tame the Rising Inflation

Soumya Kanti Ghosh believes that the global economy has not faced such uncertainty since World War II. This uncertainty began with the arrival of the pandemic in 2020 and further intensified with the Russia-Ukraine war [11]. Central banks across the major developing and developed countries have decided to increase key interest rates. It may be noted that India is having one of the lowest inflation. (See Table 2)

### 2.4 International Trade Evolving with Protectionism Practices

Over the years international trade is growing due to many factors and regional trading allies and agreements with them are one of the aspects driving the same. The presence of regional

trading allies in global trade is an indication of protectionism. Some of the major trading allies (or trading blocs) with India are:

- Gulf Cooperation Council (GCC) covering West Asia
- European Union (EU)
- Southern African Customs Union (SACU)
- European Free Trade Association (EFTA)
- Association of East Asian Nations (ASEAN)

**Table 2. Inflation rates for select countries [11]**

Country	Inflation (In %)
Russia	15.9%
Egypt	12.2%
Brazil	11.9%
Spain	10.2%
Eurozone	9.6%
UK	9.4%
United States	9.1%
Canada	8.1%
Italy	7.9%
Bangladesh	7.6%
India	7.0%
France	6.1%
Indonesia	4.9%

### 3. OBJECTIVES

Some of the objectives of this research paper are to present:

- Different effects that the conflict has made on the world economy.
- Reasons for India to be ready with achieving sustainability.
- The learnings for India about how to make itself sustainable in terms of trade and industry/manufacturing activity).

### 4. RESEARCH METHODOLOGY

The authors will like to present the facts using an evidence-based approach to this article.

#### 4.1 Sources of Data

As stated in the abstract, we have used data from some international agencies and government agencies. Also, information from select secondary sources (relevant to our article) is gathered from newspapers, magazines, websites, blogs, etc.

## 4.2 Period of the Study

The war between these two countries (Ukraine and Russia) started in Feb. 2022. So, the references in the year 2022 afterward are considered.

## 5. ANALYSIS: INDIA NEEDS TO PREPARE FOR ACHIEVING SUSTAINABILITY

This section provides an analytical overview of the importance of achieving sustainability for India. The authors have elaborated this considering some parameters such as (its importance to) government/economy, international trade, trading partners and bilateral relations, and strengthening of the domestic manufacturing sector. This is presented herewith.

### 5.1 Implications for the Government/Economy

In terms of the size of the economy, India could be the fifth largest economy, according to the reports from SBI Research and data provided by International Monetary Fund (IMF). (See Table 3). The IMF forecast showed that India will be one of the economies with growth momentum.

**Table 3. Super Ten [12]**

Country	Nominal GDP (In \$ Trillion) by 2022-end
United States	25.35
China	19.91
Japan	4.91
Germany	4.26
India	3.53
UK	3.38
France	2.94
Canada	2.22
Italy	2.06
Brazil	1.83

The Indian economy has grown by 13.5% in the quarter that ended June 2022, shows data. "The path taken by India since 2014 indicates that it is going to be the third-largest economy by 2029. India should surpass Germany by 2027 and most likely Japan by 2029 at the current rate of growth", says Souma Kanti Ghosh, Group Chief Economic Advisor SBI in their research note [13]. (See Table 4).

**Table 4. Indian Economy Position over the Years [13]**

Year	Rank
2014	10 <sup>th</sup>
2015	7 <sup>th</sup>
2019	6 <sup>th</sup>
2022	5 <sup>th</sup>
2027	4 <sup>th</sup>
2029	3 <sup>rd</sup>

It is, therefore, essential for India to become (economically) sustainable so that it can pursue the dream of becoming "Atmanirbhar".

To summarize, it is said that scenarios of recession in the US and Europe have led some to speculate that the Indian economy will not grow. It will have to bear the consequences of this global turmoil [14]. Even then, the data available is an indication of progressive India. It is bound to become the third-largest economy by the end of 2027-28, if not sooner. Now, to make this happen India must keep in mind the fact that it has to face disturbances from the US like all other economies are experiencing today. The outcomes from the rising interest rates in the US in the immediate future are the warning signs. But, with judicious management of the exchange rate mechanisms here, RBI (Reserve Bank of India) is turning this challenge into an opportunity.

### 5.2 Implications for the International Trade

Another aspect here in the context of sustainability is the vulnerability of the country to the global recession. Despite being the largest economy in the world, the US has a trade-to-GDP ratio of just 23.4% [12]. (See Table 5). This is because of the large domestic market. It is seen that most of the US's goods, including oil, are consumed within the country. This aspect is much valid for India too and accordingly, the authorities must take steps to increase the domestic consumption of goods. Even though currently India has a higher ratio (43.7%), it can achieve trade-related sustainability by achieving a reduction in the same. In the case of China, the reduction in its trade-to-GDP ratio is attributed to the size of the economy and the large population. But, things are not good for Western European countries, as it remains vulnerable to the global recession due to their higher trade-to-GDP ratios.

### 5.3 Implications for Maintaining the International Trade and Bilateral Relations

India's Trading Partners in International Trade.

International trade is characterized by imports and exports between countries. At present India's top five trading partners are the US, China, UAE, Saudi Arabia, and Iraq. (Trade 1, 2022) [15]. (See Table 6a).

It was observed that during 2017-18 to 2021-22, India's merchandise trade partners remained the same. The US has beaten China to emerge as India's largest trading partner in 2021-22. This is the position that the US has occupied during three of the last five years.

It will be interesting to note that after the war, India's imports from Russia increased substantially. Driven largely by a surge in oil imports, Russia has emerged as India's fifth largest trading partner, jumping from the 25<sup>th</sup> place at the end of the last financial year, [16] as indicated by the official data. (See Table 6b) This aspect is elaborated subsequently.

**Table 5. Trade-to-GDP ratio for select countries [12]**

Country	Nominal GDP (\$ Trillion)	Trade (As % of GDP)
United States	25.35	23.4%
China	19.91	37.4%
Japan	4.91	31.4%
Germany	4.26	89.4%
India	3.53	43.7%
UK	3.38	55.2%
France	2.94	62.0%
Canada	2.22	61.2%
Italy	2.06	63.1%
Brazil	1.83	39.2%

Also, as stated above in Section 3.2, India has different trading allies. All of these allies are important to India given the quantum of trade and mutual benefits arising from this trade. Accordingly, India needs to formulate strategies for its trade allies. Judicious use of FTAs- foreign trade agreements will be the key to success for India in making it sustainable in international trade.

### 5.4 Implications for the Domestic Manufacturing Industry

As stated above in Section 1, the manufacturing industry forms the base of any country in making it strong in terms of economic activity generation. According to Dipankar Gupta, the policy to encourage the manufacturing sector today is being criticized by some experts. This may be based on the growth of the service sector and its growing contribution to the Indian economy [17]. The message is clear – strengthen your manufacturing base because it is in this sector that product innovation and differentiation begin. Later, it will be carried out in the services sector. Internationally, past happenings and experiences have shown that without a strong, pulsating manufacturing sector, there is no meaning to the service sector as it will not get the required impetus/inspiration to move up the value chain. It is a proven fact that only after the manufacturing sector takes off and achieves a certain level of saturation level (with acceptable skills and quality), then these parameters begin to shape up the service sector. This is what happened in the West, in the US, and this is what is happening in the East, also. Other countries experiencing this are Japan and South Korea. Gupta believes that unless we spend much more than 0.6% of our GDP on R&D efforts – manufacturing will not grow and will remain stagnant. Accordingly, India needs to formulate strategies for its trade allies. It is required to spend at least 1% of the GDP on R & D efforts to strengthen the manufacturing capabilities.

In this context, the following are the major levels or parameters and they may include certain sub-aspects.

- Economic Level
  - Global and Indian Economy.
- Trade Level
  - International Trade.
- Diplomatic Level
  - International Relations/Diplomacy/Geo-Political Scenario.
- Manufacturing/Firm Level
  - Supporting Domestic Manufacturing Base.

This is elaborated subsequently.

**Table 6a. India’s top five Trade Partners (Trade1, 2022) [15]**

Country	Total Merchandise Trade (In US \$ Billion)				
	2017-18	2018-19	2019-20	2020-21	2021-22
United States	74.5	88.0	88.9	80.5	119.4
China	89.7	87.1	81.8	86.4	115.5
UAE	49.9	59.9	59.1	43.3	72.9
Saudi Arabia	27.5	34.0	33.1	22.0	42.9
Iraq	19.1	24.2	25.6	15.4	34.3

Source: Government/Commerce Department

**Table 6b. India’s top five Trade Partners (April - Sept.) [16]**

April-Sept.	Total Merchandise Trade (In US \$ Billion)		
	2021	2022	% Change
United States	56.4	67.7	20%
China	54.7	60.2	10.1%
UAE	33.4	44.5	33.2%
Saudi Arabia	17.2	28.7	66.9%
Russia	5.8	22.6	289.7%

Source: Government/Commerce Department

## 6. DISCUSSION

increased by 190 basis points (Sinha and Shetty, 2022) [19].

### 6.1 Global and Indian Economy

**Table 7a. Where India stands – Rate hikes this year (As of August 5, 2022) [18]**

#### 6.1.1 Central banks are raising interest rates to tackle inflation

Country	Rate hike in Basis Points
Brazil	450
US	300
Canada	300
Australia	225
Sweden	175
South Korea	150
UK	150
India	140
ECB – Eurozone	125

As of September 22, 2022, RBI – Reserve Bank of India has increased the repo rate by 90 basis points (100bps = 1 percentage point). This was done in two steps – In May 2022 40 bps and in June 2022 by 50 bps. Many banks (or other countries) have also increased their rates on similar lines [18]. (See Table 7a)

**Table 7b. Where India stands – Rate hikes this year (As of Nov. 3, 2022) [20]**

In this context, US Federal Reserve raised the interest rates by 75 basis points for the third consecutive time. It is forecasted that it will reach 4.6% in 2023. This is a measure taken to fight inflation that is maintained at higher levels. In a statement on Wednesday (Sept. 21, 2022) after a two-day meeting in Washington, the Federal Open Market Committee repeat that it is highly attentive to inflation-related risks. It may be noted that central banks in some key economies like China, and Japan have not increased the rates yet (as of August 5, 2022).

Country	Rate hike in basis points
Brazil	450
US	375
Canada	350
Australia	275
South Korea	200
UK	200
India	190
ECB – Eurozone	150

As of October 1, 2022, RBI – Reserve Bank of India has increased the repo rate by 50 basis points (100bps = 1 percentage point). This was the fourth rise in the last five months. The latest repo rate hike is aimed at controlling inflation and will make all borrowings (including home loans) more expensive. Thus, from May 2022, it

This rate-increasing process is ongoing depending on the inflation scenario in that particular country. See the situation as of Nov. 3, 2022. In this context, US Federal Reserve has climbed from near-zero rates to 4% this year.

Now, US Fed has raised the interest rates by another 75 basis points for the fourth consecutive time. (See Table 7b).

### **6.1.2 Decrease in foreign exchange**

With the free fall of the Rupee against the American Dollar (due to disruption in supply chains), RBI has to watch out for the current account deficit and a decrease in foreign exchange. As stated earlier, all currencies have gone down against the American Dollar in the past twelve months. According to RBI, rate hikes by advanced economies were the third shock after Covid and Russia-Ukraine war. This has caused a decrease in foreign exchange reserves, even though RBI has managed to control the current account deficit. The Indian Rupee has lost relatively little against the American Dollar as compared to other major currencies, according to IMF Data. RBI said that most of the foreign exchange reduction is due to the devaluation of currencies. As of September 3, 2021, India's foreign exchange stood at U\$ 642.5 Billion and saw a reduction of U\$ 105 Billion, as of September 22, 2022 [21]. Also, it may be noted that in the global freefall of currencies against the American Dollar, central banks across the world are selling dollars from their forex reserves. This is done mainly to increase its supply in the forex markets and hence reduce the price vis-a-vis their (own) currencies [22]. In this context, the IMF blog suggested that emerging economies must learn from the lessons learned in the past. They should note that their forex reserves are limited and are acting as buffers to handle any adverse economic situations. They should be used judiciously with policy responses aimed at addressing market disruptions, and drivers of the exchange rate changes [23].

### **6.1.3 RBI policy measures to tame the inflation caused by rising food prices**

As stated and discussed above, RBI has taken measures to regulate the inflation caused by rising food prices. It is also because the inflation was above the stipulated limits. (See Table 8) It is seen that wholesale inflation is eased but it is in still double digits.

## **6.2 International Trade**

### **6.2.1 Increase in imports**

Here first we are talking about the international trade pattern of India. Oil prices are one of the key factors that affect imports and exports in the

last few months. (See Table 9) it is observed that exports increased to US\$38.2 billion in April 2022, driven by a surge in international oil prices. This has also impacted imports which have grown to US\$ 58.3 billion in April 2022. It may be noted that oil is the main commodity of India's import basket followed by gold. In Oct. 2022, exports contracted and imports grew at their slowest pace in the last 21 months, widening the trade deficit.

In this context, government sources said that an increasing trade deficit is expected in the coming months of FY 2023 unless the commodity prices are reduced to reasonable levels.

Now, take the scenario of Indian imports from Russia. Government sources said that sanctions by the West have helped India get a better deal from Russian companies and it is in the country's economic interest to pursue what is best for it.

Driven by a strong increase in crude oil shipments, India's imports from Russia have grown considerably. Since February 2022, when Russia attacked Ukraine, imports have grown close to three-and-half times to US\$8.6 billion. (See Table 10a) apart from petroleum products, some of the other product categories showing an increase are fertilizer and edible oil. This is according to the disaggregated data available from the Commerce Department.

As stated in earlier Section 3, India's trade with Russia increased substantially in the last six months of the year 2022 after the conflict started. Now, India has a US\$20 Billion trade deficit that is mainly driven by a surge in oil imports. (See Table 10b) apart from petroleum products, some of the other product categories showing an increase are fertilizer and edible oil. This is according to the disaggregated data available from the Commerce Department.

In this context, it is evident what kind of product categories (w.r.t. India) are impacted by this conflict. Accordingly, India needs to find alternative sources of supply for the same or make arrangements to produce here to be self-reliant (or Atmanirbhar).

### **6.2.2 Exploring opportunities in international exports by catering to the needs of other countries**

In this context, India should not ban the exports of commodities unnecessarily. If after satisfying

**Table 8. Growing inflation [24-26]**

	<b>CPI-based Inflation (Retail Inflation) (In %)</b>	<b>WPI-based Inflation (Wholesale Inflation) (In %)</b>
Jan. 2021	2.5%	4.1%
April 2021	4.2%	10.7%
Jan. 2022	6.0%	16.6%
Sept. 2022	7.4%	10.7%
Oct. 2022	6.8%	8.4%

**Table 9. Import-Export – Indian Scenario in the last few months [27,28]**

<b>Description</b>	<b>In US\$ Billion</b>		
	<b>Imports</b>	<b>Exports</b>	<b>Trade Deficit</b>
Oct. 2021	53.6	35.7	-17.9
Nov. 2021	52.9	30.0	-22.9
Dec. 2021	59.3	37.3	-22.0
Jan. 2022	52.0	34.1	-17.9
Feb. 2022	55.5	34.6	-20.9
Mar. 2022	60.7	42.2	-18.5
Apr. 2022	58.3	38.2	-20.1
May 2022	60.6	37.3	-23.3
Oct. 2022	56.7	29.8	-26.9

Source: Government/ Commerce Dept.

**Table 10a. India's Imports from Russia Feb.-May [29]**

<b>Feb.-May</b>	<b>In US\$ Million</b>		
	<b>2021</b>	<b>2022</b>	<b>% Change</b>
Mineral Fuel (largely crude petroleum)	1137	5344	370
Fertilizer	74	608	722
Edible Oil	52.0	34.1	-17.9
Diamonds, etc.	471	267	-43
Project Goods	349	192	-45
<b>Total</b>	<b>2547</b>	<b>8566</b>	<b>236</b>

Source: Government/ Commerce Dept.

**Table 10b. India's Imports from Russia April – Sept. [30]**

<b>April – Sept.</b>	<b>In US\$ Million</b>		
	<b>2021</b>	<b>2022</b>	<b>% Change</b>
Mineral Fuel (largely crude petroleum)	2145	17848	732.1
Fertilizer	186	1609	765.1
Edible Oil	226	493	118.1

Source: Government/ Commerce Dept.

domestic needs, it is possible to cater to the needs of other countries, let the Indian exporters do it for their as well as the country's benefits. This will also help in maintaining easy and smooth bilateral relations in the context of increased geopolitical tensions.

### 6.2.3 Making Indian payments work abroad

With the sanctions on the Russian payment systems, establishing partnerships with world payment networks is inevitable. This will

enable the use of Indian payment systems such as UPI and BHIM. This will enable Rupee-based international trade. In this context, NPCI - National Payment Corporation of India has signed an agreement with Worldline to accept Rupay-card-based and QR Code-enabled payment in the selected countries in Europe. This will be available in 'Benelux' group countries in Europe (viz. Belgium, Netherlands, and Luxemburg). It is expected that this UPI service will start in Switzerland shortly [31].

In this context, in yet another development, nine banks have been permitted to open special Vostro accounts for rupee trade with Russia with some Indian banks. Amongst them, one is IndusInd Bank. Other arrangements are going on. To list some of them are - Russia's Sberbank and VTB, and Gazprom Bank with UCO Bank - which have opened accounts. These Russian banks have opened special accounts with their Indian branches. The RBI has allowed the special Vostro accounts to invest the surplus balance in the Indian government securities. The decision to open a special Vostro account clears the desk for the settlement of payments in rupees for trade between India and Russia. This will enable cross-border trade in the Indian currency, which the RBI is keen to promote [32].

#### **6.2.4 Making FTAs work in the interest of the nation**

Careful and judicious use of FTAs – Foreign Trade Agreements with other countries. Maintaining international relations with clear national goals and interests that are unambiguous - while doing any bilateral agreements. It will be beneficial to sign FTAs with countries that will share a common interest and encourage the local manufacturing industry. For example, exploring an alliance with Taiwan for establishing a chip-making facility in India. Avoiding FTA with the UK because it is a double-dealer. It seems that the arrogance of the UK is still there. Regarding the bilateral agreement with India, the UK is double-dealing with India. It seems from comments of the UK home minister that they want the Indian market for their products but will not easily provide access to the UK market for Indian products. This will not be tolerated. Just because it is Diwali, does not mean that we (India) should sign FTA with the UK. Even it does not depend upon who is the prime minister of that country. Another example in this context is the UK government providing only three months visa to Indian students who are willing to study in the UK. It is seen that other countries provide student visas to Indian students with some time window. The situation is exactly the opposite in the case of the UK [33].

### **6.3 International Relations/Diplomacy/Geo-Political Scenario**

#### **6.3.1 Participation in alliances**

Participation in alliances like QUAD (Australia, India, Japan, and the US) as well as

AUKUS (Australia, UK, US) to promote international cooperation for trade. The recently started conference of the CPC – Communist Party of China indicated very strong opposition to QUAD and AUKUS consortiums [34]. The present Russia-Ukraine conflict has indicated that there is growing dissatisfaction with the functioning of the UN (and even NATO) system, due to their inability in protecting the interests of the developing nations. Likewise, even though there is ongoing COP27 at Sharm-El-Sheikh under the Egyptian Presidency, it appears to be unexciting and dull. COP27 refers to the 27<sup>th</sup> Conference of the Parties to the UNFCCC (United Nations Framework Convention on Climate Change), which took place in the Egyptian coastal city of Sharm-El-Sheikh. The outcomes of COP27 will likely be way below expectations, mainly due to the clear divide between the developed and the developing world. In this context, India can take the initiative to have cordial relationships among the nations [35], and G20 can be the appropriate platform for the same. India will likely find G20 (presently held at Bali in Indonesia) and similar organizations, a better-suited stage to deliver her politico-economic objectives and deal with other strategic challenges more effectively than the UN, etc. Apart from the Bali Declaration, India has a strong leadership ability to tackle various global challenges holistically under the spirited mantra of '*Vasudhaiv Kutumbakam*' or One World, One Family, One Future.

#### **6.3.2 Taking advantage of china-plus-one**

India should take advantage of China's reducing influence to highlight its presence globally. It may be noted that China has very few coteries of friend nations such as Russia, Pakistan, and North Korea. Corona pandemic, the Russia-Ukraine conflict, oil shortages, and growing inflation are the pain points for all the countries across the globe. China is also no exception to this. Other factors putting limitations are the zero-Covid policy and the continued dictatorship in the country. This is certainly reducing the extent of China's power and influence on the world. It is also because China needs to address its economic growth in the post-Covid period on priority. This is an opportunity for India and accordingly, there is a need to develop, formulate, and implement the policies that will establish India's presence on the global stage [36].

### **6.3.3 Diplomacy without unnecessary bending**

“No means No.” It is Big B’s dialogue from the Bollywood flick ‘Pink’. The authors believe that though it sounds harsh, this must be the intent that India needs to maintain regarding international relations. It is now important to tell the world that India is no more submissive now. It is time to tell the countries that we live, trade, and sustain on our (own) terms (without harming the existence of other countries, their boundaries, and the interests of their people). For example, the world should take a similar stand on certain issues like invasions, trade protectionism, and similar ones harming the interest of any country. There should not be double-dealing behaviour like the world is okay with Pakistan’s invasion of Indian territory and at the same time, it is not okay with the Russian invasion of the Ukrainian provinces. This view was expressed by Sanjaya Baru in the context of ongoing international efforts to bring peace to these two war-torn countries [37]. According to Mr. Baru, the solution for the Russia-Ukraine conflict is no different from the solution that the world asked India to accept after Pakistan invaded the erstwhile state of Jammu & Kashmir. If the world and the Big Powers constantly ask India to get used to ground reality, (then) why cannot they and Ukraine also get used to the of a Russia Occupied Ukraine?

### **6.3.4 Taking and using criticism constructively**

India needs to address hatred against itself on the world stage. There is news saying that India is falling into Global Hunger Index [38]. In the Global Hunger Index India has a 107 rank in 2022 as compared to 101 in 2021. In 2020, India was in 94<sup>th</sup> place. In reality, India has been providing food and medicines to Sri Lanka (ranked 64 on the list) for the last six months. In addition to this India is also providing food to Bangladesh (ranked 84 on the list). India has sent approx. 4 Lakh metric tons of wheat to Bangladesh according to the sources. On the domestic front, since Covid, nearly 800 million people have been provided with free ration. Of course, this will call for the policy for more enhancement in producing crops and food production to meet the needs of the domestic market and other markets.

### **6.3.5 Understand the intentions of big powers**

Though the US is a strong ally, India should wary of the same. We should not forget that the US

interfered in the Ukrainian elections to install its puppet Joker at the helm to further its agenda of controlling the Arctic region and the mineral wealth that lies beneath. The so- superpowers and the West are always looking at low-profile and weak leaders in developing countries (including India). For them, it has to be political – with no authority and morally less strong. The center becomes weak due to a bunch of regional parties with conflicting interests joining hands to form the government in the center. We know how morally corrupt parties and their persons (who are the leaders of India in the past) compromise on national interests to benefit foreign powers. The authors would not like to mention their names here. Readers are shrewd enough to identify the same. Unfortunately, the present leadership is neither morally nor politically weak nor compromised. This is exactly what is hurting the US. The truth - a growing India is not good for America. Even then India has to maintain relationships with the US and continue to grow simultaneously.

### **6.3.6 Other related matters**

- Not to give value to trivial institutions like the UN, and WTO because of their old nature.
- Some decisions such as Withdrawal from WTO may be thought of if we (India) are not contributing significantly to global trade in this context.

## **6.4 Supporting Domestic Manufacturing Base**

### **6.4.1 Enhancing the manufacturing capabilities**

It is essential to enhance domestic manufacturing capability (for India). Certainly, this situation is an indication of - cannot depend on Russia for the import of defence equipment/supplies. Need to become Atmanirbhar in the defence sector. Make In India policy to encourage local manufacturing and startups in the defence sector [39]. With the present crisis, Russia’s ability as a quality defence equipment supplier is in doubt. There could be a reduction and interest in Russia’s ability to deliver on defence purchase orders. Their technology may become dated, and the chips may be sourced from the black market or China. With the financial systems not working, Russian manufacturers are forced to stop their manufacturing operations. This would also result

in cost overruns and delays, as the supply chains are disturbed. Therefore, in this context, it is required to increase the capital outlay for the sector by supporting research and development (R&D) efforts. Investment in defence products/sensors, electronic warfare, satellite communications, and unmanned systems supported with relevant personnel training and skill development.

#### **6.4.2 Support to agriculture sector and its capabilities**

As stated above, a decline in India's ranking in Global Hunger Index can be a good pointer towards formulating policies for the agriculture sector. This is primarily aimed at land development and cultivation of millet. It is interesting to note that the United Nations (UN) has declared the year 2023 as the International Year of Millet (2023) [40]. A statement issued by the UN in this regard says "*Millets are packed with high nutritional content and are 'Nutri-cereals'. However, their cultivation is declining in many countries (including India). The potential of millets to address climate change and food security is not realized fully. This is even though millets can grow on relatively poor soils and under adverse and arid conditions, with comparatively fewer inputs than other crops* (UN, 2022)." In India, it is required to encourage the cultivation of millet so that nutritious food is available to the people. With the growing population, we have concentrated only on the production of wheat and rice and ignored the millet. This needs to be changed with the coordinated efforts of the central and state governments [41]. It is the need of the hour to promote and consume millet for having health benefits and better nutrition as compared to traditional foods like wheat and rice. Let us hope that all the stakeholders (government, farmers, crop scientists, agriculture universities, industries, etc.) will start working in this direction.

#### **6.4.3 A step toward a green economy**

As reported by Reuters, the reduction in fossil fuel exports from Russia after its Ukraine invasion this year (in Feb. 2022) will change the global energy landscape altogether. This will certainly give a big push toward energy transition, the International Energy Agency (IEA) recently [42]. In this context, Russia's supply of internationally traded energy will fall to 13% by 2030 from about 20% in 2021, according to the IEA estimates.

In achieving the transition to green energy India may take a cue from Kazakhstan. The oil-rich country is planning to become a green hydrogen exporter soon [43]. Western Kazakhstan would like to become a leading global exporter of clean energy. The region is famous for its oil and natural gas resources. In this context, the government has signed a US\$50 billion deal with European renewables group Szevind to build one of the world's five largest green hydrogen production facilities in the Mangystau Region, as announced by the President's office on October 27, 2022.

As UN climate talks started in the Egyptian resort city of Sharm-El-Sheikh, the European Union is moving forward to secure partnerships with developing countries on hydrogen and clean technologies, starting with Kazakhstan [44].

In this context, India needs policies to drive its transition from a fuel-based economy to a greener economy. More emphasis on the circular economy by allocating special regions or zone to greener enterprises. "India can lead the way in accelerating the progress towards a less-competitive, healthier, and prosperous world", says Bill Gates. Gates believes in India's commitment to reducing carbon emissions [45]. While it is required (for the world) to have ground-breaking technologies to prevent any climate disaster, (at the same time) (some countries) individuals must step forward to show that climate change is important. Policies should encourage the manufacturing industry as it has a contribution to the GDP besides employment generation. This is already discussed above.

#### **6.4.4 Emphasis on 'Make in India'**

Emphasis on local manufacturing aimed at providing products to global markets. This will generate jobs and it will add to the gross domestic product -GDP and thereby growth of the economy. Social and financial inclusion are the other goals to meet with the help of this local manufacturing – Make in India campaign. With China losing its trust in the West and other countries, India must look to become the 'Production hub of the World'. Soumya Kanti Ghosh believes that the news is good for India. With the GDP levels reaching the pre-Covid stage, the economy is set to grow and will enter a good phase in the medium term [46]. The pandemic has changed the plans and expectations (of some countries) and one of the beneficiaries of that could be India. Just have a

look at this – the latest iPhone 14 manufacturing plant is at Chennai – Foxconn facility. The large quantity of orders that it has got is a clear indication that India finally making its presence felt. It is included in the China-plus-one manufacturing plans of the MNCs. There is no dearth of opportunities here if it is nurtured, boosted, and supported systematically. India's status as a preferred supplier to the world in the global supply chain can range across commodities – from chips to coal.

## 7. IMPLICATIONS

In terms of global trade, attaining sustainability is one step move toward achieving a trade surplus. With a trade surplus (i.e., exports more than imports) visible, this will provide a boost to the local/domestic manufacturing sector in terms of increasing its capability to serve global markets.

In terms of domestic industry trade, attaining sustainability is one step move toward the creation of jobs. With the creation of jobs, the industrial sector can produce more, for the domestic as well as export market needs. This, in turn, will increase the output from the manufacturing sector and its (sectoral) contribution to the gross domestic product (GDP) of the country.

India should constructively use the platform of G-20 [47].

On December 1, 2022, India formally took over from Indonesia as the G20 Presidency. The G20, often known as the Group of Twenty, is an intergovernmental organization made up of the 20 largest developed and developing economies in the world, making it the most important platform for global economic cooperation. India can use this opportunity to strengthen its international trade network and explore global trade opportunities.

## 8. CONCLUSION

In this section, the authors would like to present a conclusion in the form of a level-based discussion. This is because India needs to be sustainable by having suitable policy changes at various levels. This paper focuses on how India may become more robust considering the ongoing crisis between Russia and Ukraine. We gave examples of these approaches and how each of them may be investigated by India at various levels of the economy and foreign

commerce to show these strategies and their impact on research. Our opinion is presented to draw attention to significant developments and inspire further study. These ideas are only as good as our capacity to turn them into actual studies that can instruct and motivate audiences around the world. There is still a lot of work to do. Our influence as academics depends on our capacity to persuasively provide the most recent bits of information in this context, which can demonstrate, forecast, and direct future judgments. In a time when the world is experiencing much uncertainty and changing quickly, this is a crucial mandate. International and political experts, in our opinion, have a lot of room and opportunity to show their work. We hope that our work takes a small start toward inspiring research on related, significant topics.

## COMPETING INTERESTS

The authors have declared that no competing interests exist.

## REFERENCES

1. Sagar Pradeep. Lessons for India from the Russia-Ukraine conflict. Article published in *The Week*, June 3, 2022; 2022. Available: <https://www.theweek.in/news/india/2022/06/03/lessons-for-india-from-russia-ukraine-conflict.html>
2. Thomas Anil. What lessons can be drawn from the Russia-Ukraine war to realign India's conventional capability? *Institute of Defence Studies and Analyses*; August 22, 2022. Available: <https://www.idsa.in/askanexpert/What-lessons-can-be-drawn-from-the-Russia%E2%80%93Ukraine-war>.
3. Baru1. (There are) several lessons to learn from the Ukraine war: Sanjaya Baru. Article published in *The Hindu*; May 21, 2022. Available: <https://www.thehindu.com/news/national/telangana/several-lessons-to-learn-from-ukraine-war/article65442531.ece>.
4. Sibal Kanwal. Lessons for India from the Russia-Ukraine crisis. *Indian Defence Review*; March 19, 2022. Available: <http://www.indiandefencereview.com/spotlights/lessons-for-india-from-the-russia-ukraine-crisis/>
5. Menon Raja. "Russia-Ukraine" Lessons from a seven-month war. Article published

- in The Indian Express; October 7, 2022.  
Available:<https://indianexpress.com/article/opinion/columns/russia-ukraine-lessons-from-a-seven-month-war-8194360/>.
6. Bhagat Chetan. Five lessons from Ukraine we and India should never forget. Article published in the Times of India; March 13, 2022.  
Available:<https://timesofindia.indiatimes.com/india/war-as-realitytv/articleshow/90187270.cms>.
  7. IMF1. International Monetary Fund, World Economic Outlook; October 2022.  
Available:<https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022>
  8. IMF2. International Monetary Fund, World Economic Outlook; January 2023.  
Available:<https://www.imf.org/en/Publications/WEO/Issues/2023/01/31/world-economic-outlook-update-january-2023>
  9. TNN1. Government is worried about the impact of the Ukraine conflict on trade. Article published by Times News Network in the Times of India; 2022. Pune edition dated March 1, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/govt-worried-about-impact-of-ukraine-conflict-on-trade/articleshow/89908338.cms>.
  10. Shortage. Shoppers face a shortage of beer and popcorn globally. Article in the Times of India, Pune edition dated June 20, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/shoppers-face-shortage-of-beer-popcorn-globally/articleshow/92325222.cms>.
  11. Ghosh Soumya Kanti. Battling the crisis well. Article in the Times of India; 2022. Pune edition dated August 3, 2022.  
Available:<https://timesofindia.indiatimes.com/blogs/toi-edit-page/battling-the-crisis-well-from-rupee-to-inflation-to-deficit-the-india-story-is-much-better-than-pessimists-suggest/>.
  12. Thakur Atul. Why the US economy's jitters should worry India? Article in the Times of India; 2022. Pune edition dated August 6, 2022.  
Available:<https://timesofindia.indiatimes.com/times-special/why-the-us-economys-jitters-should-worry-india/articleshow/93382978.cms>.
  13. SKG. In the 75th year of freedom, India overtakes the UK as the fifth-largest economy. Article published by Times News Network in the Times of India; 2022. Pune edition dated September 9, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/in-75th-year-of-freedom-india-overtakes-uk-as-5th-largest-economy/articleshow/93975687.cms>
  14. Pangaria Arvind. On the way to World No. 3. Article in the Times of India; 2022. Pune edition dated October 4, 2022.  
Available:<https://timesofindia.indiatimes.com/blogs/toi-edit-page/on-the-way-to-world-no-3-data-suggests-india-will-become-the-third-largest-economy-by-end-of-2027-28-if-not-sooner/>.
  15. Trade1. India's Trade Partners. As provided by the Ministry of Commerce, Govt. of India. Article published in Times of India; 2022. Pune edition dated May 30, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/us-surpasses-china-as-indias-biggest-trading-partner-in-fy22-at-119-42-bn/articleshow/91865410.cms>
  16. Trade2. Russia 5th largest trade partner, jumps from 25th. Article published in Times of India; 2022. Pune edition dated November 17, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/russia-fifth-largest-trade-partner-jumps-from-25th/articleshow/95568292.cms>.
  17. Gupta Dipankar. Make machines in India. Article in the Times of India; 2022. Pune edition dated October 8, 2022.  
Available:<https://timesofindia.indiatimes.com/blogs/toi-edit-page/make-machines-in-india-why-economists-arguing-against-policy-emphasis-on-manufacturing-are-completely-wrong/>.
  18. Sinha Prabhakar. Third time in a row, Fed hikes rates by 75 bps. Article in the Times of India; 2022. Pune edition dated September 22, 2022.
  19. Sinha Prabhakar, Shetty Mayur. Home loan EMIs rise as RBI ups key rate 50 bps' fourth hike in five months. Article in the Times of India; 2022. Pune edition dated October 1, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/emis-start-rising-as-rbi-ups-key-rate-50bps-4th-hike-in-5-mths/articleshow/94572475.cms>.
  20. Rate Hike. Four in a row: US Fed hikes rates by 75 bps. Article in the Times of

- India; 2022. Pune edition dated November 3, 2022.  
Available:<https://timesofindia.indiatimes.com/business/international-business/four-in-row-us-fed-hikes-rates-by-75bps/articleshow/95265018.cms>
21. Forex1. Forex dipped due to a fall in the valuations of the currencies. Article published in the Times of India; 2022. Pune edition dated October 1, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/67-of-forex-dip-due-to-fall-in-valuations-of-currencies/articleshow/94573982.cms>.
  22. Forex2. The rupee's strength against the dollar comes at a forex cost. Article published in the Times of India; 2022. Pune edition dated October 10, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/rupees-strong-stand-against-dollar-comes-at-forex-cost/articleshow/94747521.cms>.
  23. Forex3. Use Dollar kitty prudently: IMF to emerging markets. Article published in the Times of India; 2022. Pune edition dated October 16, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/use-kitty-prudently-imf-to-emerging-markets/articleshow/94889038.cms>.
  24. CPI\_WPI. Wholesale inflation eases in September to an 18-month low. Article published by Times News Network in the Times of India; 2022. Pune edition dated October 15, 2022.
  25. CPI\_WPI1. Wholesale inflation eases in October to a 19-month low. Article published in Maharashtra Times; 2022. Pune edition dated November 15, 2022.
  26. CPI\_WPI2. Retail inflation below 7% in October. Article published in the Times of India; 2022. Pune edition dated November 15, 2022.
  27. IX1. Record trade deficit due to import surge in May. Article published by Times News Network in the Times of India; 2022. Pune edition dated June 3, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/record-trade-deficit-due-to-import-surge-in-may/articleshow/91973089.cms>.
  28. IX1a. Exports shrink as the trade deficit expands to US\$27Bn in October 2022. Article published by Times News Network in the Times of India; (2022. Pune edition dated November 16, 2022.  
Available:[https://www.indiaonline.com/article/general-blog/october-trade-deficit-widens-to-26-91-as-trade-shrinks-sharply-122111600277\\_1.html](https://www.indiaonline.com/article/general-blog/october-trade-deficit-widens-to-26-91-as-trade-shrinks-sharply-122111600277_1.html).
  29. IX2. Imports from Russia have grown 3.5x since the war began. Article published by Sidhartha in the Times of India; 2022. Pune edition dated July 25, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/driven-by-oil-imports-from-russia-up-3-5-times/articleshow/93096447.cms>.
  30. IX2a. Russia 5th largest trade partner, jumps from 25th. Article published in Times of India; 2022. Pune edition dated November 17, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/russia-fifth-largest-trade-partner-jumps-from-25th/articleshow/95568292.cms>.
  31. UPI. Now you can use UPI in Europe. Article published in Maharashtra Times; 2022. Pune edition dated Oct. 14, 2022.
  32. Vostro. Nine banks can trade in rupee with Russia. in Europe. Article published by Times News Network in the Times of India; 2022. Pune edition dated November 16, 2022.  
Available:<https://timesofindia.indiatimes.com/business/india-business/nine-banks-can-trade-in-rupee-with-russia/articleshow/95545098.cms#:~:text=Nine%20banks%20have%20been%20given,accounts%20with%20their%20Indian%20branches>.
  33. Hingmire Ganesh. (We need) the Indian market, (and not) the Indians (here in the UK). Article published in Sakal; 2022. Pune edition dated Oct. 16, 2022.
  34. SK1. There is strong opposition to unilateral leadership by establishing groups or consortiums. Article published in Sakal; 2022. Pune edition dated Oct. 17, 2022.
  35. Trigunayat Anil. India is ready to help reconstruct international order and has started the work with G20. Article published on CNBC TV website; 2022. November 22, 2022.  
Available:<https://www.cnbctv18.com/views/g20-india-pm-narendra-modi-unsc-fair-international-order-presidency-bali-declaration-15214741.htm>.
  36. Palsokar RR. Brig. (Retd.). (Now there are) Limitations to the Power and Influence of China. Article published in Maharashtra

- Times; 2022. Pune edition dated October 16, 2022.
37. Baru2. An idea for peace in Ukraine – Sanjaya Baru. Article published in the Times of India; 2022. Pune edition dated October 7, 2022.  
Available:<https://timesofindia.indiatimes.com/blogs/toi-edit-page/an-idea-for-peace-in-ukraine-us-led-west-should-accept-russian-occupation-of-some-parts-of-the-country-across-a-ceasefire-line/>
38. MT1. India not performing well in Global Hunger Index. Article published in Maharashtra Times; 2022. Pune edition dated October 16, 2022.
39. Manchi Abhiram and Kotasthane Pranay. India's Russia problem will grow. Article published in the Times of India; 2022. Pune edition dated September 23, 2022.  
Available:<https://timesofindia.indiatimes.com/blogs/toi-edit-page/indias-russia-problem-will-grow-locked-out-of-semiconductor-supply-moscow-will-be-hard-pressed-to-fulfil-new-delhis-military-needs/>.
40. UN. International Year of the Millets 2023 – Building Momentum for the year; 2022. March 22, 2022. Available from <https://media.un.org/>. [Last accessed on October 17, 2022].  
Available:<https://media.un.org/en/asset/k1h/k1h0tqi7qq>.
41. Chhoriya Mahendra. It is essential to save the millet. Article published in Maharashtra Times; 2022. Pune edition dated October 17, 2022.
42. Browning Noha. Energy crisis sparked by Ukraine war to speed up green energy transition – IEA. Reuters; October 27, 2022.  
Available:<https://www.reuters.com/news/picture/energy-crisis-sparked-by-ukraine-war-to-idUSKBN2RM061>.
43. Lillis Joanna. Kazakhstan: Oil-rich west to become green hydrogen hub. EurasiaNet; October 28, 2022.  
Available:<https://eurasianet.org/kazakhstan-oil-rich-west-to-become-green-hydrogen-hub>.
44. Romano Valentina. EU signs 'strategic partnership' with Kazakhstan on green hydrogen, raw materials. EURACTIV.com; November 8, 2022.  
Available:<https://www.euractiv.com/section/energy/news/eu-signs-strategic-partnership-with-kazakhstan-on-green-hydrogen-raw-materials/>.
45. Gates Bill. At G20, India can show the way. Article published in the Times of India; 2022. Pune edition dated October 7, 2022.
46. Manufacturing. We are back to the future. Article by Soumya Kanti Ghosh published in the Times of India; 2022. Pune edition dated September 2, 2022.  
Available:<https://timesofindia.indiatimes.com/blogs/toi-edit-page/we-are-back-to-the-future-with-gdp-crossing-pre-covid-level-economy-is-set-to-enter-a-good-phase-in-medium-term/>.
47. G-20. India assumes G20 Presidency. Press Release; 2022, December 1. Available:<https://www.g20.org/en/media-resources/press-releases/december-2022/presidency-g20/>

© 2023 Joshi et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Peer-review history:*

*The peer review history for this paper can be accessed here:*  
<https://www.sdiarticle5.com/review-history/99069>