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**RUSSIA UKRAINE CONFLICT: EMPACT ON INDIAN ENERGY INDUSTRY**

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***ABSTRACT***

The conflict between Russia and Ukraine has significant ramifications for India's energy industry. This is due, in part, to the fact that India is mostly reliant on imported oil and gas, and Russia is a significant supplier of both of these commodities. This abstract's objective is to study the potential consequences that the war may have on India, including disruptions in energy supply chains, price volatility in global markets, and strategic implications for energy security. Specifically, the abstract will aim to investigate these potential repercussions. Due to the fact that India is now experiencing geopolitical conflicts, the research demonstrates the challenges that the country confronts in terms of maintaining stable energy prices and receiving trustworthy supply. In addition to this, it highlights the importance of diversifying energy policy and engaging in diplomatic engagements in order to reduce risks and ensure that energy security is maintained continuously.

***Keywords:*** *Russia Ukraine conflict, Indian energy industry.*

## INTRODUCTION

The conflict between Russia and Ukraine, which has far-reaching effects across a range of industries, including the energy markets, is causing a great deal of concern on a global scale. This anxiety is a result of the fact that the conflict has widespread implications. Considering that India is a significant importer of energy, the crisis is having a disproportionately negative impact on the country due to its reliance on imported oil and gas, of which Russia is an essential supply. Because of this, the war is something that is especially crucial for India. The purpose of this introduction is to investigate the many ways in which the conflict has impacted India's energy industry. These include the potential for supply disruptions, fluctuations in the prices of energy on a worldwide scale, and the strategic implications for India's energy security.[1] Having a strong knowledge of these dynamics is very necessary for India to be able to properly manage its energy policy in the face of geopolitical conflicts that have the capacity to alter global energy dynamics for the foreseeable future. This is because these conflicts have the ability to transform global energy dynamics.

When it comes to the importation of oil and gas, the energy landscape of India is inextricably interwoven with the geopolitical landscape of the world. This is especially true in relation to the energy landscape of India. As a consequence of the confrontation between Russia and Ukraine, there has been a rise in the level of uncertainty, which has an effect on the pricing of energy throughout the world and the supply chains as well. Although India is one of the largest users of energy in the world, the country is experiencing challenges in securing reliable supply sources and maintaining stable energy prices in the face of geopolitical upheaval. This is despite the fact that India is one of the largest consumers of energy in the world. There are concerns over the prospect of disruptions in energy supplies from Russia, which is the source of a significant portion of India's oil imports. These concerns have been brought about as a result of the fight. It is possible that price volatility may emerge in the case of any disruption, which would have an impact on India's ability to maintain its energy security. There is also the risk that India's strategic investments in energy projects and relationships with Russian enterprises would be exposed to uncertainty. This will have an effect on India's long-term energy strategy as well as on the bilateral ties between the two countries. As a result of these challenges, India is likely to

study a number of different alternatives for diversification, such as the search for other energy sources and the strengthening of diplomatic contacts, in order to lower the total risk. It is important to note that India's approach to the matter underscores the country's efforts to achieve a balance between energy security, economic stability, and geopolitical concerns in the context of a global energy landscape that is vulnerable to rapid change. As a conclusion, the conflict between Russia and Ukraine is a pivotal time for India's energy strategy. The implementation of flexible measures is required by India in order to preserve India's energy interests in the face of geopolitical instability and the dynamics of the global market. This conflict compels India to execute these measures. [2]

## **OBJECTIVES**

1. Evaluate the immediate and long-term effects of the Russia-Ukraine conflict on India's oil and gas supply chains, considering potential disruptions and alternative sourcing strategies.
2. Assess diplomatic engagements with key stakeholders to mitigate geopolitical risks, foster stable energy trade relations, and uphold India's national interests.

## **Russia Ukraine conflict**

The declaration of war on Ukraine by Russia took effect on the 24th of February in the year 2022. At the international level, it is considered to be an aggressive war, and it is the most comprehensive military operation that has been carried out against a European nation since World War II. In addition, it is the war that has seen the greatest armed conflict. As a consequence of this, Europe is today going through the most severe refugee crisis it has ever seen since the beginning of the conflict. As a direct consequence of this, about 3.8 million individuals belonging to the Ukrainian population have left the nation, and millions of more have been compelled to migrate. Due to the fact that this crisis is occurring, it is possible that the entire global economy will see slower development and greater inflation as a consequence of the war that is taking place between two countries that are geographically close to one another.[3] The global economy has suffered a significant setback as a result of this war, which has a detrimental effect on both the pace of growth and the rate of inflation.

## **A. Russian invasion carries a big impact on three major things**

There are a number of factors that contribute to the general increase in inflation around the world. The first aspect is that the growth in the cost of necessary products and services, such as food and energy, is one of the factors. Additionally, the value of the purchase will fall as a result of this scenario. There would be an increase in the number of refugees, the supply chain would be disrupted, and the economy of surrounding nations would be impacted. This is the second aspect that would be considered. Finally, the third argument is that it reduces the quantity of commerce that is performed between nations, which in turn tightens the financial circumstances of countries; this would have a negative influence on the market. This is the third and last reason.[4]

In general, Russia and Ukraine are the most major manufacturers of products; nevertheless, the production of oil is of particular significance. It is beyond a doubt that the conflict would cause prices to surge all throughout the world. Because Ukraine and Russia are responsible for generating thirty percent of the world's wheat exports, the price of food has soared as a result of their actions. The countries that import petroleum, such as those in the Association of Southeast Asian Nations (ASEAN), India, and frontier economies, which include some of the Pacific island nations, will have the most substantial impact on current accounts.[5]

### **The War Crisis**

In addition to having an impact on oil and other commodities, the war between Russia and Ukraine gives rise to anxiety in the realm of international trade. In spite of the fact that India engages in commercial transactions with Russia, the global community may cause interruptions in supply, which may lead to economic losses for India. As a result of the ongoing conflict, the United States of America has implemented a prohibition on the importation of any and all oil and gas from Russia. When compared to the beginning of February, the price of a barrel of Brent oil has climbed by around 43 percent, reaching over \$130. This represents a significant gain. Given that Russia is one of the main exporters of crude oil in the world, this represents a huge setback

for the progress of the global economy. Russia is one of the leading exporters of crude oil overall.

### **The conflict on Indian Economy:**

Economic think tanks predict that the current quarter would see a considerable slowdown in growth following the previous quarter's slower-than-expected expansion of the Indian economy. Consequently, the rate of inflation rises due to the impact of increasing gasoline costs. As a result of the rising cost of edible oil and gasoline caused by the situation in Ukraine, most Indians are cutting back on fried dishes and even veggies. [6]People are feeling the pinch as a consequence of companies raising energy prices in response to the conflict between Russia and Ukraine. Diesel, gasoline, and vegetable oils have all seen precipitously increased price tags as a result, wreaking havoc on consumers' budgets. The present situation has caused the worldwide price of crude oil to have a major impact on economies all over the globe. Even though India gets 85% of the world's crude oil from imports, the price of crude oil has jumped over 50% so far this year. Furthermore, with approximately 60% of its needs met by imports, India ranks first among edible oil consumers. Palm oil, the most widely used edible oil in the world, has seen a 45% price hike this year. Ukraine and Russia produce sunflower oil in massive amounts, but their supply has been interrupted.

### **Indian energy industry**

Reviewing Russia's importance in the global energy environment, especially in Europe, will help us comprehend the current situation better. This is due to the fact that, globally, Europe is the area most dependent on Russian energy supplies. I will be addressing energy exclusively, but it is important to note that we rely significantly on other Russian resources as well, including copper, nickel, palladium, titanium, lithium, and rare earths. The energy industry, like many others, relies on these resources, especially in the manufacturing of batteries and renewable energies. Energy consumption on a worldwide scale is still heavily reliant on fossil fuels since decarbonization efforts have been implemented late enough to influence the current energy mix. Gas makes up 22% of energy consumption in Europe, while oil makes up 43%. Around 70% of

energy consumption in Europe comes from fossil fuels. Also, fossil fuels like coal and gas are the primary sources of electricity, which makes for over 22% of overall energy consumption. An rise in gas use has been noted in recent years.[7] Gas was seen as a cleaner alternative to coal and oil, and it was also more popular than other power generating methods like nuclear power, therefore it was used as a transitional energy source. The European economy is too reliant on Russian natural gas supplies, while specifics vary from nation to country (for example, certain Baltic states get all of their gas from Russia).

### **Economic profile of Russia**

The situation in the economy has undergone a considerable alteration as a direct result of the Russian invasion that took place in Ukraine prior to the end of February.[8]: Sanctions were imposed on Russia in a manner that had never been done before in reaction to a military coup that was carried out by Western nations and their supporters. These sanctions were imposed in order to prevent it from functioning properly. In addition to this, the value of the currency saw a significant decrease, and the stock exchange in Moscow was closed down. Taking into account this reality as well as the pressure that has been exerted by the world community, Russia has decided to cease its activities in the trading of foreign goods. The consequence of this is that there have been disruptions in imports, a decrease in productivity, and an overall decrease in the volume of international trade. Russia's debt levels have been reduced as a reaction which has resulted in the nation being put at the bottom of the garbage heap while also being subject to automatic credit risk. This has caused Russia to be more vulnerable to defaulting on its debt.

It is anticipated that the economy would see a major expansion during the first quarter, and it is anticipated that the full impact of the sanctions will become apparent during the second quarter. During the course of the most recent few weeks, there has been a dramatic decline in opinions. If the international community decides to apply severe sanctions, Russia will not only gain from greater foreign money flows but also from increasing investments. There will be a negative impact on domestic demand as a result of all of these variables, as well as increasing inflation and reducing debt as a result of large monetary policy adjustments. Developing political and economic divisions, in addition to a rise in the danger of spontaneous occurrences, are other

factors that undermine the vision. These factors are also a factor that undermines the vision. It is estimated by FocusEconomics that the growth of the GDP will be 1.4% by the year 2023 and 0.7% by the year 2022. This is a decline of 1.9 percent from the projection that was provided about the previous month. In the future, it is projected that the forecasts will be decreased even further than they are currently.[9]

Table 1 contains a presentation of the significant economic profile factors that characterize Russia.

**Table 1. Data about the Russian Economy**

S. No	Factors	2015	2016	2017	2018	2019	% Increase from 2015
1	Population (million)	147	147	147	147	147	0
2	GDP per capita (USD)	9,289	8,699	10,718	11,371	11,583	24.7
3	GDP (USD bn)	1,361	1,277	1,574	1,669	1,700	24.9
4	Economic Growth (GDP, annual variation in %)	-2	0.2	1.8	2.5	1.3	330.0
5	Unemployment Rate	5.6	5.5	5.2	4.8	4.6	-17.9
6	Public Debt (% of GDP)	13.5	13.2	14.6	14.9	15.3	13.3
7	Inflation Rate (CPI, annual variation in %, eop)	12.9	5.4	2.5	4.3	3	-76.7
8	Exchange Rate (vs USD)	72.88	60.27	57.63	68.88	61.91	-15.1
9	Trade Balance (USD billion)	148	90.2	115	194	163	10.1
10	Exports (USD billion)	341	282	353	443	418	22.6
11	Imports (USD billion)	193	191	238	249	255	32.1
12	International Reserves (USD)	368	378	433	468	554	50.5
13	External Debt (% of GDP)	38.1	40.1	32.9	27.3	28.9	-24.2

The rate of population increase is absolutely nonexistent, as demonstrated in table 1, which may be seen here. There was a growth rate of 24.7 percent for the gross domestic product (in billions of dollars) and a growth rate of 24.9 percent for the gross domestic product (per capita) as measured in dollars. The yearly variation in the percentage of GDP has been positive throughout the period commencing in 2016, however it has fluctuated. This volatility has nonetheless been favorable. The rate of unemployment has been decreasing since the year 2015, and this trend is expected to continue. during the year 2015, the public debt has been steadily growing as a proportion of GDP, with a growth rate of 13.3 percent during that time. Since 2015, this pattern has been consistent. [10] Over the course of the years 2015 to 2019, inflation has been brought under control, which has led to a decrease of 76.7 percent. The value of the ruble has declined "from 72.88 rubles per US dollar in 2015 to 61.91 rubles per US dollar in 2019", which is another way in which the exchange rate of the ruble has been favorable to Russia. The trade balance, which is measured in billions of dollars, increased by 10.1 percent between the years 2015 and 2019. This rise occurred between 2014 and 2019. Between the years 2015 and 2019, there was a rise of 22.6 percent in the amount of goods exported, while there was a rise of 32.1 percent in the amount of food imported. Despite the fact that the amount of debt that is owing to foreign nations has fallen by 24.2 percent, the number of international reserves has increased by 50.5%.[11]

### **Overview of Ukraine's Economy**

The president of Russia, Vladimir Putin, said on February 24 that the invasion of Ukraine will begin operations. The attack has persisted uninterrupted since then. [12] To keep essential government services operating and the military functioning properly, the government has issued around \$270 million in military bonds in response to this. For military and weaponry assistance, the US has allocated \$6.4 billion, while the EU has given \$500 million. The financial aid has also been authorized by the US government. Meanwhile, the economy is already feeling the unprecedented strain of the conflict: It seems that the little activity happening within the country is being stifled by martial law, and the exports of the country's two main crops, wheat and maize, have been badly affected, which might lead to a drop in exports. Never before has there been such a heavy load. in [13] Although there may be long-term repercussions from the loss of



critical infrastructure, the human toll will be far higher. Most devastating will be the human cost. Determining the extent of the recession is likely to be a time-consuming process due to the seriousness of the situation and the unpredictability of the conflict. Because of this, experts predict that the war will soon affect the economy in a big way. This is because both the number of injured and killed in the conflict and the number of persons entering the nation are on the rise. Forecasts put the pace of increase of the national gross domestic product in 2022 at 8.3 percent, according to Focus Economics. This is a decrease of 11.7% when contrasted with the average growth rate from the previous month. The company's projections indicate a loss of 3.5% in GDP by 2023.

**Table 2 provides a concise overview of the economic profile of Ukraine, which includes the following:**

**Table 2. The Economy of Ukraine: Data**

S. No	Factors	2015	2016	2017	2018	2019	% Increase from 2015
1	Population (million)	42.6	42.4	42.2	42	41.9	-1.6
2	GDP per capita (USD)	2,055	2,175	2,686	3,120	3,678	79.0
3	GDP (USD bn)	87.5	92.3	113	131	154	76.0
4	Economic Growth (GDP, annual variation in %)	-9.8	2.4	2.5	3.4	3.2	-ve to +ve
5	Unemployment Rate	9.1	9.3	9.5	8.8	8.2	-9.9
6	Public Debt (% of GDP)	79.1	80.9	71.8	60.9	50.3	-36.4
7	Inflation Rate (CPI, annual variation in %, eop)	48.5	14.9	14.5	11	7.9	-83.7
8	Exchange Rate (vs USD)	24.03	27.1	28.16	27.71	23.7	-1.37
9	Trade Balance (USD billion)	-3.5	-6.9	-9.7	-12.7	-14.3	-308.6
10	Exports (USD billion)	35.4	33.6	39.7	43.3	46.1	30.2
11	Imports (USD billion)	38.9	40.54	49.4	56.1	60.5	55.5
12	International Reserves (USD)	13.3	15.5	18.8	20.8	25.3	90.2
13	External Debt (% of GDP)	135	122	101	87.7	79.2	-41.3

According to the data shown in Table 2, the population was determined to be declining by 1.6%. From 2015 to 2019, the GDP per capita, expressed in US dollars, increased by 79%. The gross domestic product, measured in billions of US dollars, also increased by 76% over this period. There has been a considerable improvement in economic growth, which has gone from being negative in 2015 to being positive at 3.2%. The percentage of GDP due to government debt decreased by 36.4%, while the unemployment rate fell by 9.9%. Careful control of the inflation rate is directly responsible for the 83.7% drop. A favorable trend in Ukraine is indicated by the hryvnia's drop in value compared to the US dollar, from 24.03 to 23.1 hryvnia. Because its imports exceeded its exports, Ukraine has been struggling with a negative trade balance. There was a roughly 300 percent increase in the negative trade imbalance from 2015 to 2019. In the same time period from 2015 to 2019, the number of international archives increased by 90%, but the quantity of foreign debt as a proportion of GDP declined by 41.3%. [14]

Russia and Ukraine are home to a large contingent. To provide just a few examples, this region produces more sunflower oil, wheat, and maize than any other in the world. Furthermore, one of the few Europeans has recognized the fertile land of Ukraine. The world's second-largest grain exporter is Russia, even if the country only ranks first on occasion when it comes to wheat exports. The events of 1917 in Brest-Litovsk have led Russia to believe that Ukraine "never had a culture of real dominance" and was instead an illusion created by the Bolsheviks. For others, Russia's intervention in the Ukrainian war constitutes a flagrant disregard for both international law and the independence of the sovereign nation.

### **The war's effects on India and the global economy**

You can see what proportion of global crude oil production might be ascribed to Russia in Table 3. The current estimate places Russia's crude oil output at about 12% of the world total.

**Table 3. Russian crude oil output share**

Year	Percentage
2020	13
2025	12.5
2030	11.8
2035	12.3
2040	12.6
2045	12.7
2050	12.7

Numerous causes, including as the war, the imposition of sanctions, and the ban on importing crude oil from Russia, have contributed to a dramatic spike in the price of oil. Both the overall price level and the cost of living will experience rapid increases due to the tremendous impact on transportation.[15]

**Table 4. Commerce between Russia and India (April 2020 to March 2021)**

Russia-India trade (April 2020 – March 2021)	Billion USD	Percentage
Indian imports from Russia	5.83	62.63
Indian exports to Russia	3.48	37.37
Total Trade between Russia and India	9.31	100.00

As can be seen in Table 4, the quantities of goods that are imported from India are more than those that are exported from Russia. [16] To put it another way, the proportion of total imports that originate from Russia is 62.63 percent, but the proportion of imported products that are sold to Russia is 37.37 percent. This is a significant difference.

## CONCLUSION

The conflict between Russia and Ukraine has highlighted the weaknesses in India's energy security because of the country's heavy dependence on imported gas and oil, mostly from Russia. Global market fluctuations and potential interruptions to energy supplies pose serious threats to India's economic stability and energy planning. India must diversify its energy sources and strengthen its diplomatic ties to mitigate the risks associated with geopolitical instability. We can reduce our dependence on fossil fuel imports by looking into other suppliers, making energy efficiency improvements, and putting money into renewable energy infrastructure. Furthermore, the debate highlights the interconnectedness of global energy markets and the need for international collaboration to ensure sustainable and dependable energy sources. To effectively maneuver through the complexities of the constantly shifting geopolitical scene, India must devise a plan to safeguard its energy interests and build economic resilience against outside uncertainties.

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