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## **The War between Russia and Ukraine: Impact on Food Prices in Bangladesh**

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### **Abstract**

*Russia is the 3<sup>rd</sup> largest oil producer and 2<sup>nd</sup> largest exporter of oil and oil products in the world producing 10.5 million barrels per day. Russia is also 2<sup>nd</sup> largest natural gas producer and largest natural gas exporter in the world exporting 201.7 billion cubic meters of gas via pipelines in 2021, and 39.6 billion cubic meters of liquefied natural gas (LNG). Russia and Ukraine are also leading food grain suppliers in the world. As gas and oil are the major energy input in industry, the supply of energy is affected due to war between Russia and Ukraine and affects the cost of production everywhere in the world including Bangladesh. This research paper facilitates general population, researcher and business personalities informing what percentage of price of necessary commodities has already changed and affected people's living cost during the period from January 2022 to September 2022. Price of all the staple food items such as rice, wheat, maize, fish, dal, edible oil etc. reached a record high in recent months. People's living cost surpassed their income level and narrowed down living standard. Govt. takes various initiatives but they do not have any effect on price of consumer goods. Furthermore, the high inflation rate and dollar exchange rate affect the cost of production. If this war continues for longer period, the world's population will suffer undoubtedly. Leading countries of the world should discuss how to stop the war and bring peace with us. Bangladesh govt. should take initiative to lower down the price of food products by offering subsidies in food production and energy sector. Govt. may lower down the tariff and taxes in case of importing food products.*

**Keywords:** Russian Ukraine war, Food price, Living cost.

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### **1.0 Introduction**

After two years of fighting COVID-19, the world economy has been left in a fragile state. According to UN report on 08 June 2022, today 60% of workers have lower real incomes than before the pandemic; 60% of

the poorest countries are in debt distress or at high risk of it; developing countries miss \$1.2 trillion per year to fill the social protection gap, and \$4.3 trillion is

needed per year more money than ever before to meet the Sustainable Development Goals (SDGs). The ability of people and countries to deal with adversity has therefore also been eroding. As the war erupted, global average growth prospects have gone downward; many countries' fiscal balances have deteriorated, and the average household has lost 1.5% in real income due to price increases in staple food item.

Worldwide, many people have been facing famine-like conditions. Any kind of war is a great tragedy for human civilization, and the Russia's war on Ukraine is not different. War destroys lives, living standard, harmonial relationships among the peoples of the world. War increases price of commodities resulting in the incremental cost of living and sufferings of human beings specially the poor people like those of Bangladesh. War causes the disruption of supplies, halts production of commodities resulting high demand and incremental price charge.

Russia is one of the major players in global Oil, Gas and Food supplier and Ukraine is considered the big food grain supplier in the world. As both the countries are affected due to war, the global oil, gas and food supply chain is strongly affected. As oil and gas are the main input for any production run, the cost of production has been affected everywhere in the world and Bangladesh is not an exception in this world scenario. As Bangladesh is a member of world community, food price in Bangladesh also has increased like other countries. This research tries to find out how much price has increased in the food sector in Bangladesh due to the war crisis between Russia and Ukraine.

This researcher collects primary data from the major consumer goods supplier in Dhaka city and pertinent secondary data are also collected from various govt. and online sources. Collected data are graphically presented and determined how much price has changed from January 2022 to September 2022. It is found that all the categories of sample food items price has increased in an alarming rate which does not conform to people's purchase capacity of this poor country.

## **2.0 Objectives of The Study**

The main objective of the study is to determine and analyze the price changes during 2022 in food products in Bangladesh due to Russia's war on Ukraine. The research also aims to focus on cost of living of Bangladeshi nationals in terms of food consumption.

### **3.0 Literature Review**

IEA Report 2022, in their 'oil market report' published on August 2022, it is found that Russia has been the second largest supplier of oil (9.8%) in July 2022 followed by Saudi Arabia (10.83%). According to this report Russia's oil supplies in July 2022 increase from June 2022 (9.78%).

Global Network Against Food Crises Report 2022, in their report on '2022 Global Report on Food Crises' found that between 179 million and 181 million people are forecasted to be facing food crisis or worse conditions in 41 out of 53 countries where data are available.

UNICEF Report 2022, in their report 'The State of Food Security and Nutrition in the World 2022' published on July 2022 found that in addition to the above mentioned data, 19 million more people are expected to face chronic undernourishment globally in 2023, if the reduction in food exports from the Russian Federation and Ukraine result in lower food availability worldwide. Record high food prices, exchange rate devaluation and inflationary pressures are key factors. While the FAO food price index had reached a record high in February 2022 before the war started, since then it has had some of the largest one-month increases in its history, with its record high in March 2022. And with a very challenging situation today, some factors suggest the food security situation may get much worse still in coming seasons.

Market Intel Report 2022, in their report 'Ukraine, Russia, Volatile Ag Markets' published on March 16, 2022 found that in 2021, Ukraine exported more than \$27 billion agricultural products to the world. Ukraine has six primary products with over a billion dollars in export sales: corn (\$5.8 billion), sunflower seed (\$5.7 billion), wheat (\$5.1 billion), rapeseed (\$1.7 billion), barley (\$1.3 billion) and sunflower meal (\$1.2 billion). Combined these top six products accounted for more than 77% of Ukraine's agricultural exports. Russia exported more than \$7.1 billion of wheat to the world in 2021. Ukraine exported nearly \$5.1 billion wheat to the world in 2021. Ukraine is the world's seventh-largest producer and fourth-largest exporter of corn, responsible for 13% of global exports in 2020/21 growing year. Ukraine exported more than \$5.8 billion in corn to the world in 2021. Ukraine is the world's eighth-largest producer and sixth-largest exporter of wheat, responsible for 8.5% of global exports in the 2020/21 trade year. Ukraine exported nearly \$5.1 billion of wheat to the world in 2021. In the 2020/21 trade year, 20% of the world's wheat exports came from Russia. Together, these two countries accounted for nearly 30% of the globe's wheat exports. Ukraine is the

world's largest producer and exporter of sunflower seed and its products, responsible for 47% of global exports in the 2020/21 trade year. Ukraine exported nearly \$5.7 billion in sunflower oil to the world in 2021. In the 2020/21 trade year, 29% of the world's sunflower seed oil exports came from Russia.

Mamun *et al.* in their report 'How the war in Ukraine threatens Bangladesh's food security' published on April 20, 2022 stated that as the Russia-Ukraine crisis continues to disrupt the global trade of key foods such as wheat and vegetable oils, along with fertilizers, impacts are falling heavily on countries such as Bangladesh. Dependent on imports of those items to feed its large population Bangladesh will face the prospect of rising food insecurity. According to IFPRI study, the proportion of rural households facing moderate or severe food insecurity rose from 15% in early 2020 to 45% in Jan. 2021, then returned to pre-pandemic levels by the end of 2021. Bangladesh saw a record rise in prices of staples in March 2022, along with volatility in the fertilizer market.

Xinshen *et al.* in their report on 'Bangladesh: Impacts of the Ukraine and Global Crisis on Food Systems and Poverty' published on 7 July 2022 states that declines in national GDP and employment all from agri-food system- GDP fall about 2% in both primary agriculture and off-farm agri-food sectors, fertilizer and fuel shocks drive the decline in national GDP because of their effect on agri-food system, higher prices for agricultural products raise costs of food processing and food services, household consumption falls significantly because food prices affect all households but more importantly for rural and poor households, poverty rises significantly- headcount rate up by 3.3% points, more than 5 million more people pushed into poverty. They also state that food, fuel and fertilizer lead to reductions in agri-food system GDP and employment in Bangladesh.

UN Sustainable Development Group in their report on 'Global Impact of war in Ukraine on food, energy and finance systems' published on 13 April 2022 states that Ukraine and the Russian Federation are among the world's breadbaskets. They provide around 30 per cent of the world's wheat and barley, one-fifth of its maize, and over half of its sunflower oil. At the same time, the Russian Federation is the world's top natural gas exporter, and second-largest oil exporter. Together, neighboring Belarus and the Russian Federation also export around a fifth of the world's fertilizers. As a result, commodity prices are reaching record highs across the board. On the 8th of April 2022, the United Nations Food and Agriculture Organization (FAO) published its third consecutive record food price index. Food

prices are 34% higher than this time last year and have never been this high since FAO started recording them.

#### **4.0 Methodology of The Study**

The research design is analytical in nature. Analytical research takes information that has been gathered and looked at, and it shows such as trends. The researcher has used facts or information collected from both primary and secondary sources to make a critical evaluation of the material.

**Data Source and Methods of Collection:** The data is collected from both the primary and secondary sources. Primary data are collected from shopkeepers located in big marketplace such as Kawran Bazar, Rayerbazar Govt. Market, Dhaka New Market, Zigatola Kancha Bazar, and Mohammadpur Townhall Market through direct interview.

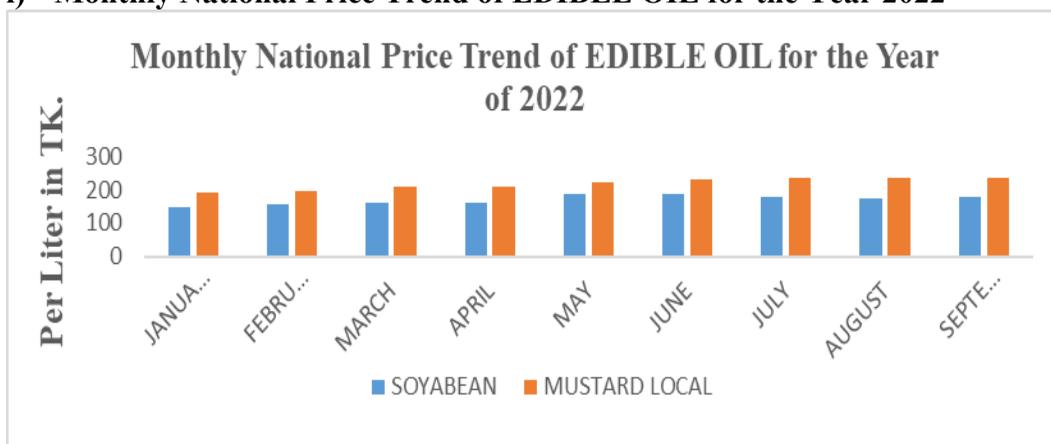
Secondary data have been collected from available various sources through internet.

**Technical Analysis Tools used for the Study:** Microsoft Excel was used to produce graphical presentation of the collected data.

**Period of Data:** From January 2022 to September 2022 have been used to analyze the price movement of various food items in Bangladesh.

#### **5.0 Analysis and Findings**

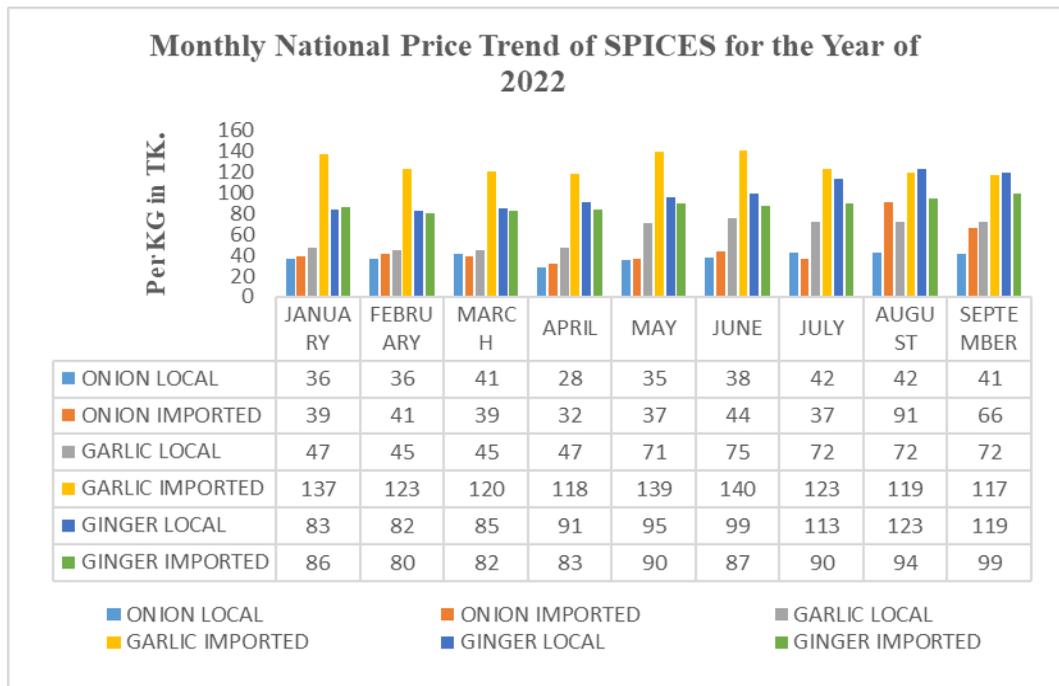
##### **i) Monthly National Price Trend of EDIBLE OIL for the Year 2022**



**Figure 1:** Monthly National Price Trend of EDIBLE OIL for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**Analysis:** Edible oil price reached its highest peak (Tk.188/liter in June 2022) in the history of Bangladesh. The price jumped from Tk. 145/liter in January 2022 and reached its highest peak in June 2022. Ukraine is one of the important countries which are exporting sunflower seed to other countries. With the news of Russia’s attack on Ukraine and imposition imposed by USA to Russia, leading exporting countries of edible oil cartel their quantity and gradually charge higher prices of edible oil all over the world. In September 2022 it settled down on Tk.178/liter. Though international markets lower down their price, we are not getting the privileges yet. If we compare the price from 2021 it is almost double in 2022.

**ii) Monthly National Price Trend of SPICES for the Year 2022**



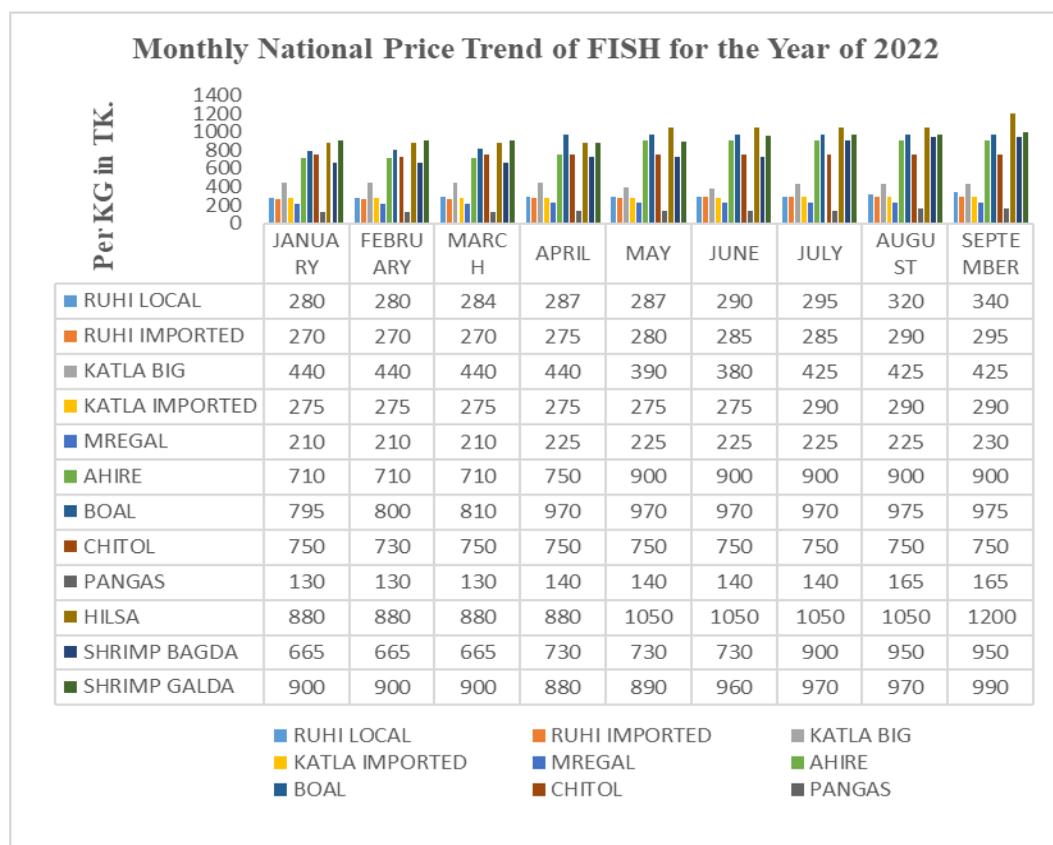
**Figure 2:** Monthly National Price Trend of SPICES for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**Analysis:** Bangladesh is an agricultural country. There are some spice zone which are famous in producing selective spices such as onion, garlic, ginger. Though we are producing these agricultural products all over Bangladesh, local production is not sufficient to meet our country’s demand. We have to import some spices form India, Myanmar, Pakistan, Turkey etc. that’s why spice price jumps in the whole year followed by the price of exporting countries. Local onion price is almost

stable with a range of 10%-12% price fluctuation, whereas imported onion price fluctuates up-to 40%. Local garlic price fluctuates in a range of 40% but imported one is almost stable and price is in a decline trend. Local ginger price fluctuates in a range of 40%-45%, imported ginger in a range of 20%-25%.

### iii) Monthly National Price Trend of FISH for the Year 2022

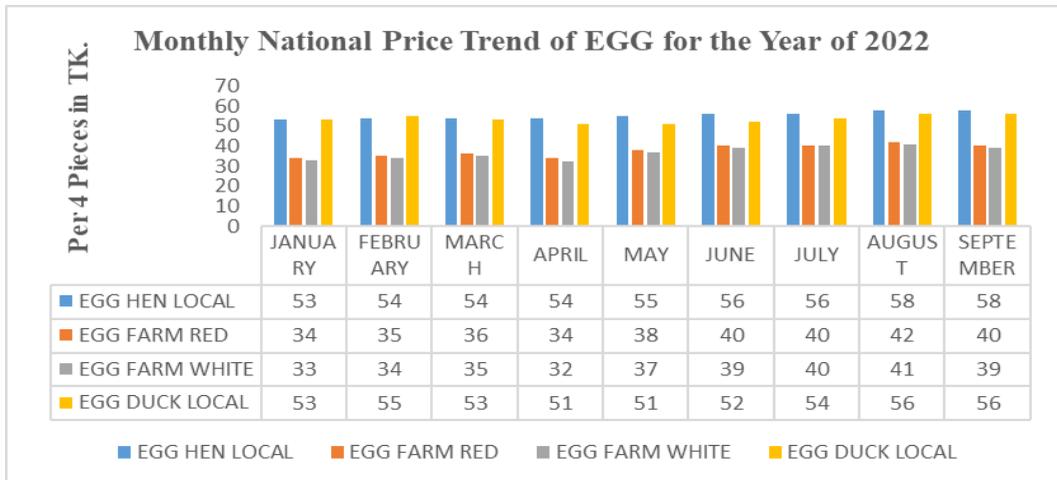
**Analysis:** There is a proverb ‘Bengalis live on fish and rice’. The Bangalis are known for their eating habits centering fish and rice. Fish and rice are the staple food of the Bangalis. But it is very unfortunate that the fish price is beyond peoples control now. Pangas fish is well known as poor people’s fish, but its price is now too high (around Tk. 165-170/kg). Price of almost all the fish’s increases up to 50% from January to September 2022. Due to the increase of fish feed price, the price of firm fish increases tremendously.



**Figure 3:** Monthly National Price Trend of FISH for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

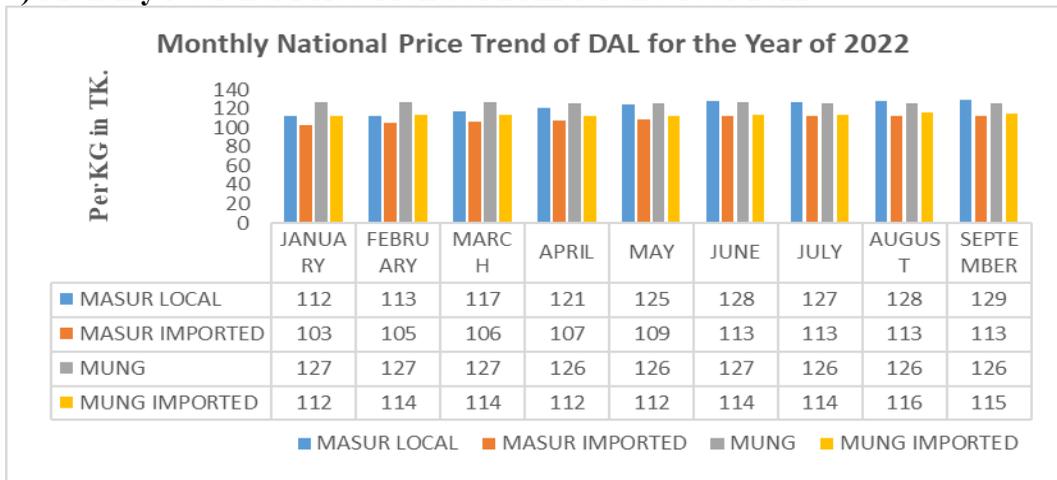
**iv) Monthly National Price Trend of EGG for the Year 2022**

**Analysis:** Egg and Dal are the major source of protein supplier in our country for the middle class and lower income people. Egg price fluctuates very sharply in the whole year. Suddenly price jumps to Tk.50-55/ per 4 pieces in mid of August 2022. But price narrowed down sharply at the end of the month. Due to war crisis there is a huge fluctuation in dollar exchange rate and resultant fluctuation in imported feed mill ingredients that affects the production cost of egg.



**Figure 4:** Monthly National Price Trend of EGG for the Year of 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**v) Monthly National Price Trend of DAL for the Year 2022**



**Figure 5:** Monthly National Price Trend of DAL for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**Analysis:** Lentil (Masur Dal) is one of the important source of protein supplier and considered as the best staple food in Bangladesh. Though Bangladesh belongs to agriculture economy, it is not self-sufficient in all sectors of agricultural products. We need to import the essential product lentil (masur dal) from some European countries like Turkey, Ukraine and from some other Asian countries. Due to war in Ukraine dollar prices increase in Bangladesh, so the import price of Lentil also increases. There is 10%-20% fluctuation in lentil prices. The price of other pulses remains almost stable in market.

#### vi) Monthly National Price Trend of MAIZE for the Year 2022

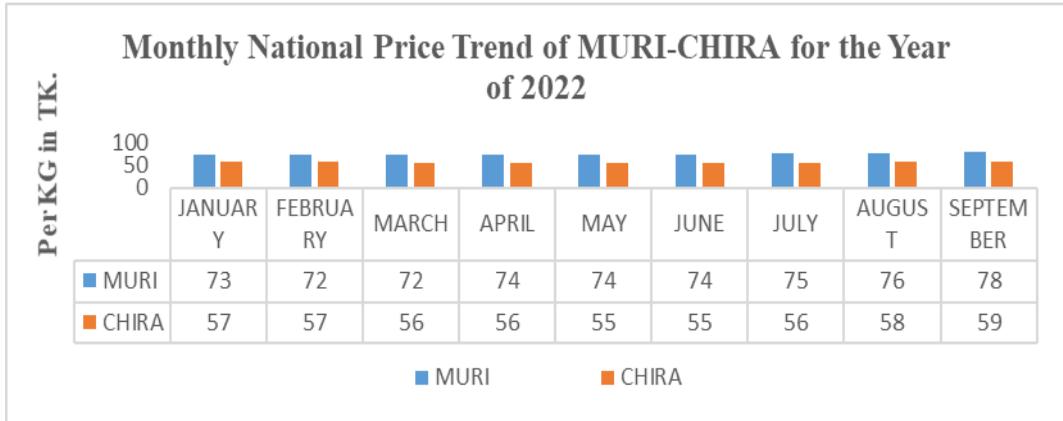


**Figure 6:** Monthly National Price Trend of MAIZE for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**Analysis:** In June 2022, the wholesale and retail prices of corn were BDT 31.04 (\$0.34) per kilogram and BDT 33.05 (\$0.36) per kilogram, respectively, hitting a six-year high. The wholesale and retail prices of corn in June 2022 were approximately 41 percent and 29 percent higher, respectively, from the same period last year. The average annual demand for corn in Bangladesh is 7 to 8 million MT, while domestic production meets about 65 percent of total demand. After June 2022 price is in stable condition. Ukraine is one of the leading exporter of corn. Russia's war on Ukraine hamper corn supply network and increases price worldwide.

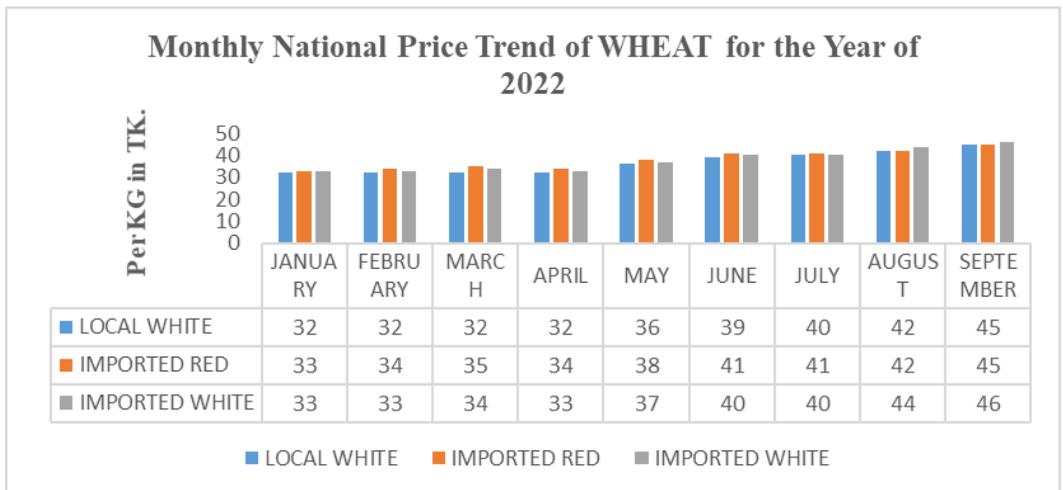
#### vii) Monthly National Price Trend of MURI-CHIRA for the Year 2022

**Analysis:** Culturally Muri-Chira is our local product and main ingredient of its production is rice. As the rice prices increase the production cost of Muri-Chira also increases accordingly. As it is not a very high demanding product it does not much affect the living cost.



**Figure 7:** Monthly National Price Trend of MURI-CHIRA for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

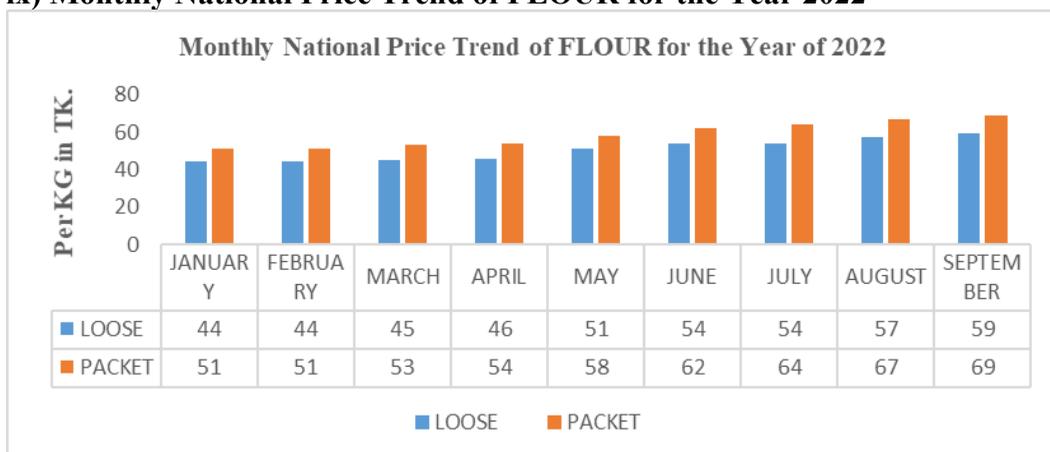
**viii) Monthly National Price Trend of WHEAT for the Year 2022**



**Figure 8:** Monthly National Price Trend of WHEAT for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**Analysis:** The Russia-Ukraine war, higher international price of wheat, supply chain disruptions, and India’s wheat export ban jointly contributed to record high wheat and wheat flour prices in Bangladesh. Depreciation of the Bangladeshi taka against the U.S. dollar is also increasing the price of wheat flour, as most wheat is imported. Retail and wholesale prices of wheat jumped to record high. As of September 2022, the average retail prices of wheat were BDT 45 per kilogram up 100% from the same period last year.

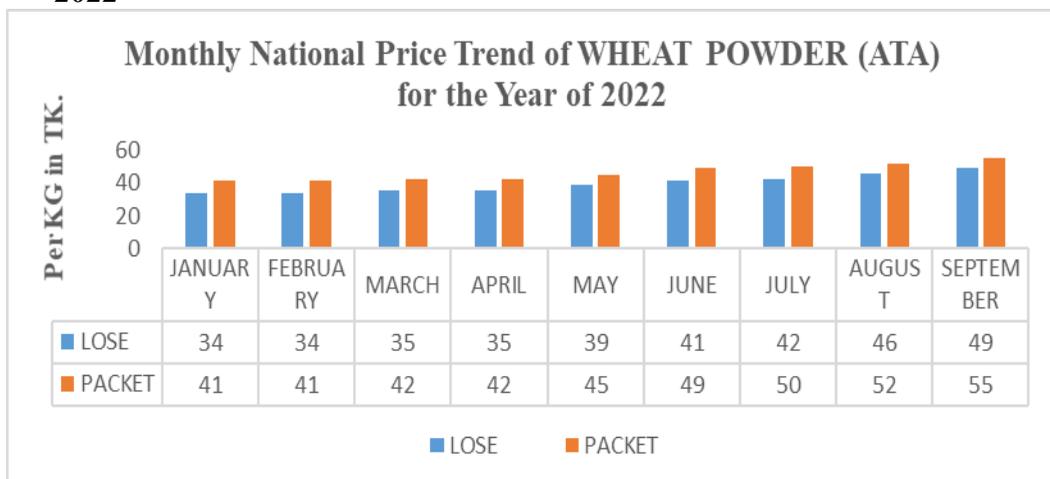
**ix) Monthly National Price Trend of FLOUR for the Year 2022**



**Figure 9 :** Monthly National Price Trend of FLOUR for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**Analysis:** Retail and wholesale prices of flour jumped to record high. As of September 2022, the average retail prices of wheat were BDT 59 per kilogram (loose) and BDT 69 per kilogram (packet) up 100% from the same period last year.

**x) Monthly National Price Trend of WHEAT POWDER (ATA) for the Year 2022**

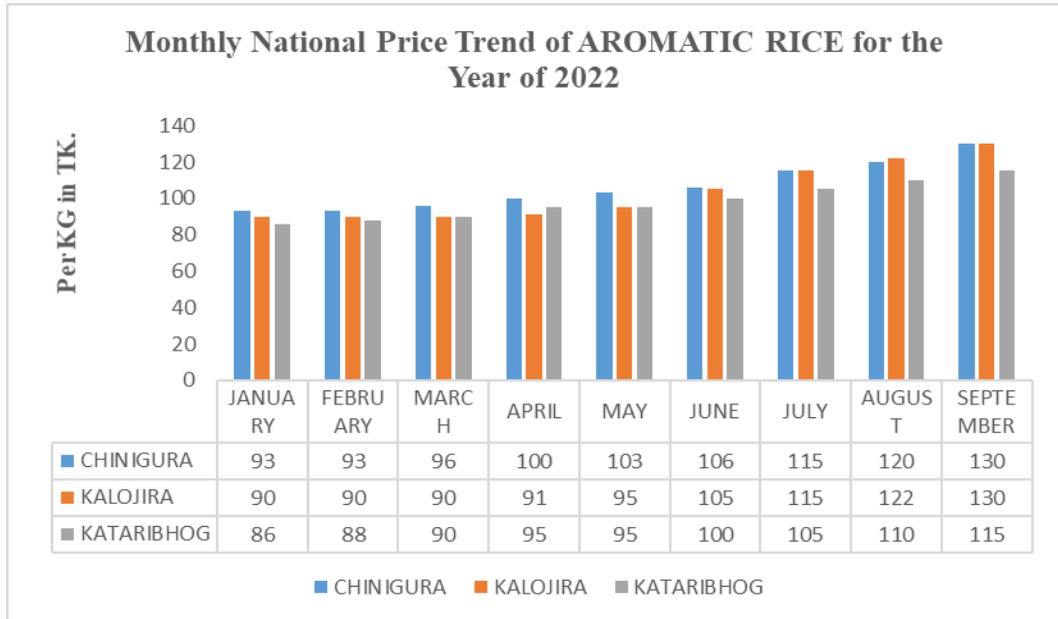


**Figure 10:** Monthly National Price Trend of WHEAT POWDER (ATA) for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**Analysis:** In September 2022, the average retail price of unpacked coarse wheat flour (also called *aata*) was BDT 49 per kilogram, approximately 90 percent up from same

period last year. Wheat and wheat flour prices rose sharply due to Russia’s invasion of Ukraine in February 2022, and India’s May 13, 2022 wheat export ban, which was implemented without prior notice, further aggravated them.

**xi) Monthly National Price Trend of AROMATIC RICE for the Year 2022**

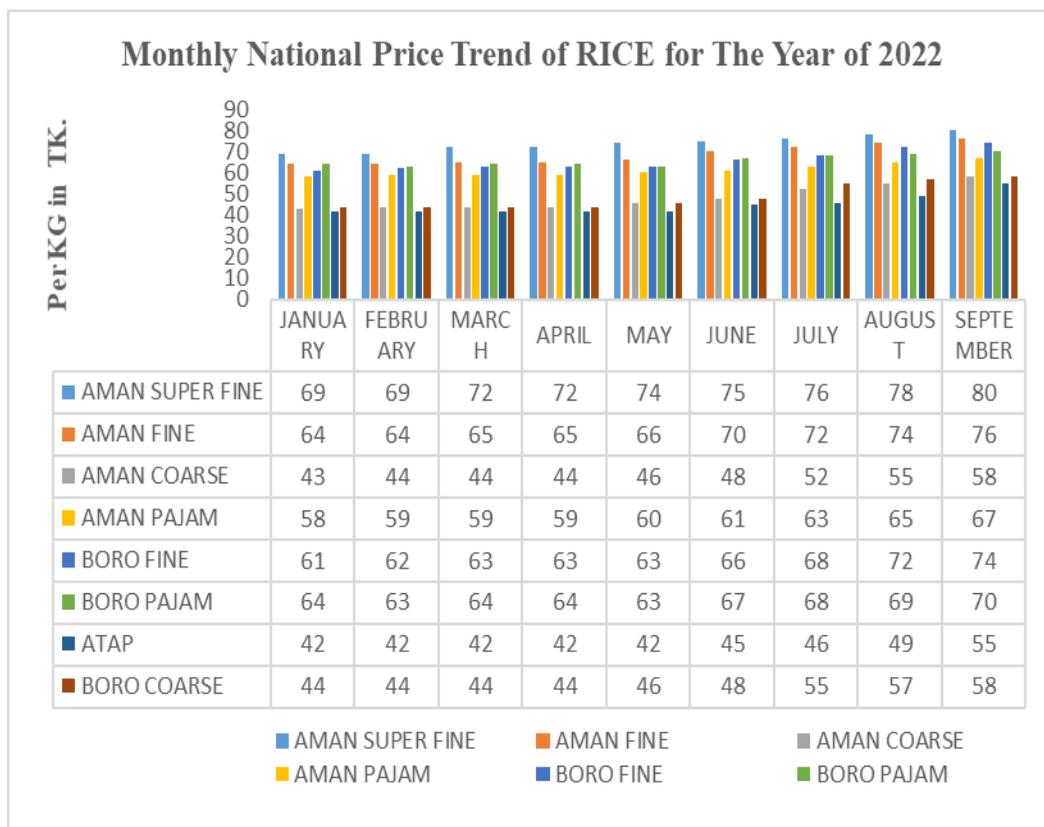


**Figure 11:** Monthly National Price Trend of AROMATIC RICE for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**Analysis:** The retail price of high-quality aromatic rice has also reached a record high in recent months. In January 2022, the average retail price of fine quality aromatic rice was BDT 93/ BDT 90/ BDT 86 per kilogram respectively for chinigura, kalojira and kataribhog increase to BDT 130/ BDT 130/ BDT 115 per kilogram respectively for chinigura, kalojira and kataribhog in September 2022, up around 40% over the period of 9 months.

The recent economic turmoil driven by higher fuel costs and record high inflation is contributing to rising rice prices. In May 2022, Bangladesh experienced its highest inflation rate in the past five years. According to Bangladesh Bank, inflation hit 7.4%, up more than 40% over the same period last year.

**xii) Monthly National Price Trend of RICE for the Year 2022**



**Figure 12:** Monthly National Price Trend of RICE for the Year 2022 (Source: Self-Created using collected data applying MS-Excel Version 2016)

**Analysis:** Rice Prices hit record high. In September 2022, the average retail price of low quality (coarse) rice was BDT 58 per kilogram, approximately 65 percent higher than the same period last year. The retail price of coarse rice has been trending upward since September 2021 and reached a record high in September 2022 at BDT 58 per kilogram. The retail price of high-quality non-aromatic (fine) rice has also reached a record high in recent months. Super fine Aman rice price reached its highest level in September 2022 at BDT 80 per kilogram, up around 35% over same period last year. Prices of all quality rice is in super up trend in last few months. Most of the Bangladeshis are habituated to having rice 3 times a day. Living cost is in miseries level as the cost of all types of basic food items increases day by day.

## **6.0 Recommendations**

After analyzing the findings the researcher has put forward the following recommendations:

- i. Government should take proper initiatives, such as they can make available lower priced or subsidies products through TCB.
- ii. Government may search for alternative supply source of staple food items that are currently imported from Russia or Ukraine.
- iii. Government may impose zero tariff in importing necessary food items such as rice, dal, wheat, vegetable oil etc.
- iv. People should be careful about wastage of food or change the food habit to consume alternative local products than imported items.
- v. Power and fuel consumption should be minimum to cut the production cost.

## **7.0 Conclusions**

In Bangladesh staple food market such as rice, wheat powder, maize, dal, egg, fish is very much unstable in recent time. Inflation rate reaches its highest 7.4% in past five years. Cost of fuel increases around 45% recently that affects the cost of production, distribution of food items. People's sufferings are in unbearable state. Cost of living increases alarmingly. The misery of people touches the civil society. Politicians, citizen groups, different public bodies are speaking in different seminars, discussion programs. Government is also trying but nothing is working to change the price level of consumer goods. The condition of economy is in turmoil due to higher fuel cost and supply crisis of different commodities followed by Russia's war on Ukraine. Though the price of food items is in stable or decreasing trend internationally, Bangladesh experiences opposite picture. If these situations prevail for longer period of time it would be difficult for the poor people to sustain. Government should take immediate necessary action on priority basis to narrow down the food prices by providing subsidy or needs to offer price incentives in food items to the poor through Trading Corporation of Bangladesh. People's living standard degraded day by day due to huge increase of living cost that needs to be under control of the government, otherwise government will face people's outburst. The volatile agriculture market both in Russia and Ukraine is also responsible for the unrest in commodity price all over the world. Policymakers in Bangladesh have to monitor the market closely. The country should quickly source out commodities from the global market at competitive prices, and distribute essential commodities at reduced prices through open market sales for all.

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