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COMMITTEE ON COMMODITY PROBLEMS

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DEVELOPMENTS IN INTERNATIONAL AGRICULTURAL COMMODITY MARKETS

Executive Summary

This document reviews developments in food commodity markets since the beginning of 2020, with particular focus on the impacts of the COVID-19 pandemic and the war in Ukraine. The information provided in this document is complemented by documents CCP 22/INF/6 on FAO Food Price Index and CCP 22/INF/7 on developments in global fertilizer markets.

The last two years have been characterized by rising food prices (since mid-2020), soaring energy and input prices, particularly of fertilizers, high transportation costs, and heightened concerns over world food security as a result of the disruptions caused by the COVID-19 containment measures and more recently the war in Ukraine.

The COVID-19 pandemic showcased the importance of maintaining agrifood markets and trade open and ensuring the smooth functioning of supply chains. The war in Ukraine raised concerns about the availability of, and access to, food globally, for the current and coming seasons, highlighting a number of risks related to markets and especially to trade, prices, production and energy. In this regard, it is essential that countries avoid using export restrictions and other trade counterproductive measures that can increase uncertainty in markets and exacerbate the overall situation.

Suggested action by the Committee

The Committee is invited to note the information contained in the document and provide guidance as deemed appropriate. The Committee may wish to:

- Express appreciation for FAO's role in contributing to market transparency and promoting informed decisions, by providing up-to-date and objective data and information and market assessments and outlooks.
- Underline the significance of market transparency and request FAO to continue and further strengthen its relevant market monitoring, assessment and outlook work to support informed policy decisions and promote policy coordination.

Documents can be consulted at www.fao.org

- Stress the important role that markets and trade can play during periods of crises and underline the need for governments to avoid export restrictions and other trade distorting measures.

Queries on the substantive content of the document may be addressed to:

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I. INTRODUCTION

1. In addition to market fundamentals and development in related markets, two major events have shaped and continue to shape global food commodity markets since the beginning of 2020. These are the COVID-19 pandemic and the war in Ukraine.

2. The COVID-19 pandemic and the measures to contain it have caused the global economy to shrink by 3.1 percent in 2020, plunging it into the worst recession since World War II. While the global economy was on a path to recovery, the outbreak of the war in Ukraine in late February 2022 caused a major setback. As a result, in April, the International Monetary Fund (IMF) downgraded its projected economic growth to 3.6 percent in 2022 and 2023, respectively, 0.8 and 0.2 percentage points lower than projected prior to the war.¹ In early June 2022, the World Bank projected global growth in 2022 to drop to 2.9 percent, 1.2 percentage points lower than the 4.1 percent projected in January and down from the 5.7 percent growth registered in 2021.

3. Since mid-2020, agricultural commodity markets have been in the midst of a period characterized by rising prices, affecting most food categories. At the same time, input prices, in particular those of fertilizers, have risen in tandem, often faster and higher than during the last peak period of 2008, reflecting factors that are strongly linked to the COVID-19 pandemic and the war in Ukraine, such as high energy prices, trade restrictive measures and supply chain disruptions. The developments in global fertilizer markets are presented in document CCP 22/INF/7.

II. EVOLUTION OF FOOD COMMODITY PRICES

4. Since May 2020, the world experienced a continued rise in the prices of most commodities, including food commodities, many of which have reached historical record highs, both in nominal and real terms.

5. The FAO Food Price Index (FFPI) reached an all-time high in March 2022, averaging 159.7 points in nominal terms and 34 percent up from a year before. The FFPI dropped slightly in April and May 2022, however, it remained very high relative to historical levels. In May, the FFPI average 157.4 points, down 0.9 percent from April, but still 22.8 percent higher than its value in the month of May 2021. The drop in the FFPI in May was led by declines in the vegetable oil and dairy price indices, while the sugar price index fell to a lesser extent. Meanwhile, cereal and meat price indices increased.

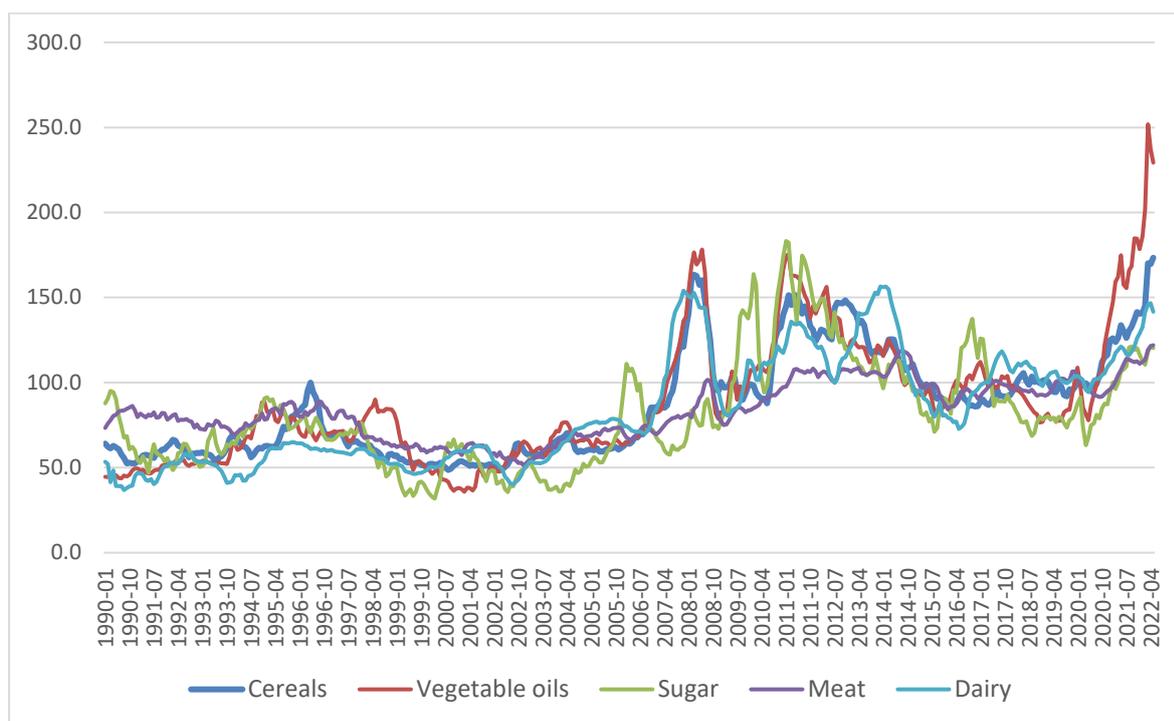
¹ <https://www.imf.org/en/Publications/WEO>

6. The increase in prices is broad-based, affecting almost all food categories. Between the periods January-May 2020 and January-May 2022, the FFPI surged by 56.4 percent, with the vegetable oil price index registering the steepest increase (+145.5 percent), followed by those of cereals (+61.1 percent), sugar (+51.8 percent), dairy products (+42.1 percent) and to a lesser extent meat (+18.6 percent).

Figure 1: FAO Food Price Index, January 1990 to May 2022 (2014-16=100)



Figure 2: FAO food commodity price indices in nominal terms (2014-16=100)



7. The current surge in agricultural commodity prices is part of a rampant global inflation that has underpinned all sectors of the economy. The International Monetary Fund (IMF) projects that in 2022 global inflation will reach 7.4 percent, up from 3.2 percent in 2020. General inflation is projected at 5.7 percent for the advanced economies and 8.7 percent for the emerging markets and developing economies.

8. Soaring food prices are also the main driver behind the record high level of food import bills globally, and in particular for developing countries. Estimations indicate that developing regions saw an increase of nearly 25 percent of their food import bills in 2021, compared to 2020.

9. The drivers of changes in international food prices are complex, as in addition to own market fundamentals, they can reflect other factors or parameters exogenous to food markets. In fact, a host of factors has contributed to the increase in world food commodity prices since mid-2020.

10. Agricultural markets are highly influenced by weather. Unfavourable weather conditions in a number of countries over the last two years have been an important factor behind higher food prices. For example, the El Niño-Southern Oscillation (ENSO) is currently in the La Niña phase, causing above-average precipitation in several parts of the world, such as Southeast Asia. At the same time, it brings insufficient precipitation to southern hemisphere countries, affecting the production of coarse grains, oilseeds and sugar.

11. High energy prices affect the prices of all food commodities covered by the FFPI by raising production costs and the prices of inputs, such as fertilizers and animal feed. They also raise demand for biofuel, leading to more sugar and vegetable oils being used for the production of biofuels. Crude oil and energy prices have increased significantly since mid-2020, reflecting growing demand for the rapidly recovering global economy as well as supply problems.

12. World prices of fertilizers have also surged, in particular since the beginning of 2021. The most notable increases have been registered for nitrogen (N) fertilizers, with prices of urea having risen almost fourfold over the past two years. Phosphorous fertilizers (P) prices have risen in tandem, while prices for potassic (K) fertilizers were less affected until the beginning of 2022 and surged since then. The developments in fertilizer markets are presented in document CCP 22/INF/7.

13. Another important factor the cost of transportation. Challenges due to a lack of availability of containers and extended waiting time at ports because of the pandemic resulted in significant increases in transportation costs. The cost of bulk transportation, as measured by the Baltic Dry Index (BDI), increased more than ten-fold between May 2020 and October 2021, reaching a 13-year high. While the index has normalized since then, and prices returned close to their levels at the beginning of 2021, ocean freight costs remained at historically elevated levels.

14. The factors affecting the supply side were faced with a strong global demand. While in the first half of 2020, the various containment measures adopted by governments to limit the spread of COVID-19 resulted in a contraction in aggregate demand for goods and services, including for food commodities, demand resumed its growth since mid-2020. This has exerted an upward pressure on the prices of the various food commodities. It is noted that import demand for basic foods has increased significantly in particular by the emerging economies.

III. MARKET DEVELOPMENTS IN BASIC FOOD COMMODITIES

A. Cereals

15. FAO Cereal Price Index averaged 173.4 points in May 2022, reaching a new all-time high and 29.7 percent above its previous year's value. Tighter supplies and market uncertainty, as well as rising energy and input prices, will likely keep world cereal prices elevated, at least through the first half of the 2022/23 season.

16. In 2020, world cereal production increased to 2 776.9 million tonnes, with greater outputs year-on-year for all major cereals. Total utilization of cereals also expanded in 2020/21, reaching 2 760.7 million tonnes, mostly stemming from an increased use for animal feed, especially of coarse grains, followed by a greater use for food consumption. Global cereal closing stocks recovered in 2020/21 from their three-year low reached in 2019/20, to 833.2 million tonnes, largely on higher rice stocks, which outweighed a decline in coarse grain stocks. World trade in cereals expanded in 2020/21 to reach a new record level of 479.3 million tonnes.

17. FAO's latest estimates indicate a 0.9-percent year-on-year increase in global cereal production in 2021 to nearly 2 801 million tonnes, largely attributed to a higher maize output. Cereal utilization is also estimated to increase in 2021/22, by 1.1 percent, driven by (in order of magnitude) expansions in food consumption (especially of wheat and rice), other uses (largely of maize), and feed use (mostly of maize). Based on world cereal production and utilization estimates, cereal stocks at the end of seasons in 2022 are seen rising above their opening levels, but remaining below the record levels reached in 2018/19. Global trade in cereals in 2021/22 is estimated below the 2020/21 record level, mostly due to an expected drop in maize trade and the impact of disruptions caused by the war in Ukraine.

18. Early prospects for cereal production in 2022 point to a likely decrease of 16 million tonnes from the 2021 record output, down to 2 784.5 million tonnes (including rice in milled equivalent). This would mark the first decline in four years. Among the major cereals, the largest decline is foreseen for maize, followed by wheat and rice. By contrast, global outputs of barley and sorghum will likely increase in 2022. World cereal utilization is also forecast to decline marginally in 2022/23 from the 2021/22 level, to 2 788 million tonnes. The predicted contraction, the first in 20 years, would mainly stem from foreseen declines in the feed use of wheat, coarse grains and rice, along with a smaller decrease in industrial uses, mainly of wheat and rice. By contrast, global food consumption of cereals is expected to increase, keeping pace with the rise in world population.

19. Global cereal stocks at the end of the 2022/23 season could register a slight contraction from their opening levels, to 846.6 million tonnes. At current levels of utilization and stock forecasts, the world cereal stocks-to-use ratio would drop from 30.5 percent in 2021/22 to 29.6 percent in 2022/23, the lowest level since 2013/14. World trade in cereals is expected to fall to a three-year low estimated at 463 million tonnes, 2.6 percent below the 2021/22 level. The decline reflects a likely contraction in the global trade of coarse grains and wheat, while prospects for rice remain positive.

B. Oilseeds

20. Following the upward trend observed in 2020/21 (October/ September), international prices of oilseeds and derived products continued to rise into the 2021/22 season, reaching all-time highs in early 2022, largely due to a tightening supply outlook. In May 2022, FAO's price indices for oilseeds, oilmeals and vegetable oils all stood at near record levels and were markedly above their respective values in 2021.

21. Following a marked contraction in 2019/20, global oilseed production recovered in 2020/21 to 616.4 million tonnes, sustained by an increase in global soybean and rapeseed outputs that more than offset a reduction in world sunflower seed production. Global production of oilmeals and vegetable oils also rebounded accordingly. In the meantime, world utilization of protein meals continued to rise, exceeding 160 million tonnes in 2020/21. Global vegetable oil consumption also expanded marginally in 2020/21 to 245.3 million tonnes, largely driven by rising demand from developing countries in Asia, despite successive lockdown measures in a number of nations to contain the spread of COVID-19. With global utilization outpacing production, the closing stocks for both oilmeals and vegetable oils declined in 2020/21, compared to their opening levels.

22. Entering the 2021/22 season, FAO's forecasts pointed towards a tightening market outlook for oilseeds and derived products, broadly underpinned by production shortfalls coinciding with a rather resilient demand, while the war in Ukraine and restrictive export policy measures are bringing more

uncertainties. Global production of oilseeds is forecast to contract from last season's level to 604.2 million tonnes, due to reduced soybean and rapeseed outputs because of unfavourable weather. While global oilmeal production is predicted to drop to 154.9 million tonnes, world vegetable oil production is expected to increase marginally to 242.9 million tonnes, thanks to recovering palm oil production. While total uses of vegetable oils and oilmeals are expected to stagnate and their international trade transactions are anticipated to decline in response to rising prices, global stocks-to-use ratios for both products are forecast to fall further in 2021/22.

C. Meat

23. Following nearly uninterrupted increases since October 2020, international meat prices reached an all-time high in May 2022, with the index up 13.6 percent above its May 2021 value. Tight export supplies from leading exporting countries and robust import demand, especially from Asia and the Middle East, were the main drivers behind this price increase.

24. Following a sharp dip in global meat output in 2019, precipitated by the dramatic spread of the African swine fever (ASF) in a number of Asian countries, global meat output recovered in 2020 and 2021, reflecting a sharp production rebound concentrated in the pig meat sector. World total meat production in 2021 stood at 355.5 million tonnes (carcass weight equivalent), up 4.5 percent from 2020. Meanwhile, world trade in meat and meat products continued to expand in 2020 and 2021, albeit at a slow pace. Global meat trade in 2021 is estimated at 42.1 million tonnes, led by trade in poultry meat at 15.8 million tonnes.

25. For 2022, world meat production is forecast to expand by 1.4 percent and reach 360.5 million tonnes, despite a challenging production environment characterized by rising input costs, conflicts and widespread animal diseases. World trade in meat and meat products is forecast to expand by only 0.5 percent and reach 42.3 million tonnes in 2022, reflecting limited meat export availabilities from leading exporting countries and a likely contraction in import demand. Trade volumes of bovine and poultry meat are anticipated to expand, while that of pig meat could decline.

D. Dairy products

26. International dairy product prices have been trending upward since mid-2020, except for three months from June to August in 2021, as global import demand exceeded exportable supplies from leading exporting countries. Reflecting this trend, the FAO Dairy Price Index reached an eight-year high in April 2022, but fell moderately in May, underpinned by a decline in global buying interests.

27. Sustained by rising dairy herd numbers and generally favourable weather conditions, along with productivity gains in some regions, global milk production continued to expand to reach nearly 928 million tonnes in 2021. However, production growth slowed down in recent years, caused by increasingly precarious weather conditions, including extreme weather events, which impaired the sector in key producing regions, especially Europe and Oceania. Global trade in dairy products grew over the last two years to reach 88.1 million tonnes (in milk equivalent) in 2021, sustained by large imports by Asian countries, driven by rising consumer demand for dairy products. Nevertheless, in 2020 and 2021, milk production and trade remained under considerable strain due to COVID-19-related market disturbances, especially in Europe and Oceania, weather-induced production challenges and soaring input costs.

28. World milk production in 2022 is forecast to increase by 1 percent to 937.3 million tonnes. Production growth is expected to be constrained by falling dairy herd numbers, squeezed profit margins and labour shortages in several major producing regions. World trade in dairy products is predicted to contract marginally from the 2021 level to 87.8 million tonnes (in milk equivalent).

E. Sugar

29. International sugar prices have generally decreased since October 2021, although they have remained at relatively elevated levels. Price declines were mainly triggered by favourable production prospects in major exporting countries, notably India and Thailand. In the last part of 2021, concerns over the impact of COVID-19 on the demand for sugar weighed on prices, following the resumption of containment measures in many countries. Since February 2022, world sugar prices exhibited an overall upward trend. In May 2022, the Sugar Price Index dropped slightly from April, but remained 12.6 percent above its level a year ago. Rising crude oil prices also supported world sugar prices.

30. World sugar production declined for the third consecutive season in 2020/21 to 169.5 million tonnes, falling short of global consumption. Unfavourable weather conditions were behind lower outputs in major sugar producers. On the demand side, world sugar consumption bounced back to over 170 million tonnes after a sharp contraction in 2019/20, due to the negative impact of the COVID-19 lockdown and confinement measures on sugar intake. Because of reduced exportable availabilities, world sugar trade contracted slightly in 2020/21, after a slight increase in 2019/20.

31. In 2021/22, world production of sugar is anticipated to expand to 174.6 million tonnes and surpass global consumption, forecast at 172.8 million tonnes. Although world sugar consumption is set to recover for the second successive season in 2021/22, its growth is expected to be relatively slow, mainly due to the slowdown in economic growth. World sugar trade, forecast at 59 million tonnes, is anticipated to contract for the second consecutive season in 2021/22. On the import side, high import costs, coupled with a slowdown in consumption, could negatively affect global import demand.

IV. FOOD COMMODITY MARKETS AND THE COVID-19 PANDEMIC

32. Immediately following the outbreak of the COVID-19 pandemic, in March/April 2020, most countries implemented various forms of containment measures causing serious supply and demand disruptions to agrifood markets.

33. This was reflected in the patterns of agrifood trade in the first half of 2020. By the beginning of April 2020, significant impacts were observed; however, these were only short-lived and trade normalized to almost pre-pandemic levels in June 2020, as governments started to ease the restrictions, and economic activity resumed, though slowly.

34. As a consequence of previous food crises, agrifood trade activity had already slowed considerably in the past decade or so to grow on a flatter annual trajectory compared to the pre-2011 years. The pandemic, contrary to early predictions, did not result in a significant change to this trajectory.²

35. The disruptions affected the trade of some products more than others. Basic foods, such as cereals and cereal preparations and vegetable oils, were only marginally affected, while trade in non-food products such as cotton, live plants and cut flowers, and tobacco declined sharply in April and May 2020. Trade disruptions also affected trade in fish, beverages and live animals.

36. A number of reasons could explain the observed resilience of international agrifood markets and trade to COVID-19-related shocks.

37. One important factor is that global food supplies were ample and production prospects were positive, compared, for instance, to the 2007-08 situation. Both production and stocks of the major food commodities were much higher than during the 2008 global food price crisis. Also, the world stock-to-use ratio for most commodities was high from a historical perspective.

² <https://www.fao.org/3/cb7491en/cb7491en.pdf>

38. Furthermore, the general reasons point to low-income elasticities of demand (i.e. import demand less susceptible to income changes) for food and agricultural products, at least at global level. While, in fact, numerous countries experienced contractions in trade, world import demand for food commodities remained strong. Also, transport systems and supply chains proved more resilient than earlier assumed, reflecting the dominance of bulk shipments for non-perishable food commodities. These factors have contributed to the resilience of agrifood markets and trade.

39. Also during the COVID-19 pandemic it was observed that leading agricultural exporters in particular experienced a sharp depreciation of their currencies, thereby supporting their exports through improved competitiveness. By contrast, some of the most prominent importers saw their exchange rates appreciate, sustaining the pace of their purchases on world markets.

40. Another important contributing factor to the resilience of trade was the effort made by governments worldwide to keep trade flowing and supply chains functioning properly. While at the beginning of the pandemic some countries imposed export restrictions, markets remained calm and export bans and quotas were quickly repealed. Furthermore, many countries adopted measures to facilitate food trade, including through a greater use of digital technologies such as e-certificates and relaxing of technical and labelling requirements.

41. An additional key element was the availability of up-to-date data and information on market conditions. For instance, the G20 Agricultural Market Information System (AMIS) played a key important role in enhancing market transparency and policy dialogue among the major players in food markets. In their 2020 and 2021 communiqués, the G20 Agriculture Ministers acknowledged the important contributions made by AMIS during the COVID-19 pandemic.³

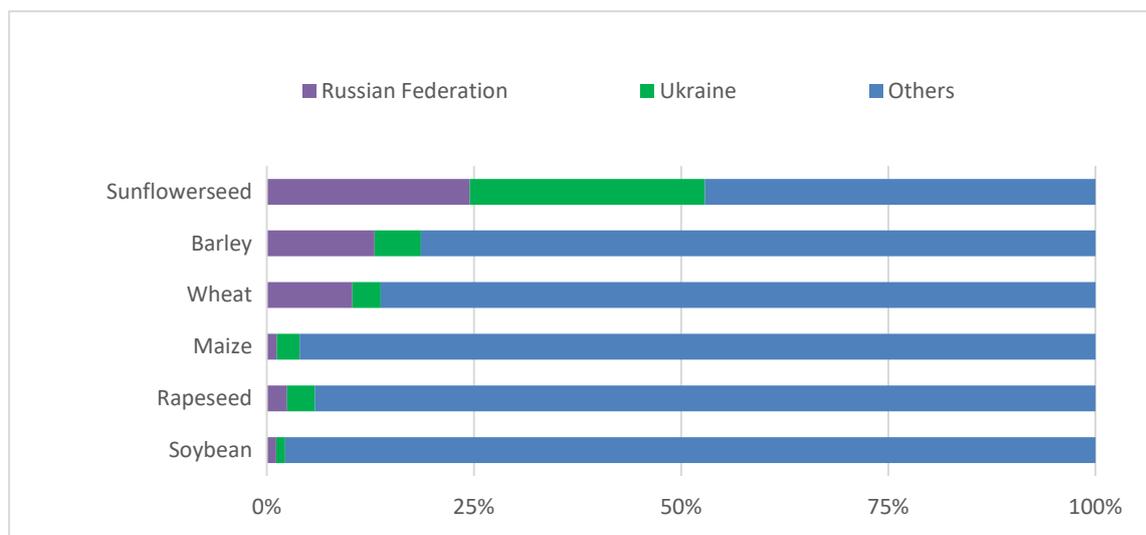
42. Finally, the fiscal policy responses adopted by many countries across the globe to limit the impact of the pandemic supported demand for food commodities, in particular in large economies.

V. FOOD COMMODITY MARKETS AND THE WAR IN UKRAINE

43. The Russian Federation and Ukraine are major producers of agricultural commodities in the world. Both countries are net exporters of agricultural products and play leading supply roles in global markets of foodstuffs and fertilizers, where exportable supplies are often highly concentrated.

44. In the cereals sector, for instance, the Russian Federation and Ukraine together accounted for an average of 19, 14 and 4 percent, respectively, of global output of barley, wheat and maize between 2016/17 and 2020/21. In the oilseed complex, their contribution to global production was particularly important for sunflower oil, with over half of world output originating in the two countries during the same period. Their average shares in global rapeseed and soybean production are comparatively more limited, standing at 6 and 2 percent, respectively (Figure 3).

³ <https://reliefweb.int/report/world/g20-extraordinary-agriculture-ministers-meeting-ministerial-statement-covid-19-virtual>

Figure 3: Share in global production of selected crops (2016/17 – 2020/21 average)

45. Their critical role is all the more evident from a trade perspective. They are key suppliers to many countries that are highly dependent on imported foodstuffs and fertilizers, including many Least Developed Countries (LDCs) and Low-Income Food-Deficit Countries (LIFDCs).

46. The Russian Federation was the top global wheat exporter in 2021 accounting for 18 percent of global exports, while Ukraine was the sixth largest wheat exporter in 2021, with a 10-percent market share. It is noteworthy that more than 30 net wheat importing countries depend on the Russian Federation and Ukraine for over 30 percent of their annual wheat import needs.

47. The prominence of the two countries in the world trade arena is similarly noteworthy in the world markets of maize, barley and rapeseed, and even more so in the sunflower oil sector, where their substantial production bases of sunflower seed endowed them with a combined world export market share of nearly 72 percent in 2021.

48. The Russian Federation also plays a leading supplier role in the fertilizers sector. In 2021, it ranked as the top exporter of nitrogen (N) fertilizers, the second leading supplier of potassic (K) fertilizers and the third largest exporter of phosphorous (P) fertilizers. A more detailed analysis of the significance of the Russian Federation for fertilizer markets can be found in document CCP 22/INF/7.

49. Considering the above, it is clear that the war poses a number of risks to food and agricultural markets and trade.

A. Trade and logistical risks

50. Prior to the war, based on FAO's forecasts, for the 2021/22 marketing year (July/June), Ukraine was expected to export about 6 million tonnes of wheat between March and June 2022, while the Russian Federation was anticipated to ship another 8 million tonnes during this same period. For maize, Ukraine and the Russian Federation were expected to export approximately 14 and 2.5 million tonnes, respectively, in the remainder of the 2021/22 season. However, the war called into question the realization of the export figures.

51. When the war broke in late February, Ukraine and the Russian Federation were in the middle of the 2021/22 marketing season. As such, it had immediate impacts on the countries' capacities to execute existing export contracts and enter into new ones for crops already off the ground. This has been particularly the case in Ukraine, where the war caused the cessation of all commercial shipping

operations, the temporary suspension of activities by private grain and crushing operators, damages to inland transport, storage and processing facilities and the introduction of licensing requirements or outright bans on exports of some commodities. From an export perspective, the loss of Ukraine's maritime shipping capacity, which handles nearly 90 percent of offshore sales, has been particularly harmful. Efforts to boost food exports using alternatives, such as rail and road transport, are ongoing, but the capacity is constrained by infrastructural damages, as well as limited railway car availability and incompatible rail gauges at borders with neighbouring countries.

52. For the Russian Federation, reports suggest that food exports continued, nonetheless concerns that constrained access to financial services needed to complete international transactions could limit exports. Furthermore, while Russian Black Sea ports continue to function, there are apprehensions about increases in insurance premiums for vessels destined to berth in the Black Sea, compounding further the effects on the final costs of internationally sourced food paid by importers.

B. Price risks

53. As discussed earlier in this document and relayed by the FFPI, international prices of food commodities were already high before the war broke out, due to a host of reasons. The war has compounded the pressure on prices, jolting export quotations of grains and vegetable oils to new peaks in March 2022, as concerns about reductions in Ukrainian and Russian exports arose at a time of tight supplies of grains (mostly wheat) in other major origins and of substitute vegetable oils, such as soy and palm oil. The prospect of high and protracted food prices also triggered the imposition of export restrictions on food products by numerous countries, further exacerbating the situation. Although world prices of some commodities fell in April and May, world food prices remain generally elevated.

54. FAO's preliminary simulations gauging the potential impacts of a sudden and steep reduction in grain and sunflower seed exports by Ukraine and the Russian Federation suggest that the shortfalls in exports might only be partially compensated by alternative sources in the 2022/23 marketing year. Also, the capacity of many exporting countries to boost output and shipments may be limited by high production and input costs. The resulting global supply gap could raise world food and feed prices by between 8 and 22 percent above the already elevated baseline levels. If the war keeps crude oil prices high and continues to limit exports by the two countries beyond the 2022/23 season, the pressure on world prices could strengthen.

C. Production risks

55. Production prospects for 2022/23 winter crops are uncertain in both Ukraine and the Russian Federation. In the western part of Ukraine, where fighting has subdued, farmers resumed activities on accessible areas and sowed spring crops like maize, barley and sunflower seeds, even though war remnants hindered agricultural activities. Disruptions to essential public services, localized shortages of inputs due to supply chain bottlenecks and damages to infrastructure have also negatively affected farming operations. It is estimated that the areas where major spring crops are sown have declined by about 20 percent across the territory controlled by Ukraine.

56. The winter wheat harvest will start in early July in Ukraine. Because of the war, between 20 and 30 percent of the areas where winter crops are sown are likely to remain unharvested during the 2022/23 season. The availability of fuel will determine how much of the areas can be harvested.

57. In the Russian Federation, while no major disruption to crops in the ground are anticipated, uncertainties exist over the country's capacity to export although international sanctions exclude both food and fertilizers. Any loss of export markets could depress farmer incomes, negatively affecting future planting decisions. Furthermore, Russian agriculture depends on imported seeds and pesticides, which casts uncertainties over production prospects and future availability of food crops, particularly for international markets.

D. Energy risks

58. The Russian Federation is a key player in the global energy market. The sharp increase in energy prices that has accompanied the war will affect agriculture, which requires a large amount of energy, both directly, through the use of fuel, gas and electricity, and indirectly, through the use of agri-chemicals such as fertilizers, pesticides and lubricants.

59. With prices of fertilizers and other energy-intensive inputs rising because of the war, overall production costs will rise, leading eventually to higher food prices. They could also lead to a lower use of inputs, and thus lower yields and harvests in 2022/23 and beyond, risking further price hikes and threatening global food security in the coming years.

60. The sharp increase in energy prices that has accompanied the war can also impact agriculture through price linkages on the output side. Higher energy prices make agricultural feedstocks, namely maize, sugar and oilseeds/vegetable oils, more attractive for producing biofuels. Given the large size of the energy market relative to food, this could push food prices up to their energy parity equivalents.