f

Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 28-Jul-2023 | Report No: PIDA35885

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Ukraine	P180732	Ukraine Agriculture Recovery Inclusive Support Emergency (ARISE) Project	
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
EUROPE AND CENTRAL ASIA	04-Aug-2023	29-Sep-2023	Agriculture and Food
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Ukraine	Ministry of Agrarian Policy and Food, Business Development Fund	

Proposed Development Objective(s)

The Project Development Objective is to maintain inclusive agricultural production and provide immediate and effective response to an eligible crisis or emergency.

Components

1. Supporting access to finance to farms through affordable credit
2. Improving access to finance to small-sized farms through grants
3. Project management
4. Contingent Emergency Response Component

The processing of this project is applying the policy requirements exceptions for situations of urgent need of assistance or capacity constraints that are outlined in OP 10.00, paragraph 12.
Yes

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	700.00
Total Financing	550.00
of which IBRD/IDA	230.00
Financing Gap	150.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	230.00

Non-World Bank Group Financing

Trust Funds	320.00
Trust Funds	320.00

Environmental and Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **The proposed project (Project) supports the Government of Ukraine (GoU) on maintaining agricultural production**. The Project addresses two challenges faced by Ukraine's agriculture since Russia's invasion of Ukraine - how to support uninterrupted food crop plantings and harvestings over the next two years and how to make agricultural recovery inclusive by providing more opportunities for smaller farms. Resolving these challenges will determine not only the future of agriculture and food security in Ukraine, but also substantially impact the future outlook for global food and nutrition security (FNS) over the near future. The Project considers the Fragility, Conflict, and Violence (FCV) country experiences but notes that unlike in some other countries at war, the GoU continues to play a crucial role in making policy choices in providing services to farmers. The Project builds on the discussions of the Global Alliance for Food Security jointly convened by the G7 and the World Bank (Bank) as a coordinated and solidarity response to the global FNS challenges ahead and is underpinned by the World Bank Group (WBG)'s Framework Paper "Navigating Multiple Crises, Staying the Course on Long-Term Development: the WBG Response to the Crises Affecting Developing Countries" (June 20, 2022).

2. **The Project is designed as a US$700 million "framework project" that will use an Investment Project Financing (IPF) instrument under the policy framework provided by the Operations Policy (OP)/BP 10.0 IPF and OP/BP 8.0 Rapid Response to Crises and Emergencies**. The Project has been designed and appraised for the full US$700 million, including the results that match this envelope. The design outlines Project activities that will be implemented with an initial funding of US$230 million IBRD loan (credit enhanced by Japan, through the new Credit Enhancement Trust Fund) and US$320 million grant from the Ukraine Relief, Recovery, Reconstruction, and Reform Trust Fund (URTF), with additional resource mobilization of US$150 million expected to be filled as subsequent Bank and donor funding materializes.

A. Country Context

3. **Russia's invasion of Ukraine has had substantial economic, human, and poverty consequences**.[1] It has significantly disrupted economic activities in a number of ways: damage to productive assets and infrastructure, logistics problems, labor force losses, decimated supply and demand chains, increased uncertainty, and elevated risks. The contraction in gross domestic product (GDP) in 2022 was 29.2 percent year-on-year. The GDP growth for 2023 is projected at 0.5 percent. The downside risks are high, related to the unpredictability of Russia's invasion and high potential for further large-scale damage of infrastructure and negative social and poverty impacts. Based on the global poverty line of US$6.85 per day, poverty was estimated to increase from 5.5 percent in 2021 to 25 percent in 2022 with income below US$6.5 per day.[2] Headline inflation reached 26.6 percent in 2022, with high food price inflation hurting the poor in particular. The National Bank of Ukraine (NBU) intervened in the currency market to establish an exchange rate peg and mopped up domestic liquidity to control demand, preventing further inflation growth. Yet, despite Russia's invasion, the GoU has continued to deliver key public services and the financial sector is functioning normally, stabilizing the foreign exchange market. However, the intense attacks to energy infrastructure since mid-September 2022 are challenging the ability of the GoU to keep providing energy and water supply in many regions, putting millions of lives at risk, and substantially hindering economic activities in most of the country. Russia's invasion has also exacerbated vulnerabilities and heightened economic, social, and health risks for the people of Ukraine, especially women and girls. As of January 3, 2023, 17,994 civilian casualties were recorded. The invasion of Ukraine has also triggered the largest human displacement crisis in the world at present: since the outset of invasion, approximately 5.4 million people have been displaced within Ukraine and over 8.1 million have moved to neighboring countries.[3] Of those displaced within Ukraine, 55 percent are women and girls, and among those, 22 percent are women aged 60 and older.[4]

4. **Public revenues are under immense stress, while invasion-time expenditures are growing**. The consolidated budget deficit, excluding grants, amounted to 26.5 percent of GDP in 2022. Tax revenue declined by 8 percent in nominal terms (30 percent in real terms) as indirect taxes suffered contractions. Since February 2022, the GoU has decided to reduce tax burden on the population (both individuals and businesses) during a time of crisis, resulting in a sharp decline in tax revenues. In addition, overall invasion-related declines in economic activity (including due to out-migration) and the inability to collect taxes in conflict areas also contribute to constrained tax revenues. Expenditure grew by 65 percent, with the invasion-related spending and essential public and social services prioritized. By contrast, capital expenditure declined by 37 percent. The deficit was financed through international assistance and monetization by NBU.

5. **Fiscal deficit (excluding grants) is expected to grow to US$42 billion in 2023 (from US$40 billion in 2022)**. Amortization payments for Ukraine's existing debt also add to financing needs, mostly for domestic debt, as commercial debt and official external public and publicly guaranteed debt are subject to a two-year moratorium (agreed to after the invasion). With the help of the international community, Ukraine has been able to maintain macroeconomic stability and to deliver key social services. The Bank has been in the forefront of supporting the GoU's ability to pay pensions, healthcare, and essential administrative expenditures, including through the Public Expenditures for Administrative Capacity Endurance in Ukraine (PEACE) Project (P178946) that has

[1] All statistics in this and subsequent sections are estimated by the Bank staff based on official statistics of Ukraine's authorities.
[2] In 2017 purchasing power parity.
[3] https://data.unhcr.org/situations/ukraine.
[4] IOM, Ukraine Internal Displacement Report, Round 12, January 23, 2023, https://reliefweb.int/report/ukraine/iom-ukraine-internal-displacement-report-general-population-survey-round-12-23-january-2023-enuk

mobilized US$19.2 billion as of June 29, 2023.[5]

6. **The funding needs for recovery and reconstruction are gigantic**. Just taking into account the damages and losses till February 2023, funding needs for the country were estimated at US$411 billion, which is about two times Ukraine's 2021 GDP.[6] About one-third of this amount was estimated to be needed in the immediate- and short-term to address the most urgent needs, including social infrastructure (such as schools and hospitals), restoration of heating and energy to homes, urgent repairs, gas purchases, support to agriculture and social protection, and restoration of vital transport routes. Ukraine's reconstruction will require a close coordination with the process of the EU accession.[7]

7. **Recovery and reconstruction investments will need to lay the groundwork for Ukraine to restore services to population and economic activity, as well as consolidate its development path towards a lower-carbon, climate resilient, and inclusive country that is more closely aligned with European standards**. Before Russia's invasion, Ukraine had made impressive commitments on mitigation measures to addressing climate change. It ratified the Paris Agreement in 2016 and submitted an ambitious updated National Determined Contribution (NDC2) in July 2021 with the target of an economy wide net greenhouse gas (GHG) emission reduction of 65 percent by 2030 compared to the 1990 level. The country also committed to reaching carbon neutrality by 2060. In January 2020, the GoU published a draft concept of Ukraine's Green Energy Transition until 2050, which aimed at increasing renewable energy share in the national energy balance up to 70 percent by 2050. The country has recently confirmed these commitments despite Russia's invasion. Beyond mitigation, reconstruction investments will also need to consider Ukraine's vulnerability to the impact of climate change. This includes vulnerability to wildfire, droughts, high temperatures, heatwaves, heavy precipitation, mudslides, and floods. The ongoing Russia's invasion significantly exacerbates the climate risks in the country and weakens the capacity to manage climate-related vulnerabilities, including in agriculture sector.

B. Sectoral and Institutional Context

8. **The agrifood sector has been a crucial backbone of Ukrainian's economy and society**. In 2021, the agriculture sector accounted for 10 percent of GDP and together with input supply, food processing, and trade, the agrifood sector generated 20 percent of GDP. Agriculture alone employed 22 percent of the labor force. Over the last 15 years, Ukraine has established itself as one of the world's top exporters of wheat, corn, barley, maize, and sunflower products. In 2021, Ukraine's value of export of agrifood products reached US$28 billion, accounting for 41 percent of total export. Grain crops accounted for 35 percent of the total volume in Ukraine's export, and this number has been steadily increasing every year.[8] In 2021, Ukraine represented the world's fifth largest wheat exporter, exporting 20 million tons of wheat and meslin with a 10 percent global market share. For corn and barley, the country accounted for about 15 percent of global trade, primarily exporting to European Union (EU), China and the Middle East.[9] For maize, the Food and Agriculture Organization of the United Nations (FAO) estimated that Ukraine's expected exports between 2021 and 2022 would represent up to 18 percent of global maize trade, thereby theoretically being the third largest exporter worldwide had it not been for Russia's invasion of Ukraine. On top of this, Ukraine was providing up to 46 percent of global sunflower seed and

[5] htpps://www.worldbank.org/en/Ukraine/brief/world-bank-emegency-financing-package-for-ukraine.
[6] GoU, Bank, EU, and UN. 2023. *Ukraine: Second Rapid Damage and Needs Assessment: February 2022-February 2023.* March 2023.
[7] EconPol. 2023. *How to Reconstruct Ukraine? Challenges, Plans, and Role of the EU*. Volume 2, March 2023, CesIfo Institute, Munich.
[8] State Statistics Service of Ukraine. 2020. *2019 Agriculture of Ukraine*. Kyiv.
[9] USDA. 2022. *The Ukraine Conflict and Other Factors Contributing to High Commodity Prices and Food Insecurity*. Washington DC.

sunflower oil production, making it the largest exporter of sunflower oil in the world.

9. **Ukraine's agriculture is affected by climate change**. Between 2000 and 2020, growth volatility for Ukraine's agriculture was 35 percent, compared to 21 percent in Poland and 14 percent in the EU.[10] Both climatic means and weather extremes are significant factors explaining agricultural output variance in Ukraine, with weather extremes accounting for 36 percent of variance countrywide and 40 percent in the northwest.[11] Such variance will increase further with climate change, even though climate change may bring some longer-term advantages to Ukraine's agriculture. Warming temperature and changing precipitation patterns is expected to help increase yields of key crops in Ukraine (e.g., wheat) and increase the area that can cultivate crops suitable for warmer climates (e.g., soyabeans and corn), while reducing the risk of freezing of winter crops. These improvements can be large – yield increases of 50 percent are projected for some crops by 2050.[12] At the same time, climate change will have negative impacts on yields of some crops in some locations – for example, corn and sunflower in the south. Climate change impacts in Ukraine are forecasted to also result in increases in the number and area of pests and diseases impacting crops, prolonged heatwaves affecting commodities in fields and storage, and increase irrigation requirements in many locations leading to higher production costs. Higher temperatures and heat stress will reduce feed intake by livestock and increase their mortality, while decreasing forage quality due to more frequent invasions of pests and diseases. During Russia's invasion, additional climate change vulnerabilities in the agriculture and food sector include the risk of high food damages, waste, and losses, contributing to extra GHG emissions required to replace these losses with new agricultural production.

10. **Prior to Russia's invasion of Ukraine, agriculture accounted for 13 percent of Ukraine's GHG emissions**. Compared to 1990s, when agriculture accounted for 10 percent of the overall GHG emissions, the share of agriculture slightly increased over time.[13] Yet, this increase was moderate compared to agricultural growth, pointing to a relative decoupling of emissions from the recent agricultural growth. Between 2000 and 2021, for example, the arable land area hardly changed, while the agricultural productivity increased by 24 percent, helping to reduce the emission elasticity of agricultural growth. Although the majority of GHG reduction is expected from the energy sector and Ukraine's NDC2 in regard to agriculture focuses on adaptation, supporting climate-smart agriculture technologies and practices to contribute to the climate mitigation is still highly needed to increase the sector's resiliency, while also helping the country achieve its commitments under Paris Agreement and align with the EU Green Deal as part of the EU accession. Russia's invasion, however, has made it difficult to focus on climate mitigation and even adaptation, shifting attention to survival of Ukraine's farms, maintenance of agricultural production, and feeding the world. Reconstruction and recovery of Ukraine after the end of invasion will, however, follow "rebuilding back better" approach that takes a development path towards a more low-carbon, resilient, and inclusive country that is aligned with EU standards.

11. **Ukraine's agriculture has been severely impacted by Russia's invasion, requiring a significant support**. The cost on the agriculture sector from the start of Russia's invasion until February 2023 was estimated at US$40.2 billion.[14] Of this, the damages for the sector amounted to US$8.7 billion, while the losses incurred from lower production, lower farmgate prices, and higher production costs were US$31.5 billion. This excludes decontamination of landmines and unexploded ordinances on agricultural land, as well damages of irrigation, agrilogistics, and food processing. As Russia's invasion continues, the cost increases each month, negatively

[10] The Bank estimates using the data from the World Development Indicators.
[11] Schiehorn, F. et al. 2021. *Machine Learning Reveals Complex Effects of Climatic Means and Weather Extremes on Wheat Yields during Different Plant Development Stages*. Climate Change 169, 39. www.doi.org/10.1007/s10584-021-03272-0
[12] The Bank. 2021. *Building Climate Resilience in Agriculture and Forestry*. November 2021, Washington, DC.
[13] Ministry of Environment of Ukraine. 2021. *Analytical Review of the Updated NDC of Ukraine to the Paris Agreement*. July 2021.
[14] GoU, Bank, EU, and UN. 2023. *Ukraine: Second Rapid Damage and Needs Assessment: February 2022-February 2023*.

affecting FNS in Ukraine and worldwide.

12. **Ukraine's agriculture is hit by triple burden (as depicted in Figure 1), with the first negative effect being a decline in agricultural exports**. Ukraine's agriculture is export oriented, i.e., on average two-third of agricultural products are exported, while only one-third are consumed domestically. The blockade of the Black Sea during the first months of Russia's invasion required rerouting of agrifood exports to ground and river alternative routes to and through Poland, the Republic of Moldova, and Romania. At that time, the grain and oilseed exports were slightly above 1 million tons, reaching 2.7 million tons in July 2022. These new alternatives were not able to cover the pre-invasion monthly export volumes (Figure 1a). The blockade and loss of government control over Black Sea ports has cost Ukraine approximately US$3.0 billion in additional transport costs between February 24 - June 1, 2022.

13. **The Black Sea Grain Initiative (BSGI) helped increase export, but it was suspended by Russia in July 2023**. The initiative was launched by Türkiye, Ukraine, Russia, and the UN on August 22, 2022, to enable the resumption of export from Ukraine of grain and other foodstuff through a safe marine humanitarian corridor from key Ukrainian ports of Odesa in Black Sea to the rest of the world. BSGI helped export about 33 million tons of grains and oilseeds, accounting for 41 percent of total export since its launch. Although the Black Sea export has been challenged by high freight insurance cost, logistical challenges, and the exclusion of Mykolaiv ports from the initiative,[15] it helped Ukraine's agriculture and global FNS. In early November 2022, BSGI was extended by four months, and in March 2023 by another four months. In July 2023 the BSGI was suspended by Russia, creating a challenge for Ukraine's agrifood export.

14. **The routes, alternative to BSGI, also helped with exports, helping to sustain monthly shipments of about 2.5 million tons.** But they still face challenges, making them harder to fully address the export needs.[16] The routes through the Danube ports (22 percent), Poland (22 percent), and other Central European countries (14 percent) accounted for about 60 percent of the recent total agrifood export until July 2023. The alternative routes will not be able to replace the BSGI in full by accommodating the export volumes prevailed in 2022/23 marketing year (45 million tons for grains alone). But they can accommodate the reduced export volume, projected at 31 million for 2023/24 marketing year, especially if the EU provides additional support for transit of Ukrainian produce to the EU ports as currently discussed in Brussels.[17] Moreover, Ukraine's farmers planted more oilseeds in 2023, which the EU is more willing to import than grains, adding a cautious optimism on the export opportunities using the EU Solidarity Lanes. Yet, the recent bombings of Danube ports by Russia, following the BSGI suspension, adds more uncertainty. It seems that Ukraine's farmers will need to store grains for longer to wait for export opportunity. The current storage capacity in Ukraine is sufficient to address this challenge, given the anticipated decrease in the 2023 production and low stocks from 2022 production.

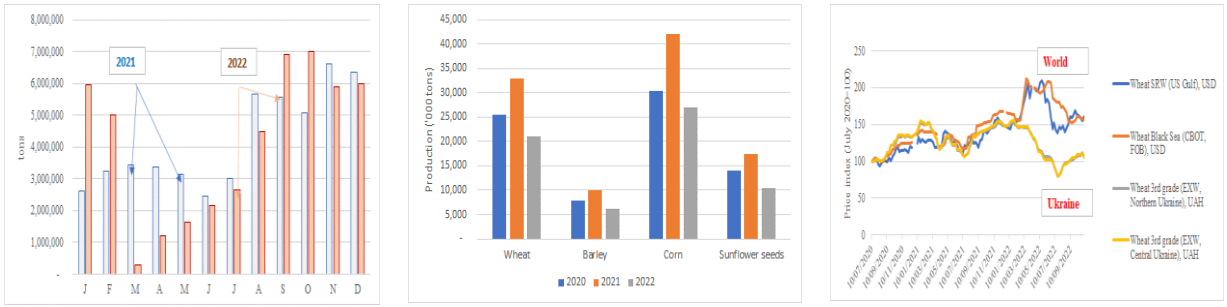
15. **The second negative effect is the lower agricultural production. Total grain and oilseed production in 2022 is estimated to be 70 million tons, which represents a 35 percent decline from 107 million tons produced in 2021** (Figure 1b). It means that the world will get 37 million tons less of Ukraine's grain and oilseeds in the 2022/23 marketing year. Wheat production declined by 41 percent. The production of sunflower seeds also decreased significantly, by 34 percent. While production of other oilseeds (e.g., rapeseeds and soybeans) increased slightly, the impact on most farmers' bottom line is small due to the low shares of these oilseeds in the overall crop planting area. Furthermore, in 2022 Ukraine produced 16 percent less of sugar beets, 11 percent

[15] In 2021/22, the ports of Mykolaiv handled more than 30 percent of Ukraine's agricultural export.
[16] The Bank. 2022. *Improving Dry Bulk Logistics in Ukraine and* the Bank. 2023. *Perspectives for Ukraine's Transport Network Development*. Papers for internal use only; and AMIS. 2023. Grain Market Situation amid Black Sea Trade Disruptions. July 27, 2023, Rome.
[17] Reuters. 2023. *EU looks to cover transport costs for Ukraine grain exports by land*. Published July 25, 2023.

less of meat, 12 percent less of milk, and 18 percent less of eggs, which added to food price inflation and food insecurity. The decline in agricultural production was a result of lower yields due to less intensive farming, lack of fertilizer, and the reduced area planted during Russia's invasion.

Figure 1: Triple burden of Ukraine's agriculture

a. Decline in agricultural exports **b. Decline in agricultural production** **c. Decline in farmgate prices**



Source: The Bank staff based on APK Inform and US Department of Agriculture.

16. **Ukraine's agriculture production is projected to decline further in 2023**. The planting areas for the 2022 winter and the 2023 spring crops declined by 17 percent compared to the last season. Farmers have grown less grains and more oilseeds. As farmers lacked cash to buy inputs for the 2022 winter wheat planting, the area under grains (wheat) declined by 28 percent (39 percent) and under corn by 18 percent. On the other hand, the planting area under sunflower seeds is projected to grow by 9 percent, as they offer a higher financial return and require less drying. The slightly higher average yields are projected to mitigate the planting area's reduction, so the production of grains and oilseeds in 2023 could reach 67 million tons, an equivalent of 7 percent reduction from the last year.

17. **The third negative effect are the lower farmgate prices**. Prior to Russia's invasion, Ukraine's grain farmgate prices followed the prices on international markets. Since February 2022, however, the grain prices in Ukraine and globally have diverged. While global wheat prices spiked in the weeks following Russia's invasion, the wheat farmgate prices in Ukraine fell (Figure 1c). In July 2022, the divergence between Ukrainian and global wheat prices reached 60 percent, with Ukrainian prices falling by 46 percent and global prices increasing by 15 percent since February 2022. Prices started to converge in August 2022 due to the Black Sea grain initiative, but a significant gap remained, at about 50 percent, with the current trend being downwards again. On average, Ukraine's farmgate prices for major grains and oilseeds fell by 45 percent in 2022. They will remain low in 2023 as the cost of logistics will increase following the BSGI suspension.

18. **Key inputs for major crops are largely available on the market, but their affordability and ability to buy on credit have both significantly decreased**. There are some localized deficits, but overall input suppliers continue selling seeds, fertilizers, and chemicals. Many input prices doubled or even tripled, pushing up the cost of crop planting, currently estimated at an average of UAH 30,000 per ha compared to UAH 15,000 per ha in 2021. Moreover, input suppliers increasingly sell inputs only when paid on spot, while in the past a lot of farm inputs was sold on credit. In fact, about half of the crop planting's needs in the past was covered by inputs bought on credit, including through crop receipts.[18] Furthermore, local production of some inputs has been temporarily replaced by imports. In 2021, the production of nitrogenous fertilizers, for example, exceeded import by 70

[18] The IFC's surveys of *Agriculture Finance* conducted in February 2023.

percent, while in 2022 the import exceeded local production threefold, adding to more costs and higher risks related to access and price stability for Ukraine's farmers. In addition, the cost of commercial borrowing has more than doubled, since the NBU policy rate was raised to 25 percent in mid-2022 (from 10 percent), which led to the hike in market rates to around 20 percent for UAH loans.

19. **Smaller farms face more risks and higher input costs than larger farms in Ukraine**.[19] They also have a poorer access to finance, due to the lack of collateral, and when they access credit, they pay higher interest rates. Smaller farms are less likely to adopt climate-smart technologies such as precision agriculture or no till.[20] During Russia's invasion of Ukraine, the situation for smaller farms has further worsened, despite the increased efforts of several development partners (e.g., FAO and USAID) to distribute inputs to these farms. The Bank's 2022 survey of 1,714 farms in Ukraine found that a share of small farms (with less than 500 ha) with negative cash flow almost doubled in 2022 compared to 2021, from 5.7 percent to 10.3 percent, especially in the east of the country where this share reached 12.4 percent.[21]

20. **Agricultural production is also affected by mines and pollution caused by the invasion**. The RDNA2 estimates the agricultural land area that requires demining and restoration to be 835 thousand ha as of February 2023.[22] This problem is especially severe in the areas of Kherson, Mykolaiv, Kharkiv, and Zaporizhya regions that are back under government control. Demining of these territories has already started, with most progress achieved in Mykolaiv region, where 15 percent of the planned area already demined. In Kherson region, 10 percent of the farmland is reported to be demined. Demining is implemented by the State Emergency Service, with the support of donors such as FAO and the World Food Program (WFP). Demining of agricultural fields is expected to accelerate in the upcoming months, enabling more and more farmers in the areas where government control was restored to return to their production activities.

21. **Without a scaled-up state support, Ukraine's agricultural production is projected to recover to the 2021 level only by 2040**. The Kyiv School of Economics projected the production of main grains and oilseeds by 2030 to lag the production in 2021 by 35 percent.[23] The largest drop in production is expected for wheat and corn, two crops critical for global FSN. With no end in sight to Russia's invasion of Ukraine and threats of further escalation, uncertainty continues to hang over global agricultural markets. Supplies are tight. Reduced plantings in Ukraine mean that other countries will need to produce additional grains and oilseeds to help rebuild global stocks and moderate price levels.[24] The world has so far been relatively fortunate: a combination of good weather and strong producer supply response has kept market prices from rebounding back to the high levels of early 2022. However, tight stocks will mean increased price volatility, particularly during periods of uncertainty such as planting times and the Northern Hemisphere growing seasons. In addition, uncertainty over events like the renewal of the Black Sea grain Initiative will continue to roil markets.

22. **Addressing liquidity constraints is the highest priority for farm of all types and sizes, from smallest to**

[19] In Ukraine, average farm sizes are much larger than the world average. Small-sized farms are considered the farms with up to 500 ha of the arable land. Medium-sized farms are the farms with up to 1,000 ha of arable land.
[20] Ukrainian Agribusiness Club. 2021. *Precision Farming Technologies in the Ukrainian Agriculture Sector*. Commissioned by the Netherlands Enterprise Agency, and FAO. 2021. *Digital Technologies in the Grain Sector of Ukraine*. FAO Investment Center, Rome.
[21] Deininger, K. and D. Ali. 2023. *Impact of Russia's Invasion on Ukraine's Farmers Productivity, Rural Welfare, and Food Security*. The Bank Research Paper, Washington, DC.
[22] According to Ukraine's Ministry of Economy, the priority agricultural land area that require surveying for demining in 9 regions (Dnipropetrovsk, Zaporizhya, Kyiv, Sumy, Kherson, Mykolaiv, Cherkassy, Kharkov, and Chernihiv) is estimated 470,854 ha.
[23] Kyiv School of Economics. 2023. *Agricultural Outlook Ukraine: 2050 Projections for Crops*. Center for Food & Land Use Research.
[24] *Agricultural Market Information System Outlook*, March 2023.

largest, identified in many recent surveys.[25] While the reduction in production volumes would not be dramatic for Ukraine's FNS, as Ukraine would likely have sufficient food stocks for itself, this would exacerbate the global FNS situation, triggering a move from the crisis of food access experienced now to a crisis of food availability. It will, however, have a huge negative impact on incomes of Ukrainian farmers and stifle the important role of the sector in the country's economic recovery path. Reasonably 'normal' planting seasons will also serve as a signal for the global wheat prices and their trajectory, and the 2024 harvesting season in Ukraine, which is expected to be 'normal' again, will be easier to manage and make grain cheaper and faster available for global consumers, especially due to the fact that the global grain stocks are currently at its lowest in the last decade.[26] Any further reduction in global production, therefore, bears increasing risks to the global FNS.

23. **Addressing liquidity constraints should take into account lessons learned from and build on the mechanisms for supporting agriculture during Russia's invasion in 2022**. The main support has been provided through the existing credit program "5-7-9", which was essential to enable the 2022 spring crop and the 2022 winter crop plantings by facilitating agricultural lending through interest rate compensation. In 2022, about 7 thousand agricultural producers were able to attract UAH 46.8 billion, an equivalent of US$1.5 billion, in agricultural loans for short-term working capital from commercial and state-owned banks, with at least 60 percent of the loan beneficiaries being small- and medium-sized farms. In addition, the MAPF provided a tailored grant support to small farms, in the amount of 51 million euro, through the State Agrarian Registry (SAR), and matching grants for job creating horticulture investments, while donors such as FAO and USAID focused on supporting small farms through input distribution, storage bags, and advisory services. These programs have delivered good results, and the mechanisms for their continued implementation in 2023 and 2024 already exist.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

The Project Development Objective is to maintain inclusive agricultural production and provide immediate and effective response to an eligible crisis or emergency.

Key Results

The Project Development Objective's indicators will include the following:

a. Crop area maintained for agricultural production due to the support of the Project (hectares).
b. Farmers reached with agricultural assets or services (disaggregated by gender).
c. Small-sized farms, who accessed loans and grants under the Project, as a share of total direct Project beneficiaries (disaggregated by gender).
d. Percentage of project-related grievances received that have been addressed within 15 working days (disaggregated by gender).

[25] IFC's surveys of *Agriculture Finance* conducted in February 2023 and *the Needs of Large Farms in 2022,* FAO. 2023. *Damages and Losses in the Aquaculture and Fishery Sector*. January 2023 and FAO. 2022. *Impacts of the War on Agriculture and Rural Livelihoods*. December 2022; Deininger, K. and D. Ali. 2023. *Impact of Russia's Invasion on Ukraine's Farmers Productivity, Rural Welfare, and Food Security*. The Bank Research Paper, Washington, DC.
[26] The Bank. 2023. *Food Security Update*. March 9, 2023. Washington, DC.

D. Project Description

24. The Project will have four components, two of which are technical, one for project management, and one for contingent emergency response component. It is designed to provide an urgent relief to Ukraine's agriculture sector based on the needs estimates of the second RDNA.

25. **Component 1: Supporting access to finance to farms through affordable credit (US$230.0 million IBRD and US$270 million grants funded; estimated funding need of US$500.0 million fully funded)**. This component aims to maintain access to short-term finance for farms and reduce the cost of borrowing against the headwinds of the conflict, so that farmers could continue agricultural production. Higher production will directly strengthen domestic and global FNS, increase farm incomes, and reduce the risk of food trade restrictions, which could be used by Ukraine (and other countries) in case of very low 2023 and 2024 production. The component is aligned with Pillar I "Responding to Food Insecurity" of the WBG's Global Food Crisis Response Framework (June 20, 2022). It will be implemented by BDF.[27]

26. **The spring and winter crop plantings in 2022 took place largely as a result of the credit program 5-7-9**. Under this program, the Ministry of Finance (MOF), through BDF, provided compensation of the interest rate to make short-term agricultural loans more affordable.[28] This interest rate subsidy has encouraged loans from 45 private and state banks (i.e., participating financial institutions (PFIs)), which are accredited to participate in the credit program 5-7-9. In July 2022, the repayment of agricultural loans was prolonged by six months, while a maximum loan amount per beneficiary increased from UAH 60 million to UAH 90 million.[29] In March 2023, the amendments to the credit program 5-7-9[30] prioritized loans for agriculture and liberated territories, increased the duration for loan repayment, required beneficiaries to repay 25 percent of previous loans to benefit from the interest rate subsidy for the 5-7-9 program, and reduced the interest rate subsidy from full coverage to covering about 55 percent of the market interest rate.[31]

27. **The credit program 5-7-9 has crowded in capital for agriculture during Russia's invasion of Ukraine**. Public expenditures for this program in 2022 were UAH 6.5 billion, an equivalent of US$194 million, which mobilized agricultural loans in the amount of US$1.5 billion.[32] Loans were received by 6,964 agricultural producers, a large majority of which were owners of small and medium farms, with a size of less than 1,000 ha. The MAPF estimates that the loan beneficiaries paid UAH 15.6 billion in taxes to the national budget, far exceeding the public spending on interest rate compensation.

28. **Many PFIs are anticipated to continue issuing agricultural loans in 2023 and 2024, provided that the state support under the credit program 5-7-9 continues**. The February 2023 IFC survey of the agricultural finance market revealed the interest from both state and private PFIs to continue agricultural lending, but it also pointed to a restrained lending strategy by many PFIs depending on the proximity to the combat zone and availability of the interest rate compensation and credit guarantees. The same survey also showed that input suppliers, which were used to cover about half of total financing needs of Ukraine's farmers for crop planting

[27] An assessment of the BDF as a financial intermediary is presented in Annex 4.
[28] Cabinet of Ministers of Ukraine (CMU) Resolution No. 438 dated April 12, 2022, and CMU Resolution No. 28 dated January 24, 2020. Agricultural loans include loans for agricultural production, processing and sales of agricultural products.
[29] CMU Resolution No. 916 dated July 29, 2022.
[30] CMU Resolution No. 229 dated March 14, 2023.
[31] Before March 2023, the BDF/MOF covered interest rate fully. After March, the BDF/MOF compensates 11 percentage points of the working capital loans, while the gap with market interest rate, estimated at 9 percentage points, is covered by farmers themselves.
[32] This is estimated using the average exchange rate for 2022 at UAH 32 per US$.

prior to Russia's invasion, are no longer providing inputs on credit and switched to spot input sales, thereby increasing the need for larger agricultural credit. Moreover, the average crop production cost almost doubled in 2023 compared to 2022, from UAH 15,000 to UAH 30,000 per ha, further increasing the need for more agricultural lending.

29. **The Project will support agricultural production in 2023 and 2024 by financing the interest rate compensation under the credit program 5-7-9 in line with national legislation**. It will cover the cost of the interest rate subsidy for agricultural loans included in Ukraine's general budget in 2023 and 2024. BDF needs for agriculture in 2023 are estimated at about UAH 10.0 billion, an equivalent of US$270 million. Approximately the same amount will be required for 2024. The Project will not finance any procurement under this Component. PFIs are required to monitor the use of credit funds and compliance with eligibility criteria.[33] Monitoring is carried out in accordance with the PFIs' internal procedures and rules, taking into account the requirements established by the BDF, with regular reporting submitted to BDF. BDF also has the right to carry out select checks of enterprises and loans granted to them. The implementation arrangements such as flow of funds,[34] eligible expenditures,[35] and other procedures will be detailed in the Project Operations Manual (POM), the approval of which will be a disbursement condition.

30. **Uptakes of the loans supported under this component will be facilitated by other initiatives, not financed by the Project**. Small farms with less than 500 ha will have access to partial (50 percent) credit guarantees from the Partial Credit Guarantee Fund (PCGF) under MAPF. The PCGF will be capitalized by about US$20 million, with the funds provided by the EU[36] and the Bank[37], and it will benefit from capacity building support from USAID and the Bank. The PCGF is anticipated to become operational in the fall of 2023. USAID will also support farmers and agribusiness to prepare business plans to improve their access to finance. The grant support to small farms under Component 2 of the Project will also help leverage their access to loans to cover some part of their needs.

31. **Component 2: Supporting access to finance to small-sized farms through grants (US$49.2 million grant funded; estimated funding need is US$199.2 million).** This component aims to support agricultural production by small-sized farms, recognizing their unique challenges to access sufficient commercial finance under Component 1 and/or secure inputs on credit from the input suppliers. The component is aligned with Pillar I "Responding to Food Insecurity" and Pillar IV "Strengthening Policies, Institutions and Investments for Rebuilding Better" of the WBG's Global Food Crisis Response Framework (June 20, 2022). It will be implemented by MAPF.

32. **This component will build on the implementation mechanisms developed in 2022**. It will use the MAPF's SAR[38] established in August 2022 with the support of the EU and the Bank.[39] The first program, financed by the EU and executed through SAR, was the grant support to farms cultivating from 1 to 120 ha and/or owning from 3 to 100 cows.[40] These farms usually work informally and are not registered with the tax authorities. But the

[33] In accordance with the CMU Resolution No. 28 dated January 24, 2020.
[34] The flow of funds will also be described in the Disbursement and Financing Information Letter (DFIL).
[35] Activities that use or risk of polluting waters of international waterways will not be eligible for financing.
[36] The Bank's Strengthening the Partial Credit Guarantee Fund for Small Farmers in Ukraine Project (P180242), financed out of the trust fund with contribution by the EU.
[37] The restructured Bank's Accelerating the Private Sector Investments in Ukraine's Agriculture Program (P166941).
[38] The SAR is a digital platform designed to increase transparency, targeting, and simplicity of the state agricultural support. The SAR's establishment was one of the achieved disbursement-linked results under the Bank's Accelerating the Private Sector Investments in Ukraine's Agriculture Program (P166941).
[39] The support to SAR's establishment and operation has been provided by the Bank's ASA Support Transparent land Governance in Ukraine (P165404), which is financially supported by the EU.
[40] CMU Resolution No. 918 dated August 16, 2022, and the MAPF Order No. 630 dated August 29, 2022.

incentives provided through SAR encouraged them to register. More than 52 thousand farms signed up in the first few months after the program's launch, supported by the large outreach and awareness raising campaign, including through legal aid call centers.[41] Due to budget constraints, however, only 31,081 farms eventually received grants in the total amount of UAH 1.6 billion. About 21 thousand farmers received per hectare payments (UAH 3,100 per ha) in a total amount of UAH 1.3 billion covering 413,221 ha, while about 10 thousand farmers received per cow payments (UAH 5,300 per cow) in a total amount of UAH 300 million for 61,132 cows. The average size of beneficiaries was 23 ha[42] and up to 5 cows[43], and most of them were from Central, Southern, and Western parts of the country. Fewer farms from Eastern parts of the country, which is mostly affected by Russia's invasion, benefitted from the program. About 30 percent of all program beneficiaries were women. The State Fund for Farmers Support (SFFS), subordinated to the MAPF, handled receipt, processing, and consolidation of registers of applications, and it also made payments of grants to farmer beneficiaries. The MAPF has started monitoring and evaluation (M&E) of the grant support for a sample of 2,500 farms through surveys. They also started to use satellite data to assess crop production for 50,000 parcels of selected beneficiaries to verify that funds were used for agricultural production purposes and evaluate its impact on crop production. The Bank and the EU have been assisting the MAPF in these initiatives to strengthen its M&E capacity.[44]

33. **The Project will provide grant support to beneficiaries with small-sized farms to enable more inclusive agricultural production recovery, using the framework established by the GoU program implemented in 2022**.[45] It will support farms with a size from 1 to 120 ha and from 3 to 100 cows, breeding goats or sheep, with direct grant transfers per hectare and animal.[46] With all planned funds available, the support under the Project will cover about 600,000 ha, more than 90 thousand cows and 300 thousand small ruminants during the Project implementation. Eligible beneficiaries will need to register and apply for grants in SAR. The Project will provide increased support to farmers in the liberated areas of the country where the GoU control was restored. SFFS will handle receipt, consolidation of registers of applications, and payment of grants to farmer beneficiaries. Beneficiaries will be required to collect and keep invoices and receipts for goods and services purchased for agricultural production with the grant support until the Project closure. Verification of the use of funds for agricultural production purposes will be carried out through desk audits, on-site checks, third-party monitoring recruited by the bank, and SAR inbuilt tool for innovative satellite data analyses on crop production on land parcels that benefited from the Project support. The evaluation of project results will be done by MAPF by assessing crop production on the parcels of selected beneficiaries using the satellite crop data. The Project will not finance any procurement under this Component. The implementation arrangements for this grant such as flow of funds, eligible expenditures,[47] selection criteria, amount of funds per beneficiary, and other procedures will be detailed in the POM, the approval of which will be a disbursement condition.

34. **The SAR will host a repository of information and knowledge materials on climate-smart agriculture**

[41] As of March 2023, the number of farmers registered in SAR reached 95 thousand.

[42] Fifty nine percent of the beneficiaries for crop production were less than 10 ha; 28 percent were with the size between 10 and 50 ha; and 13 percent with the size between 50 and 120 ha.

[43] Eighty one percent of the beneficiaries for livestock production had up to 5 cows; 16 percent had between 6 and 25 cows; 2 percent had between 26 and 50 cows; and 1 percent had between 51 and 100 cows.

[44] This support is being provided through the Bank's ASA Support Transparent Land Governance supported by the EU and the Global Fund for Disaster Recovery and Reconstruction as part of the Bank's ASA Reviving Agriculture as an Engine of Ukraine's Growth.

[45] The CMU Resolution No. 918 dated August 16, 2022, and the MAPF Order No. 630 dated August 29, 2022, which provided a legal framework to implement the program in 2022 will be amended for the purpose of the proposed Project.

[46] Crop area payment is planned at UAH 4,000 per ha, while the cattle payment at UAH 7,000 per animal. These amounts could be slightly adjusted, and the final figures will be included in POM.

[47] Activities that use or risk of polluting waters of international waterways will not be eligible for financing.

(CSA). This CSA knowledge database is an integral part of the SAR support package to small-sized farms. It will include manuals with information suitable for and accessible by farmers developed by Ukrainian research and academic institutions as well as donor projects. Famers that receive project support will be informed about the database and encouraged to use it to introduce CSA technologies and practices. The database will be updated with new information as it becomes available. The Project will partner with FAO, USAID, EU, German-Ukrainian Cooperation on Organic Agriculture project, other donors, and input and technology suppliers to provide as much relevant CSA information as possible through SAR.

35. **Component 3: Project management (US$0.8 million grant funded; estimated funding need of US$0.8 million fully funded)**. This component will support project management, coordination, M&E, and implementation of environmental and social measures under the Bank's Environmental and Social Framework (ESF). Two project implementation units (PIU) will be established to manage implementation, including fiduciary aspects; knowledge management/communication; grievance redress mechanism (GRM); citizen engagement; and monitoring the implementation of ESF related issues. One PIU will be hosted by BDF, covering the activities under Components 1 and 3. Another PIU will be established by MAPF, covering the activities under Components 2 and 3. The project will cover PIU staff related costs (training etc.), goods, equipment and vehicles, impact evaluations, audits, incremental operating costs, and other eligible expenses associated with project implementation.

36. **Component 4: Contingent Emergency Response Component (US$0 of the IBRD loan and grants)**. This is an unfunded contingency component that can be activated in case of an eligible emergency event as a result of Russia's invasion. The provisional zero-cost for this component will allow for the rapid reallocation of loan and grant proceeds from other components under streamlined procurement and disbursement procedures. It would allow to increase flexibility and broaden the scope of the Project as may be needed as the crisis evolves and the invasion's damages continue to accumulate, and other urgent needs emerge in support of Ukraine's economy. Following such an event, the GoU may request the Bank to reallocate uncommitted Project funds to support an emergency response. Eligible emergency and/or crisis is any natural or man-made event that has caused, or is likely to cause imminently, a major adverse economic and/or social impact to the country. The definition of eligible emergency will be included in the Project's Legal Agreement and a positive list of activities will be reflected in the CERC Manual as part of the POM.

Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

37. **Russia's invasion of Ukraine poses significant contextual risks that are beyond the control of the Project such as risks associated with aerial bombardment, combat fighting or further displacement of refugees**. Project activities associated with reducing the cost of agricultural loans and providing grants for working capital, equipment and minor construction works for small-scale agricultural activities are likely to involve some site-specific adverse risks and potential adverse impacts on workers and communities. In most situations, these risks

will be manageable but are rendered unpredictable by the contextual risks associated with the war. Workforces participating in activities enabled by agricultural loans and grants are typically small due to high mechanization in the sector. There is an inclusion risk that provision of credit financing and grants may benefit those enterprises with existing financial capacity, and not reach rural new starters, cultural minorities and/or the elderly without access to information or awareness of the program. A comprehensive outreach program will be set up to ensure access to the program information among different stakeholders' groups in particular small entrepreneurs that may be more reluctant to apply and take on debt during the current crisis.

38. **Potential environmental impacts are connected to purchase and use of agrochemicals and include impact on biodiversity, surface and ground water sources, soil quality, occupational health and safety and community health and safety impacts, as well as invasion-related hazards such as land contamination and explosive remnants of war**. Environmental risks are expected to be site-specific, temporary and can be readily addressed through standard mitigation measures and compliance with national laws. However, these risks may be exasperated by ongoing war-related hazards and aerial attacks. An emergency response plan, including measures to protect safety and security of project personnel and nearby communities, will be prepared as part of subproject Environmental and Social Management Plans (ESMPs) and include information on a warning system/designated shelters. While most environmental and social risks are site specific and manageable with existing mitigation, there is risk of cumulative impact associated with agricultural production. The risks associated with continued combat fighting are also significant.

39. **The Project has been prepared rapidly with two PIUs and financial intermediation with dozens of commercial banks without a track record of implementing the Environmental and Social Framework (ESF)**. It will be important that trained environmental and social specialists are identified for the PIUs to screen, assess, and manage impacts associated with grants and loans for agricultural production. The Project has prepared an Environmental and Social Commitment Plan (ESCP) and a Stakeholder Engagement Plan (SEP), which describe measures to disclose and consult on the Project activities and describe procedures for grievance handling. A GRM will be readily accessible to all project-affected parties, at no cost and without retribution, including concerns and grievances filed anonymously, in a manner consistent with ESS10. The grievance mechanism will also be able to receive, register and address concerns and grievances related to sexual exploitation and abuse and sexual harassment in a safe and confidential manner, including through the referral of survivors to gender-based violence service providers. The Project will prepare an Environmental and Social Management Framework (ESMF), including Labor Management Procedures and template ESMP, for management of possible minor civil works (to be adapted in the event of CERC activation). The Project will review and rely on PFIs' Environmental and Social Management Systems (ESMS) to screen for risks associated with issuing loans for production.

E. Implementation

Institutional and Implementation Arrangements

40. **The Implementing Agencies for the Project are the BDF and the MAPF**. Each of them will establish and maintain its own Project Implementation Unit (PIU), the expenses of which will be financed by Component 3. The establishment of the PIUs, with the following core staff - the Project coordinator, FM specialist, environment and social specialists, and M&E specialist – will be an effectiveness condition. Keeping in view the limited procurement activities under Component 3 alone, necessary support will be obtained by hiring short-term procurement consultant. In case, the implementing agencies decide to seek procurement's Hands-on Enhanced Implementation Support from the Bank, it will be provided.

41. **The PIU in BDF will cover the activities under Component 1**. The BDF was first established as a fund in

1996 by NBU and the German Development Bank (KfW) to support microlending program for micro and small enterprises. In 1999, it was transformed into the German-Ukrainian Fund, with contributions from the GoU represented by MOF, and from the NBU. In 2020, the German-Ukrainian Fund was transformed into the state-owned BDF for providing support to small and medium enterprises (SME)[48] and since then it manages the credit program 5-7-9 and other SME finance programs. The Deputy Minister of Finance is the chair of the oversight board of BDF. BDF has the experience of managing the credit lines from KfW (1996-2022), the grants from the EU Commission (2019-2021), and the credit lines and TA from the Bank (2009-2012). Consultants will be recruited as needed to help with the scaled-up load of work and meeting the Bank's requirements, especially on meeting the ESF standards.

42. **The PIU in MAPF will cover the activities under Component 2**. Implementation will be done through SFFS, which is subordinated to MAPF, with the use of MAPF's SAR, a digital platform for state agricultural support. SAR was established with the support of the Bank and the EU, and it provides a wide range of functions that were reviewed during project preparation and will be used during implementation of this component. SFFS and its regional network of offices throughout Ukraine will handle receipt, processing, and consolidation of registers of applications as well as transfer of funds on the basis of approved registers of applications to farmer beneficiaries. The PIU will include a mix of technical staff from SFFS and MAPF with selected short-term consultants to help meet ESF standards of the Bank, which the MAPF staff are not familiar with, and maintain the SAR platform operational.

43. **The POMs will be prepared for all components as it will guide the implementation**. One POM will be prepared by BDF for implementation of Component 1 and another by MAPF for implementation of Component 2. The approval of these two POMs will be disbursement conditions in the relevant agreements. The POMs will describe in detail the implementation arrangements, roles and responsibilities of BDF and MAPF and their PIUs, agreed fiduciary and ESF procedures, overall implementation plan, progress reporting requirements, and arrangements for the monitoring and measurement of results.

CONTACT POINT

World Bank

Sergiy Zorya
Lead Agriculture Economist

Johanna Jaeger
Senior Financial Sector Specialist

Borrower/Client/Recipient

Ukraine

Implementing Agencies

[48] The Order of the CMU No. 1273-R from December 11, 2019, and the Order of MOF No. 5 from January 11, 2020.

Business Development Fund
Andriy Gapon
Executive Director
gapon.andrey@gmail.com

Ministry of Agrarian Policy and Food
Markian Dmytrasevych
Deputy Minister
markiyan.dm@gmail.com

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

APPROVAL

Task Team Leader(s):	Sergiy Zorya Johanna Jaeger

Approved By

Practice Manager/Manager:		
Country Director:	Arup Banerji	29-Jul-2023