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Environmental and Social Audit of Ukraine's Agricultural Production in 2023

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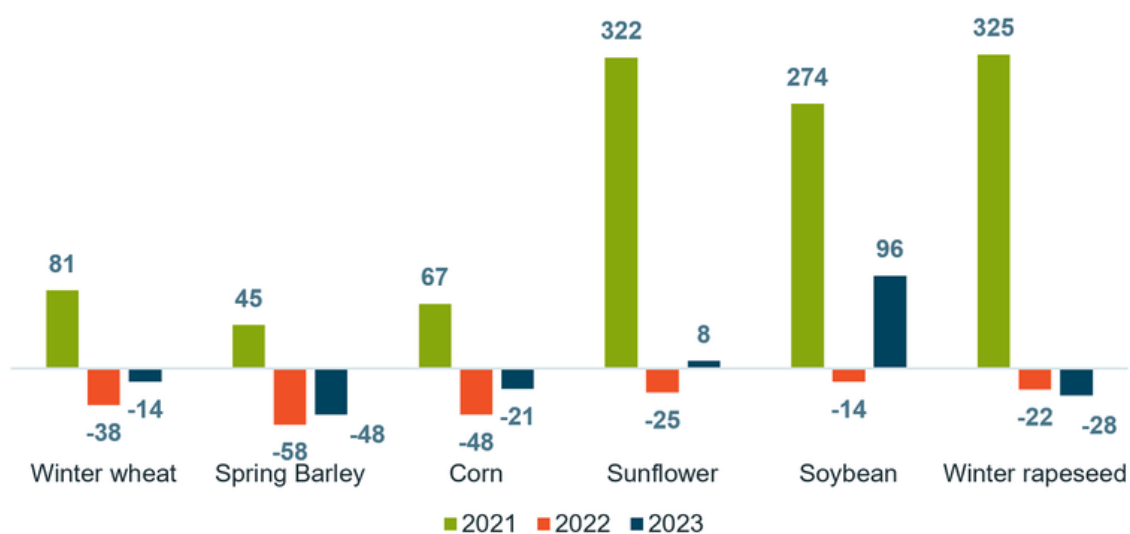
KSE has conducted two rounds of environmental and social audits of the 5-7-9 Loan program on environmental and social risk management and implications by the farmers. **It is prepared for the purpose of the Agriculture Recovery Inclusive Support Emergency (ARISE) project financed by the World Bank, which seeks to maintain agricultural production in Ukraine.**

The second audit of Environmental and Social Assessment (ESA2) was conducted between September and October 2023. To improve comprehension of environmental and social regulation adherence, the farm survey was updated with extra questions drawn based on the experience from ESA1. The survey comprised sixty-four questions arranged under three sections: general features of farming and production, fertilizers and chemicals, and the 5-7-9 program for affordable credit, which incorporates the Grievance Redress Mechanism (GRM). A total of **263** agricultural producers participated in the survey to conduct an environmental and social audit (ESA). Out of the respondents, **120** received the 5-7-9 loans, while the remaining **143** were agricultural producers who did not receive loans.

Findings

During the first few months of the invasion, the agricultural farmers faced difficulties related to the possibility of grain export and extremely high prices for production materials (fertilizers, fuel, plant protection products, etc.) and, accordingly, to the profitability of grain production. According to data from UCAB and the MAPF, there were no profitable grain or oil crops in 2022 (**Figure 1**). In 2023, already the second year of the full-scale war, when prices for production materials have slightly decreased, agricultural producers still cannot fully satisfy their needs and buy the required amount of fertilizers and pesticides. In 2023, only soybean production is projected to be profitable. Sunflower seed production is projected to generate a very small profit in 2023.

Figure 1. Profitability of main grain and oilseed products, Ukraine, 2021-2023



Source: World Bank based on the UCAB and MAPF estimates

One of the reasons of the decline of agricultural profitability was the sharply increased input prices, especially that of fertilizers. Table 1 shows the input price spike in 2022, following Russia's invasion of Ukraine. Input prices declined in 2023, but still stayed largely much higher than in 2021.

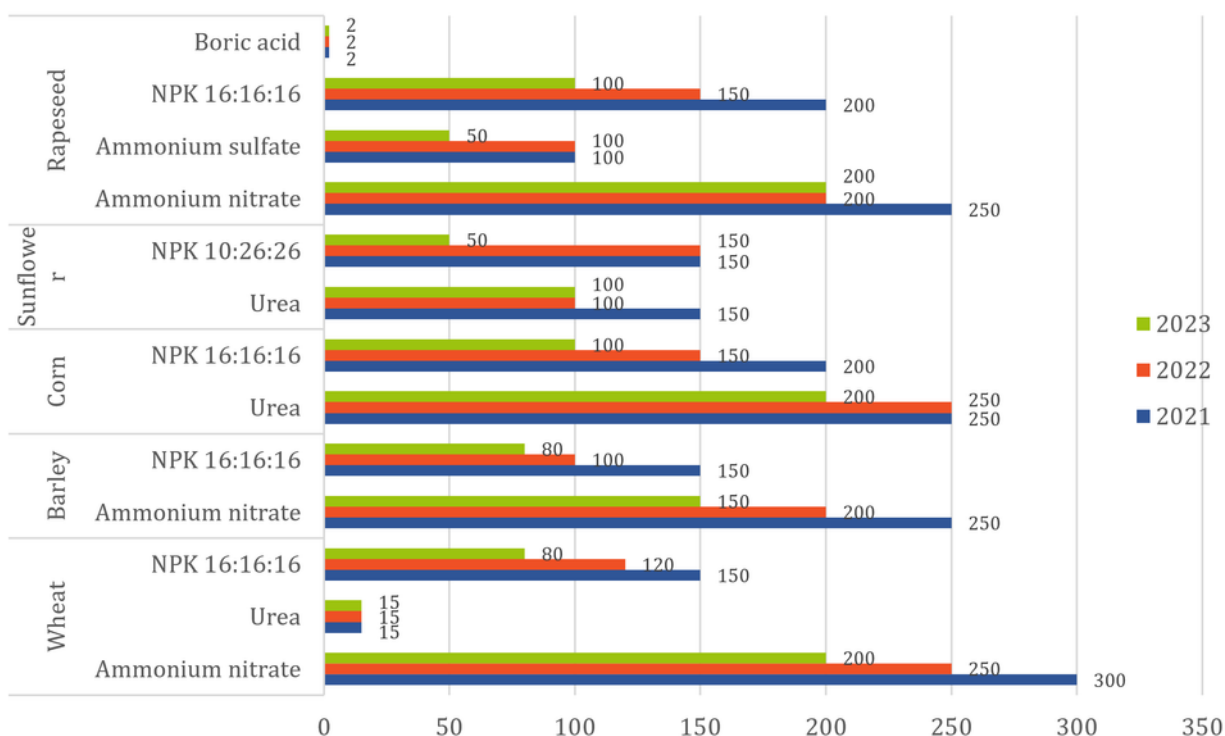
Table 1. Average farm input prices, Ukraine, 2021-2023

	2021	2022	2023
Seeds:			
Wheat seeds elite (UA varieties)	269	448	384
Barley seeds (farm saved)	123	208	176
Hybrid corn seeds (Dekalb, Syngenta, Pioneer)	140	162	145
Hybrid sunflower seeds (Syngenta, Pioneer)	175	198	180
Rapeseed seeds (Lembke, Dekalb, Pioneer)	175	194	180
Soybean seeds 1 repr.	768	832	768
Fertilizers:			
Ammonium nitrate	383	821	547
Urea	490	979	700
Potassium chloride	639	1,277	912
Ammonium phosphate	703	1,405	1,004
NPK 10:26:26	766	1,533	1,095
Chemicals:			
Roundup Max 45%	8,7	10,2	9,4
Follicure 25%	31,7	37,4	34,5
Fuels:			
Diesel fuel	0,9	1,9	1,3
Diesel engine oil	1,4	2,6	2
Transmission oil	1,5	2,8	2,2
Lubricant consistent	1,8	3,4	2,6

SoSource: World Bank based on the UCAB and MAPF estimates.

As a result, farmers reacted by reducing the input application rates to reduce production costs. While the application rates for seeds remained largely unchanged, though their quality is reported to worsen, the application rates for fertilizers have declined significantly for all crops over 2021-2023 (**Figure 2**).

Figure 2. Application rates of key fertilizers, Ukraine, 2021-2023



Source: World Bank based on the UCAB and MAPF estimates

As a result of the increased production costs, Ukraine's agricultural producers required more funds to borrow to sustain plantings, harvests, and workers' salaries. According to the latest report from the Ministry of Agrarian Policy and Food (MAPF)¹, since January 2023 the agricultural producers were able to attract **UAH65 billion** of loans, of which **UAH37.5 billion** were received under the 5-7-9 credit program. This is **36%** more than the value of loans under this program attracted

¹ <https://minagro.gov.ua/news/ponad-65-milyardiv-griven-bankivskih-kreditiv-otrimali-agrariyi-v-comu-roci-na-rozvitok-gospodarstv>

by agricultural producers in 2022 (UAH27.6 billion). During the first 10 months of 2023, 9.6 thousand agricultural producers benefited from partial interest rate compensation offered by the 5-7-9 credit program executed by the Business Development Fund (BDF).

Despite the difficult times for all Ukrainian agriculture, it is worth noting that certain improvements are taking place from the point of view of environmental and social protection in the agricultural production. Overall, the majority of respondents are aware of various risks and hazards related to the use of fertilizers and chemicals and they minimize these risks and report to comply with the national legislation. Moreover, the sharply reduced application rates of inputs during the war have further lowered the overall ES risks associated with agricultural production.

Soil erosion and disputes over land rights are not common problems for either those who received loan or those who did not, **79.6%** and **77.9%** respectively. At the same time, to deal with soil erosion problems, agricultural producers used different methods and techniques, the most popular of them are: 1) "use of special machinery (planters for sowing without destroying the cover)" - 34% of loan receivers and 21% of non-receivers, as well as "working with plant residues, covering the upper layer of the field with plant residues" - 45% and 35%, respectively.

Agricultural producers of both categories are changing the structure of crop planting compared to 2022, due to "low local prices" and "poor demand for certain crops". This could be in an effort to maximize their income with limited resources by cultivating alternative crops like soybeans or peas, or due to reducing the area under cultivation. Most of the ESA2 loan receivers have an agrochemical field passport. The majority of both categories of receivers and non-receivers from ESA2, converting post-harvest residues into fertilizer through plowing, discing as a tillage method, and decomposition is a commonly used practice. This may be a sign that farmers are aware of the correct and ecological disposal of residues, or that the lack of landfills near the fields may be a factor that forces farmers to look for disposal options.

Agricultural producers, who are aware of the 5-7-9 credit program, know little about the mechanisms for considering complaints and proposals. This is probably due to the simplicity of the state support program, which finances the partially interest rate compensation but is not responsible for issuing principle agricultural loans where some farmers may face problems. The survey revealed that, on average, fewer than 15% of agricultural producers possess knowledge of certain processes for examining and lodging grievances. Notably, the most well-known mechanism was "the option to apply for assistance/submission of complaints to the BDF," which is known by 30% of respondents, with 23% being aware of such an opportunity. The majority of agricultural producers acquire information on credit programs, including the 5-7-9 loan program, by receiving a call from a bank representative, which is considered the most effective method. This is the case for 52% of loan receivers and nearly 70% of non-receivers. Given the efficacy of this information mechanism, it may be necessary to highlight that, for any concerns regarding the acquisition of a 5-7-9 loan or for further information, relevant managers can be contacted, or the banks' hotline can be reached.

Based on the analysis and conclusions above, recommendations for improving 5-7-9 ES performance could be:

- Develop educational programs to inform farmers of the benefits of complying with national legislation and following best practices in the use of fertilizers and chemicals. Provide guidance on proper and environmental disposal of post-harvest residue, hazard residuals. All of these educational programs/guidelines can be mailed to 5-7-9 loan recipients by the World Bank (contact information for recipients can be obtained from all banks offering 5-7-9 loans)

- Develop and provide information to agricultural producers on the importance of biodiversity monitoring and how to support biodiversity using best practices in modern agriculture
- The survey reveals instances where the use of chemical treatments on fields has adversely impacted the health and safety of the public and laborers. To address this issue, it is necessary to provide guidance on the standards and regulations that must be followed when applying fertilizers. Such guidelines can be found on the website of the Ministry of Agrarian Policy and Food of Ukraine. Additionally, it is recommended to collaborate with hromadas and conduct online training sessions to keep them informed
- Improve awareness among agricultural producers of the mechanisms for considering complaints and suggestions to the 5-7-9 loans program
- Program managers should proactively communicate with farmers, providing clear and concise information about the 5-7-9 loans program and addressing any concerns or questions they may have
- Collaborate with banks to obtain the necessary documentation for agricultural producers applying to the 5-7-9 Affordable Loans Program. The service provider bank should clearly indicate which documents are necessary for the loan program and which are required for their own evaluation of credit history, financial capacity, etc. **This is intended to improve communication between agricultural producers and banking institutions and reduce confusion about non-compliance with the "package of documents" required by different banks.**

Contacts

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