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APD's 2023 rural entrepreneurs' survey: A brief report

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About the Project “German-Ukrainian Agricultural Policy Dialogue” (APD)

The project “German-Ukrainian Agricultural Policy Dialogue (APD)” has been implemented with the support of the Federal Ministry of Food and Agriculture (BMEL) since 2006 and is currently being implemented until 2024 at its request through the executor of GFA Consulting Group LLC, as well as a consortium consisting of IAK Agrar Consulting, Leibniz Institute for Agricultural Development in Transition Economies and AFC Agriculture and Finance Consultants GmbH. The recipient of the project is the National Association of Agricultural Advisory Services of Ukraine “Dorada”. The beneficiary of the project is the Ministry of Agrarian Policy and Food of Ukraine. The project should support Ukraine in the areas of sustainable agriculture, efficient processing industry and international competitiveness in accordance with the principles of market and regulatory policies taking into account the development potential that arises under the Association Agreement between the EU and Ukraine. To meet this goal, the Project should provide information on German experience, in particular, East German, as well as international European experience in development of agrarian and forestry policy framework, as well as on the organization of relevant agrarian and political institutions.

The APD consists of two thematic pillars, one of them – the land component – is managed by BVVG German AgriForest Privatization Agency, a state-owned enterprise that is responsible for the administration of state-owned agricultural and forestry land in (Eastern) Germany. Under the land component, the project offers an exchange of experience and know-how between Ukrainian and German land management experts from BVVG and additional German land management institutions. The land component focusses on political, legal and technical issues related to land management and accompanies the current discussions in Ukraine concerning land market development.



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ACRONYMS

Amalgamated territorial community	ATC
Full-time equivalent	FTE
Hectare	ha
Kyiv International Institute of Sociology	KIIS
Randomized controlled trials	RTC
State agricultural registry	SAR
Ukrainian hryvnia	UAH

1. A BRIEF DESCRIPTION OF THE DATA OBTAINED

Data collection was initiated in September 2022 to generate a baseline for randomized controlled trials (RCTs) in a total of 16 amalgamated territorial communities (ATCs) of Kyivska, Odeska, Poltavska, and Ivano-Frankivska oblasts. The idea was to survey enterprises and individual entrepreneurs active in agricultural activities according to the Classification of the Types of Economic Activities. The total aspired sample was 500 observations with equal distribution between the treatment 8 ATCs and control 8 ATCs. Kyiv International Institute of Sociology (KIIS) was mandated with surveying works.

Russian war against Ukraine has substantially affected the implementation length and the response rate. Originally the survey was supposed to be completed by the end of 2022. However, power shortages and internet problems have caused substantial delays. Moreover, although impossible to assess the contribution of the war, the response rate turned out to be substantially lower than expected and totaled 276 observations instead of the target 500. However, these observations are equally distributed between the control (141 observations) and treatment (135 observations) groups.

The average time that was needed for interviews was 56.2 min and the median was 45.7 min. However, KIIS suggests that sometimes the time was not informative because interviews were conducted in more than one session.

2. BASIC DESCRIPTIVE STATISTICS

2.1 Respondents and their characteristics

Most of the respondents are represented either by individual farms or private entrepreneurs (Figure 1). Treatment ATCs appear to contain ca. 59% of the private entrepreneurs (vs. ca. 48% in the control ATCs). Limited liability partnerships appear to account for ca.

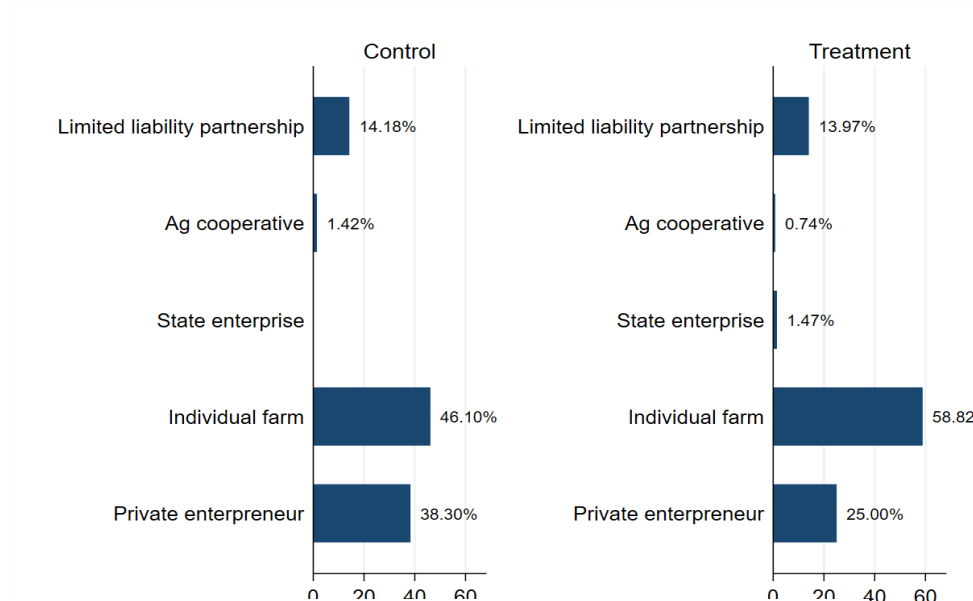


Figure 1. Distribution of farm types in control and treatment communities.

14% in both, control and treatment ATCs. We find 3 cooperatives in our sample and 2 state-owned enterprises.

Most of the farms in the sample are relatively new (Figure 2). Thus, the majority was established in the last 5 years (32.46%). Only ca. 22% of the farms in our sample were established in the 90s. As a result, we observe the majority of agricultural startups in recent years. Interestingly, we find only 2 farms that claimed to belong to the parental company (agriholding).

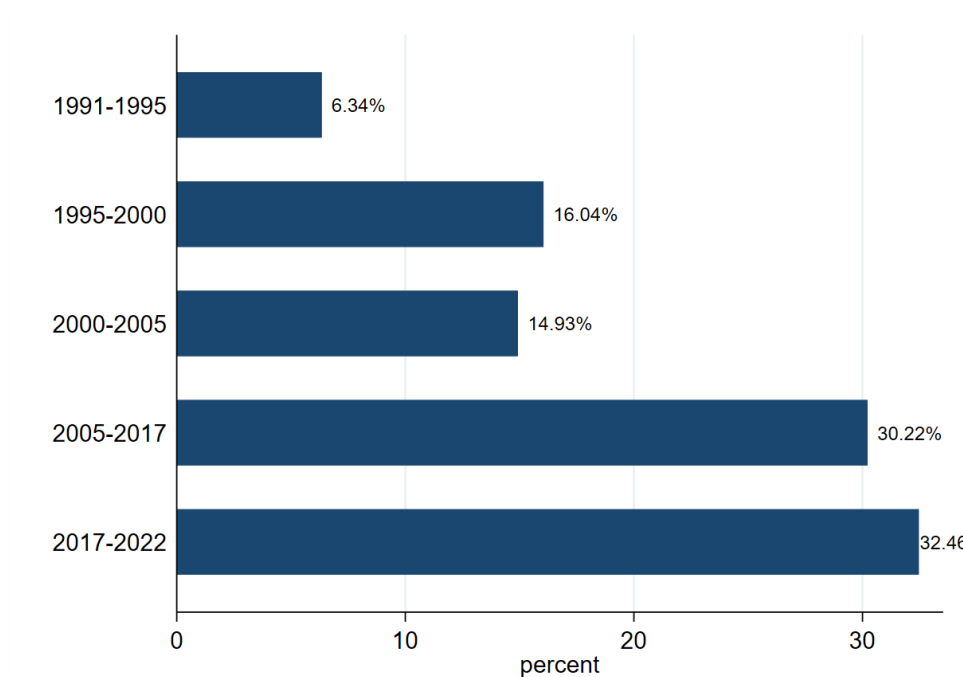


Figure 2. Distribution of farms by the year they were set up.

Most of the farms in our sample were involved in crop (87.36%) and livestock (13.72%) production. Ca. 55% of the crop-producing farms focus almost exclusively on crop production (revenue generation of more than 90%). For livestock production, the respective figure is only 11.55% indicating that this type of activity is rarely the sole revenue source. Interestingly, for 13.3% of the respondents, non-agricultural activities represented more than half of their incomes suggesting a considerable level of diversification.

2.2 Land use and ownership

We find a variety of farm sizes in the sample. Interestingly, 6.14% of the respondents report not using any land for their economic activity. These are predominantly enterprises providing services for the agricultural sector. The median area used is 50 ha whereas the average is 244 ha. Thus, the majority of the enterprises in the sample are rather small and are way below the reported country-wide average farm size of 400 ha (Deininger, Nizalov, and Singh 2018).¹ The largest farm reports using 6000 ha. The vast majority of

¹ Importantly, the data used by Deininger, Nizalov, and Singh (2018) does not account for small agricultural producers which is the case with our data. Considering representativeness of our sample, our median and average farm sizes appear to be more realistic for the general population of Ukrainian agricultural producers.

this land is rented from individual landowners or the state. Interestingly, the vast majority of respondents (84.12%) reports having land holdings only within one ATC. For the rest, cultivated land can be scattered across up to five ATCs.

Only 8.04% of the respondents pay their land rents in cash only. The rest contributed some form of produce as a way of payment. Surprisingly, 20.61% reported paying land rent in non-monetary ways only. The rest of the enterprises pay the landowners partially in monetary ways and partially in-kind. These circumstances underscore existing rural informalities and landowners' underappreciation of arable land as a production factor pointed out in the literature (e.g., Kvartiuk and Herzfeld 2019).

Owned land appears to play a minor role in the enterprises' access to land. Thus, three-quarters of the respondents report having less than 37 ha of owned land. However, three enterprises reported total land ownership above 500 ha with the largest one owning 3000 ha.

A small number of farms (14.8%) had undertaken land use changes related to the Russian war against Ukraine. Out of 31 enterprises that changed the amount of rented land a vast majority (24 enterprises) rented more land. Two farms purchased land for individual farming² and four farms purchased land for commercial farming. Thus, we do not observe war-related distress sales. On the contrary, enterprises appear to be hopeful about the end of the war and acquire land at a discount currently present on the market.

We found 8 enterprises whose land was affected by war-related activities. They are scattered around all four oblasts which indicates that land could have been damaged or made unusable not only because of direct fighting but also via moving military vehicles or using it for military purposes. Some enterprises were unable to use up to 30% of their cultivated areas.

2.3 Labor and damaged assets

The median number of labor employed was 2 full-time equivalents (FTEs) whereas the average was 4.88 FTEs. This skewing is a result of a few large farms employing up to 140 persons. All of the enterprises with no hired labor are either individual farms or individual entrepreneurs. Interestingly, 18 respondents report reducing the number of hired labor between the end of 2021 and the end of 2022. The largest layoffs were 5 FTEs. This is likely to be attributed to war-related economic hardships. However, we found 30 respondents that reported increasing their labor force with two enterprises growing by 10 FTEs. Interestingly, only 34.4% of the respondents employed an accountant at least part-time.

² Land for individual farming (unlike land for commercial agricultural production) has not been subject to the sales moratorium before 2021 and had been freely traded before the reforms. After the reforms purchasing this type of land was subject to the 100ha-restriction similar to the land for commercial agricultural production.

Only a few enterprises (3.25%) report that their assets were damaged or expropriated due to the Russian war against Ukraine. One farm from Poltava region reports half of the buildings being damaged or expropriated. Three farms reported that 5-10% of their movable equipment has been lost due to war. Apart from that and already described land losses, respondents did not report any further damage.

2.4 Profits and losses

Although there are many missing values (for some variables reaching almost 50%), we can still observe the general trends in the entrepreneurs’ financial performance. Figure 3 demonstrates the trends in the reported end-of-the-year profit/losses statement. We see that three-quarters of the firms reported profits in 2021 whereas in 2022 this figure dropped to 40.07% with the majority reporting losses (45.49%). In addition, the share of respondents who couldn’t provide a clear answer nearly doubled suggesting increased uncertainties. We find ca. 30% of the respondents switched from being profitable in 2021 to unprofitability in 2022. On the other hand, only 1.81% switched to profitability in 2022. This clearly demonstrates a substantial economic shock to rural entrepreneurs in 2022 due to the Russian war against Ukraine.

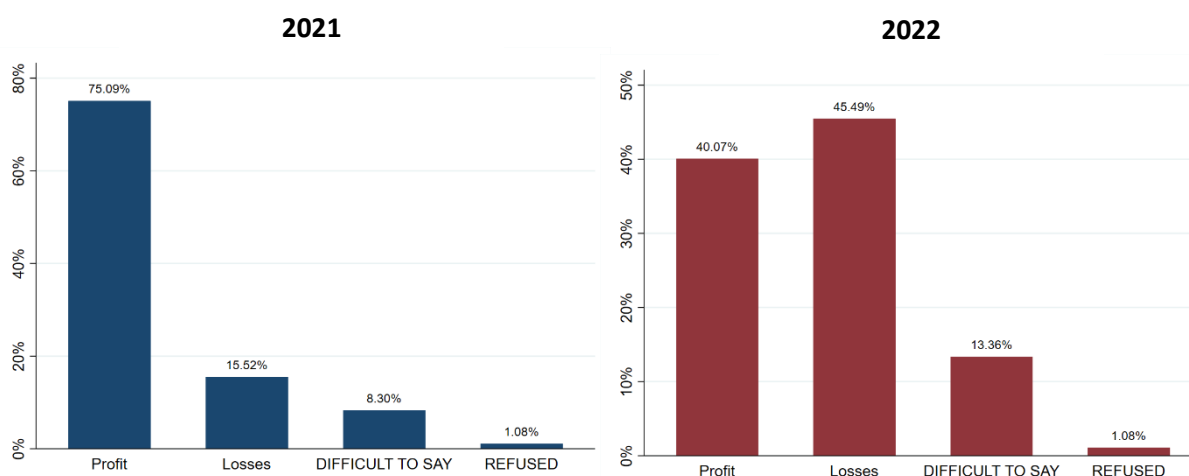


Figure 3. Shares of entrepreneurs declaring profits or losses by year.

3. SUBSIDIES, LOANS, AND INVESTMENTS

3.1 Subsidies

We find that 30.32% of the respondents applied for state agricultural subsidies in 2022. There are no significant differences in application rates between the treatment and control ATCs. Out of all the applicants, a majority (54.76%) received at least some subsidies with no significant differences in the success rates between control and treatment ATCs.

Ca. 63% of the subsidy recipients obtained area-based payments. These payments appear to range between 50 UAH/ha and 3375 UAH/ha with a median payment of 2480 UAH/ha. In addition to area-based subsidies, five enterprises reported obtaining other types of crop subsidies. Only two enterprises reported obtaining livestock subsidies and none for agricultural machinery.

Reported reasons for not applying for agricultural subsidies indicate that there is substantial room for improving allocation and distribution processes. Almost half of the non-applicants (45.07%) did not know about the possibility to apply. Another 41.45% did not know where to obtain application instructions or how to apply. These results suggest that simple information and awareness-raising campaigns may improve the uptake of agricultural support programs. However, 34.47% find application for state support not worth their efforts. Interestingly, 4.15% of non-applicants motivated their actions by a desire to help the government in difficult times of the war.

The uptake of the State Agricultural Registry (SAR) appears to be relatively high. Thus, almost 70% of the respondents reported being registered in the SAR. Figure 6 provides an overview of the reported reasons for not registering in the SAR. Most of the non-applicants (60%) report not understanding the purpose of applying. Another substantial share (17.5%) reported not knowing about this opportunity. These figures suggest that registration rates can be increased by awareness-raising campaigns or similar interventions. Another 5% of the respondents tried but it was too complicated for them. Interestingly, a small share of entrepreneurs (5%) believed that they were ineligible because of their registration form (private entrepreneur) or the size of their agricultural operation. Neither of these restrictions is actually valid once again underlining the need for awareness-raising campaigns.

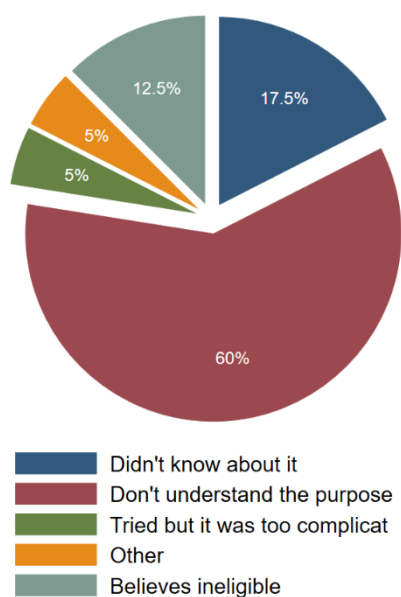


Figure 4. Reported reasons for not being in the SAR.

3.2 Loans

We find that 22.74% of the respondents reported having applied for a loan in 2022. Almost 62% were successful in obtaining the funds with the success rate being slightly higher in the control ATCs. The median loan was 1.5 million UAH whereas the average one was 4.43 million UAH. Interestingly, most of the loans obtained by the enterprises in our sample appear to be subsidized to different extents. Thus, one-quarter of these loans demonstrated 0% interest rates, and three-quarters were given with interest rates of 7% or below. Only ca. 10% of the loan recipients borrowed at market interest rates of 14% and above. Most of the loans (ca. 59%) were short-term, i.e. were issued for 12 months or less. One-quarter of loans accounted for 36 months and the rest was long-term.

Surprisingly, a substantial part of the loan recipients (ca. 40%) pledged no collateral in obtaining these loans. Another substantial part (20.63%) pledged agricultural machinery as collateral because it represents a relatively liquid type of asset. Other assets did not play any role in access to credit for our respondents. For instance, not a single respondent reported pledging land (neither rented, nor owned) as collateral.

3.3 Investments and voluntary contributions

A vast majority of enterprises did not invest in 2022. However, some respondents report investments despite unfavorable economic conditions. The most widespread (20.22% of the respondents) investment was in movable equipment and machinery. The second most widespread type of investment accounted for 7.38% of the surveyed enterprises and represented investing in storage equipment. This type is followed by precision-farming investments which were undertaken by 2.53% of the respondents. These findings are somewhat surprising as many observers expected to see more investments in storage equipment considering the logistical difficulties of moving the harvests.

Figure 5 demonstrates the incidence of different donation purposes in 2022 across the control and treatment ATCs. Ca. 71% of all respondents reported having made donations for the needs of the Ukrainian Army. Furthermore, ca. 10% of the respondents made voluntary contributions towards social infrastructure which includes local hospitals, schools, churches, etc. Interestingly, entrepreneurs in the control ATCs appear making 9% more donations for the needs of vulnerable individuals than the entrepreneurs in the treatment communities. Entrepreneurs in treatment ATCs appear to donate 10% more for physical infrastructure than the entrepreneurs from the control ATCs.

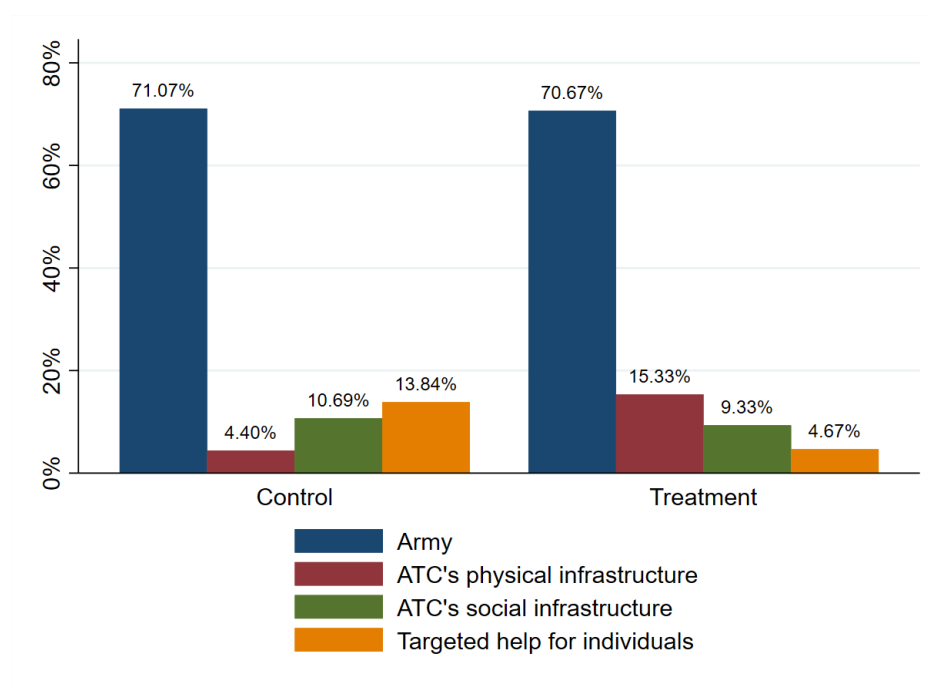


Figure 5. Shares of respondents who reported donations for different purposes.

4. INFORMATION AND PERCEPTIONS

4.1 Information

As obtaining reliable information in rural areas may be challenging, the internet appears to be the primary source for the entrepreneurs from our sample. Figure 6 demonstrates that the respondents chose the internet as the primary source of information for farming inputs, harvest pricing and marketing, land markets, state agricultural support, and ATC's current affairs. The second most important source of information was communication with peers. This channel was especially important for farming inputs and harvest marketing. ATCs' staff appear to be the primary source of information on the current affairs within a given ATC. In addition, it appears to play a significant role in providing information about local land markets.

Unfortunately, extension services play a minuscule role in accessing information for the majority of entrepreneurs. It is, however, worth noting that relatively more respondents used extension services as a source of information about state agricultural support.

In addition to the categories in Figure 6, the respondents report obtaining information from their business partners. For instance, often seed producers or grain traders contact farmers directly.

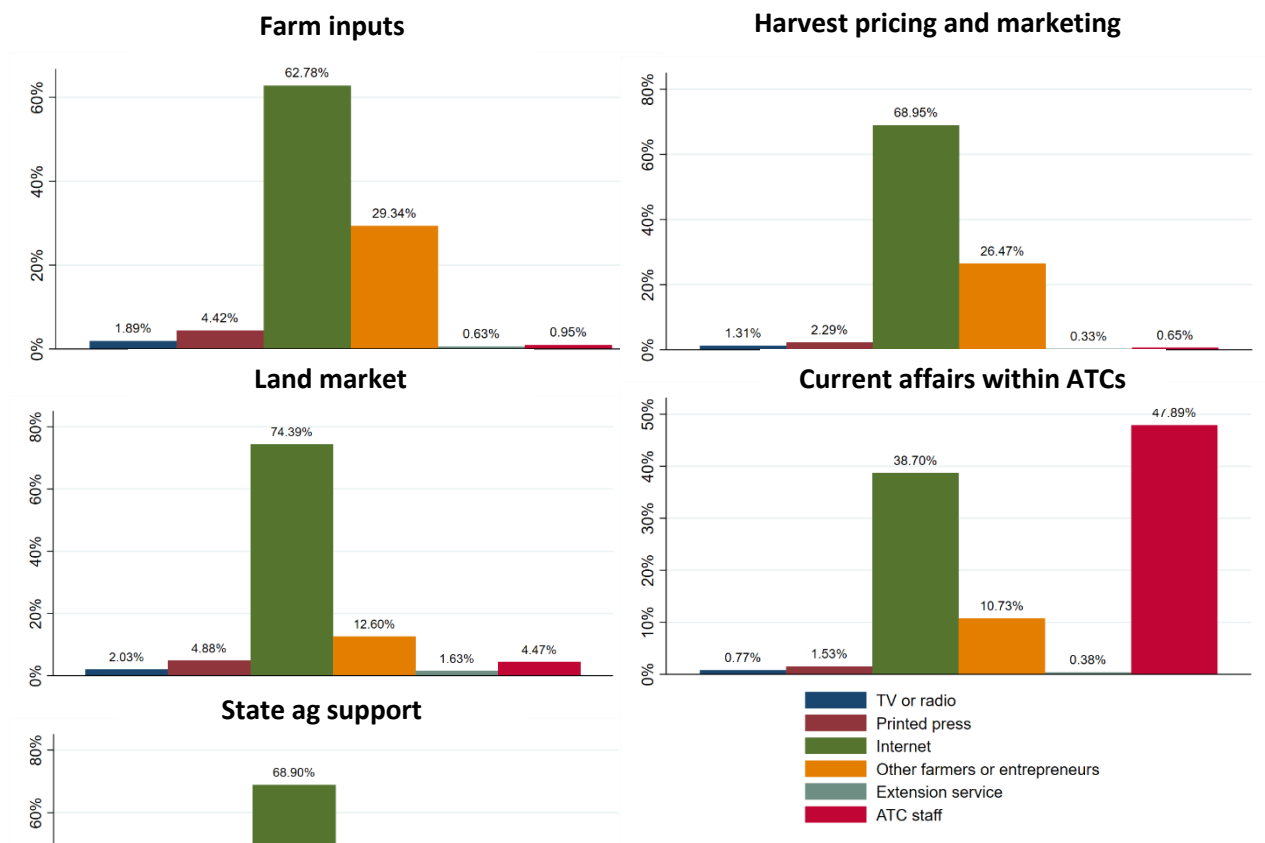


Figure 6. The importance of different information sources.

4.2 Perceptions about state support and local institutions

Most of the respondents reported knowing where to get information about obtaining state agricultural support. However, there are differences between enterprise types. Thus, individual farmers appear to be much better informed than individual entrepreneurs.

Respondents see individual consultants as a more effective way of obtaining support in applying for state agricultural support than local governments. Surprisingly, the majority of the entrepreneurs (55.44%) reported not being able to obtain support in applying for agricultural support from their respective ATCs. Thus, ATCs' staff is often not seen as a

reliable contact point for the facilitation of the application process. On the other hand, 86.83% of the respondents believe that individual consultants can effectively help with the application process. This suggests that ATCs' staff should be empowered and provided with resources to support local applicants for state support. Nevertheless, the vast majority (74.56%) of the respondents see communication with their respective ATCs positively. However, only 29.27% of the surveyed entrepreneurs regularly consult with the ATCs' representatives.

The perceptions about local extension services appear to be mixed. On the one hand, 66.13% of the respondents believe they can get help from them if they have a farming question or a problem. However, only roughly half of the entrepreneurs believe that the advice of the extension services is based on "state of the art" technologies.

The vast majority of the respondents (64.36%) believe there is no corruption in the process of state support distribution. Entrepreneurs from our sample predominantly believe that state support did not cause additional bureaucratic pressure on their respective enterprises.

The views about how effectively ATCs facilitate land relations locally appear to be divided. Thus, opinions are split roughly equally about the fairness of land auctions organized by the ATCs. Most of the respondents (59.69%) believe that their ATCs do not provide them with good information about available land plots. In general, 64.12% of the respondents agree that there are no violations of land rights in their respective ATCs. Finally, a vast majority (74.93%) know where to obtain help if their land rights are violated.

The respondents appear to be satisfied with the local taxation. Thus, a vast majority of the respondents believe that their taxes will be put to good use in their respective ATCs (76.96%) and that the taxation is fair and transparent (89.80%). Moreover, 88.57% of the entrepreneurs do not observe preferential treatment on taxation in their respective ATCs.

4.3 Respondents' needs

Entrepreneurs in our sample appear to be interested in obtaining more support from their ATCs. Roughly a quarter of respondents wanted more support for land issues and obtaining state agricultural support. Taxes were mentioned as the third most important issue. Interestingly, 10.81% of the respondents appear to wish for more support from their ATCs on product marketing. Consequently, Ukrainian entrepreneurs appear to wish for more engagement from their ATCs on very concrete and practical issues that could directly improve their financial performance.

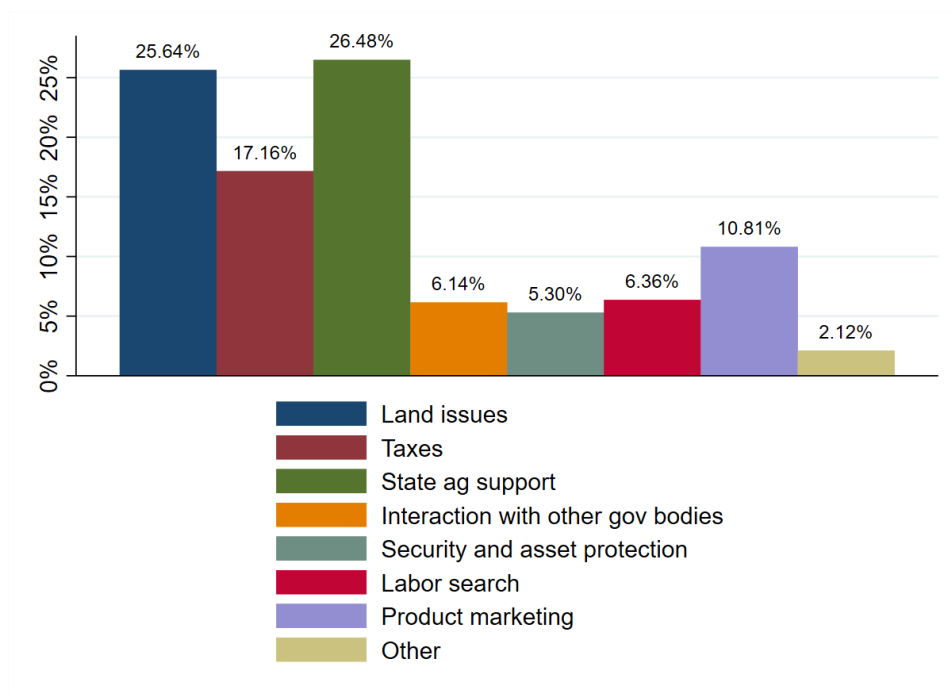


Figure 7. Issues respondents would like ATCs' support on.

5. CONCLUSION

5.1 Data quality

The survey was conducted under complicated circumstances of the full-scale Russian war against Ukraine. Nevertheless, we were able to obtain a dataset with 276 observations that could be used for two purposes. First, because of our sampling procedure, we can claim that we have a representative sample of agricultural enterprises of all sizes. Second, we obtained a baseline for a potential RCT given that we conduct a post-treatment survey (after project implementation).

5.2 Basic descriptive statistics

We observe a full range of enterprises of different legal forms and sizes with signs of being affected by the aggregate shock of the war. Most of the respondents are represented by individual farms and private entrepreneurs. However, we find limited liability partnerships as well as state farms and cooperatives. We have many small enterprises in the sample because the median land use is 50 ha. However, because of the presence of very large farms, the average land use is 244 ha. A similar situation is observed with used labor: the median number of FTEs is 2 whereas the average is 4.88.

We observe a steep drop in the number of profitable farms but only a few report adjusting their inputs. A small number of farms reported reducing labor and other inputs reductions. However, we do not observe similar trends with the land as we observe either stable or increased land holdings.

5.3 Subsidies, loans, and investments

We find that only roughly one-third of the sampled enterprises applied for state agricultural support and roughly half of the applicants were successful in obtaining it. Area-based subsidies appear to be the most widespread type of support. Only a handful of enterprises obtained other types. The major reason for not applying appears to be a lack of information and stereotypes about the government's bureaucracy.

A vast majority of loans reported by the enterprises appear to be subsidized. Recipients pledged either no collateral or agricultural machinery. Land, either rented or owned, did not play a role in access to credit.

Investments were rare in 2022 because of unfavorable economic conditions. If they took place, they were mostly directed at machinery and storage facilities and equipment. The latter was in high demand during 2022 considering logistical challenges with grain export.

5.4 Information and collaboration with ATCs

We find that rural agricultural entrepreneurs obtain the majority of their information from the internet and their peers. The role of extension services is minuscule. However, ATCs' staff appears to be an important information source about the current affairs within the ATC. In addition, the respondents appear to wish for more support from their ATCs on state agricultural support, land issues, and taxation.

The majority of the entrepreneurs believed that the most effective way to apply for state support was to hire a private consultant. Moreover, the majority of the respondents do not see ATCs' staff to be in a position to help them with the application process.

Local institutions appear to be in need of improvement to achieve better support for local entrepreneurs. First ATCs could engage more with local businesses to facilitate a favorable business climate. This could be seen as a "win-win" situation as not only entrepreneurs are expected to benefit but also local tax revenues. Collaborations between ATCs' staff and local extension services could promote good business practices in rural agricultural production.

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