



Food and Agriculture
Organization of the
United Nations

UKRAINE

Food security and agricultural livelihoods
assessment (December 2023)

Monitoring report



UKRAINE

Food security and agricultural livelihoods
assessment (December 2023)

Monitoring report

REQUIRED CITATION

FAO. 2024. *Ukraine: Food security and agricultural livelihoods assessment (December 2023) – Monitoring report*. Rome.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

© FAO, 2024



Some rights reserved. This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode>).

Under the terms of this licence, this work may be copied, redistributed and adapted for non-commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons licence. If a translation of this work is created, it must include the following disclaimer along with the required citation: “This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original English edition shall be the authoritative edition.”

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization <http://www.wipo.int/amc/en/mediation/rules> and any arbitration will be conducted in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Third-party materials. Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

Sales, rights and licensing. FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org. Requests for commercial use should be submitted via: www.fao.org/contact-us/licence-request. Queries regarding rights and licensing should be submitted to: copyright@fao.org.

Cover photograph: © FAO/Anastasiia Borodaienko

Contents

Acknowledgements	iv
Abbreviations	v
Key highlights	vi
Context	2
Objectives and methodology	4
Results	6
Household profiles	6
Household engagement in agriculture	6
Main income and shocks	8
Food security	9
Conclusion	16
Annexes	18
References.....	20

Figures

Figure 1. Sampling locations and number of responses.....	4
Figure 2. Percentage of households reporting a decline in income compared to the previous year (by type of income).....	8
Figure 3. Prevalence of moderate or severe RFI (percent of households +/- MOE) by location	11
Figure 4. Prevalence of moderate or severe RFI (percentage of households +/- MOE) by household characteristics	11
Figure 5. Prevalence of moderate or severe RFI (percent of households +/- MOE) by households experiencing shocks in the three months preceding the survey, by type of shock (left) and by number of shocks (right).....	12
Figure 6. Prevalence of moderate or severe RFI (percent of households +/- MOE) by household agricultural activity and income	13
Figure 7. Proportion of households engaging in livelihood coping strategies (by location)	14
Figure 8. Coping strategies employed by households (percentage of households that reported using coping strategies)	15

Annexes

Annex 1. Sample design	18
Annex 2. Food groups consumed by household dietary diversity categories	19

Acknowledgements

This assessment was conducted by the Food and Agriculture Organization of the United Nations (FAO) in partnership with the Kyiv International Institute of Sociology, and with the support of the Food Security and Livelihood Cluster of Ukraine. The Ministry of Agrarian Policy and Food of Ukraine provided valuable technical and contextual insights to support data analysis and interpretation. The authors are grateful to the World Food Programme in Ukraine for their collaboration on administrative and technical issues.

The authors express sincere gratitude to the people of Ukraine who spent valuable time responding to the questionnaire and sharing their perspectives.

Data analysis and reporting was led by (in alphabetical order): Elyse Battistella, Anna Burka and Kateryna Obykhod, and supported by Luis Amaya Ortiz, Taras Antonyuk, Anneta Bou Saleh, Gabriela Interlenghi, Aziz Karimov, Mikhail Malkov, Neil Marsland, Paige McGreevy, Viktoriia Mykhalchuk, Diane Prince, Laetitia Salmson and Sara Viviani.

Abbreviations

FAO	Food and Agriculture Organization of the United Nations
FIES	Food Insecurity Experience Scale
HDDS	household dietary diversity score
IDP	internally displaced people
IOM	International Organization for Migration
LCSI	livelihood coping strategies index
MOE	margin of error
RFI	recent food insecurity

Key highlights

- The overall prevalence of moderate or severe recent food insecurity (RFI) based on the Food Insecurity Experience Scale (FIES) in government-controlled areas of Ukraine was 15 percent. A higher prevalence of food insecurity was found in households located in frontline oblasts, internally displaced people (IDP), female-headed households, households containing at least one person with vulnerabilities and households that have experienced shocks.
- Across all three key food security indicators collected – household dietary diversity score (HDDS), FIES and livelihood coping strategies index (LCSI) – food security outcomes were better for households that were engaged in agriculture and/or earning an income from agricultural production. These differences were statistically significant.
- An average of 48 percent of households relied on income from work in the public and private sectors, and 45 percent of households relied on income not associated with employment (pension, charity, humanitarian aid/assistance from government and household remittances). More than 50 percent of households reported no secondary income.
- In the three months preceding the survey, one in five households in Ukraine reported a decline in their main income compared to the previous year. This trend was particularly pronounced among agricultural households – half of those reliant on agricultural production as their primary income source experienced a decrease. In addition, over one-third of households relying on agricultural production or labour reported diminished incomes.
- Twenty-eight percent of surveyed households reported experiencing at least one shock affecting their income or ability to access food in the three months preceding the survey. This reached 32 percent in frontline oblasts. All frontline oblasts reported violence/conflict as the most frequent shock.
- About seven in ten Ukrainian households engaged in different types of coping behaviours to access resources to help them meet their immediate food and basic needs. Fifty percent of households employed crisis (42 percent) or emergency (8 percent) coping strategies because of a lack of food or money. The most common coping strategies employed were spending savings and reducing expenditures on health.
- Forty-three percent of crop-producing households and 17 percent of livestock-producing households reported difficulties with their production. Commonly cited challenges included lack of access to water or irrigation, access to inputs (fertilizer, seeds and pesticides), pest/disease outbreak, purchasing feed, and livestock disease or injury.

- Thirty-five percent of agricultural households indicated that they needed support with agricultural production in the coming three to six months. Greater needs for assistance with agricultural production were indicated by households closer to the frontline and female-headed households.
- Female-headed, IDP and frontline households were characterized by more vulnerable income profiles and elevated levels of food insecurity, suggesting the need for targeted interventions.
- Household-level agricultural activities – particularly for subsistence – could be an effective pathway to foster better food security and strengthened resilience at household level.

Context

Since February 2022, the war in Ukraine has had severe impacts on the country's agriculture sector. As at 31 December 2023, nearly two years of the war had elapsed and damages and losses reached USD 80.1 billion, including damage and loss related to the Kakhovka Dam hydroelectric power plant disaster (World Bank, 2023). Ukraine continues to be heavily affected by a grave humanitarian crisis with an estimated 7.3 million people in need of food and livelihood support (OCHA, 2024).

As at August 2023, the population of the territory of Ukraine controlled by the Government was 31.5 million people (Ministry of Social Policy of Ukraine, 2024), a decline from the previous population census of 48.5 million (State Statistics Service of Ukraine, 2004). The significant reduction in population is mainly caused by the ongoing war and temporary occupation, according to the Ministry of Social Policy of Ukraine (2024). The unemployment rate increased from 10 percent in 2021 to 18 percent at the end of 2023 (National Bank of Ukraine, 2024).

Since the beginning of the full-scale invasion, the roles of women and men have differed. Increasing conscription needs are causing a rapid shift in gender roles within rural and urban households. Men have been involved in direct combat on the frontlines and are subject to mobilization unless they have legal grounds for deferment or exemption (CARE, 2023). Women have taken on more responsibility to provide for their families, in the face of loss of income, family separation and massive disruption to basic services.

There was no overall deficit in the availability of food products on the Ukrainian market in 2023. According to the Ministry of Agrarian Policy and Food, livestock producers almost entirely supplied the domestic food market. The number of pigs increased by 3 percent and poultry by 2 percent compared to 2022 (Interfax, 2024). In 2023, meat consumption in Ukraine totalled 54.7 kg per person, compared to 53 kg per person in 2021 (Unian Information Agency, 2022). Agricultural enterprises demonstrated higher growth rates compared to rural households (State Statistics Service of Ukraine, 2023).

According to the Joint Market Monitoring Initiative, in February 2024, 98 percent of customer key informants reported full availability of food items nationally. However, food unavailability or shortages were reported by respondents in southern and eastern areas closer to the frontline, particularly in Donetska, Khersonska and Mykolaiivska oblasts (REACH, 2024).

While the general rate of inflation of consumer prices has slowed to 5.1 percent in 2023, compared to 26.6 percent in 2022, the price of food products continued to rise compared to other consumer goods. The price index for several foods, such as fruit, meat, milk, cheese and oil remained elevated in 2023. The price of processed food products increased 5.9 percent year-on-year.

Higher energy prices and supply constraints have led to a cost-of-living crisis affecting millions of people (World Economic Forum, 2022). Expectation of potential blackouts influences the strategies of households trying to ensure their food security. Particularly in urban areas, households relied more on non-perishable food products (LB.ua, 2022).

Recent assessments of food security point to an overall situation where the majority of households are continuing to consume acceptable diets. However, for up to half of the households, this has likely been achieved through the application of coping strategies (REACH, 2023). Pockets of elevated food insecurity are evident in certain vulnerable groups, such as IDPs and female-headed households, as well as households living in frontline areas. As the war becomes protracted, household resilience to withstand external shocks and the ability to cope may diminish over time, putting the food security of many households at risk of further deterioration.

The State Statistical Service of Ukraine reported over 14.5 million households, including 32 percent living in rural areas and 68 percent in urban areas (2022). Approximately 8 million households are involved in small-scale agricultural production of some sort. Most households operate on relatively small land plots and focus on growing potatoes and vegetables, have orchards, and produce dairy and poultry products. Many households rent out their plots to industrial farms, independent farmers or to other households. Rural households have long viewed their vegetable gardens and agricultural animals as a safety net, providing families with food and/or income (USDA & GAIN, 2022).

Since the onset of the war, agricultural livelihoods have been suppressed or even abandoned due to multiple factors, such as land contamination by mines or unexploded ordnances, declining agricultural incomes and increases in production costs (FAO, 2022). Despite these challenges, household-level agricultural production contributes significantly to the diet of Ukrainians. In 2023, 57 percent of households reported that they relied on their own production as a main food source, and those with agricultural land used it predominantly for subsistence (REACH, 2023).

The effects of the war and its negative spillovers have affected Ukraine's economy, but the areas bordering the frontline are especially hard hit. Challenges related to lack of security, infrastructure and services significantly limit the ability of households to pursue their livelihoods. Many households in these areas are agriculturally engaged, using their production to cope with the situation, and supplement their income and diets.

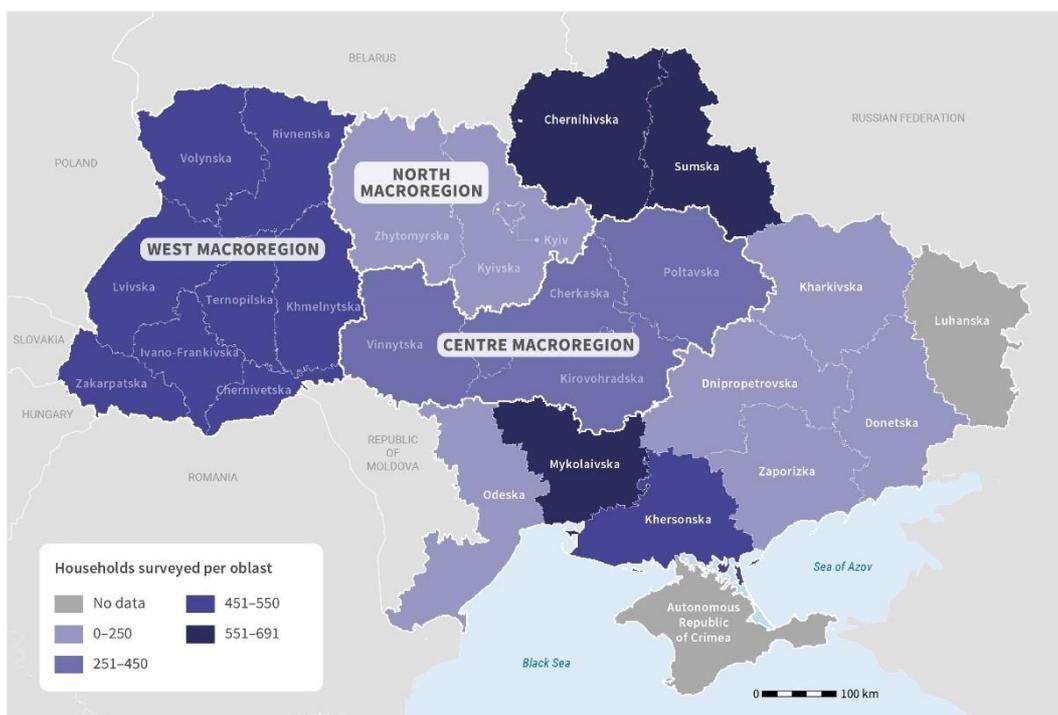
As the war becomes protracted, household resilience to external shocks and ability to cope may diminish over time, putting the food security of many households at risk of further deterioration, especially for vulnerable groups such as IDPs, female-headed households and households in frontline areas.

Objectives and methodology

FAO conducted a household assessment on food security and agricultural livelihoods from 1 to 27 December 2023. The overall aim of this survey was to provide an overview of the food security and livelihoods situation in government-controlled areas of Ukraine to inform evidence-based decision making by partners of the Food Security and Livelihood Cluster of Ukraine, and to design and implement an efficient and prioritized response.

The assessment was administered using computer-assisted telephone interviews based on random digit dialing conducted by the Kyiv International Institute of Sociology. The sample was designed to capture representative information about households in the nine frontline oblasts (Chernihivska, Dnipropetrovska, Doneska, Kharkivska, Khersonska, Mykolaivska, Odeska, Sumska and Zaporizka) and the three larger macroregions¹ – comprised of groupings of oblasts – in government-controlled areas of Ukraine (Figure 1). As this was a household survey, questions about crop and livestock production were aimed at household-level production. Agricultural enterprises were excluded from the survey.

Figure 1. Sampling locations and number of responses



Source of data: FAO. 2024. *Ukraine: Food security and agricultural livelihoods assessment (December 2023)*. Rome.

Source of map: UN Geospatial. 2023. Map of Ukraine. In: *United Nations*. [Cited 30 April 2024]. <https://www.un.org/geospatial/content/ukraine-0>

¹ North macroregion consists of Kyiv, Kyivska and Zhytomyrska oblasts; Centre macroregion consists of Cherkaska, Kirovohradska, Poltavska and Vinnytska oblasts; and West macroregion consists of Chernivetska, Ivano-Frankivska, Khmelnytska, Lvivska, Rivnenska, Ternopil'ska, Volynska and Zakarpatska oblasts.

The total sample consisted of 4 764 households located in urban, rural and peri-urban areas. The sample design is representative of the population with a 95 percent confidence level and an 8.5 percent margin of error (MOE). A subsample quota for rural households was applied in strata where the proportion of rural households was more than 30 percent – Chernihivska, Khersonska, Mykolaivska and Sumska oblasts, and Central and West macroregions) (Annex 1). Weights were applied during analysis to correct for disproportionate sampling at strata and rural population levels. No data collection was possible in areas not under government control at the time of the survey: the Autonomous Republic of Crimea and Luhanska oblast, and parts of Donetsk, Khersonska and Zaporizka oblasts.

Results

Household profiles

Most (56 percent) of the surveyed households were located in urban areas, while 33 percent were in rural areas and 11 percent in peri-urban areas.

Heads of households were nearly evenly split between males (48 percent) and females (51 percent). The proportion of female-headed households was slightly higher in Khersonska (57 percent), Kharkivska (54 percent) and Odeska (54 percent) oblasts. Comparison of survey findings to actual population figures is not possible as demographic data, including distribution by gender, age or location, is not currently available.

IDPs comprised 22 percent of the sample overall. Oblasts such as Dnipropetrovska (35 percent) and Odeska (24 percent), and North macroregion (28 percent) had the highest concentration of IDPs across the sample. Of these IDPs, 70 percent were in urban areas, 21 percent in rural areas and 9 percent in peri-urban areas. The distribution of IDPs by oblast and the higher concentration in urban areas roughly aligns with findings from the October 2023 International Organization for Migration report (IOM, 2023). Most (59 percent) IDP households indicated that they had been living at their current residence for more than 12 months. Close to one in five reported being newly displaced in the six months preceding the survey.

More than 70 percent of households included at least one household member with at least one vulnerability.² Fifty-four percent of households reported the most common vulnerability – chronic illness, or physical or mental disability. The proportion of households with chronically ill or disabled members ranged from 37 percent in the North macroregion to over 60 percent in Donetska, Kharkivska and Khersonska oblasts, possibly linked to a shift of the younger population away from areas directly affected by hostilities.

Household engagement in agriculture

Overall, about 42 percent of households were engaged in agricultural activities. Twenty-one percent of surveyed households indicated that they were involved in crop production in the 12 months preceding the survey, 3 percent were involved in livestock production, and 18 percent were engaged in both crop and livestock production.

About 43 percent of those reporting their involvement in agriculture were located in frontline areas. Only 8 percent of households engaged in agriculture were IDPs, which can be explained by lack of access to land and means of production, as well as limited resource availability.

² The indicator of household vulnerability included the presence of one or more household members with the following characteristics: children under 5 years of age, people over 65 years of age, a family member with chronic illness, or pregnant or lactating women.

Nearly all (98 percent) of the households involved in livestock and crop production indicated the use of produce for their own consumption. Only 2 percent reported selling their products. The main crops produced were potatoes (69 percent) and tomatoes (11 percent). The main animals raised were poultry (58 percent), cattle (19 percent) and swine (14 percent).

Overall, 67 percent of crop producers reported using the same area to plant their main crop compared to last year, while 22 percent of households reported a decrease in planted area. More crop producers reported a decrease in planted area in Chernihivska oblast (35 percent). Change in planted area did not vary notably by crop type.

Thirty-one percent of crop producers reported that their harvests were the same as the previous year, while 38 percent indicated a decline. A higher proportion of crop producers reported a decline in harvest in Odeska (57 percent), Khersonska (46 percent) and Mykolaivska (45 percent) oblasts in the frontline areas, as well as West macroregion (45 percent). Crop producers reported a 25 percent decline, on average, in the amount of harvest (kilogrammes) compared to the previous year.

About 41 percent of livestock producers reported a decrease in the number of livestock compared to the previous year. A decrease in the mean number of animals was observed for all main livestock types. The average decline in the number of animals was higher in frontline than non-frontline areas for all main livestock types. The most commonly cited reasons for a change in the number of livestock were: killed or gave away more animals than usual for own consumption (19 percent), purchased more animals (8 percent) and animal death due to other factors (7 percent).

Forty-three percent of households with crops and 17 percent of households with livestock production reported experiencing difficulties with their production in the previous season or previous three months. These numbers were considerably higher in many frontline areas. Half or more crop producers in Khersonska (66 percent), Odeska (57 percent) and Mykolaivska (50 percent) oblasts reported difficulties.

The challenges most commonly cited by the households involved in crop production were insufficient irrigation and rainfall water (38 percent), access to inputs including fertilizer, seeds and pesticides (25 percent), pest outbreak (21 percent) and plant diseases (12 percent). Livestock producers reported challenges including difficulty purchasing feed (47 percent), and livestock diseases or injuries (27 percent). Additional difficulties reported by crop producers included access to labour, fuel and electricity, and machinery and tools.

Thirty-five percent of agricultural households indicated that they needed support for their agricultural production in the coming three to six months. Within frontline oblasts, households with agricultural needs increased with closer proximity to the frontline. Assistance needs were also slightly higher for female-headed households. The most common assistance needs were crop production inputs such as seeds, fertilizer and tools, cash and livestock feed. In addition to an expressed need for inputs, agricultural households can benefit from extension services to promote better production resilience.

Main income and shocks

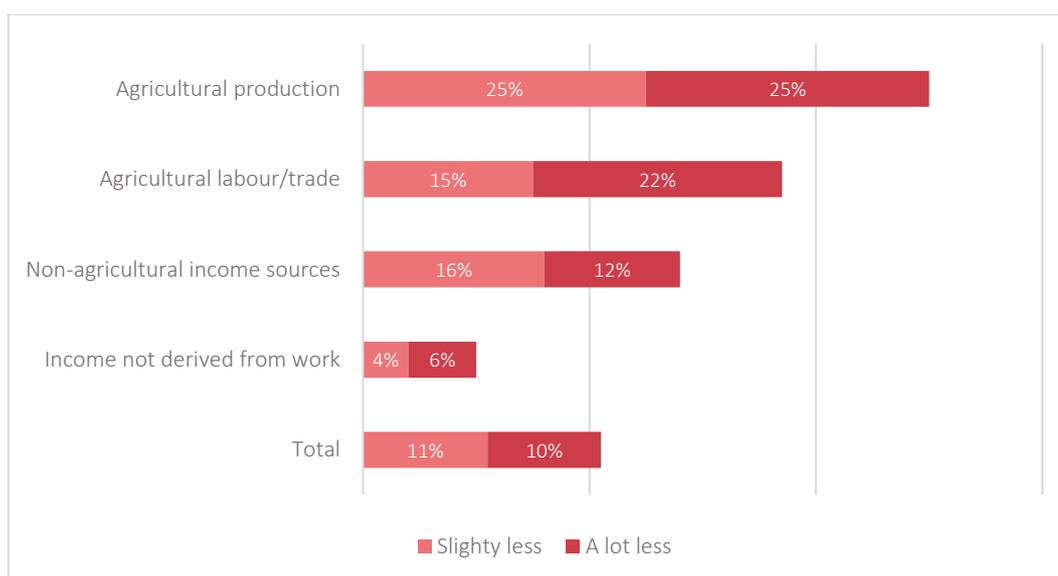
An average of 48 percent of households relied on income from work in the public and private sectors, while 45 percent of households relied on income not associated with employment – pension, charity, humanitarian aid/assistance from government and household remittances. Forty percent of rural and 54 percent of urban households indicated that their main income derived from employment in the public and private sectors. Meanwhile, for 48 percent of rural and 43 percent of urban respondents, the main source of income was not associated with employment. Households in Donetsk (62 percent) and Khersonska (61 percent) oblasts, as well as IDPs (57 percent), were more likely to rely on income not derived from work as their main income source.

According to the survey, less than 5 percent of households relied on agricultural production (2 percent) or trade (2 percent) as a main income source. This is likely because the survey targeted household level agricultural production, which is mainly for subsistence purposes.

More than half of all households indicated that they did not have any second income source, though it is possible that some of these respondents simply preferred not to disclose any second income. Households relying only on one main source of income are likely to be more vulnerable to potential economic shocks.

About one-fifth of the households reported a decline in their main income compared to the previous year, while a similar proportion indicated an increase. Nearly 60 percent of households reported no significant change in their main income source. Households that relied on agricultural income sources were much more likely to report a decline in income compared to other income groups, which may be due in part to the many challenges faced by agricultural producers (Figure 2).

Figure 2. Percentage of households reporting a decline in income compared to the previous year (by type of income)



Source of data: FAO. 2024. *Ukraine: Food security and agricultural livelihoods assessment (December 2023)*. Rome.

Twenty-eight percent of households reported experiencing a shock that affected their ability to raise an income and/or produce food for self-consumption in the three months preceding the survey. The most common shocks experienced were violence/conflict, unusually high food prices, and sickness or death of a household member. Reporting of shocks was slightly higher in frontline oblasts (32 percent) compared to non-frontline oblasts (25 percent). One in five households reported facing high food prices.

One of the biggest shocks affecting some households in southeastern Ukraine was the destruction of the Kakhovka Dam hydroelectric power plant in June 2023. Sixteen percent of households in Dnipropetrovska, Khersonska, Mykolaivska and Zaporizka oblasts reported that they were directly or indirectly affected by the destruction. Indicatively, more households reported being affected in Dnipropetrovska and Khersonska oblasts. The most common consequences cited were related to drinking water – lack of availability and poor quality – and flooding, or damage to homes and belongings. Flooding of agricultural land, damage to crops, livestock and fishing activities, lack of irrigation and higher food prices were also reported.

Food security

Food security includes four components – food availability, access, utilization and stability (FAO, 2006). Agricultural activities can support basic nutrition needs and help households secure their livelihoods.

To understand the food security status of surveyed households, respondents were asked to provide information on their food consumption in the 24 hours preceding the survey (HDDS), their recent experiences with food insecurity (FIES), and the strategies and behaviours they have employed in order to meet their household needs for food or money to buy food (LCSI).

HDDS³ is a proxy measure of food access in which households indicate the food groups they have consumed in the 24 hours preceding the survey. Among the surveyed households, 91 percent reported that they consumed a diet that was considered high dietary diversity. Medium dietary diversity (7 percent) and low dietary diversity (1 percent) scores were reported by 8 percent of households. The combined prevalence of low and medium dietary diversity was highest in Zaporizka (12 percent), Odeska (11 percent), Kharkivska (11 percent) and Dnipropetrovska (10 percent) oblasts.

³Low dietary diversity indicates consumption of only 1–2 food groups in the 24 hours preceding the survey. High dietary diversity indicates consumption of five or more food groups in the 24 hours preceding the survey. The food groups included in the HDDS are (FAO, 2013): cereals (sorghum, millet, corn, wheat, rice, spaghetti, bread, any other locally available grain, etc.); condiments (cocoa, salt, garlic, spices, yeast, baking powder, tomato or tomato sauce, meat or fish as a condiment, and coffee/tea, etc.); vegetables; roots and tubers (white sweet potato, potato, yam, cassava, other tubers, etc.); oils and fat (cooking oil, butter, margarine, fat, other oils, etc.); sugar or sugary products (honey, jam, donuts, candy, chocolate, biscuits, pastries, cakes, other sweet products, etc.); meat, poultry and offal (beef, pork, lamb, goat, rabbit, wild game, chicken, duck, liver, kidney, heart or other organ meats, etc.); fruit; milk and other dairy products (fresh milk, sour cream, yogurt, cheese, other dairy products, etc.); eggs; legumes, nuts and seeds (beans, peas, peanut, lentils, almond, other nuts, etc.); and fish or shellfish (fresh or dried fish/shellfish).

Among households consuming a diet high in diversity, the majority consumed cereals, vegetables, roots and tubers, and meat/poultry, as well as condiments, oils and fats, and sugary foods (Annex 2). Micronutrient rich foods – such as fruit, milk and dairy, eggs, legumes and fish – were consumed less often by these households, and this was negligible for households in the medium and low dietary diversity categories. Multiple factors may be driving the reduced frequency of consumption of fruit, eggs, legumes and milk/dairy, such as seasonality or conflict-related issues – lack of reliable energy for storing perishables, changing diets or preferences due to high food prices, lack of availability or other factors.

IDPs (11 percent) were somewhat more likely to report low and medium dietary diversity than permanent residents (8 percent). Households that indicated their main source of income was agricultural production, demonstrated a very low incidence of low and medium dietary diversity (4 percent), compared to households with other income sources (ranging from 7 to 10 percent) (Ministry of Agrarian Policy and Food, 2024).

The analysis did not reveal any statistical difference between low and medium dietary diversity between male- and female-headed households, and urban and rural locations.

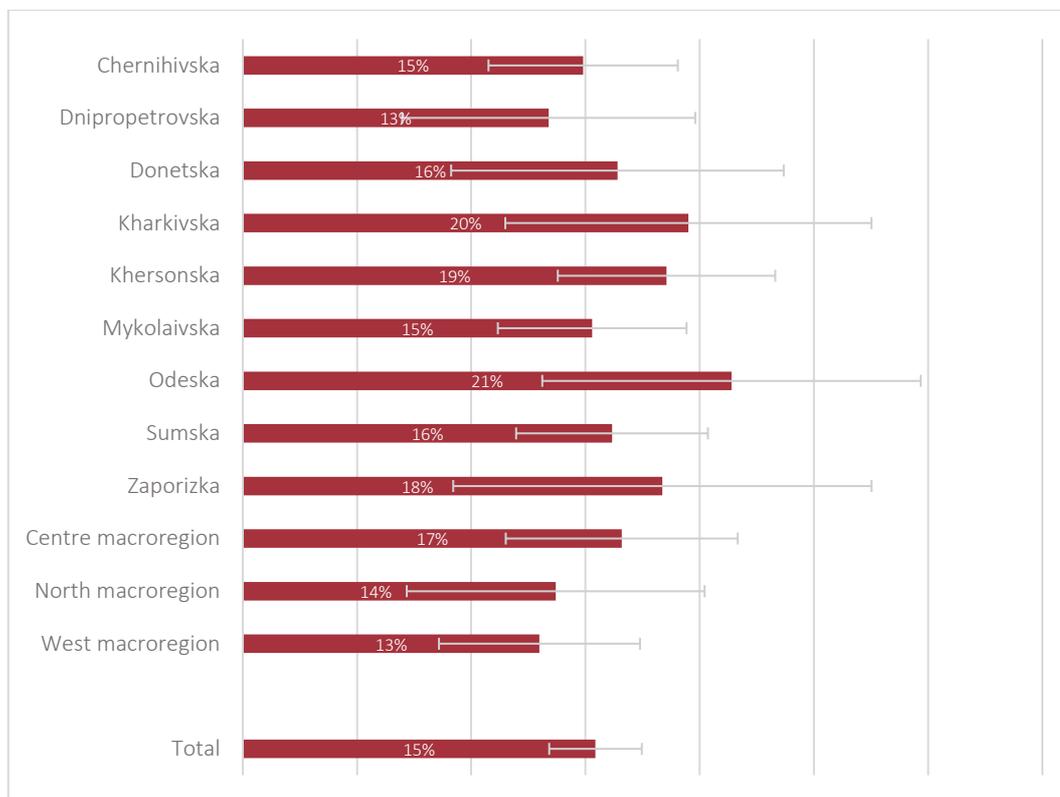
FIES is a standardized, globally valid, experience-based metric of food insecurity that assesses a household's access to adequate food (FAO, 2024). It is composed of a set of questions focused on self-reported food-related behaviours and experiences associated with increasing difficulties accessing food due to resource constraints. The FIES module used in this survey applied a 30-day reference period, measuring RFI.⁴

According to the 30-day referenced FIES employed in this survey, moderate or severe RFI was defined as a household that has faced uncertainties about its ability to obtain food and has been forced to compromise on the quality and/or quantity of the food consumed in the 30 days preceding the interview. These households may have also run out of food and, at worst, gone a day without eating.

Overall, 15 percent of respondents were affected by RFI at the moderate or severe level based on the FIES (Figure 3). A higher mean prevalence of food insecurity at this level was noted in Odeska (21 percent), Kharkivska (20 percent), Khersonska (19 percent) and Zaporizka (18 percent) oblasts, while the lowest prevalence was found in North and West macroregions (13–14 percent), however the difference between these oblasts was not statistically significant.

⁴ The prevalence of severe RFI is very low (about 1 percent) and will not be reported alone due to low sample size. Reporting of RFI combines the moderate and severe categories throughout this report.

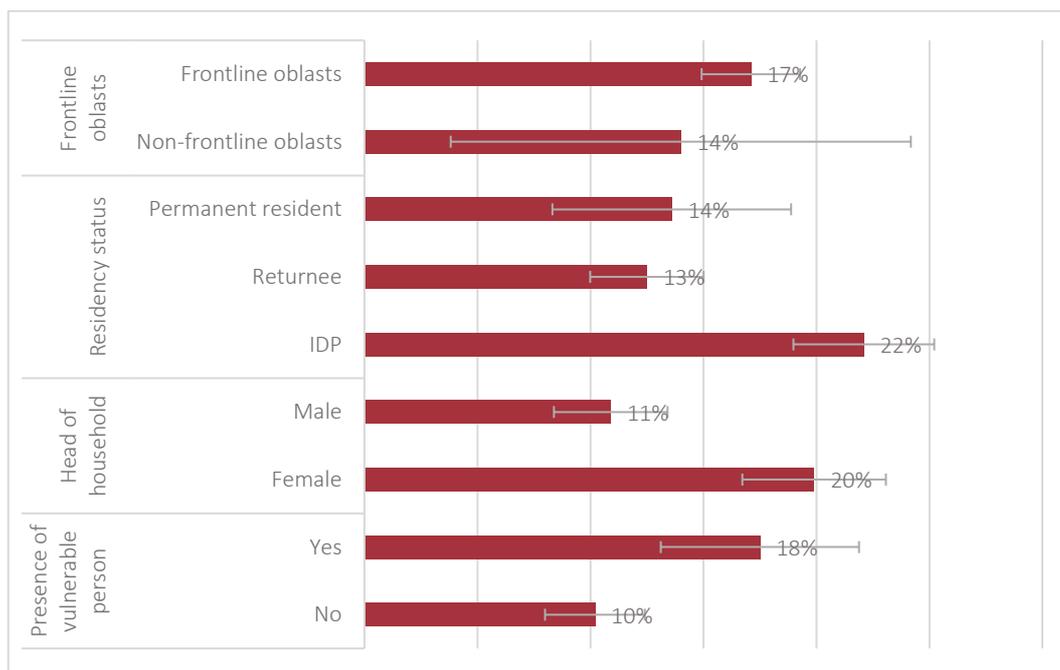
Figure 3. Prevalence of moderate or severe RFI (percent of households +/- MOE) by location



Source of data: FAO. 2024. Ukraine: Food security and agricultural livelihoods assessment (December 2023). Rome.

The prevalence of moderate or severe RFI was higher for households living in frontline oblasts, IDPs, female-headed households and households with at least one vulnerable household member (Figure 4).

Figure 4. Prevalence of moderate or severe RFI (percentage of households +/- MOE) by household characteristics



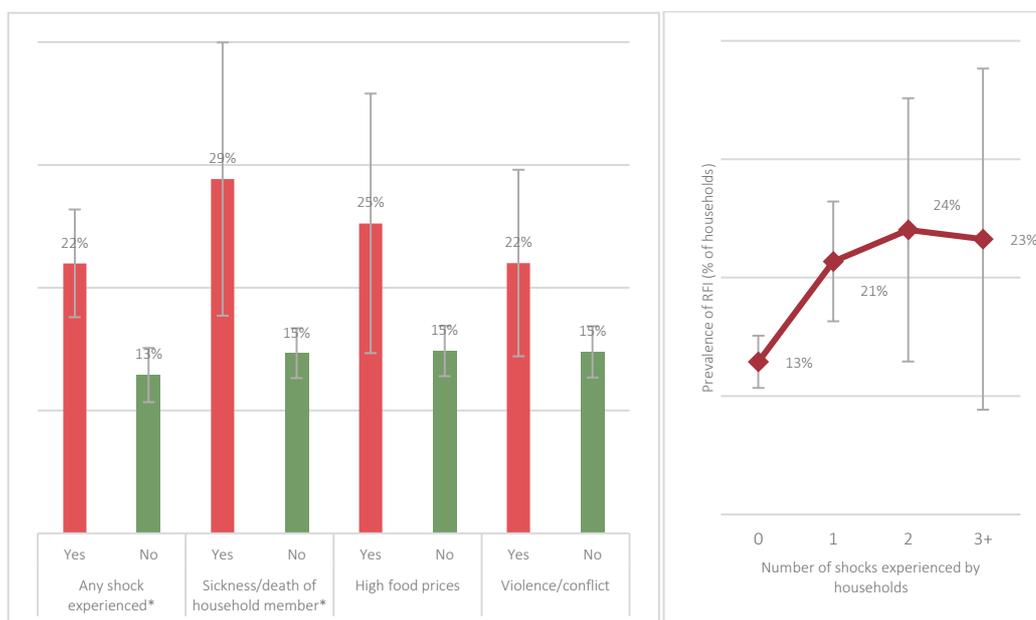
Source of data: FAO. 2024. Ukraine: Food security and agricultural livelihoods assessment (December 2023). Rome.

The prevalence of moderate or severe RFI was higher for households living in frontline oblasts (17 percent) compared to households living in non-frontline oblasts (14 percent). Within frontline oblasts, households living 30 km or less from the frontline had a higher mean prevalence of RFI (19 percent). In both cases, these differences were not statistically significant.

Elevated levels of food insecurity – meeting statistical significance – were noted for IDPs, female-headed households and households with at least one vulnerable household member. The mean prevalence of moderate or severe RFI in IDP households (22 percent) was almost 9 percentage points higher than permanent residents (14 percent), while female-headed households (20 percent) reported close to double the level of moderate or severe RFI compared to male-headed households (10 percent).

Households that reported experiencing at least one shock to their livelihoods in the three months preceding the survey were considerably more likely to be moderately or severely food insecure (22 percent) than those that did not report a shock (13 percent) (Figure 5). This pattern held for all three of the main shocks experienced – sickness or death of household member, high food prices and violence/conflict. In the case of sickness or death of a household member, the prevalence of moderate or severe RFI was particularly high at 29 percent and nearly double that of households that did not report this shock (15 percent). This difference was statistically significant. The mean prevalence of RFI also tended to increase with the number of shocks reported. The relationship between these variables reveals a clear link between food security outcomes and household vulnerabilities or shocks experienced. Households with greater resilience to withstand shocks are likely to be less at risk of food insecurity.

Figure 5. Prevalence of moderate or severe RFI (percent of households +/- MOE) by households experiencing shocks in the three months preceding the survey, by type of shock (left) and by number of shocks (right)

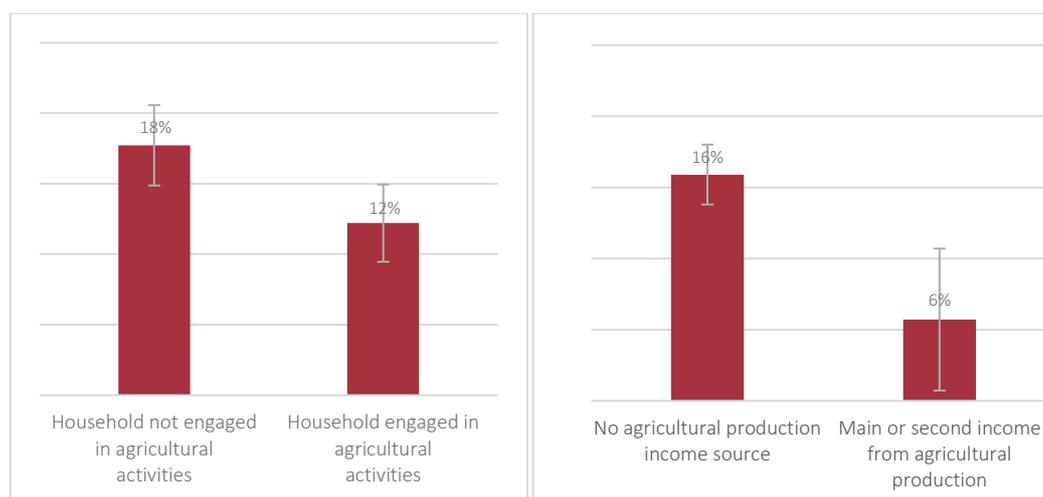


Note: * indicates comparisons that were statistically significant.

Source of data: FAO. 2024. Ukraine: Food security and agricultural livelihoods assessment (December 2023). Rome.

An important and statistically significant difference was noted for households that were engaged in agricultural activities or earned income from agricultural production. Households engaged in agricultural activities (crops, livestock or both) demonstrated a lower prevalence of moderate or severe RFI (12 percent) than households not engaged in agriculture (18 percent). An even starker contrast was noted for households that earned income from agricultural production, either as their main or second income source (Figure 6). The prevalence of RFI at the moderate or severe level for households with any income from agricultural production (6 percent) was less than half of the prevalence for households with no agricultural production income (16 percent).

Figure 6. Prevalence of moderate or severe RFI (percent of households +/- MOE) by household agricultural activity and income



Source of data: FAO. 2024. Ukraine: Food security and agricultural livelihoods assessment (December 2023). Rome.

The findings related to agricultural households that, despite many challenges, have generally greater access to self-production and income-earning opportunities, also underscore the importance of livelihoods and resilience to household food security outcomes.

LCSI is used to understand the behaviours and strategies employed by households in response to a lack of food or lack of money to buy food. Strategies are grouped into stress, crisis or emergency categories depending on their severity level.⁵ Emergency-level strategies tend to be difficult to reverse. As a crisis persists, households tend to turn to increasingly more severe coping strategies, as their ability to cope diminishes over time.

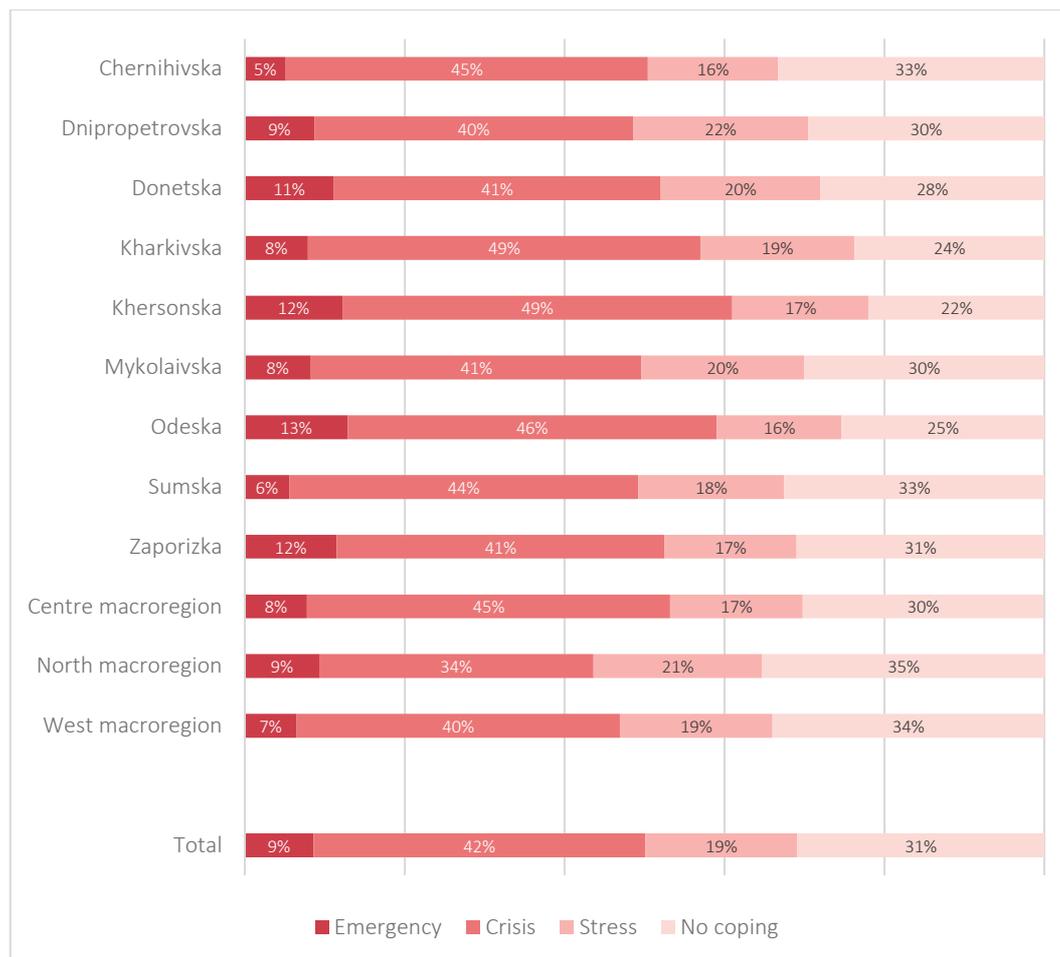
Overall, nearly 70 percent of households reported employing some coping strategies because of a lack of food or money to buy food. Crisis (42 percent) or emergency (9 percent) coping strategies were relied on by half of all respondent households. Three

⁵ The categorization of individual coping strategies for LCSI administered in this survey was as follows:

- Stress category: sold household assets/goods (radio, furniture, television, jewelry, etc.); spent savings; sent household members to eat elsewhere; and purchased food on credit or borrowed food.
- Crisis category: sold productive assets or means of transport (sewing machine, wheelbarrow, bicycle, car, etc.); reduced expenses on health (including drugs); and decreased expenditures on fertilizer, pesticide, fodder, animal feed, veterinary care, etc.
- Emergency category: sold house or land; sold last female animals; and migrated with entire household.

frontline oblasts reported higher than average combined levels of crisis and emergency coping: Khersonska (61 percent), Odeska (59 percent) and Kharkivska (57 percent) (Figure 7).

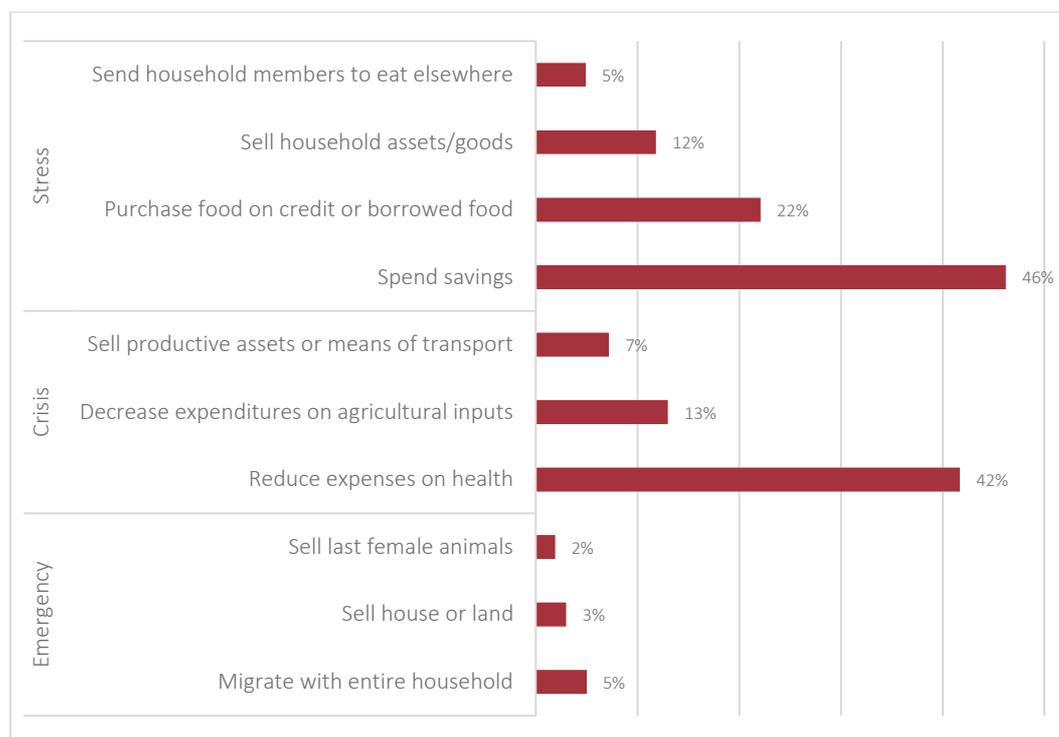
Figure 7. Proportion of households engaging in livelihood coping strategies (by location)



Source of data: FAO. 2024. *Ukraine: Food security and agricultural livelihoods assessment (December 2023)*. Rome.

The most common coping strategies employed were spending savings (46 percent) and reducing expenditures on health (42 percent) (Figure 8). Households in frontline areas were somewhat more likely to purchase food on credit, or borrow food and decrease expenditures on health.

Figure 8. Coping strategies employed by households (percentage of households that reported using coping strategies)



Source of data: FAO, 2024, Ukraine: Food security and agricultural livelihoods assessment (December 2023). Rome.

Similar to the FIES results, female-headed households, households with at least one vulnerable member, IDPs or households not engaged in agriculture reported a statistically significant elevated level of coping.

- Fifty-six percent of female-headed households employed either crisis or emergency coping strategies, compared to 44 percent of male-headed households.
- Nearly three-quarters of respondent households with at least one vulnerable member engaged in some coping strategies, compared to 59 percent for households without. Among the specific vulnerabilities, households with members who were chronically ill and/or over 65 years of age were more likely to engage in coping behaviours.
- Four out of five IDP households engaged in some coping strategies, with a very high proportion engaged in emergency and stress coping strategies (61 percent, combined), compared to permanent residents (47 percent).
- Households not engaged in agriculture (11 percent) had nearly double the rate of employed emergency coping strategies compared to agriculturally engaged households (6 percent).

The use of coping strategies was widespread across the three categories of dietary diversity. Even in households that reported a highly diverse diet, nearly 70 percent employed some coping behaviours to meet their food needs. While the application of coping strategies seems to be currently enabling access to more diverse diets, it also suggests that even these households may be at a potential risk of deterioration if coping ability diminishes.

Conclusion

From the evidence presented, small-scale agriculture emerges as a key factor in supporting household food security. Analysis of food security indicators (HDDS, FIES and LCSi) indicates statistically significant better food security outcomes for households either engaged in agricultural activities and/or earning an income from agricultural production. Agricultural activities support household resilience, or their ability to withstand, absorb, adapt and transform after experiencing a shock.

However, small-scale agricultural producers in Ukraine have been deeply affected by the ongoing war. They face multiple challenges related to access to inputs, water and feed, mine-contaminated land, declining income and disrupted supply chains, among many others. Adequate assistance to agricultural livelihoods, through in-kind distribution, extension services or other means is needed to help mitigate these challenges in support of household food security and resilience.

Resilience at household level is impacted by a number of factors. Vulnerability remains present in certain groups, such as IDPs, households in frontline areas and female-headed households, where elevated food insecurity is present. These households more frequently reported shocks, which may erode the resilience capacity of households over time.

Targeted support is needed for vulnerable groups to be able to build resilience to ongoing shocks:

- **IDP households** demonstrated significantly worse outcomes across most food security indicators compared to permanent residents. More than one in five IDP households were considered food insecure based on the FIES, a rate that is nearly 10 percentage points higher than permanent residents. IDPs were consuming less diverse diets and engaged in much higher levels of coping behaviours. Their income profile was quite vulnerable, as 57 percent relied on non-work income (aid, assistance, pension, transfers, etc.) as their primary source of income. Second incomes were the result of aid/charity for about 40 percent, but an equal proportion of households had no second income at all. As the majority of IDPs have resettled in urban areas (IOM, 2023), they may be excluded from certain livelihood activities – notably agriculture – which this survey suggests may be a protective activity related to household food security.
- **Female-headed households** have consistently worse outcomes on food security indicators compared to male-headed households. At 22 percent, the prevalence of RFI is almost double, and the usage of crisis and emergency coping strategies (56 percent) is more than 10 percentage points higher than male-headed households. The vulnerability of female-headed households is likely influenced by socioeconomic factors. Female-headed households are much more likely to rely on non-work (aid, assistance, pension) as their main income source (55 percent vs 35 percent for male-headed households). They are less likely to indicate that they are married

(41 percent of female-headed households vs 75 percent of male-headed households), and more likely to indicate they are either divorced or widowed. Female heads of households were slightly more likely to be elderly and to be the lone member of the household.

- **Frontline households** were twice as likely to report experiencing violence, conflict or insecurity. Within frontline oblasts, households living in closer proximity to the frontline were more likely to report shocks. Income sources were vulnerable and lacked diversity. Frontline oblasts were much more likely to rely on non-work incomes – more than half of frontline households reported pension, aid or assistance as their main income – and close to 60 percent reported no second income. Those engaged in crop and livestock production reported higher levels of production difficulties, especially in Khersonska, Mykolaivska and Odeska oblasts. Although the difference is not as dramatic as might be expected, the frontline oblasts reported a higher prevalence of RFI and coping behaviours. It is possible that the high levels of assistance provided in these locations serve to somewhat stabilize conditions – or at least prevent major deterioration. However, attribution cannot be assigned based on these findings.
- **Non-agricultural households** that were either not engaged in agricultural activities or did not earn any income from agricultural production reported worse food security outcomes. Non-agricultural households had poorer dietary diversity and a higher incidence of both RFI and coping behaviours. This suggests household-level agriculture, and the support thereof, is likely an activity that promotes household food security.

A possible escalation in coping behaviours among Ukrainian households points to a more general erosion of household resilience. While the results of the 2023 Multisectoral needs assessment are not directly comparable due to differing indicators and samples (REACH), an indicative trend can be inferred. The prevalence of inadequate diets is roughly similar, while coping behaviours have increased considerably from about 50 to 70 percent of households. This escalation in coping may be enabling households to maintain their food security in the short term, however, over time and without support, this may diminish their ability to cope in the future and deplete their risk-absorption capacity.

The findings highlight the importance of supporting household resilience, especially as the war evolves into a protracted crisis. Targeted support is needed for vulnerable groups to enable them to build resilience to ongoing shocks. In addition, protecting and supporting agricultural livelihoods is essential, as small-scale agricultural activities in Ukraine – particularly for subsistence – can be a pathway to better food security and strengthened resilience at household level. These efforts are aligned with the Government's long-term vision of a green recovery for Ukraine.

Annexes

Annex 1. Sample design

Strata	Targeted (sample design)		Achieved		Percentage of total achieved/ target (%)	Percentage of rural achieved/ target (%)
	Quota for rural households (where applicable)	Total target per strata	Total complete surveys	Rural households complete surveys		
Chernihivska	207	610	618	217	101	105
Dnipropetrovska	n/a	207	210	36	101	n/a
Kharkivska	n/a	207	209	51	101	n/a
Khersonska	207	537	546	208	102	101
Mykolaivska	207	663	670	268	101	129
Sumska	207	686	691	286	101	138
Zaporizka	n/a	207	212	29	102	n/a
Donetska	n/a	207	212	24	102	n/a
Odeska	n/a	207	209	61	101	n/a
North macroregion*	n/a	207	247	98	119	n/a
Center macroregion**	207	505	450	210	101	101
West macroregion***	207	406	490	213	106	103
Total	1 242	4 649	4 764	1 649	103	133

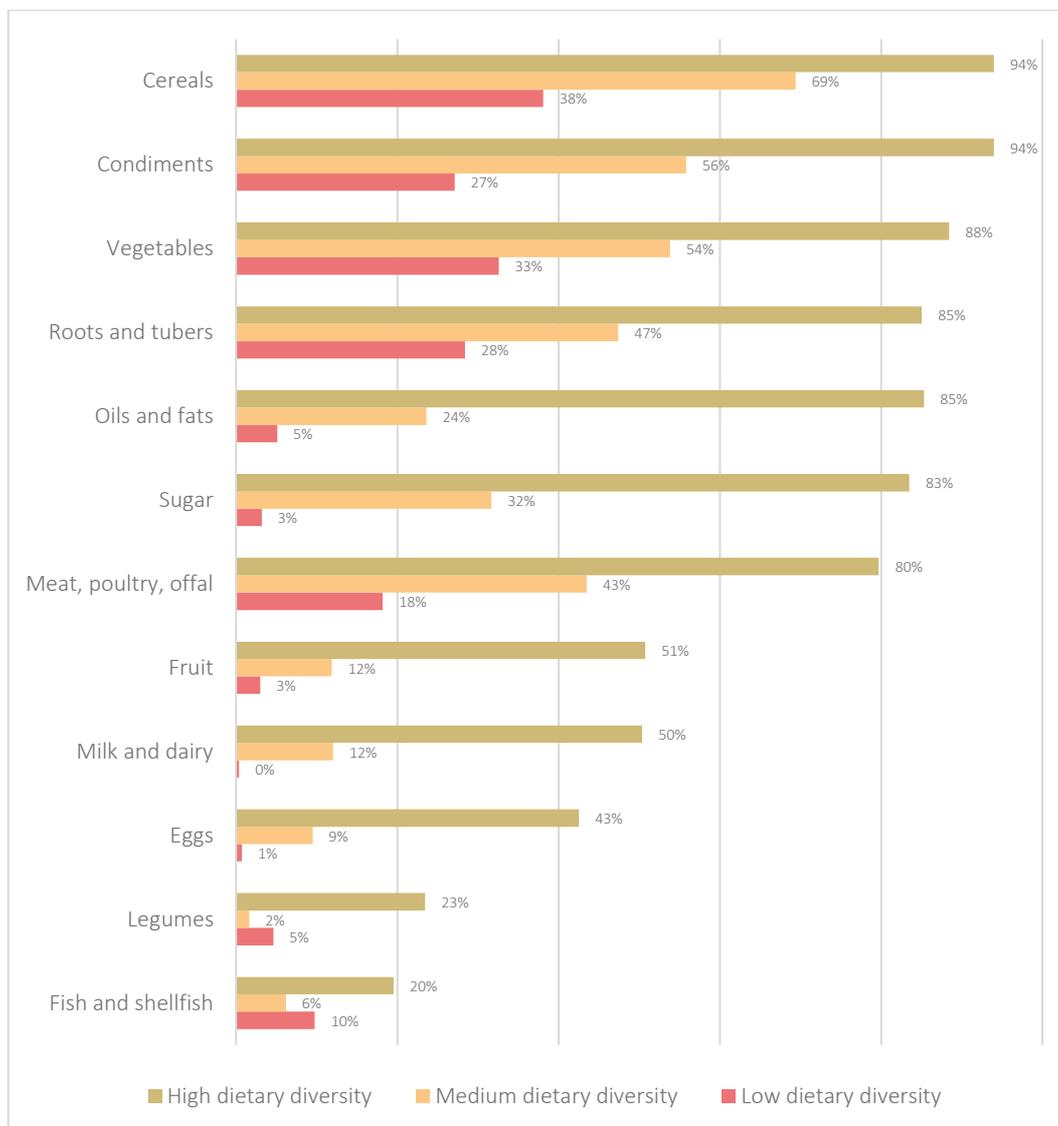
Source of data: FAO. 2024. Ukraine: Food security and agricultural livelihoods assessment (December 2023). Rome.

*North macroregion consists of Kyiv, Kyivska and Zhytomyrska oblasts.

**Centre macroregion consists of Cherkaska, Kirovohradska, Poltavska and Vinnytska oblasts.

***West macroregion consists of Chernivetska, Ivano-Frankivska, Khmelnytska, Lvivska, Rivnenska, Ternopilska, Volynska and Zakarpatska oblasts.

Annex 2. Food groups consumed by household dietary diversity categories



Notes: Results for the low dietary diversity category should be considered indicative due to small sample size (n=62).

Source of data: FAO. 2024. *Ukraine: Food security and agricultural livelihoods assessment (December 2023)*. Rome.

References

- CARE.** 2023. *Ukraine Rapid Gender Analysis*. <https://www.care-international.org/resources/ukraine-rapid-gender-analysis>
- FAO.** 2024. The Food Insecurity Experience Scale. In: *FAO*. Rome. [Cited 30 April 2024]. <https://www.fao.org/in-action/voices-of-the-hungry/fies>
- FAO.** 2022. *Ukraine: Impact of the war on agriculture and rural livelihoods in Ukraine – Findings of a nation-wide rural household survey, December 2022*. Rome. <https://doi.org/10.4060/cc3311en>
- FAO.** 2013. *Guidelines for measuring household and individual dietary diversity*. Rome. <https://openknowledge.fao.org/server/api/core/bitstreams/bd40d242-54c8-4869-85fa-a9da7bd732da/content>
- FAO.** 2006. *Policy brief: food security*. Rome. https://www.fao.org/fileadmin/templates/faoitally/documents/pdf/pdf_Food_Security_Concept_Note.pdf
- Interfax.** 2024. Number of pigs increased 3% and poultry 2.2% in Ukraine in 2023. In: *Interfax*. London. [Cited 30 April 2024]. <https://interfax.com/newsroom/top-stories/101075/>
- IOM.** 2023. *DTM Ukraine – Internal Displacement Report – General Population Survey Round 14 (September–October 2023)*. Geneva. <https://dtm.iom.int/reports/ukraine-internal-displacement-report-general-population-survey-round-14-september-october>
- LB.ua.** 2022. From canned goods to electric scooters: how the consumer demand of Ukrainians changed during the war. In: *LB.ua*. Kyiv. [Cited 30 April 2024]. https://lb.ua/society/2022/07/11/522787_vid_konserv_elektroskuteriv_yak.html
- Ministry of Agrarian Policy and Food.** 2024. *Food security strategy*. Kyiv. <https://spo.fpsu.org.ua/wp-content/uploads/2024/02/strategiya.pdf>
- Ministry of Social Policy of Ukraine.** 2024. *Strategy for Demographic Development of Ukraine until 2040*. Kyiv. <https://www.msp.gov.ua/projects/870/>
- National Bank of Ukraine.** 2024. Inflation to Remain Moderate and Economy to Recover in 2024–2026: NBU Inflation Report. In: *National Bank of Ukraine*. Kyiv. [Cited 30 April 2024]. <https://bank.gov.ua/en/news/all/inflyatsiya-zalishatimetsya-pomirnoyu-a-ekonomika-nadali-vidnovlyuvatimetsya-u-20242026-rokah--inflyatsiyniy-zvit-nbu>
- OCHA (United Nations Office for the Coordination of Humanitarian Affairs).** 2024. *Ukraine Humanitarian Needs and Response Plan 2024 (December 2023)*. Geneva. <https://www.unocha.org/publications/report/ukraine/ukraine-humanitarian-needs-and-response-plan-2024-december-2023-enuk>

REACH. 2024. *Ukraine: Joint market monitoring initiative*. https://repository.impact-initiatives.org/document/reach/0dc51198/UKR_JMMI_Factsheet_Round_23_February_2024.pdf

REACH. 2023. *Multi-sector needs assessment (MSNA) – Global Key Findings*. https://repository.impact-initiatives.org/document/reach/f937ecd2/REACH_MSNA-2021_Global_Key_Findings_indicators_only.pdf

State Statistics Service of Ukraine. 2023. *Livestock in Ukraine in 2022*. Kyiv. https://www.ukrstat.gov.ua/druk/publicat/kat_u/2023/zb/05/zb_tv_2022.pdf

State Statistics Service of Ukraine. 2022. *Social and demographic characteristics of households of Ukraine (according to sample survey results)*. Kyiv. https://www.ukrstat.gov.ua/druk/publicat/kat_u/2022/zb/07/sdhd_22.pdf

State Statistics Service of Ukraine. 2004. All-Ukrainian population census. In: *State Statistics Committee of Ukraine*. Kyiv. [Cited 30 April 2024]. <https://2001.ukrcensus.gov.ua/eng>

Unian Information Agency. 2022. The Ministry of Agrarian Policy calculated the period for which Ukrainians are provided with meat. In: *Unian Information Agency*. Kyiv. [Cited 30 April 2024]. <https://www.unian.ua/economics/agro/u-minagropolitiki-pidrahuvali-nayakiy-period-ukrajinci-zabezpecheni-m-yasom-12085812.html>

USDA (United States Department of Agriculture) & GAIN (Global Agricultural Information Network). 2022. *Households agricultural production*. Kyiv. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Households%20Agricultural%20Production_Kyiv_Ukraine_UP2022-0030

World Bank. 2023. *Ukraine: Third Rapid Damage and Needs Assessment (RDNA3), February 2022–December 2023*. Washington, D.C. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099021324115085807/p1801741bea12c012189ca16d95d8c2556a>

World Economic Forum. 2022. The cost-of-living crisis is having a global impact. Here's what countries are doing to help. In: *World Economic Forum*. Geneva. [Cited 30 April 2024]. <https://www.weforum.org/agenda/2022/09/cost-of-living-crisis-global-impact>



USAID
FROM THE AMERICAN PEOPLE

This report is made possible by the support of the American People through the United States Agency for International Development (USAID). The contents of this report are the sole responsibility of Food and Agriculture Organization of the United Nations and do not necessarily reflect the views of USAID or the United States of America Government.

Contact

FAO Project Office in Ukraine
FAO-UA@fao.org
www.fao.org/countryprofiles/index/en/?iso3=UKR
@FAOUkraine

**Food and Agriculture Organization
of the United Nations**

Kyiv, Ukraine