



**Center for Sociological  
Research, Decentralization  
and Regional Development**  
at Kyiv School of Economics

## Survey Methodology for “**Explaining Ukraine’s Resilience to Russia’s Invasion: the Role of Local Governance**”

For this study, we employed a cross-sectional design to investigate the resilience of hromadas. By utilizing **a cross-sectional design**, we obtained a snapshot of hromada resilience at a specific point in time, allowing us to explore the relationship **between different variables and resilience outcomes**.

In our research, we utilized open data from various sources, including both government and non-governmental sources, as well as the data from two surveys conducted by Kyiv School of Economics (KSE) Institute, for the purposes of measuring the dependent variables. Survey #1 was conducted online with representatives of hromadas in June-August 2022 and is used to measure robustness by the suspension of services. The total number of responses is **474 (33% out of all 1,438 hromadas)**. The sample contains responses from *148 urban hromadas* and *326 rural hromadas*. The sample gives a good representation of the general population of hromadas and has no statistically significant differences from it in most respects. It has a slightly higher share of urban hromadas (*31.4% vs 26.4% of all hromadas,  $p < 0.05$* ) and a lower share of rural hromadas (*36.9% v. 43.5%,  $p < 0.01$* ). The composition of the sample by region also aligns with the general population of hromadas: a slightly higher share of hromadas from the North of Ukraine (*21.2% vs 16.9%,  $p < 0.05$* ) and a lower share from the South (*8.8% vs 13.4%,  $p < 0.01$* ), with almost equal shares from the Centre (*20.5% vs 20.7%*), East (*20.8% vs 19.5%*) and West (*28.7% vs 29.5%*). The sample also contains relatively fewer hromadas in the combat zone as of June 2022 (*13% vs 19%,  $p < 0.01$* ) and in the 30 km zone from the borders with

Russia and Belarus (5% vs 8%,  $p < 0.05$ ), given that representatives of these hromadas are more difficult to reach.

Survey #2 was sent online to the local authorities between October and November 2022 to get an insight into hromadas' preparedness and adaptation to the full-scale invasion. The survey was filled in by **138 representatives of hromadas** (9.6% out of 1,438 hromadas, excluding hromadas that were occupied in 2014). Without hromadas that experience occupation or military actions as of November 2022, the number is 116 out 1131 hromadas (10.3% response rate). 13% of the sample is located in the combat zone as of June 2022 (which constitutes 19% of all hromadas,  $p < 0.05$ ), while 6% are situated within the 30 km zone from the borders with Russia and Belarus (which accounts for 8% of all hromadas). The composition of the sample closely aligns with the regional distribution of hromadas, with a slightly higher representation from the Western region and a comparatively lower representation from the Eastern region (West: 37.7% vs 29.5%,  $p < 0.05$ ; Center: 17.4% vs 20.7%; North: 16.7% vs 16.9%; South: 14.5 vs 13.4%; East: 13.8% vs 19.5%,  $p < 0.1$ ). Village hromadas (33.3% vs 43.5%,  $p < 0.05$ ) were underrepresented in the survey.

Regression analysis was employed to determine the size and direction of the effect that independent variables (predictors) had on the dependent variable (resilience indicators). Given the limited number of observations, we used models with one dependent variable (for each of the predictors) and controlling only for being in the combat zone for the adaptation indicator (number of measures to prepare for winter) and the fact of being in the combat zone together with city hromada status for the robustness indicators (Suspension of garbage collection service and Full suspension of administrative services).