

### OVERVIEW

This report analyses the [Ukraine Severity Model](#), which regularly tracks contextual, humanitarian, and conflict-related data available from diverse sources and consolidates these, providing a severity score for each administrative region (oblast) of Ukraine. The focus of the analysis is between early 2022 and March 2024.

The severity of a humanitarian crisis is considered to be the impact of the crisis on people, compounded by how complex it is to deliver humanitarian response. It is an extent of outcomes for people in terms of distribution and how the severity of the conditions they are confronted with in the crisis affects them ([ACAPS 11/03/2024](#)).

### Aim

This report aims to help humanitarian decision makers understand how crisis severity varies across Ukraine's oblasts and how it has changed over time.

Humanitarians may also use the dashboards on the [ACAPS Ukraine country page](#), which includes data on infrastructure damage and humanitarian access, to explore how the crisis has been evolving.

### Methodology

This report is based on an analysis of the [Ukraine Severity Model](#) data, its accompanying methodology notes, and a complementary secondary data review ([ACAPS 11/03/2024](#); [EC 19/10/2020](#)). Crisis severity is presented as a score on a scale of 0 (lowest) to 5 (highest severity). The Ukraine Severity Model is inspired by the global INFORM Severity Index and is tailored to available data in Ukraine ([ACAPS 11/03/2024](#); [EC 19/10/2020](#)).

### Limitations

The severity scores are updated monthly, with the most recently available data used if there is no recent data ([ACAPS 11/03/2024](#)). Limited data availability and data discrepancies, explained at the end of this report, affect the calculation of the severity scores. The Ukraine Severity Model is likely to be refined in mid-2024.

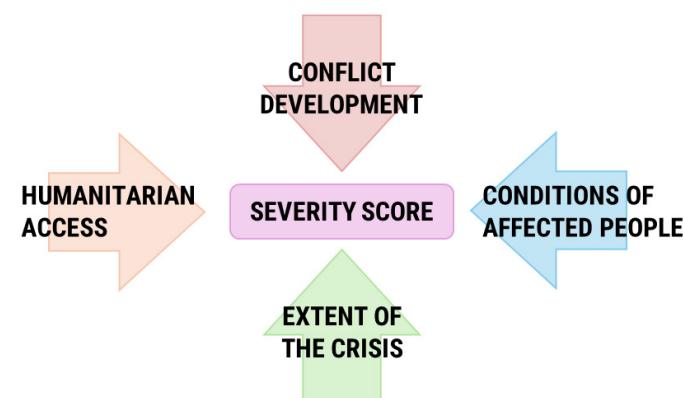
### Key findings

- In March 2024, the humanitarian crisis in Ukraine was the most severe in frontline oblasts: Donetsk (severity score 4.3), Kharkivska (4.2), Khersonska (3.9), Zaporizka (3.9), and Luhanska (3.2) oblasts.
- Findings are consistent with the Multi-Sector Needs Analyses, which show the highest severity in southern and eastern Ukraine ([REACH 02/03/2023](#) and [13/12/2023](#)).

The following findings apply between March 2023 and March 2024.

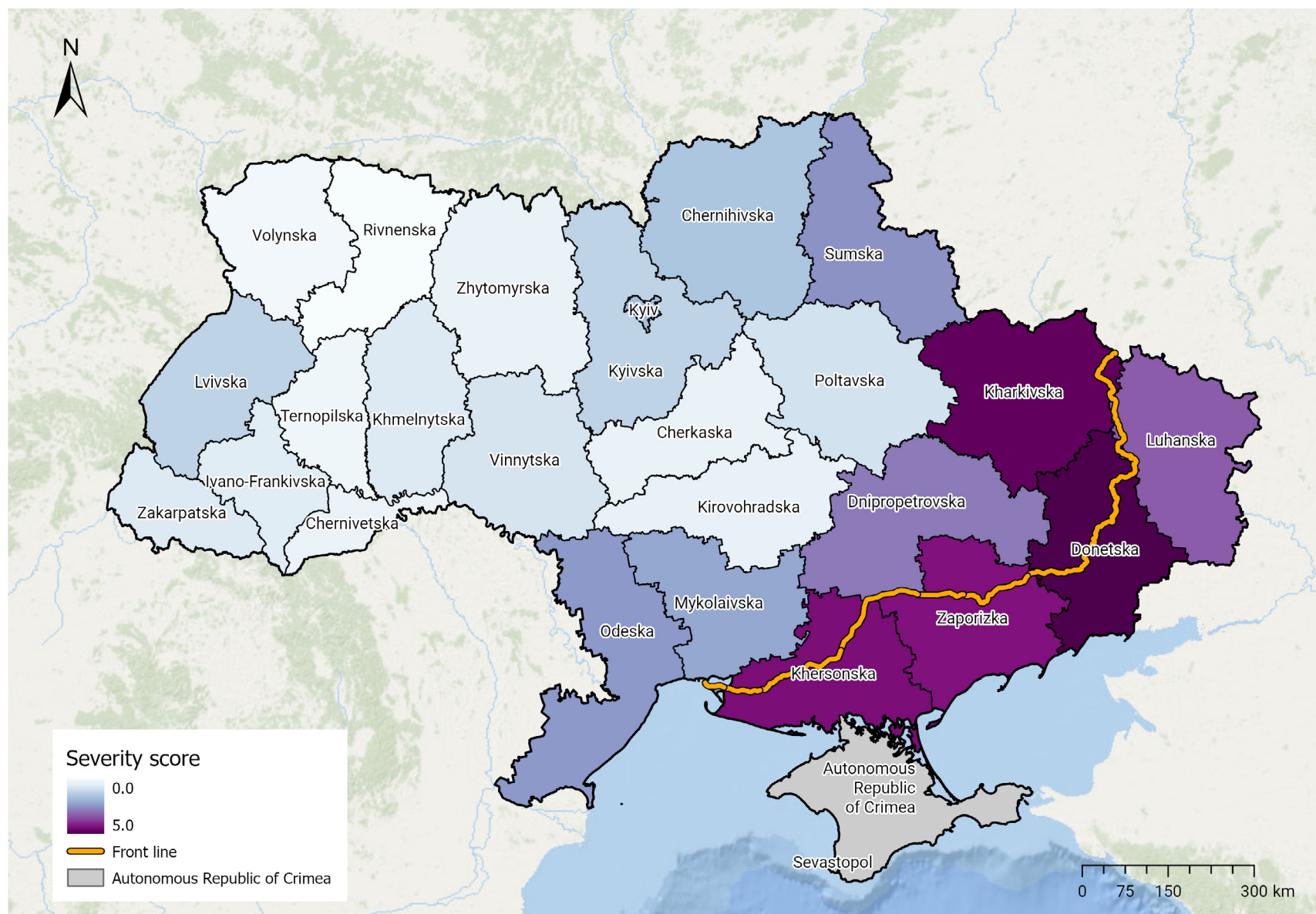
- Of the five oblasts where the crisis is the most severe, the severity of the situation remained relatively static in Donetsk, Kharkivska, Zaporizka and Luhanska oblasts, and deteriorated in Khersonska (with the overall score increasing from 3.4 to 3.9).
- The situation deteriorated the most in Odeska oblast (with the score increasing from 1.7 to 2.5) given large increases in the numbers of people affected, people in need (PIN), and IDPs. Dnipropetrovska oblast faced moderate severity and notable deterioration (from 2.4 to 2.9) mainly because of a rise in the number of PIN.

Four dimensions equally contribute to the severity score:



Several indicators contribute to each dimension, as explained throughout the report.

## MAP 1. SUBNATIONAL SEVERITY SCORES, MARCH 2024

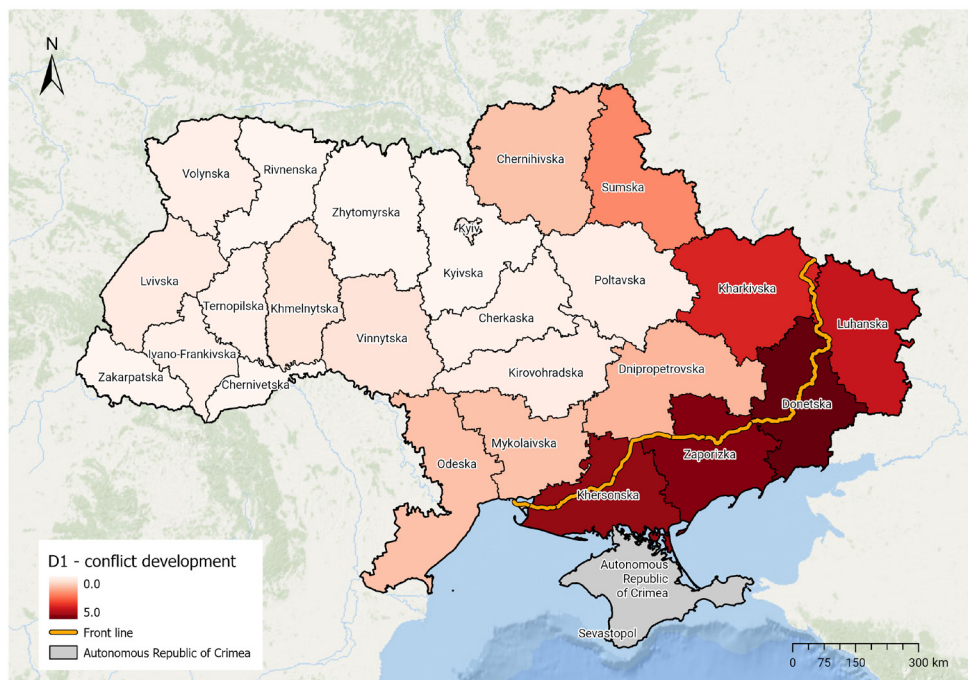


Source: ACAPS (accessed 01/04/2024).

Disclaimer: Given the data gaps, the scores for Crimea and Sevastopol were not provided, as these regions lack updates on some of the key variables used in the model. This applies to all subsequent dimensions, and accompanying maps.

## DIMENSION 1: CONFLICT DEVELOPMENT

Map 2. Dimension 1 scores, March 2024



Source: ACAPS (accessed 01/04/2024).

### Dimension 1 indicators

Dimension 1 (D1) comprises five conflict-related indicators: fatality rate, battles, explosions, landmass under the control of Russian forces, and landmass of unconfirmed control (ACAPS 11/03/2024).

### How the situation differed across oblasts

D1 scores were the highest in frontline oblasts. In March 2024, Donetsk oblast had the highest score (4.5), with the highest numbers of fatalities (27%), battles (64%), and explosions (38%) in Ukraine, while Russian forces controlled more than half of its area.

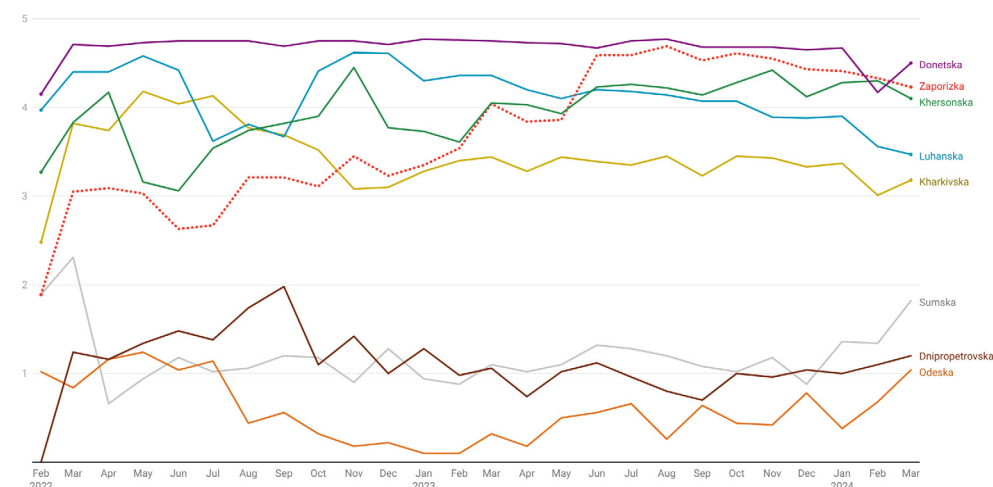
The other most conflict-affected oblasts were Zaporizka (4.2), Khersonska (4.1), Luhanska (3.5), and Kharkivska (3.2) oblast. Except in Kharkivska, the considerable Russian control in these oblasts increased their D1 values.

In March 2024, Zaporizka and Kharkivska oblasts recorded similar numbers of fatalities, respectively the second and third highest countrywide. Both had high numbers of explosions, while ground conflict was more intense in Zaporizka oblast. In February 2024, D1 was as high in Khersonska as in Zaporizka, but the number of fatalities in Khersonska dropped significantly in March 2024. It remains to be seen if the change in D1 value in Khersonska oblast is long-term.

In March 2024, the D1 score in Luhanska oblast stemmed from relatively high numbers of battles, explosions, and fatalities, with Russian forces occupying nearly all of the oblast since early July 2022. Sumska oblast, which was not occupied and had few recorded fatalities, had a lower D1 score than the southeast. That said, it still recorded the second-highest number of explosions in the country, as it borders Russia and frequently falls under attack (Kyiv Independent 19/03/2024).

### Dynamics

Figure 1. Dimension 1 dynamics in selected oblasts



Source: ACAPS (accessed 01/04/2024).



In the oblasts with the highest D1 and total severity scores, there were peaks in fatalities between August–November 2022, in May 2023, and in October 2023. The number of battles peaked in July 2023 and was consistently high between October 2023 and March 2024.

Since the full-scale invasion in 2022, conflict intensity had remained the highest in Donetsk oblast, with minimal changes.

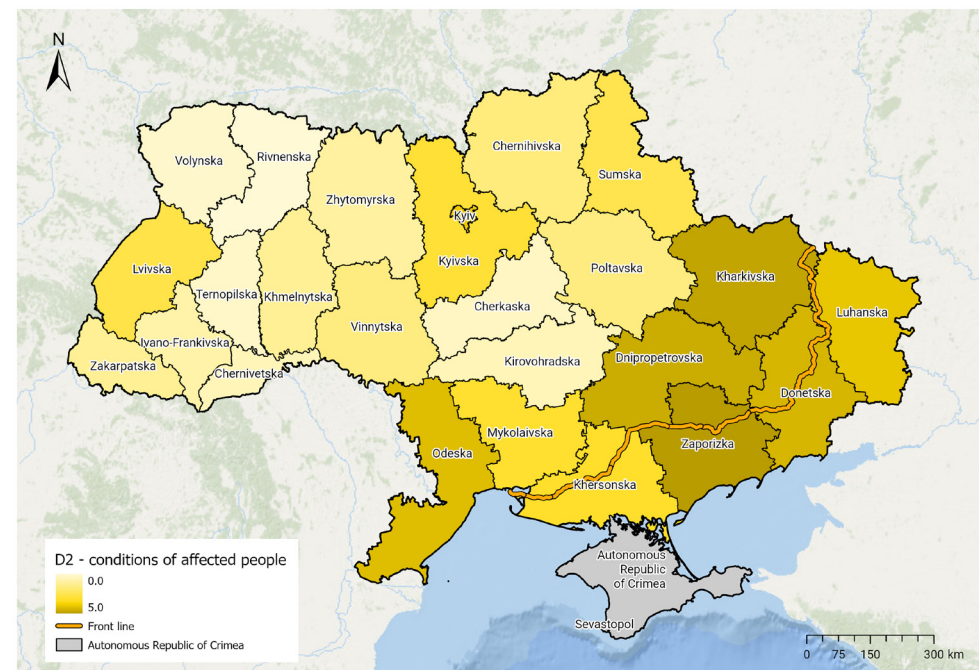
The D1 score of Zaporizka oblast increased by 2.8 points compared to February 2022. The score spiked to 4.59 in June 2023 given an immense rise in fatalities (over six times compared to May) and the number of battles (over 12 times compared to May). The D1 score had not dropped below 4.2 (out of 5) since. This time frame coincides with Ukraine's 2023 counteroffensive, which started in June 2023 (Reuters 21/12/2023).

As Ukraine regained control over the majority of Kharkivska oblast in September 2022 and about a quarter of Khersonska oblast by mid-November 2022, their D1 scores decreased. Since early 2023, however, the conflict dynamics had slightly intensified in Kharkivska oblast and considerably intensified in Khersonska oblast. In the latter, fatalities and battles had remained numerous, despite decreased shelling, since mid-2023.

In Luhanska oblast, the D1 score decreased throughout 2023 and early 2024 because of diminishing numbers of explosions and fatalities.

## DIMENSION 2: CONDITIONS OF AFFECTED PEOPLE

Map 3. Dimension 2 scores, March 2024



Source: ACAPS (accessed 01/04/2024).

### Dimension 2 indicators

Dimension 2 (D2) is based on the number of PIN and the share of people in particular humanitarian conditions levels, from Level 1 (none or minor humanitarian conditions) to Level 5 (extreme humanitarian conditions) (ACAPS 11/03/2024). As per the INFORM Severity Index methodology, Levels 3–5 equate to the total number of PIN (EC 19/10/2020). While the PIN number for 2024 is available, the individual numbers of people in Levels 3–5 have not been updated, creating discrepancies (as explained in the [Limitations](#) section at the end of the report) and affecting the scores.

## How the situation differed across oblasts

D2 scores were the highest in Zaporizka (4.3), Kharkivska (4.2), Dnipropetrovska (4.1), Donetsk (4.0), Odeska (3.9), Luhanska oblasts (3.8), and Kyiv city (3.8). As per the 2023 Humanitarian Needs Overview (HNO), the entire populations of Donetsk, Khersonska, and Luhanska oblasts and the majority of people in Zaporizka oblast faced extreme humanitarian conditions (Level 5).

In Kharkivska, Dnipropetrovska, and Odeska oblasts and in Kyiv city, high or relatively high scores mainly stemmed from their having the highest numbers of PIN as per the 2024 Humanitarian Needs and Response Plan (HNRP): over 1,803,000 in Kyiv city (all facing Level 3 or moderate humanitarian conditions), almost 1,688,000 in Kharkivska oblast (with many being in Level 4 or severe conditions), nearly 1,521,000 in Dnipropetrovska oblast (most in Level 3) and about 1,127,000 in Odeska oblast (many in Level 4). There were also high numbers of PIN in Kyivska, Lvivska, and Sumska oblasts, who were in moderate (Level 3) humanitarian conditions (OCHA 19/01/2024; ACAPS accessed 14/05/2024).

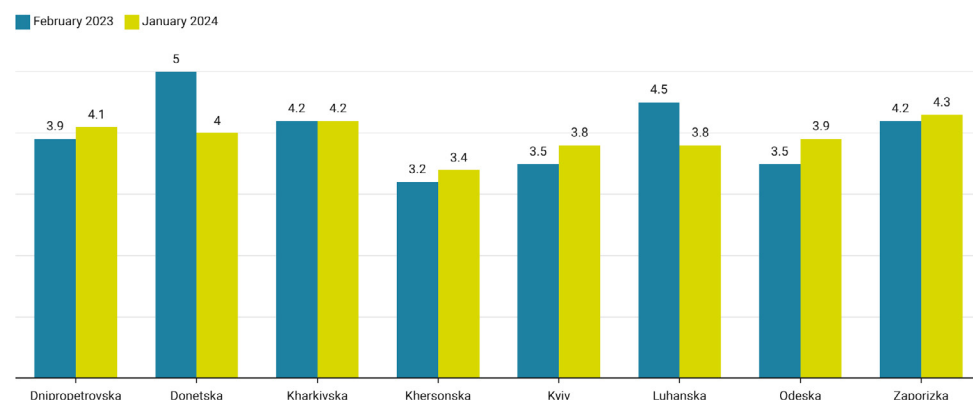
In Donetsk and Luhanska oblasts, updated estimates of total population numbers affected the estimated number of PIN. Population estimates decreased in these oblasts given mass displacement and data availability constraints (ACAPS 18/08/2023; OCHA 03/01/2024). All who remained were considered to face extreme humanitarian conditions.

In Odeska oblast, the deterioration stemmed from a large increase in the number of PIN: by over 491,000 from 636,000 in February 2023 to over 1,127,000 in January 2024.

The changes in Dnipropetrovska oblast and Kyiv city also resulted from an increase in the number of PIN, by almost 421,000 and over 503,000, respectively. In Khersonska oblast, the number of PIN rose by over 59,000, which was high relative to the oblast's population (OCHA 15/02/2023 and 19/01/2024).

## Dynamics

Figure 2. Dimension 2 changes in selected oblasts

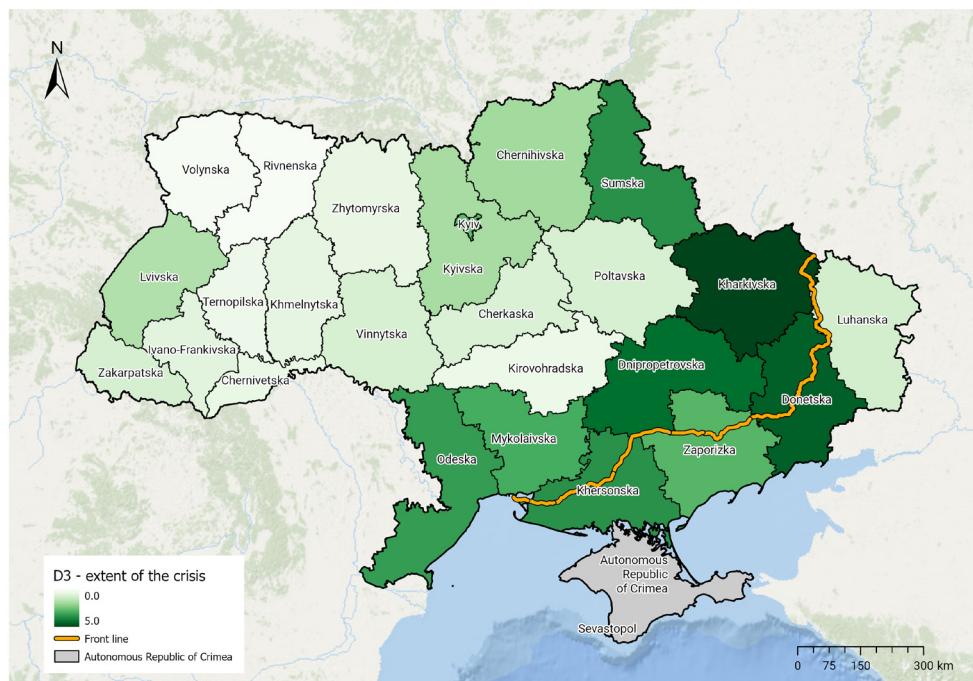


Source: ACAPS (accessed 01/04/2024).

As data for D2 is available irregularly, and there were inconsistencies before 2023 (see [Limitations](#)), this report compares humanitarian conditions between February 2023 and January 2024. The largest changes in this period were a decrease in D2 scores in Donetsk and Luhanska oblasts and an increase in Odeska oblast.

## DIMENSION 3: EXTENT OF THE CRISIS

Map 4. Dimension 3 scores, March 2024



Source: ACAPS (accessed 01/04/2024).

### Dimension 3 indicators

Dimension 3 (D3) reflects the extent of the crisis. It is based on the number of people affected, the number of IDPs (estimates until August 2022 and registered IDPs since September 2022), and civilian infrastructure damage. The number of people affected are typically identified by OCHA and published yearly in the HNOs/HNRPs. As per the INFORM methodology, this number equates to the sum of people in humanitarian condition Levels 2–5 (EC 19/10/2020). Numbers of IDPs provided by IOM are used (ACAPS accessed 14/05/2024). ACAPS monitors and updates civilian infrastructure damage monthly using publicly available data. For more details, see the dashboard on the [ACAPS Ukraine country page](#).

### How the situation differed across oblasts

In March 2024, Kharkivska oblast had the highest D3 score (4.7). Nearly all of the population was identified as affected, one in five was displaced, and the number of recorded damage was the third highest countrywide.

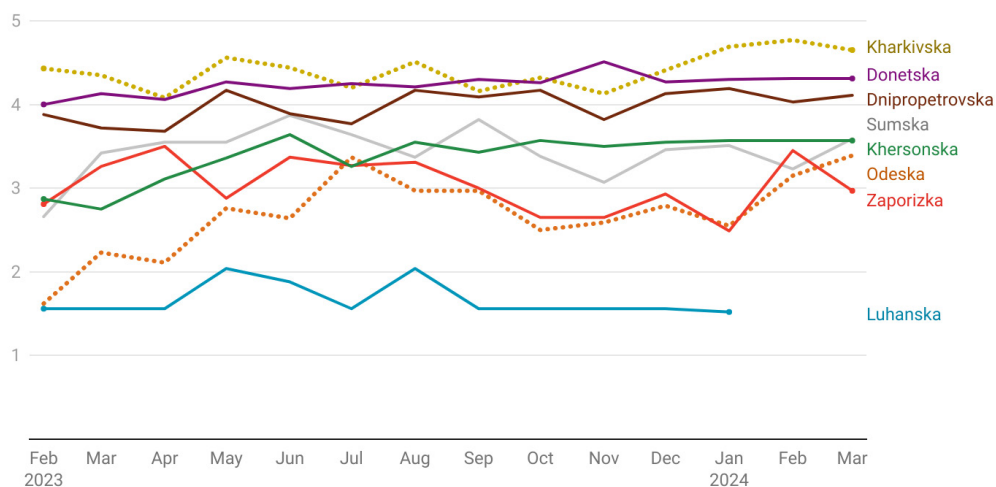
D3 was also very high in Donetsk oblast (4.3), which had the highest number of damaged infrastructure countrywide, and all of its population was considered affected. While the score was nearly as high as in Dnipropetrovska oblast, the latter had the second-highest number of damaged infrastructure in the country, the highest number of registered IDPs (over 387,600), and half of its population was considered affected.

In Khersonska (3.6), Sumska (3.6), and Odeska oblasts (3.4), the majority of people were affected, with relatively high numbers of damaged infrastructure. Mykolaivska (3.1) and Zaporizka oblasts (2.3) scored relatively high because of the number of registered IDPs in each oblast: over 120,000 and nearly 167,000, who made up 19% and 15% of their populations, respectively.

As Russia occupies Luhanska oblast, all of its population was considered affected. There were also no registered IDPs, and little is known regarding civilian infrastructure damage, making its D3 score relatively low. D3 was moderate in Kyivska oblast because of the low number of people affected and minimal damage, but there were nearly 327,000 registered IDPs.

## Dynamics

Figure 3. Dimension 3 dynamics in selected oblasts



Source: ACAPS (accessed 01/04/2024).

Since February 2023, D3 had remained the highest in Kharkivska, Donetsk and Dnipropetrovska oblasts. The number of damaged infrastructure was consistently the highest in Donetsk and Dnipropetrovska oblasts, while Kyivska and Dnipropetrovska oblasts recorded the highest numbers of registered IDPs. Lastly, Kyiv city and Kharkivska oblast had the highest numbers of people affected.

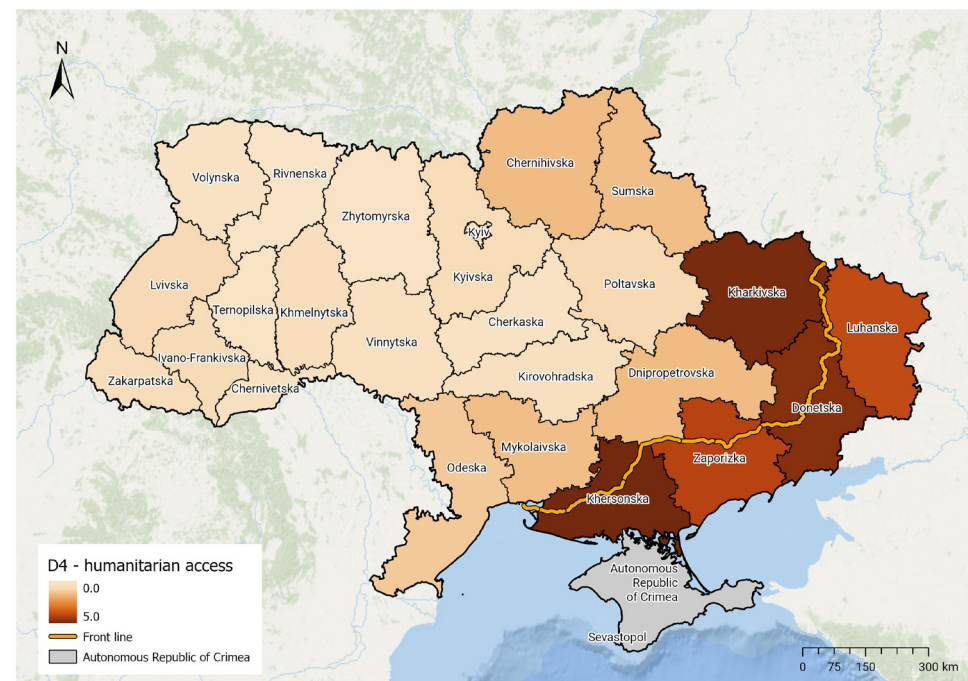
D3 increased the most in Odeska oblast because of a rise in the number of people affected, from nearly 814,900 to nearly 1,504,000.

In Kharkivska oblast, the number of damaged infrastructure considerably increased from January 2024, as Ukraine had limited capacity to protect Kharkiv from intense attacks using new weapon types (ACLED accessed 25/04/2024; Suspilne 25/02/2024; TSN 05/03/2024).

In Kherson'ska oblast, infrastructure damage spiked in June 2023 because of the destruction of the Kakhovka dam, with continually high damage levels recorded between August 2023 and March 2024 (ACAPS 09/06/2023). The constant deterioration of the D3 score in Kherson'ska oblast mainly stemmed from the number of IDPs, which increased from nearly 11,000 in February 2023 to almost 32,000 in March 2024.

## DIMENSION 4: HUMANITARIAN ACCESS

Map 5. Dimension 4 scores, March 2024



Source: ACAPS (accessed 01/04/2024).

### Dimension 4 indicators

Humanitarian access scores are based on the average score of three pillars.

Pillar 1: access of people in need to aid includes the denial of needs or aid, impediments in reaching aid, and the unavailability of basic services.

Pillar 2: access of humanitarian organisations to the affected population captures restrictions on humanitarian movements, administrative constraints, and attacks on responders.

Pillar 3: physical, environmental, and security constraints captures security and logistical factors, such as conflict events, mines and unexploded ordnance, civilian infrastructure damage or destruction, and telecommunication disruptions. It is highly correlated with D1, Conflict Development.



The ACAPS Humanitarian Access Events codebook lists all of the access events logged as part of our data collection and how they fit into the indicators and pillars.

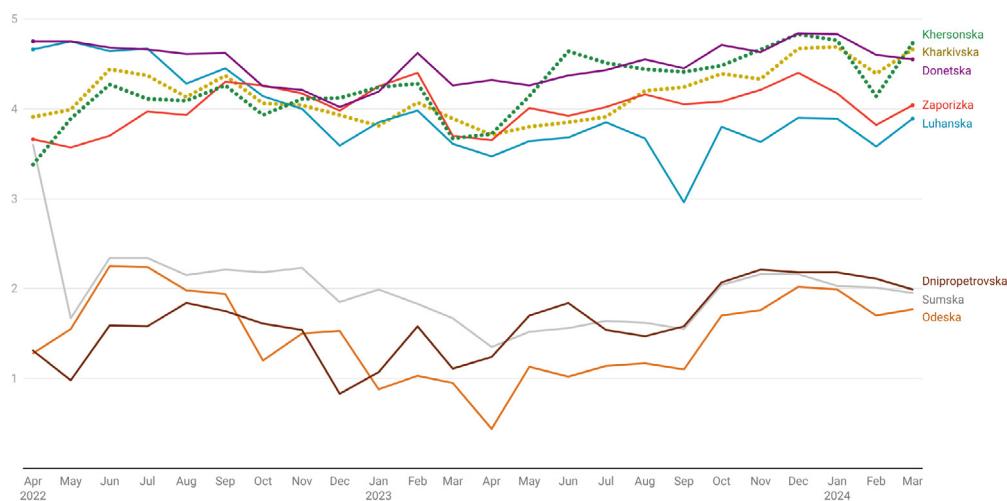
## How the situation differed across oblasts

In March 2024, humanitarian access constraints were highest in oblasts along the front line: Kharkivska (4.7), Khersonska (4.7), Donetska (4.6), Zaporizka (4.0), and Luhanska (3.9). Active conflict affected the availability of basic services and constrains humanitarian operations. In Russian-occupied territories, humanitarian access was extremely limited, and the requirement for Russian passports limited peoples' access to services and assistance. As most of Luhanska oblast was under Russian occupation, it consistently scored lower than other oblasts along the front line given limited information availability.

Among non-frontline oblasts, the frequent shelling of Chernihivska, Dnipropetrovska, Odeska, and Sumska resulted in medium access scores.

## Dynamics

Figure 4. Dimension 4 dynamics in selected oblasts



Source: ACAPS (accessed 01/04/2024).

The report analysed access scores from April 2022, as limited data affected the scores in earlier months. The D4 scores of oblasts along the front line had remained near or above 4 (out of 5) since the start of the full-scale invasion. They increased in nearly all oblasts between October–December 2023, when severe winter conditions disrupted road travel and electricity provision and a cyberattack disrupted mobile phone connectivity.

In Kharkivska oblast, the D4 score steadily increased from April 2023 because of civilian infrastructure damage, reduced access to services, constraints in the implementation of humanitarian activities, and attacks on responders.

In Khersonska oblast, the D4 score increased in June 2023 as the floods following the destruction of Kakhovka dam caused increased access constraints and highlighted insufficient aid provision in Russian-occupied territories. They had since remained high because of attacks on responders, a high level of shelling, subsequent civilian infrastructure damage, and numerous reports of restricted civilian access to services.

Across all the oblasts that were previously along the front line (Chernihivska, Kyivska, Mykolaivska, and Sumska), although D4 scores decreased once Ukraine regained control, landmines continued to drive access constraints.

All of ACAPS' access reporting for Ukraine, including dashboards, datasets, and quarterly access updates, are available on the [ACAPS Ukraine country page](#).



## LIMITATIONS

This section describes the limitations identified as part of data analysis.

The [Ukraine Severity Model](#) severity scores are based on the latest available data. While some of the variables are available monthly, others are available irregularly. In such cases, the model uses the most recently available data. The scores for Crimea and Sevastopol were not provided, as these regions lack updates on some of the key variables used in the model.

### Limitations of data on conflict, damage, and humanitarian access

ACAPS monitors damage, conflict events, and events constraining humanitarian access based on publicly available data, while conflict events come from the ACLED dataset, which is also subject to data availability. This means certain damage and events may not have been identified, particularly in Russian – occupied territories, leading to a likely underestimation of the scores for occupied or partially occupied oblasts.

### Limitations of population-related data

The total population figures are estimates. At the onset of the full-scale invasion, population numbers were based on UNFPA data and relied on the last population census conducted in 2001 and estimates by the Government of Ukraine ([UNFPA 14/11/2022](#); [SSSU 2022](#)). Due to mass displacement within and out of Ukraine, the available population data quickly became outdated. It was subsequently updated in the 2023 HNO and 2024 HNRP ([OCHA 15/02/2023](#) and [19/01/2024](#)). That said, limited data availability, especially for the occupied territories, severely limits an accurate understanding of current population data. More information on the limitations of available population estimates, including displaced people, is available in [this ACAPS thematic report](#).

### Limitations of data on people in various humanitarian conditions

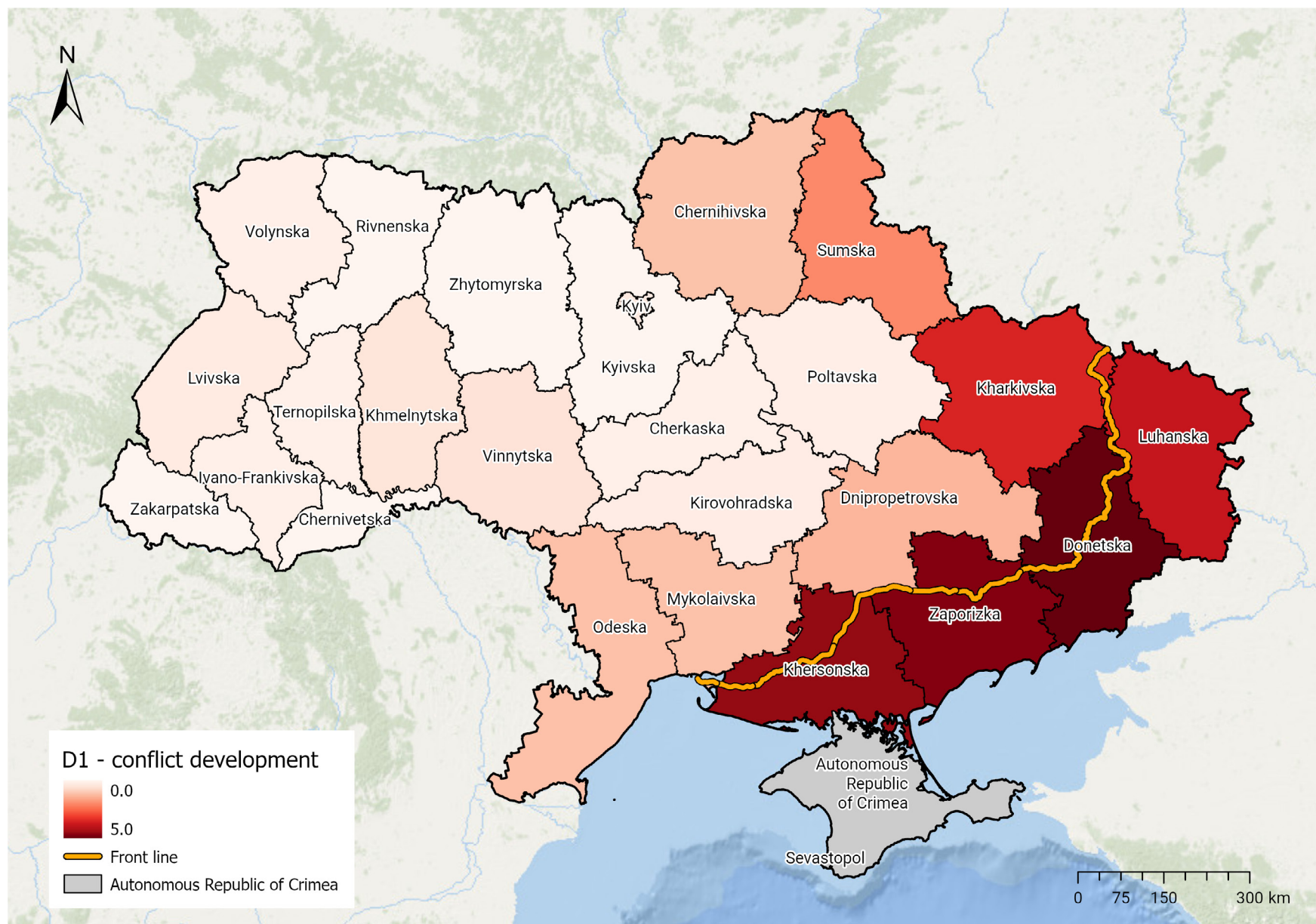
The number of people affected, PIN, and people in levels of humanitarian conditions are estimated and account for the changes in the estimated total population. These figures are also available irregularly, particularly affecting D2 and D3.

According to the INFORM methodology, the number of PIN is the sum of people in Levels 3–5 of humanitarian conditions ([EC 19/10/2020](#)). That said, there are discrepancies between the numbers of people in severity levels and the people affected and in need at the time of the publication of this report. While the number of PIN in 2024 is available, the 2024 HNRP does not provide the latest numbers of people in humanitarian condition Levels 3–5; as a result, the model uses the latest available figures ([OCHA 15/02/2023](#) and [19/01/2024](#)).

## Limitations of displacement-related data

The number of IDPs is based on IOM reports, which include estimates from August 2022, and IDPs registered with the Government of Ukraine since September 2022 ([IOM accessed 20/05/2024](#)). Given that some displaced people do not register themselves as IDPs, the number of registered IDPs is lower than the total de facto number of estimated IDPs ([IOM 07/09/2023](#); [Prytyka et al. 31/05/2023](#)). Changes in government methodology also affect the scores; for example, this is the reason the number of registered IDPs in Kharkivska oblast dropped in August 2023 ([IOM 15/09/2023](#)).

## MAP 2. DIMENSION 1 SCORES, MARCH 2024



Source: ACAPS (accessed 01/04/2024).

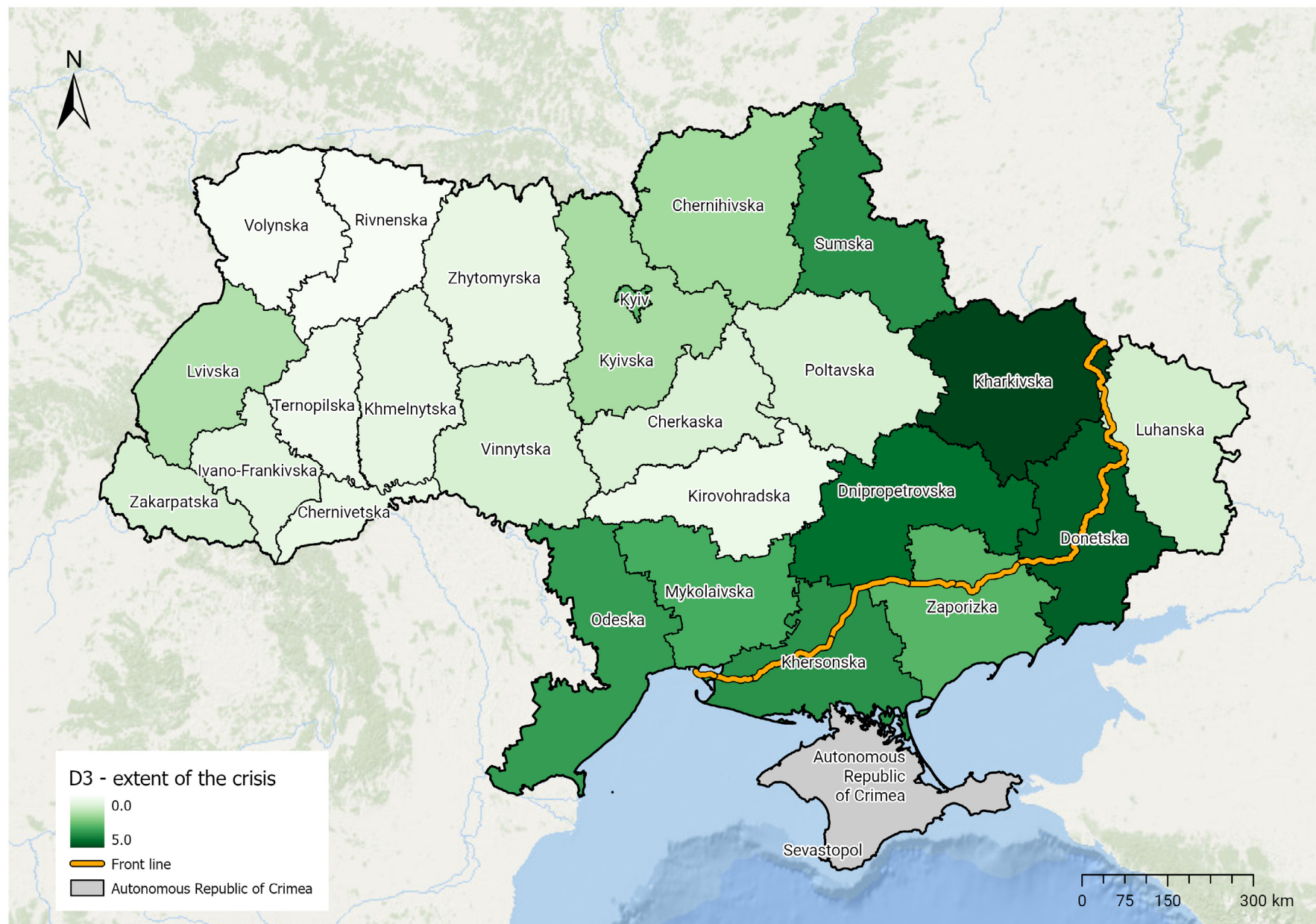
### MAP 3. DIMENSION 2 SCORES, MARCH 2024



Source: ACAPS (accessed 01/04/2024).



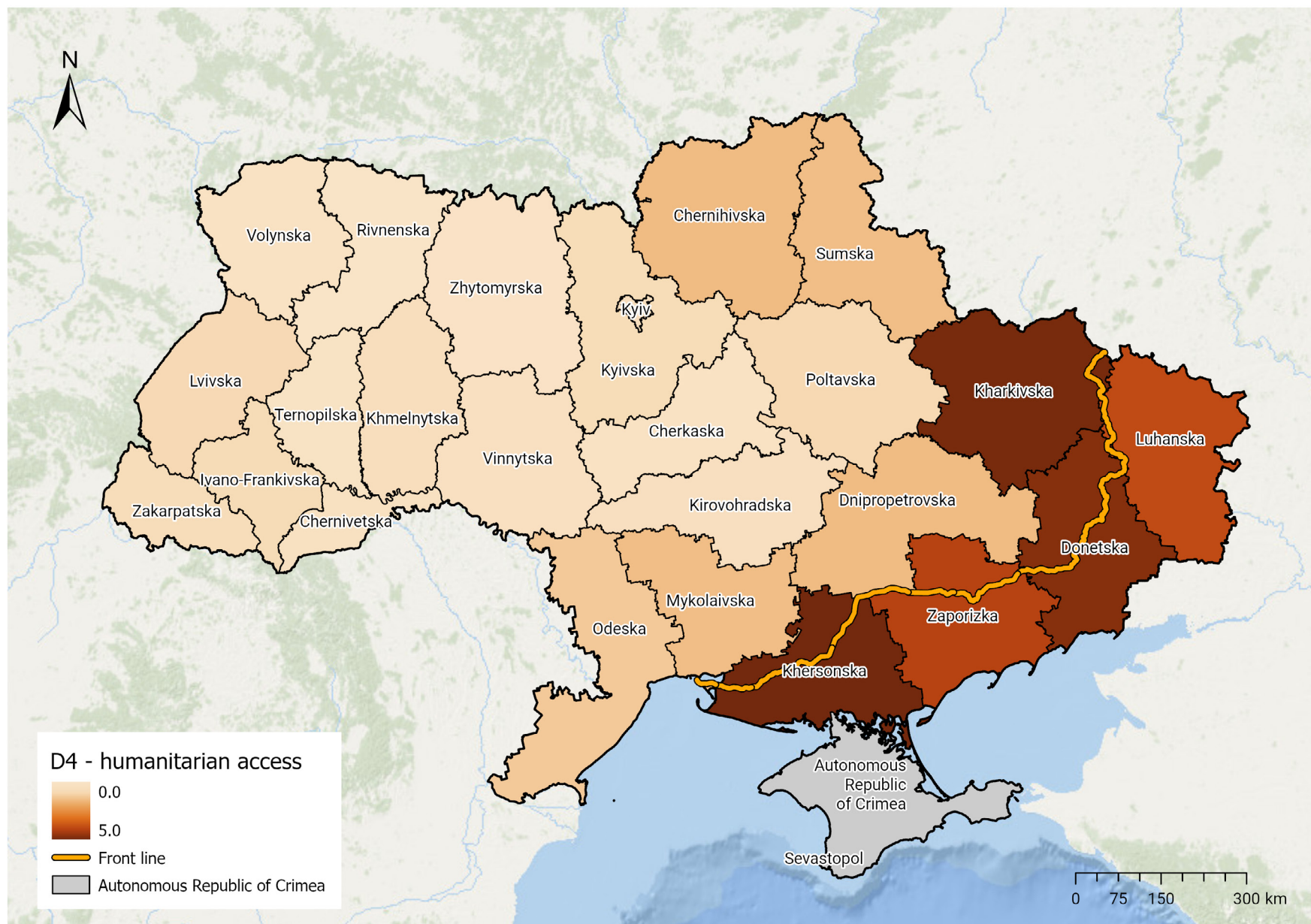
## MAP 4. DIMENSION 3 SCORES, MARCH 2024



Source: ACAPS (accessed 01/04/2024).



## MAP 5. DIMENSION 4 SCORES, MARCH 2024



Source: ACAPS (accessed 01/04/2024).