

# Tiahynska

hromada and challenges of wartime

Atlas of conditions and resources







ГЕОІНФОРМАЦІЙНИЙ ПОРТАЛ

ХЕРСОНСЬКОЇ ОБЛАСТІ

Kyiv - Kherson - Tiahynka 2025

| <b>GEOLOGY AND</b>                                      |
|---|
| GEOMORPHOLOGY   |
|   |
| CLIMATE   |
|   |
| SOILS   |
|   |
| LANDSCAPES AND VEGETATION                               |
|   |
| ECOLOGY   |
|   |
| DEMOGRAPHY  |
|   |
| SOCIAL SPHERE   |
|   |
| LIFE SAFETY   |
|   |
| ECONOMIC<br>DEVELOPMENT                                 |
|   |
| TOURISM AND CULTURAL HERITAGE                           |
|   |
| URBAN DEVELOPMENT OF THE TERRITORY                      |
|   |
| TRANSPORT<br>INFRASTRUCTURE                             |
| CONSEQUENCES OF<br>THE WAR AND POST-<br>WAR DEVELOPMENT |









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Atlas of conditions and resources of the pre-war development and post-war reconstruction of the Stanislavska hromada in the Kherson oblast is part of a global project by the Ukrainian Researchers Society to create and maintain a geoinformation system for the entire oblast, based on a geographical approach to the creation of GIS systems. This is a cartographic educational publication that describes the conditions and resources for the hromada's development in peacetime and the consequences of the large-scale military invasion by the Russian army. The atlas contains cartographic and analytical materials in three sections: "Natural conditions and resources of the pre-war development and post-war reconstruction," "Social sphere and demographic potential of the hromada," and "Economic development of the hromada, infrastructure for reconstruction and development".

Intended for students, teachers, researchers, hromada members, local government officials, and anyone interested in local development.

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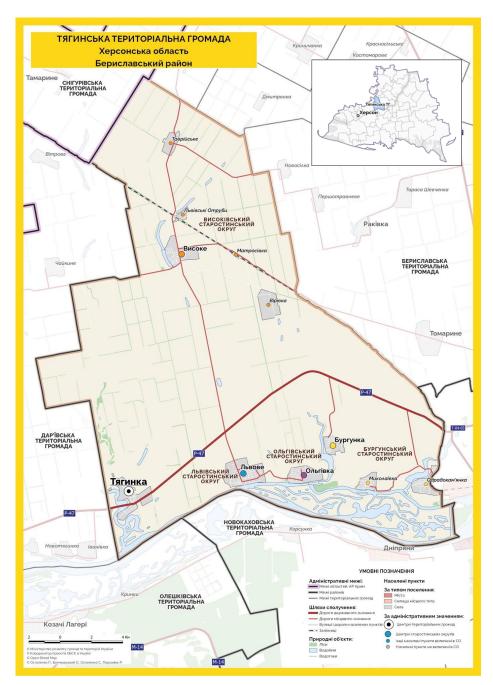


ГЕОІНФОРМАЦІЙНИЙ ПОРТАЛ

ХЕРСОНСЬКОЇ ОБЛАСТІ

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### Map symbols used in the atlas



The names of starosta districts and settlements and settlements in the atlas are as of 2021.



### **GENERAL CHARACTERISTICS OF THE HROMADA (2021)**

| Name of the hromada  | Tiahynska     |
|--|---------------|
| Type of hromada  | rural hromada |
| Oblast   | Kherson       |
| Rayon  | Beryslav      |
| Area (square kilometers)                                     | 424,3         |
| Number of starosta districts                                 | 5             |
| Number of cities   | 0             |
| Number of settlements  | 0             |
| Number of villages   | 11            |
| Population (2021, thousand people)                           | 9,968         |
| Number of IDPs (01.01.2024)                                  | 186           |
| Population, including IDPs (01.01.2024)                      | 1 371         |
| Hromada population density                                   | 22,6          |
| (persons/square kilometer)                                   | 22,0          |
| Average population growth 2001-2021 (%)                      | -24,8         |
| Working age population (persons, as of 01.01.2022)           | 5655          |
| Population over working age (persons, as of 01.01.2022)      | 2194          |
| Population under the working age (persons, as of 01/01/2022) | 1758          |
| Hromada budget (2021, general fund                           |               |
| excluding intergovernmental transfers,                       | 43,91         |
| UAH million)   |               |
| Hromada tax capacity index                                   | 0,21          |
| Basic grant to the hromada (UAH thousand)                    | 10 592,20     |
| Reverse subsidy to the hromada (UAH thousand)                | 0             |
| Number of ASCs in the hromada                                | 1             |

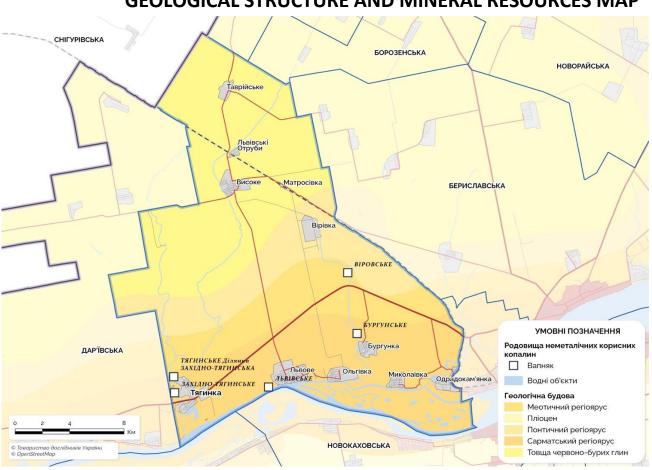
### **GEOLOGY**

### Tiahynska hromada



| Total number of fields within the hromada                 | 5   |
|---|---|
| Deposits of fossil fuels                                  | Missing   |
| Non-metallic mineral deposits                             | Limestone (Virovske, Burgunske, Lvivske, Tiahynske and Zakhidno-Tiahynske)  |
| Groundwater deposits                                      | Drinking and technical water (Khersonske (9 sites),<br>Teploenergivske (2 sites) and Kherson River Port (1 site)<br>fields)   |
| Brief description of mineral resources in the territorial | There are five limestone deposits within the hromada (Virovske, Burgunske, Lvivske, Tiahynske and Zakhidno-Tiahynske), of which as of 2021, Virovske, Burgunske, Lvivske and Tiahynske limestone deposits are not being developed |

## Tiahynska hromada **GEOLOGICAL STRUCTURE AND MINERAL RESOURCES MAP**



### **GEOMORPHOLOGY**

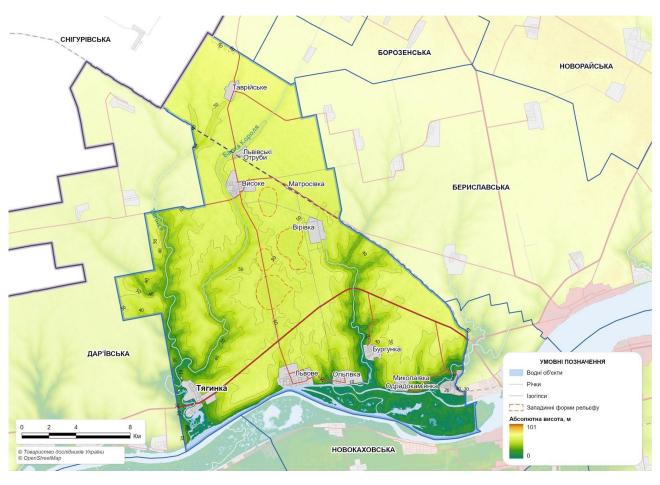


| Average height, m  | 41,4  |
|--|---|
| Minimum height, m  | 0   |
| Maximum height, m  | 62  |
| Height amplitude, m  | 62  |
| Flat area (%)  | 84,85   |
| Very gentle slopes (%)   | 13,00   |
| Gentle slopes (%)  | 1,61  |
| Slightly downhill slopes (%)                                       | 0,47  |
| Downhill slopes (10%)  | 0,08  |
| Strongly sloping slopes (%)  | 0,00  |
| Average vertical disaggregation (m/km²)                            | 16,6  |
| Average slope steepness (°)  | 0,93  |
| Average horizontal disaggregation (km/km²)                         | 0,75  |
| Geomorphological map (brief description in the context of hromada) | The main part of the hromada (92% of its area) lies within the Buh-Dnipro loess plain, a genetically stratified-denudation subhorizontal flat plain formed on the Neogene deposits. The southern part of the hromada (8% of its area) belongs to the Lower Dnipro terrace-delta plain, which is genetically a flat fluvial-deltaic plain (Dnipro floodplains). On the high flat watersheds between the Zlatova and Tiahynka ravines, depressional relief is developed, represented by pod and podlike depressions with a total area of 1,276 ha (3% of the hromada area). The hromada has a ravine-gully terrain – a dense and branched network of deep (up to 40–50 m) gullies that flow into the Dnipro River. A drying stream flows through the Tiahynka ravine. |
| Hypsometric map (brief description in the context of hromada)      | Average height within the community: 41.4 m. Maximum height: 62 m (eastern outskirts of Lvove village). Minimum height: 0 m (water level of the Dnipro River). Height range: 62 m.  |

### Map of slopes (brief description by hromada)

The hromada's territory is characterized by a predominantly flat terrain: 84.9% of the hromada's area is flat, and the remaining 15.1% is sloping. The largest areas are occupied by very gentle slopes (1-3°) - 13.0%; less gentle (3-5°) - 1.6% and slightly sloping (5-7°) slopes - 0.5%. Steep and very steep slopes (over 7°) are found in the Dnipro River valley and in the ravine and gully network.

### Tiahynska hromada PHYSICAL MAP



### **CLIMATIC CONDITIONS**

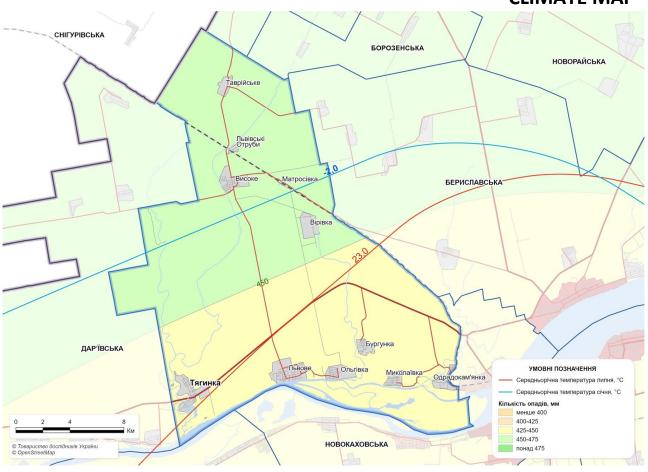
### Tiahynska hromada



Brief description of the climatic conditions of the hromada

Average annual temperature: +10.2...10.5°C. Average temperature in January: -1,8...-2,1°C. Average July temperature: +22.8...23.2°C. Average annual precipitation: 440-460 mm. The hromada is located in a very arid, moderately hot agroclimatic zone with mild winters.

### Tiahynska hromada **CLIMATE MAP**



#### **SOILS**

### Tiahynska hromada



# Brief description of the vegetation cover of the hromada

The vegetation cover of the hromada is represented by:

agrophytocenoses in place of forbs-fescue-feather grass steppes and degraded meadows of steppe depressions (311.53 km²; 73.38% of the hromada area);

dry fescue-feather grass steppes dominated by Ukrainian feather grass and Lessing feather grass with the participation of seaside brome, nodding sage, and others (41.86 km²; 9.86%);

gully oak and oak-ash floodplain broadleaf forests with admixtures of field maple, wych elm, and steppe species such as *Caragana frutex*, blackthorn, *Phlomis tuberosa*, and others (20.39 km²; 4.8%); windbreaks composed of black locust, sessile oak, green ash, boxelder maple, Norway maple, and others (11.32 km²; 2.67%);

marsh meadows of long-flooded floodplains (plavni) – common reed, narrowleaf cattail, common club-rush, and acute sedge communities, in combination with thickets of white willow, black poplar, and forb-grass meadows with couch grass, white beak-sedge, black bent, slough grass, wand loosestrife, longleaf speedwell, cartilage-leaved yarrow, and others (11.03 km²; 2.6%).

### Brief description of the soil cover of the hromada

The soil cover of the hromada is represented by: southern low-humus chernozems (330.5 km<sup>2</sup>; 77.84% of the hromada area);

carbonate chernozems on eluvium of carbonate rocks (44.2 km²; 10.4%);

meadow-bog soils (20.6 km²; 4.84%);

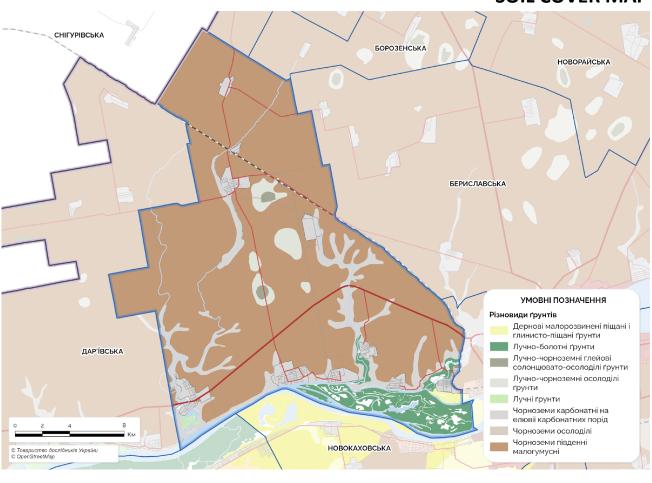
meadow-chernozem solonetz soils (9.5 km²; 2.25%); meadow-chernozem gley solonetz-solod soils

(1.4 km<sup>2</sup>; 0.33%);

soddy weakly developed sandy and loamy-sandy soils (1.4 km²; 0.34%);

meadow soils (0.8 km²; 0.18%).

### Tiahynska hromada **SOIL COVER MAP**



#### LANDSCAPES AND VEGETATION

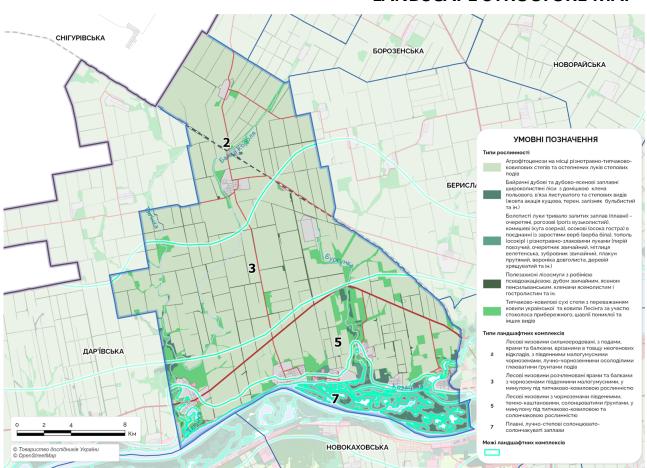
#### Tiahynska hromada



Brief description of the landscape structure of the hromada

The landscape structure of the hromada is represented by dissected loess lowlands with southern low-humus chernozems, formerly under fescue-feather grass vegetation (150.14 km²; 35.36% of the hromada area); strongly eroded loess lowlands with pods, ravines, and gullies incised into the Neogene deposits, with southern low-humus chernozems, meadow-chernozem solod gley soils of pods (109.53 km²; 25.80%); loess lowlands with southern chernozems, dark kastanozem solonetz soils, formerly under fescue-feather grass and solonchak vegetation (108.63 km²; 25.58%); floodplains with meadow-steppe solonetz-solonchak floodplain soils (40.12 km²; 9.45%).

### Tiahynska hromada LANDSCAPE STRUCTURE MAP



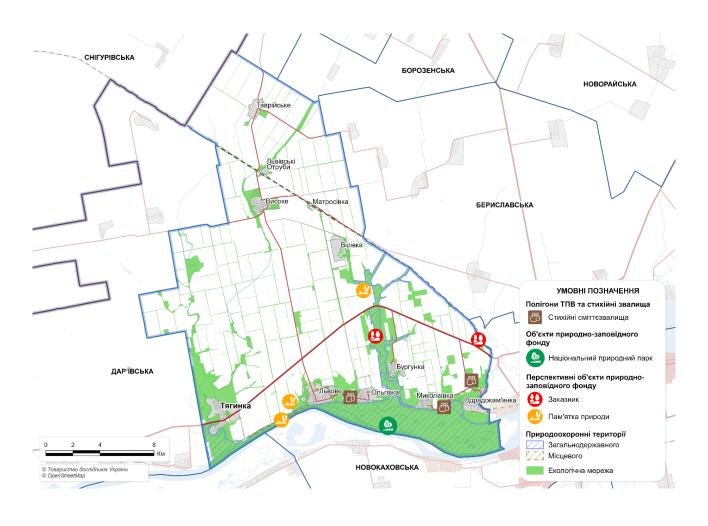
### **ENVIRONMENTAL STATUS: 2021**



| Brief description of the objects of the nature reserve fund  Brief description of | The network of objects of the nature reserve fund of national importance on the territory of the hromada is represented by: the Nizhnedniprovsky National Nature Park (3909.7 hectares; 9.21% of the hromada area)  The network of promising objects of the natural   |
|---|---|
| prospective objects of the nature reserve fund                                    | reserve fund of national importance on the territory of the hromada is represented by the botanical reserve "Shylova Balka" and the landscape reserve "Burgunska Balka".  The network of promising objects of the nature reserve fund of local importance on the territory of the hromada is represented by the botanical natural monument "Kurgan - Grave Velyka", the botanical natural monument "Kurgan near the village of Lvove", the geological natural monument "Outcrops of the Miocene sediments near the village of Lvove" (Source: Moisienko I.I., Khodosovtsev O.E., Pylypenko I.O., Boyko M.F., Malchykova D.S., Klymenko V.M., Ponomaryova A.A., Zakharova M.Y., Darmostuk V.V. Perspective protected objects of Kherson oblast. Kherson: Helvetica Publishing House, 2020. 166 c. DOI: |
| Brief description of the ecological network                                       | 10.32782/978-966-992-049-2/1-166).  The total area of the ecological network within the hromada is 100.28 sq. km (23.63% of the total hromada area).  The ecological network within the hromada is represented by the following types of land cover: meadow-steppe territories (52.73 sq. km; 52.58% of the ecological network area); forest territories (20.35 sq. km; 20.29%); areas covered by windbreaks (11.32 sq. km; 11.29%); and inland waters (15.88 sq. km; 15.84%).  The ecological network vegetation cover includes dry fescue-feather grass steppes dominated by Ukrainian feather grass and Lessing feather grass with the participation of seaside brome, nodding   |

|  | sage, and others (41.86 sq. km; 41.74%); gully oak and oak-ash floodplain broadleaf forests with admixtures of field maple, wych elm, and steppe species such as <i>Caragana frutex</i> , blackthorn, <i>Phlomis tuberosa</i> , and others (20.39 sq. km; 20.33%); windbreaks composed of black locust, sessile oak, green ash, boxelder maple, Norway maple, and others (11.32 sq. km; 11.29%); marsh meadows of long-flooded floodplains (plavni) – common reed, narrowleaf cattail, common clubrush, and acute sedge communities, combined with thickets of white willow, black poplar, and forb-grass meadows with couch grass, white beak-sedge, black bent, slough grass, wand loosestrife, longleaf speedwell, cartilage-leaved yarrow, and others (11.03 sq. km; 11%).  The landscape structure of the ecological network within the hromada is represented by loess lowlands dissected by ravines and gullies with southern low-humus chernozems, formerly under fescue-feather grass vegetation (18.19 sq. km; 18.14% of the hromada area); strongly eroded loess lowlands with pods, ravines, and gullies incised into the Neogene deposits, with southern low-humus chernozems, meadow-chernozem solod gley soils of pods (9.07 sq. km; 9.04%); loess lowlands with southern chernozems, dark kastanozem solonetz soils, formerly under fescue-feather grass and solonchak vegetation (25.88 sq. km; 25.81%); floodplains with meadow-steppe solonetz-solonchak floodplain soils (31.37 sq. km; 31.28%). |
|--|--|
| Brief description of the sites<br>(objects) of the Emerald<br>Network of the hromada | The Emerald Network in the hromada is represented by the following sites (facilities): "Nyzhniy Dnipro" (3305.29 hectares; 7.79% of the hromada area)  |
| Brief description of the environmental situation, forest and land resources          | Over the period from 2000 to 2020, the loss of forest plantations in the hromada amounted to 17.2 hectares. There are three known illegal landfills within the hromada. The hromada is dominated by moderately eroded soils (98% of the hromada area)  |
| Assessment of environmental pollution within hromada                                 | There is no information on polluting enterprises in the local hromada  |

# Tiahynska hromada ECOLOGICAL NETWORK AND POLLUTION MAP



#### **DEMOGRAPHY OF THE PRE-WAR PERIOD**



### Tiahynska hromada

#### Brief description of the demographic potential

As of January 1, 2022, the population of the Tiahynska hromada amounted to 9607 people living in 11 settlements. The administrative center, the village of Tiahynkayka, accounted for 16.8% of the hromada's population, and the first three settlements (Lvove, Odradokamyanka and Tiahynkayka) accounted for 56.3% of the hromada's population. In general, the population of the hromada amounted to 10.2% of the population of Beryslav district and 0.96% of the population of Kherson oblast for the relevant period.

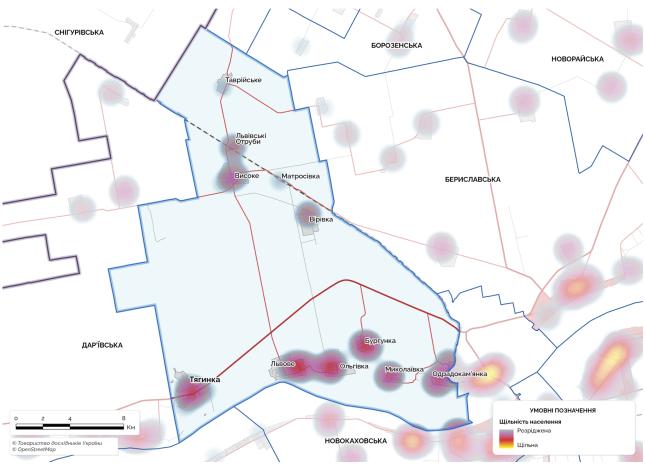
At the beginning of 2022, the population density was 23 people per square kilometer, and the density of settlements was 2.6 per 100 km<sup>2</sup>. The average distance between settlements was 6.2 km, and the average population of a settlement was 873 people. The share of people over the working age is 22.42%, which places the hromada in the group of territorial units with a low share of people of retirement age relative to

with a low share of people of retirement age relative to the average regional parameter. The burden of this age group on persons of working age reaches 364 persons per 1000 persons of working age, which is lower than the average. The share of the younger group is 19% of the population, which places the hromada in the group of territorial units with a below average indicator. Children form a high demographic burden at the level of 306 per 1000 people of working age. The total demographic burden is average in Kherson oblast and amounts to 670 people per 1000 people of working age

# Ethnic structure and national artifacts in the hromada

No ethnic communities are distinguished within the hromada

### Tiahynska hromada **POPULATION DENSITY MAP**



# IMPACT OF THE WAR ON DEMOGRAPHIC POTENTIAL

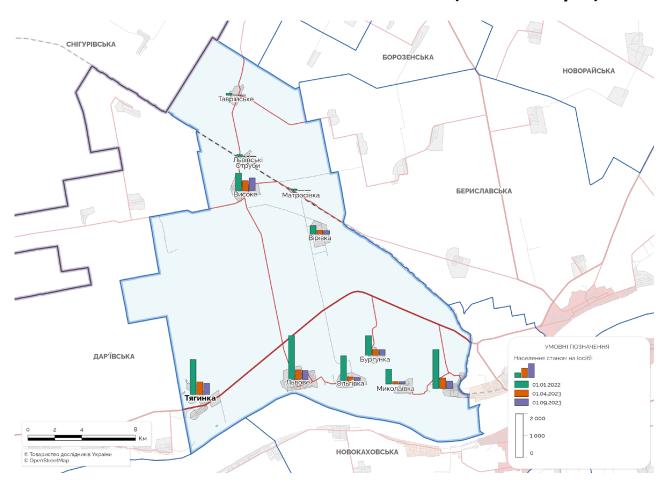


### Tiahynska hromada

The impact of the war on the demographic potential of the hromada As of January 1, 2022, the population of the Tiahynska hromada amounted to 9607 people living in 11 settlements. The administrative center, the village of Tiahynkayka, accounted for 16.8% of the hromada's population, and the first three settlements (Lvove, Odradokamyanka and Tiahynkayka) accounted for 56.3% of the hromada's population. In general, the population of the hromada amounted to 10.2% of the population of Beryslav district and 0.96% of the population of Kherson oblast for the relevant period.

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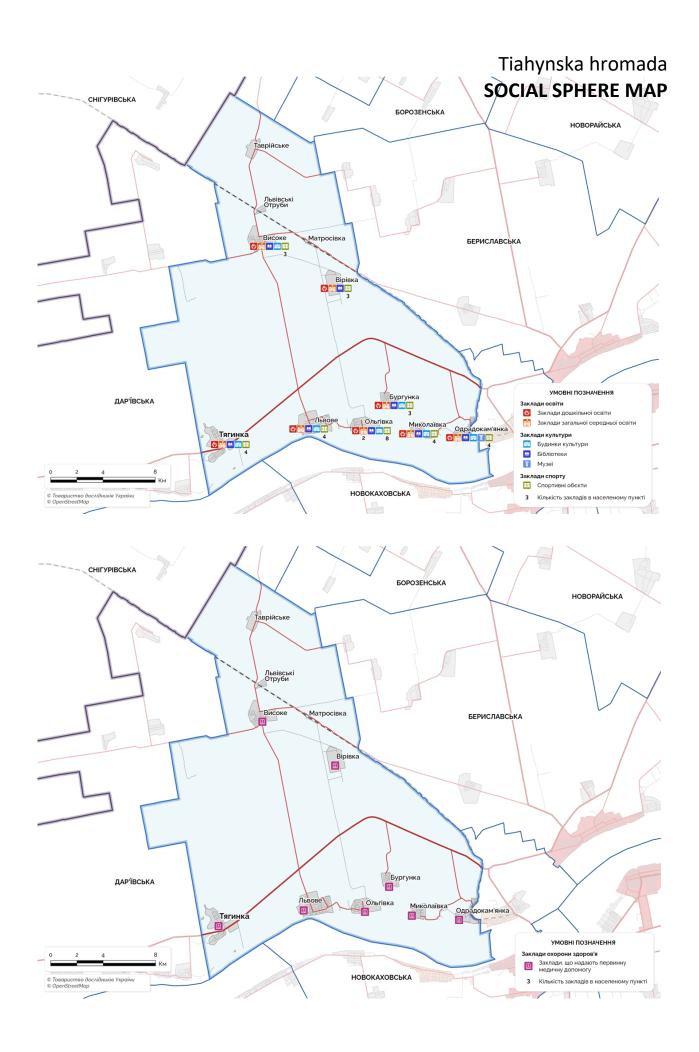
# Tiahynska hromada CHANGES IN THE DEMOGRAPHIC STRUCTURE OF THE POPULATION (2022–2023 yrs.) MAP



### **SOCIAL SPHERE: 2021**



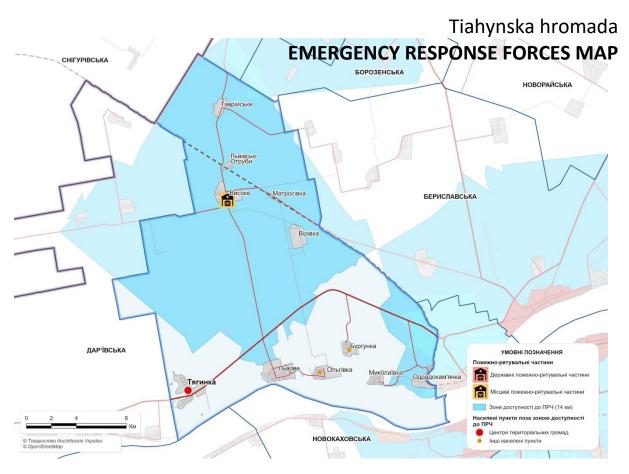
| Brief description of educational institutions           | The network of educational institutions is represented by 8 preschools and 9 general education institutions. Seven of them are of the I-III accreditation level, one is of the I-III accreditation level and one is of the I accreditation level. The largest institution has 223 students, and the smallest - 15. There are 1202 pupils enrolled in general education institutions and 135 teachers. The average class size in the hromada is 13.7 students per class (average class size) and varies from 20.2 to 7.5 in individual institutions. The workload per teacher in the hromada is 8.3 students and varies from 12 to 5 students per teacher |
|---|--|
| Medical sphere  | The healthcare sector of the hromada consists of 6 primary healthcare institutions, including 5 primary healthcare institutions registered in the <i>ehealth</i> system. Primary health care services are provided by 5 doctors with whom 5974 declarations have been concluded, which is 60.22% of the total population of the hromada  |
| Brief description of<br>the social<br>protection sector | There are no social protection institutions and facilities in the hromada. Social protection activities are implemented in the hromada through the departments of the Executive Committee. The development of a sustainable network of social protection institutions and facilities, and the involvement of private commercial and public organizations in the social service system is one of the key tasks for the hromada in the near future. The lack of financial resources from the local budget is a limiting factor in its implementation.  In 2021, the Tiahynka Territorial Center, which provides social services, started its work          |
| Brief description of<br>the cultural sector             | The hromada is characterized by an extremely low user load on cultural institutions. The hromada has 7 clubs, 8 public libraries, and 1 museum. This limits the prospects for commercialization of some cultural services and, accordingly, increases the burden on the local budget. There is an urgent need to optimize the network of cultural institutions   |
| Brief description of the sports sector                  | The hromada's sports infrastructure is very simple in structure. It consists of 33 facilities - 6 football fields, 9 gyms and 18 sports grounds  |



# LIFE SAFETY INFRASTRUCTURE: 2021



| Brief description of fire safety in the hromada        | There is one local fire and rescue unit within the hromada. In general, 8 out of 11 settlements of the hromada are within 20 minutes' accessibility to fire and rescue stations, only 38.2% of the population of the hromada live outside the 20-minute accessibility zone to the fire and rescue station |
|--|---|
| General level of technogenic safety of the hromada     | Average level of emergency response organization with above-average potential for man-made hazards in the hromada. The hromada needs to increase the number of emergency response forces  |
| Brief description of technogenic safety in the hromada | There is one state fire and rescue unit within the hromada. In total, there are 7 technogenic hazards on the territory of the hromada: 6 fire and explosion hazardous facilities and 1 chemical hazardous facility  |

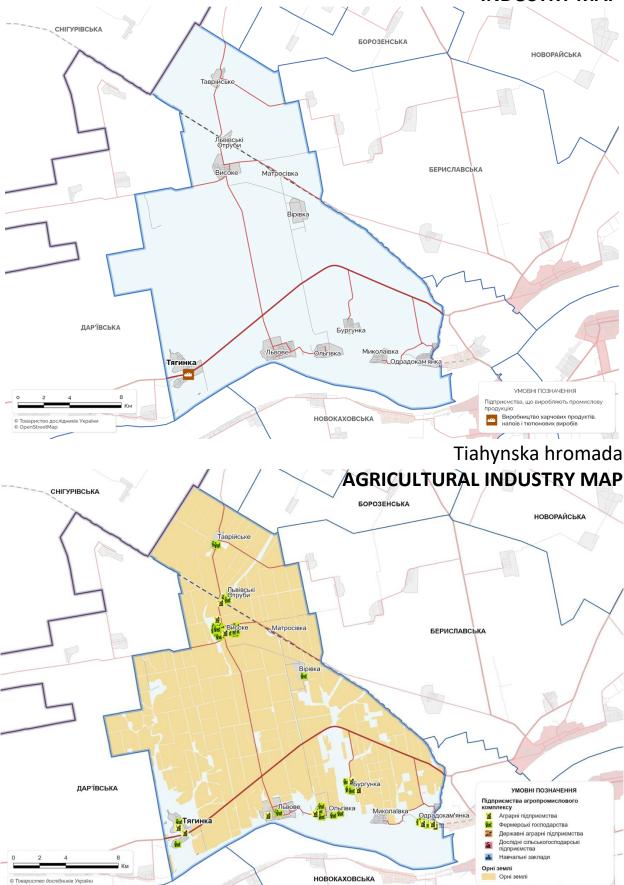


# ECONOMIC DEVELOPMENT IN PEACETIME



| Brief description of the industrial development of hromada | There is one industrial enterprise within the hromada - the agricultural company "Progress". It produces food products                           |
|--|--|
| Brief description of the energy complex of hromada         | There is one solar power plant (Asteria site) with a total capacity of 6.4 MW within the hromada   |
| Brief description of the agricultural sector               | There are 71 agro-industrial enterprises registered within the territorial community, of which 14 are agricultural enterprises and 57 are farms. |
| Preferred specialization in crop production                | Sunflower, winter rape, winter wheat, spring barley, peas  |
| Predominant specialization in livestock farming            | Poultry farming  |
| Brief description of investment-<br>attractive areas       | Within the hromada there is 1 investment-<br>attractive territory of the type for creating<br>an investment project                              |

# Tiahynska hromada INDUSTRY MAP

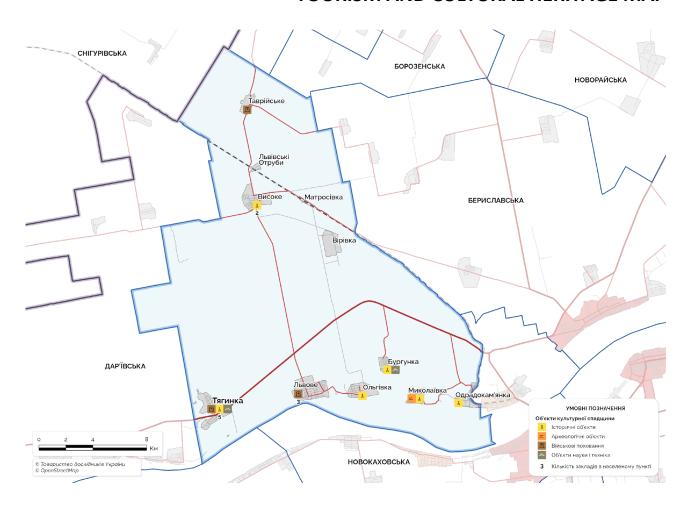


# CULTURAL HERITAGE AND PEACETIME TOURISM ACTIVITIES



| Total number of  | 21  |
|--|---|
|  | 21  |
| cultural heritage sites                                      |   |
| Brief description of   | Within the hromada there is the Kozak campsite and the  |
| cultural heritage in the                                     | Olimp sports center.  |
| hromada  | There are 5 military burials within the boundaries of Tiahynska hromada, namely: The mass grave of the Red Army soldiers (Lvove village), the mass grave of the Red Army soldiers (Tavriyske village), the mass grave of the Red Army soldiers (a village), the mass grave of the victims of Nazism (Lvove village).  There are 10 historical sites in the hromada, including: A memorial sign in honor of the 500th anniversary of the first mention of the Cossacks (Tiahynka village), a monument to Bohdan Khmelnytskyi (Tiahynka village), Kurgan stelae (Tiahynka village), and a monument to the victims of the Holodomor of 1932-1933 (Tiahynka village).  The Tiahynka fortress is an attractive tourist attraction in the hromada, which makes it potentially attractive for tourism development. |
| Tourist routes that run through the territory of the hromada | Tiahynska hromada has a great tourist potential Within the hromada there is 1 tourist route "Kazykermen's Way" (Tiahynka, Burgunka, Odradokamyanka).  |
| or the momada  | Ouradokaniyanka).   |

### Tiahynska hromada TOURISM AND CULTURAL HERITAGE MAP

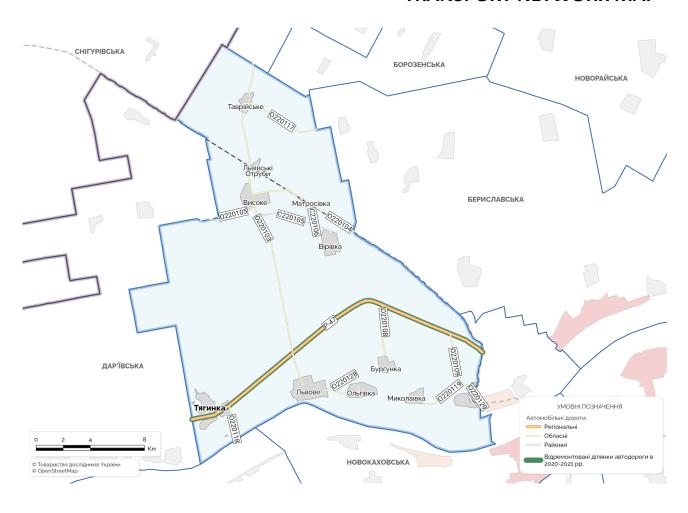


# TRANSPORTATION INFRASTRUCTURE: 2021



| Brief description of the road network  | The total length of roads of state and local importance in the hromada is about 141 km, thus the density of roads in the hromada is 0.332 km/sq. km (average for the oblast). The roads of regional (65.7%) and regional significance (26.1%) have the longest length within the hromada. During 2020-2021, 61.48 km of roads of state and local importance were repaired in the hromada, which is 43.6% of their total length in the hromada |
|--|---|
| Brief description of the availability of bus passenger transportation in hromada | 8 out of 11 (73%) settlements of the hromada have regular bus service (including the center of the hromada), which is 97% of the population of the hromada. There are 39 intra-regional bus routes and 39 transit routes from Kherson. Also, 12 interregional transit routes pass through the territory of the hromada  |

### Tiahynska hromada TRANSPORT NETWORK MAP

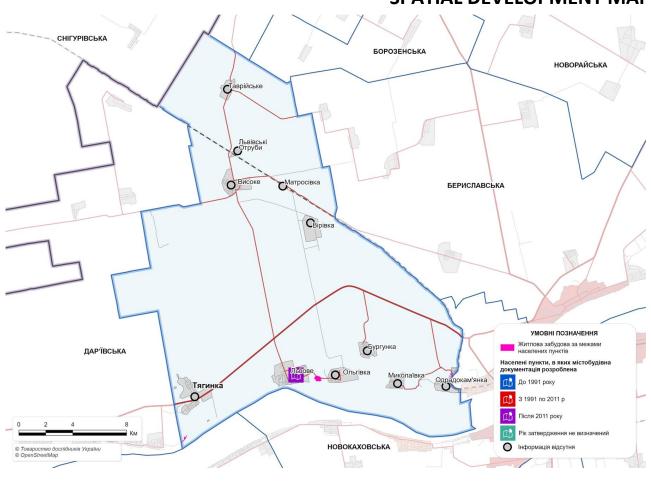


# SPATIAL DEVELOPMENT OF THE TERRITORY: 2021



| Current state of approval of urban planning documentation (UDP) in hromada | The Tiahynska hromada includes 11 settlements. 1 settlement has a plot plan approved after 2011. The materials of the plan plans are not publicly available.   |
|--|--|
| Evaluation of the approved UDP in hromada                                  | Missing  |
| Brief description of the housing stock                                     | The total estimated area of residential premises in the hromada is 259.5 thousand square meters, the total provision of housing in the hromada is 26.5 square meters per person. The estimated number of apartments/residential estates is 4645 units, the provision of apartments/residential estates per 1 person in the hromada is 0.47. In general, the hromada has an average level of housing provision  |
| Brief description of urban development                                     | The settlement network of the hromada consists of 11 villages with a population of 9788 thousand people. The total area of built-up territories within the hromada is 12.36 square kilometers, the area of settlements is 13.583 square kilometers. The area of residential development outside of settlements is 0.241 square kilometers, which is 1.77% of the total area of settlements in the hromada. In general, the hromada has an average level of urban development of the territory, and the potential for urban development of the territory of the hromada can be characterized as a low level of increase |

### Tiahynska hromada SPATIAL DEVELOPMENT MAP



### CONSEQUENCES OF THE WAR AND POST-WAR DEVELOPMENT STRATEGY



#### Tiahynska hromada

Period of temporary occupation by Russian troops The Tiahynska settlement hromada was under occupation from February 27 to November 11, 2022. After the de-occupation and to this day, almost the entire territory of the Tiahynka settlement hromada remains the territory of active hostilities, where state electronic information resources operate (Tiahynka, Burgunka, Lvove, Odradokamyanka, Mykolayivka, Olhivka), and the remaining 5 rural settlements are classified as areas of possible hostilities

Consequences of the military invasion of Russia

Russia's military aggression against Ukraine within the Kherson oblast and, in particular, the Tiahynka village hromada, caused large-scale destruction of housing and infrastructure, and resulted in human casualties and social losses. The war resulted in massive displacement and population decline, distortion of the age structure of the population, and partial depopulation of settlements. The scale of the war damage within the Tiahynka hromada is extremely large, as the front line has long passed through the hromada's territory and is still passing through it, and important transport hubs and infrastructure facilities are located on the hromada's territory.

In terms of damage and direct losses, 243 damaged objects were recorded between the beginning of the large-scale invasion and September 2023, which was about 2% of the total number of recorded damages in the de-occupied territories during this period. In 9 out of 11 settlements, 219 private residential buildings, 1 apartment building and 23 objects of communal, social, transport and industrial infrastructure were damaged. These facilities include healthcare facilities, pre-school and general secondary education institutions, cultural centers and libraries, administrative buildings of local governments (Lvove, Odradokamianka, Olgivka), administrative buildings (Tiahynka, Burgunka, Vysoke), a railway station (Matrosivka village), etc. However, the situation deteriorated significantly in 2024, affecting all processes of the hromada's development.

In total, 49.8% of the damage was caused by ammunition, 2.9% by rocket attacks, and 47.3% by other actions of Russian troops. Two-thirds (68.7%) of the damaged facilities are located in Tiahynka. More than 60% of the munition's hits within the hromada were made by this settlement as the administrative center of the hromada. Another 2

settlements (Lvove, Odradokamianka) collectively concentrate about 25% of the damaged objects.

Tiahynka suffered the most damage not only to private residential buildings, but also to infrastructure, especially social infrastructure. In Tiahynka, 3 healthcare facilities, a pre-school, 1 general secondary education institution, a house of culture, an archaeological site (a local monument) - a mound, the premises of the agricultural enterprise "Progress", a Nova Poshta office, 10 retail outlets, and the Kolos Cafe were damaged or completely destroyed. Tiahynka also has a very high concentration of damage - 32 objects per 100 people of the population as of 01.09.23. It should be noted that in those settlements (Vysoke, Vyryvka, Mykolaivka, Olgivka) where a small number of objects (1-3) were damaged, these are social infrastructure objects - schools, cultural centers and health care facilities. In total, almost 95% of the damaged facilities are concentrated in 3 settlements of the hromada - Tiahynka, Lvove, and Odradokamianka. These settlements also have the most negative demographic consequences.

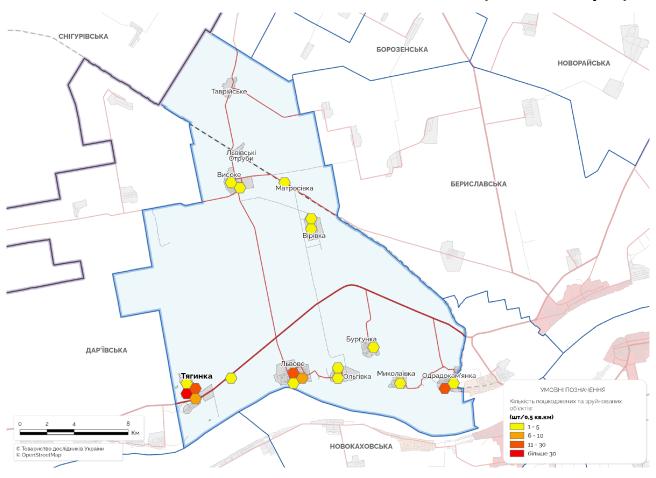
The demographic losses caused by the hostilities in the hromada are extraordinary and are the largest among all de-occupied communities. In terms of demographic losses, the hromada has a situation similar only to the Beryslav city hromada. As of September 2023, the population decreased by almost 75%, and as of January 01, 2025, the population decline in the hromada was already 91.5% of the pre-war number - 850 people live in the hromada instead of almost 10,000 the pre-war residents. Only Vysoke village, which is relatively remote from the front line, had more than 70% of the pre-war population as of 01.04.2023.

The average population of settlements in the hromada compared to the pre-war decreased by almost 4 times - from 873 to 233 people on average per 1 settlement in 2023 and is decreasing further - at the beginning of 2025, this figure is less than 100 people on average in the hromada. As of 01.01.2025, only the villages of Vysoke and Virivka have 505 and 179 residents, respectively, 7 other settlements have a population of 4 to 46 people, and 2 villages (Mykolayivka and Olhivka) are completely depopulated.

The deformation of the age structure is also significant - on average, in the hromada at the beginning of 2025, the share of children and adolescents is about 8%, the working population - 54%, and people over the working age - 38%. Unfortunately, the hromada as a whole, unlike most de-occupied communities, demonstrates a tendency to further decline in population, in particular, between April and September 2023, the share of the available population decreased from 28.5 to 26.7% (relative to the pre-war number), and by January 2025 - to 8.5%. As a result of active hostilities, the population

continues to leave most of the hromada's settlements, with a tendency to return only in Vysoke, Matrosivka, and Lvivski Otruby. All of these are signs of not only direct losses of human capital, but also pose a threat to the post-war reconstruction and recovery.

# Tiahynska hromada DESTRUCTION OF CIVIL INFRASTRUCTURE FACILITIES (2022–2023 yrs.) MAP



### Postwar recovery

After the de-occupation of the hromada, the restoration of critical infrastructure such as power grids, roads, railways, gas supply, water supply, mobile and Internet communications began. In 2024, a great deal of work was done to develop a draft Recovery Plan by the Public Recovery Council (established as an advisory body to the village military administration), together with experts from the Black Sea Center for Political and Social Studies. The public priorities were approved, on the basis of which strategic and operational goals were developed, Targeted Programs and lists of tasks and activities with essential requirements were written.

The main priorities for the restoration of the Tiahynka hromada are as follows:

- 1) Development of civil society: communication, cooperation between the authorities and the hromada.
- 2) Public safety: The plan envisages promoting demining of the territory through appeals to international structures and by attracting assistance to Ukrainian organizations responsible for demining; installation of a voice warning system with autonomous power supply and information about local threats and their locations, in particular, the presence of enemy fpv drones in the airspace, launches of air bombs, MLRS, artillery and mortars; It also provides for the arrangement of shelters, training of residents in the detection and safe handling of explosive devices, first aid for victims of mine injuries, and quarterly assessment of the current security situation for the hromada. 3) Infrastructure: restoration and reconstruction of the urban environment, restoration and new construction of roads to optimize and loop the road network, introduction of public transport routes and encouragement of transit routes, restoration of electricity, water and gas supply networks with the initiation of the transfer of the latter where gas was previously supplied from the left bank by the destroyed dam of the Kakhovka Hydroelectric Power Station, and in compliance with safety (underground laying), energy saving and environmental protection requirements (autonomous power supply from renewable sources, plastic pipes); introduction of new types of paid utility services: technical (irrigation) water supply, water drainage with water purification, and comprehensive work with solid household waste (composting of organic waste by households themselves, sorting of the rest at container sites into construction waste, plastic, other waste, centralized removal, re-sorting, recycling and processing, sale of secondary raw materials, use of obtained building materials, etc.). 4) Economy and business: promoting the recovery of traditional industries by assisting in the preparation of defect reports, estimates, summaries of losses, and applications; promoting and assisting in the creation and acquisition of start-up capital by processing and marketing

- cooperatives for small agricultural businesses and crafts; promoting new types of economic activity encouraging business in priority development areas and sectors (viticulture and winemaking, animal husbandry, horticulture, greenhouse vegetable growing, agricultural product processing, tourism, entertainment, and recreation), as well as financial incentives through project know-how developed by experts, the creation of an industrial park at the community's only railway station, which will, in particular, allow for the resumption of agricultural exports and the import of large-tonnage cargo.
- 5) Social development: the most extensive part of the project, it includes measures to optimize education, medicine, culture, tourism, sports, and social protection, with subsequent restoration or new construction in accordance with optimization plans, attracting the necessary specialists through incentive tools, concepts in the field of culture and recreational infrastructure, using the unique features of the community the excavated ruins of the Tiagin fortress; environmental protection in addition to related energy conservation, waste management, and water purification from other priorities, this includes massive and diverse greening: creation of forestry, repair of windbreaks and anti-erosion plantings, planting of forests, parks, and forest parks with drip irrigation from technical water supply, involvement of citizens in work through volunteering and paid public works.

#### **Educational edition**

# Tiahynska hromada and wartime challenges. Atlas of conditions and resources

Edited by Pavlo Ostapenko and Daria Malchykova

**Atlas** 

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