

Property management in the airport proximate areas under conditions of restricted use – comparative case studies

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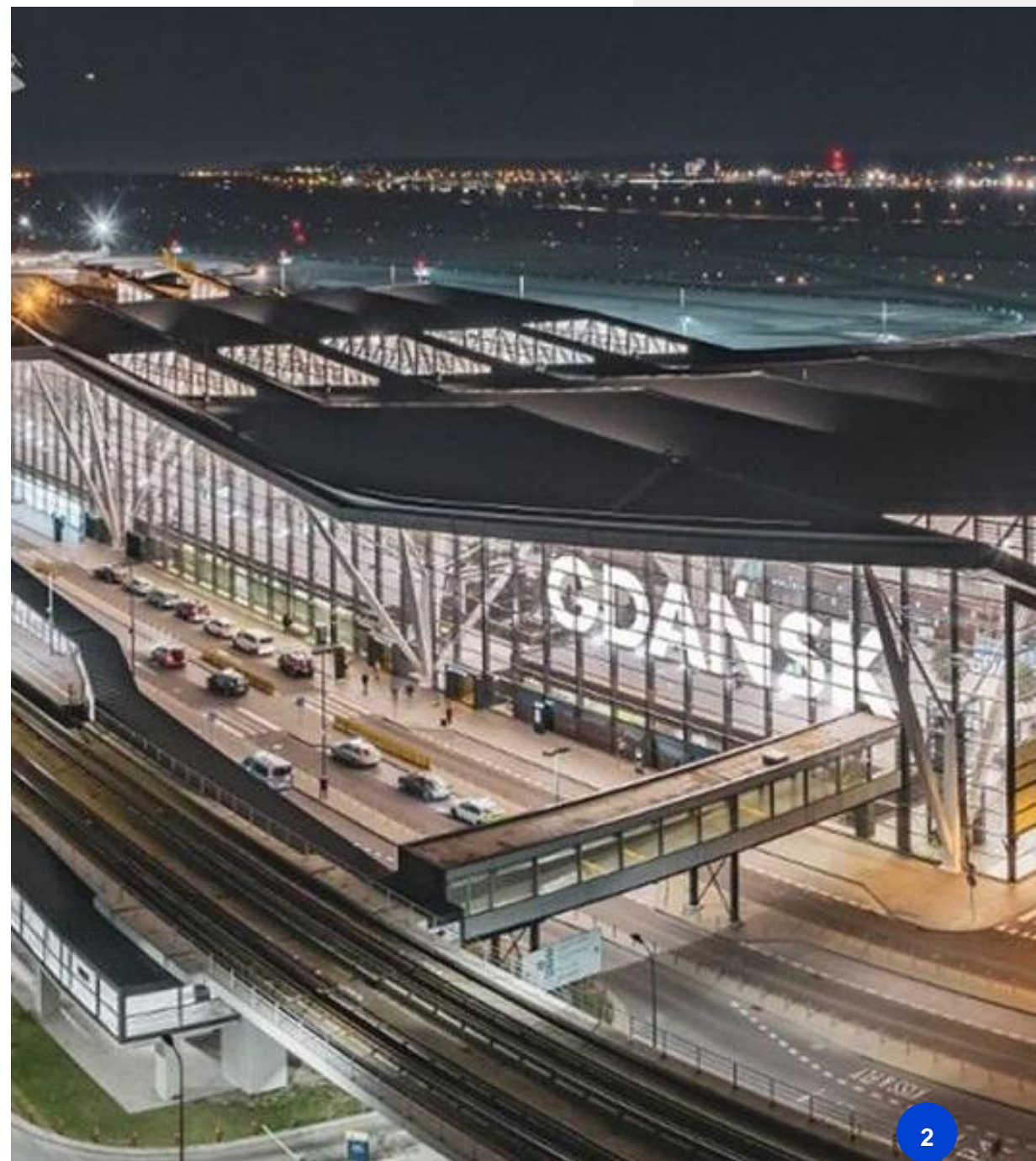




Agenda



1. Introduction
2. Literature review
3. Case study
4. Summary





Introduction



Research Problem:

- **What was the process of spatial planning in the selected proximate airport areas?**
- What is the effectiveness and efficiency of spatial planning systems in areas adjacent to the airports in Gdańsk and Katowice (selected municipalities)? [next step]

Research Methodology:

- Literature Analysis
- Case Study
- Documentation Analysis
- Longitudinal Analysis
- Comparative Analysis

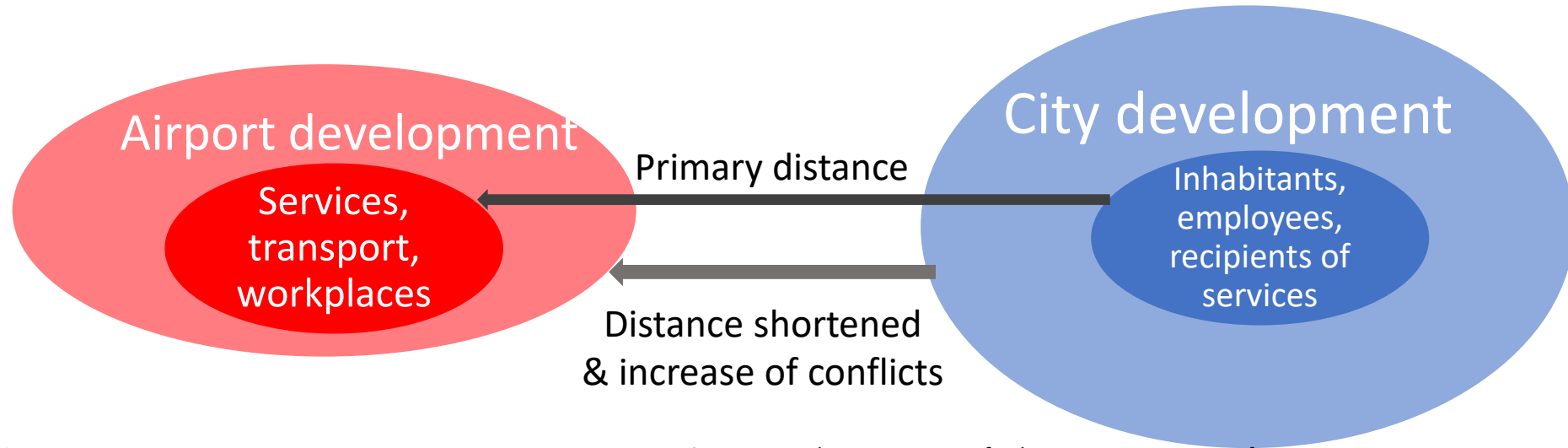
Scope of analysis:

- Time: 70s, 90s, 20s
- Area: Banino (GDA), Ożarówice (KAT)



Literature study

Spatial development



Spatial management requires cooperation of local actors as urbanization applies both to change of the space and people (Smailes, 1975).

In the case of the vicinity of an airport, spatial conflicts may result in spatial conflicts resulting from inconsistencies in the use of adjacent areas, which is associated with the impact of negative external effects in the form of noise (Wojewnik-Filipkowska, Koszarek-Cyra, 2022).

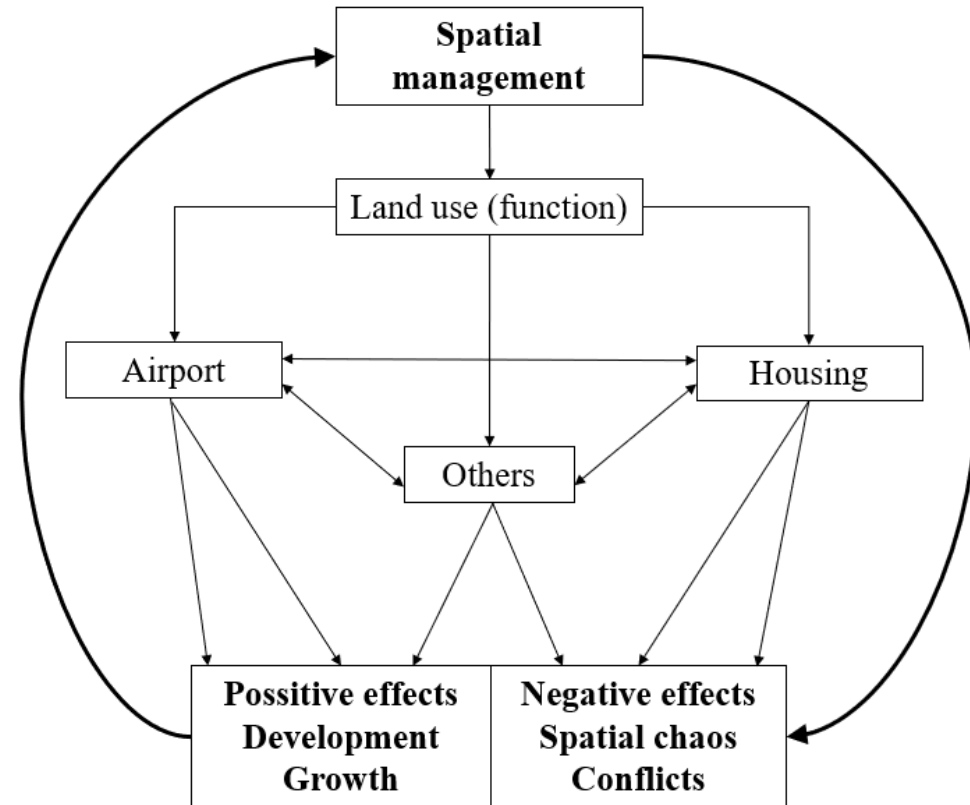


Literature review

Managing the airport proximate areas



- Spatial planning is both a way of resolving spatial problems and a source of errors, chaos, and conflicts (Koszarek-Cyra & Wojewnik-Filipkowska, 2022).
- The gaps in local planning concern the generation of spatial conflicts, especially between aviation-related functions and residential functions (Koszarek-Cyra & Wojewnik-Filipkowska, 2023).



Changes to legislation and planning documents



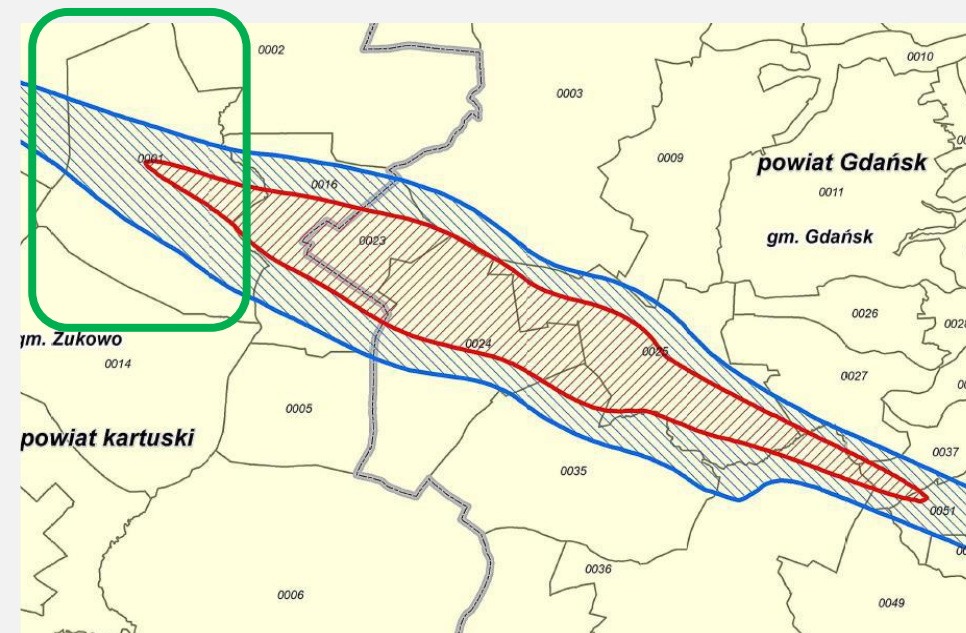
1984 Spatial Planning Act	1994 Land Use Act	2003 Spatial Planning and Development Act	Spatial Planning and Development Act - Amendment 2023
<p>Spatial plans are drawn up as long-term plans, with separate tasks for the prospective period.</p> <p>Spatial Development Plan:</p> <ul style="list-style-type: none"> • Country • Region • Local plans - Cities, municipalities, parts of municipalities or their complexes 	<p>Documents:</p> <ul style="list-style-type: none"> • study of conditions and directions for spatial development of the municipality • local spatial development plan <p>The provision on perspective and long-term planning has disappeared.</p>	<p>Documents:</p> <ul style="list-style-type: none"> • study of conditions and directions for spatial development of the municipality • local spatial development plan <p>principles for spatial management and development, taking spatial order and sustainable development as the basis for these activities.</p>	<p>Documents:</p> <ul style="list-style-type: none"> • general plan • local development plan <p>In the general plan: 1) the following shall be defined: a) planning zones, b) municipal urban planning standards.</p> <p>The municipal social infrastructure accessibility standards shall include rules for providing access to the following social infrastructure facilities: 1) a primary school and 2) areas of public green space.</p> <p>Restrictions have been placed on the possibility of converting functions from agriculture to housing</p>



Case studies



Ożarówice – KTA LOT



Banino – GDA LOT



Case studies (GDA)-Banino

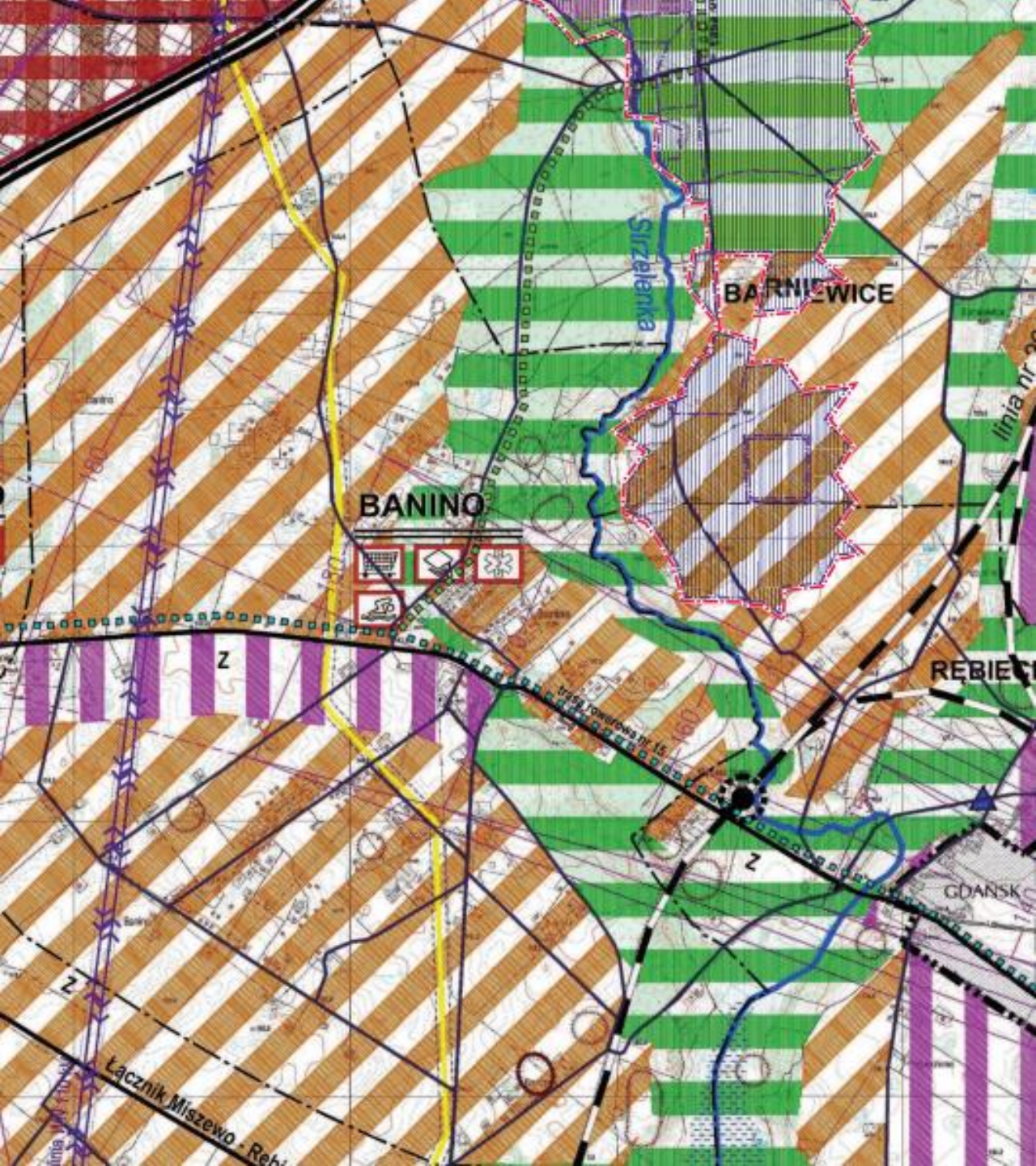


Changes in the Primary Planning Principle:

In the 1970s, the village of Banino was designated as a non-expanding village, allowing only farmstead development related to agricultural functions. In the 1990s, the possibility of locating residential buildings on previously undeveloped plots outside of acoustic nuisance zones was permitted. After 2002, there was significant development of single-family housing estates, with new residential buildings primarily resulting from the subdivision of individual agricultural lands into small building plots.

Change in Land Use:

- **1970s:** Agricultural function.
- **1990s:** Agricultural function supplemented with residential and recreational uses.
- **2002 Onwards:** Dominant functions – Single-family residential, services, production, warehouses and storage, with the agricultural character of the land largely lost.



Case studies (GDA)- Banino

Airport-Related Restrictions:

- **1970s:** Suspension of residential and service development to protect against harmful noise effects.
- **1990s:** Ban on construction within airport acoustic nuisance zones.
- **2002 Onwards:** Height restrictions also apply to equipment on structures, particularly antennas and advertisements. Structures with a height of 100 meters or more above ground level must be reported to the Civil Aviation Authority and marked. In the approach zones, planting and cultivation of shrubs that could pose aviation hazards are prohibited.



Case studies (KAT) - Ożarówice



Changes in the Primary Planning Principle:

- From a lack of perspective and the need to convert land use from agricultural to other functions in the 1970s, through a ban on the construction of new facilities in the 1990s within the 60dB airport impact zone, to a change in land use to residential and the development of commercial and economic zones facilitating economic activation of the municipality after 2002.

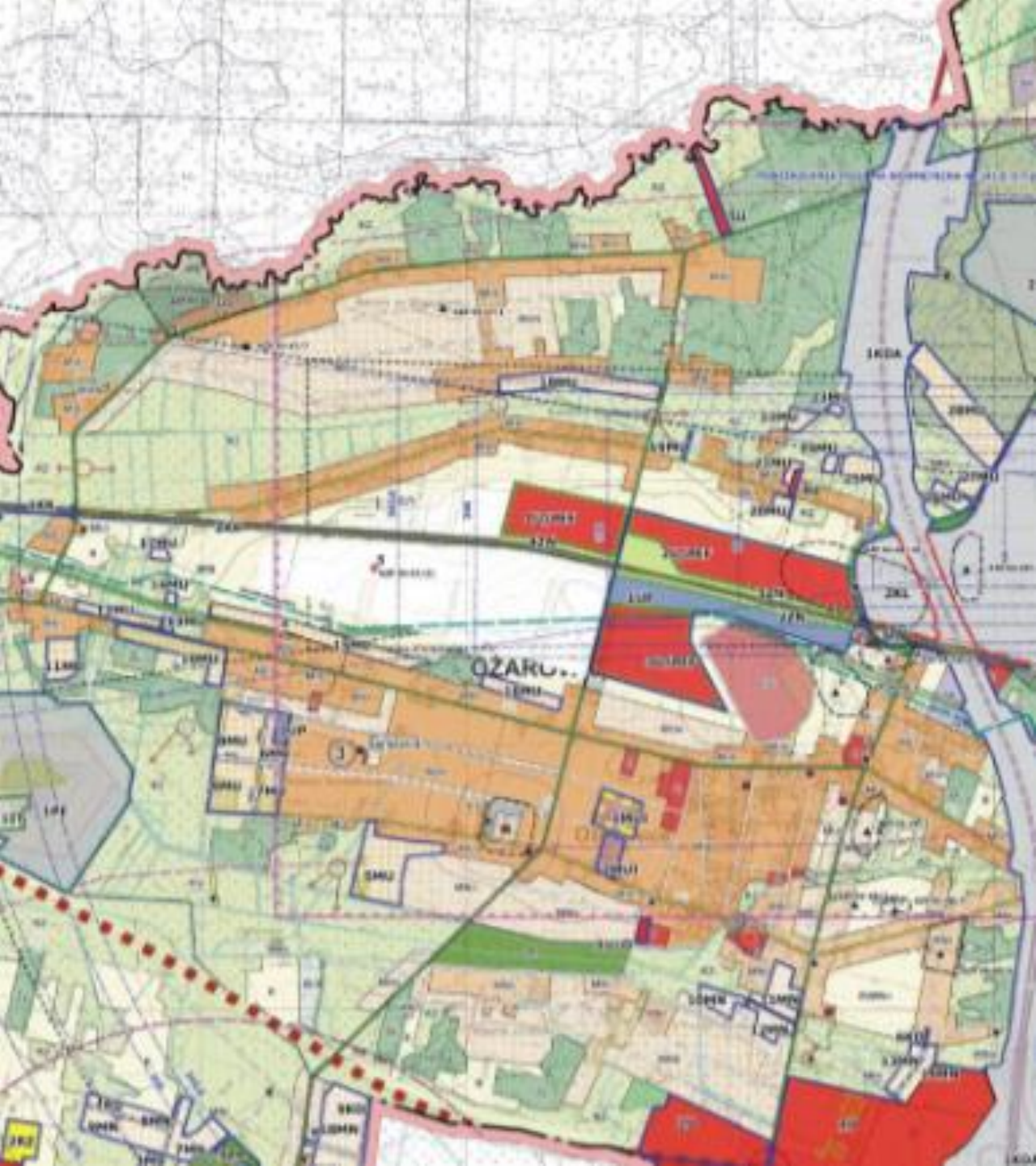
Change in Land Use:

- **1970s:** Primary function – Agriculture
- **1990s:** Agricultural-forestry, residential-service, transportation, and tourism-recreational functions;
- **after 2002,** main functions – Residential-service, transportation, and agricultural.

Case studies (KAT) - Ożarówce

Airport-Related Restrictions:

- **1970s:** Mainly related to the military airport and military unit.
- **1990s:** Ban on the construction of new facilities.
- **2002 Onwards:** Restricted use area with a stipulation of exclusion from further urbanization for residential functions in the landing approach zone, with strong pressure to convert agricultural land into residential use in other zones.





Case studies – similarities



Aspect	Banino	Ożarówice
Airport-Related Restrictions	Proximity to Gdańsk Lech Wałęsa Airport causes noise and building regulations, including height limitations and shrub planting prohibitions.	Proximity to Katowice-Pyrzowice Airport causes similar noise and building regulations, including height limitations and shrub planting prohibitions.
Reduction of Agricultural Functions	Traditional agricultural character has been significantly transformed due to urbanization and residential development, resulting in a loss of agricultural landscape.	Traditional agricultural character has also been significantly transformed due to urbanization and residential development, leading to a loss of agricultural landscape.
Spatial Fragmentation	New residential developments arise from subdividing agricultural land into smaller plots, causing spatial and functional fragmentation and creating disconnected residential areas.	New residential developments arise from subdividing agricultural land into smaller plots, resulting in spatial and functional fragmentation and creating dispersed residential areas.



Case studies – differences



Aspect	Banino	Ożarówice
Intensity of Urbanization	More intense residential development, including both single-family and multi-family housing.	Less intense urbanization with greater preservation of agricultural functions.
Dominant Spatial Functions	Dominant functions include single-family residential housing, services, production, and warehouses.	Greater emphasis on maintaining agricultural and gardening functions, despite residential development.
Threats to Traditional Landscape	Significant changes in the traditional agricultural landscape, transforming it into a suburban or production-service landscape.	Less pronounced transformations, with more of the traditional agricultural landscape preserved.



Trends in the development of the space surrounding the airport





Conclusions



- 1. In centrally planned economies (communist era),** residential and service functions around airports were restricted to avoid conflicts in space.
- 2. The transition to a free-market economy** has increased pressure to change land uses, particularly towards residential purposes (economic pressure).
- 3. Currently, due to conflicts (mainly noise nuisance),** spatial planning around airports is changing—building opportunities are again being restricted, and restricted use areas are being created.
- 4. Further research should identify sources of pressure for land use changes,** examine the impact of airports on the shaping of surrounding areas, and involve public participation in spatial planning.



Thank you for your attention!

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