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Sustainable development of rural areas in Poland in the context of the 'urban sprawl' process

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Space

- characterized as the totality of dependencies that occur between co-existing objects,
- determined by the distribution of matter, i.e. parameters of mutual distribution (distances), sizes, shapes, etc.

Features of space: **Limit**

This means that it can not be magnified.

Such a situation contributes to an increase in the number of conflicts between individual entities as well as between individual economic functions due to the demand for space.



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Features of space: **Resistance**

It means resistance to any changes.

Space (by nature) has the ability to return to the original states, and the change requires time, energy and resources. From the economic point of view, this means that the intensity of development and the use of space is dependent on communication access and technical progress.

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Features of space: **Diversification**

It means diversity in terms of natural and anthropogenic features.

It causes that some fragments of space or its elements have a unique and exhaustive character.

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Spatial policy in Poland is regulated by

the Act of 27 March 2003 on spatial planning and spatial management

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Space should be planned with the consideration of:

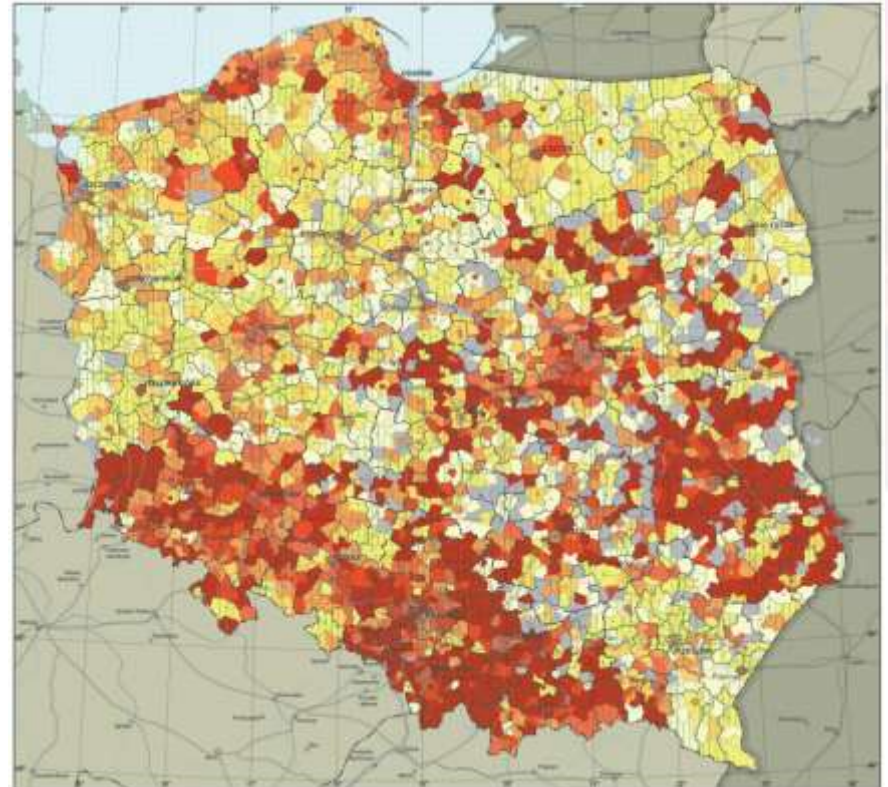
- **spatial order,**
- **protection of the natural environment, land resources, and landscape quality,**
- **protection of cultural heritage,**
- **ownership,**
- **needs of public interest,**
- **economic value of space.**

Spatial policy in Poland is particularly implemented on the **commune level**:

1. The study of conditions and directions of spatial management of the commune;
- 2. Local spatial development plan** - act of local law specifying the purpose and conditions of spatial management of land;
3. Decision on the conditions of building development and management of land.

Current conditions

The rule of facultative passing of local plans, expressed in the fact that **they can, but do not have to be passed**, strengthened lack of such studies for considerable areas of communes for years. The cover of the country with local plans is insufficient and increases at a slow rate – it is currently at a level of **30.2%** (Bank of Local Data of the Central Statistical Office in Poland, state as at the end of 2016).



Planning coverage 29,2% (red color) - 31.12.2014

Source: Śleszyński et al. 2015.

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Current conditions

Local plans are often fragmented, and are only prepared for the purposes of particular investments.

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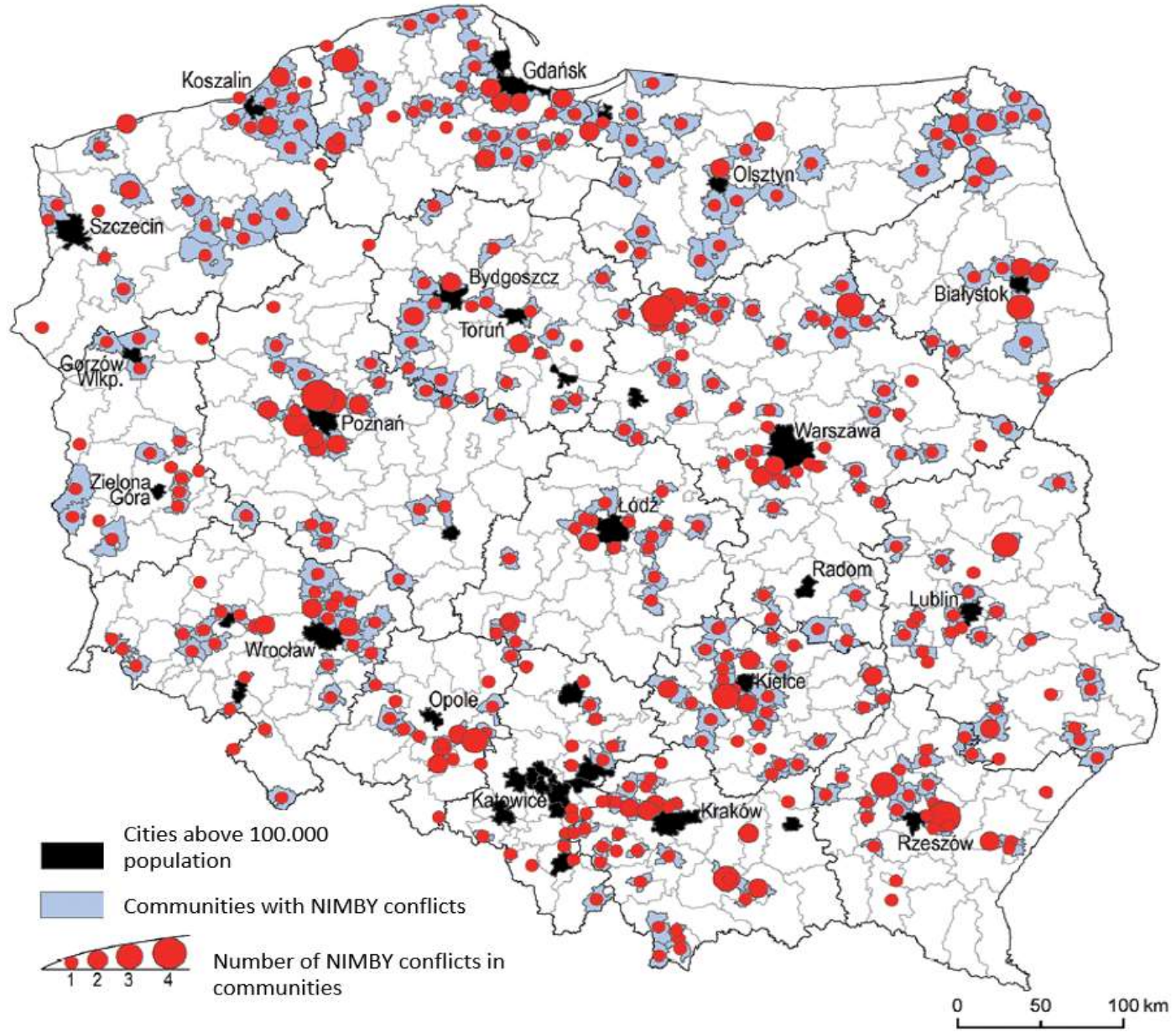


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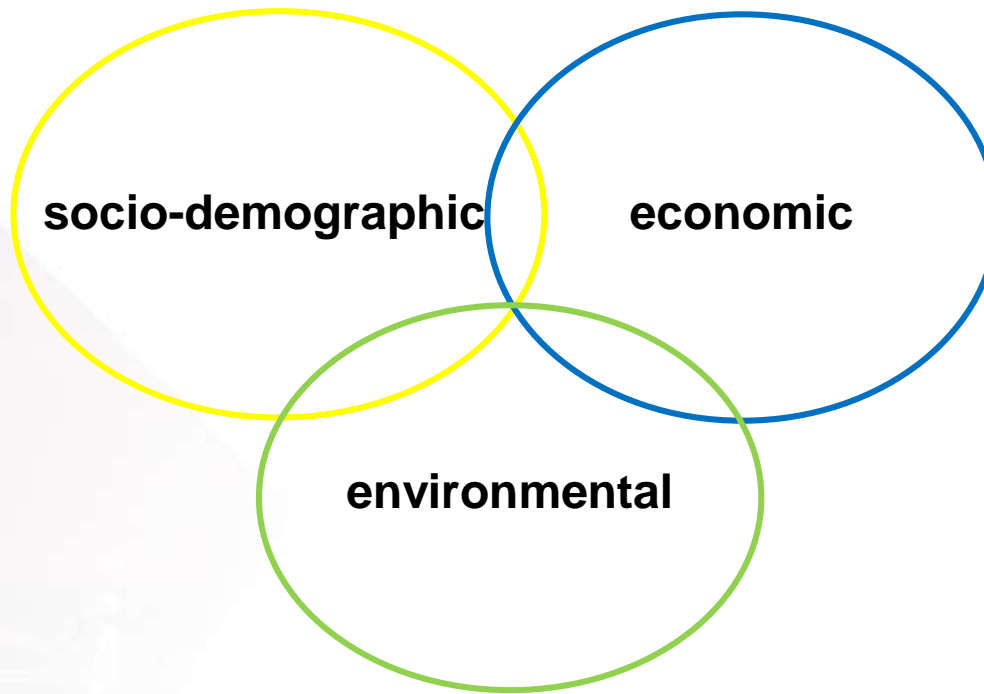
Spatial image of occurrence of social conflicts in Poland (excluding large and medium-sized cities) resulting from a search of press archives (regional and local press) from the period from January 2007 to March 2014
Source: Bednarek-Szczepańska and Dmochowska-Dudek 2016.

Current conditions

Therefore, **the role of the decision on the conditions of building development and land management considerably increased.** In the case of lack of the local plan, it constitutes the basic instrument of spatial management by the head of the commune, mayor, or city president in reference to examining relevant applications by investors.

This results in **uncontrolled urban sprawl process (suburbanisation)** which is a threat to the sustainable development of suburban areas in Poland.

Urban sprawl as a process that dominated modern problems of development of cities and their suburban zones is a **complex phenomenon**. It can be analysed in multiple aspects, among others:



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socio-demographic

environmental

Economic aspect:

- housing-investment development not related to agricultural economy in the vicinity of cities,
- increase in demand for land,
- revenues to commune budgets in the form of real estate tax (increase in investment in the area of communes) and personal income tax,
- expenditures related to among others costs of technical infrastructure, and particularly transport and water supply and sewage system,
- following of a considerable amount of land while waiting for its sale.

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socio-demographic

economic

Environmental aspect:

- devastation of the cultural landscape of rural areas,
- loss of spatial order,
- allocation of originally not predisposed land for housing development,
- defragmentation of local environmental connections,
- moving green areas (for potential recreation) further from residential areas in city centres.

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Socio-demographic aspect:

- development of non-agricultural forms of land management,
- increase in population density – inflow of new residents from the city,
- decline of bonds between neighbours, conflicts between the local and inflowing community, social segregation of residents,
- decline of the character of rural areas in favour of urban landscape and so-called “urban lifestyle”.

economic

environmental

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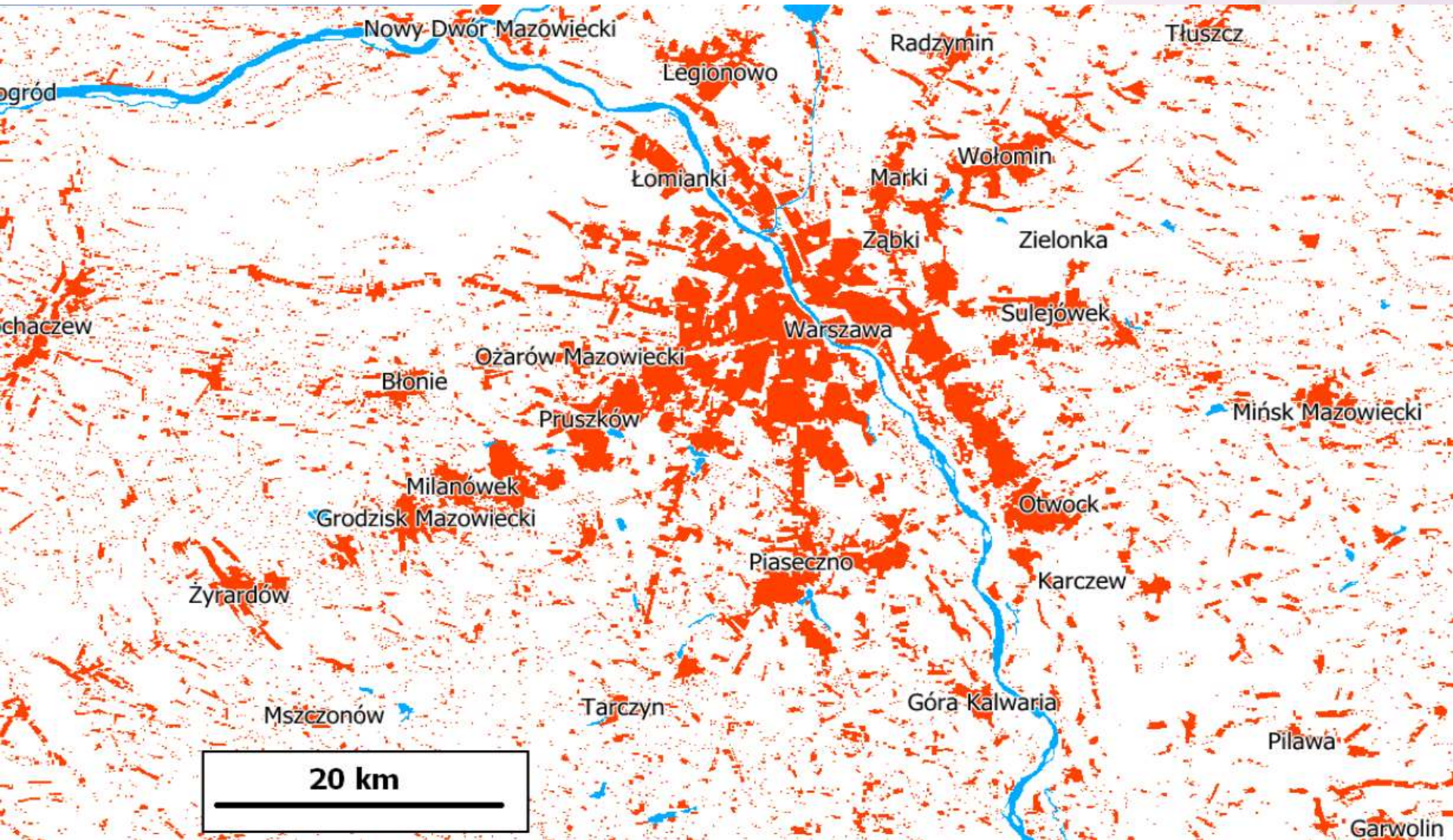


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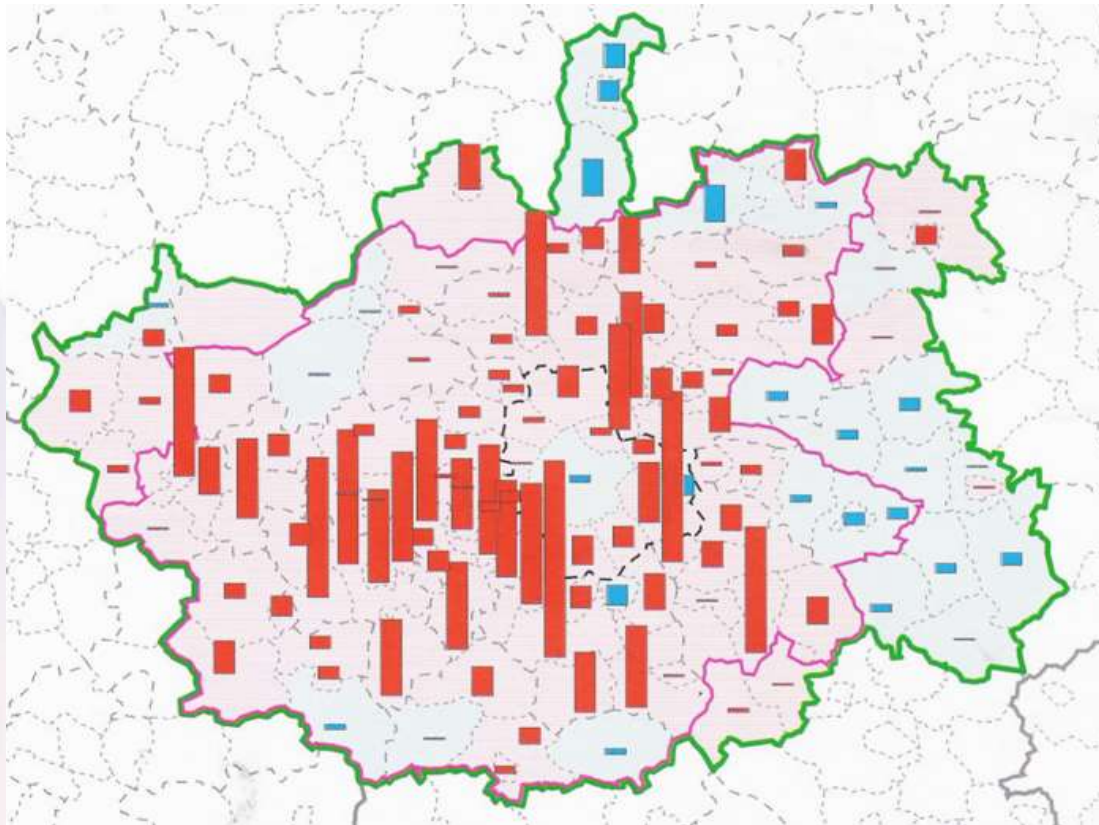
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Urbanisation of rural areas in the Warsaw agglomeration



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Changes:

increase

loss



150 ha

75

10

surface increase

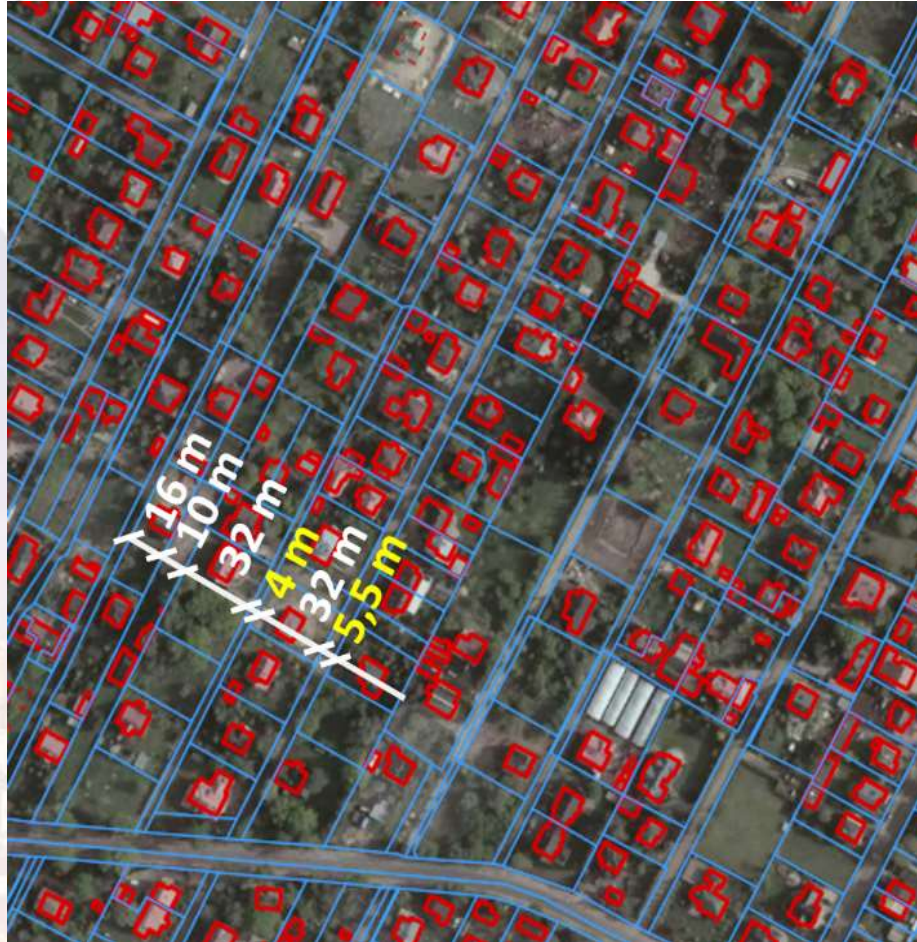
surface loss

Changes in the surface area of residential areas in the Warsaw metropolitan area in the years 1995-2004

Source: own elaboration based on Degórska and Deręgowska 2008.

THE WARSAW AGGLOMERATION CASE - PROBLEMS

- Building development in areas not covered by plans.
- Exclusion of best soils from agricultural or forest production, which are protected by the act of 3 February 1995 on the protection of arable and forest land.
- Urbanisation chaos.
- Dispersal of building development.
- Caricatural – considering lack of land consolidations – housing development with irrational parameters of roads and plots.



City of Brwinów in the vicinity of Warsaw, new urbanised areas in the territory of the former Pszczelin village (widths of registered plots indicated in white, width of access roads – in yellow)

Source: own elaboration based on <http://pruszkowski.e-mapa.net/>.

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City of Brwinów in the vicinity of Warsaw, wider plots under current agricultural use are divided into smaller registered plots

Source: own elaboration based on <http://pruszkowski.e-mapa.net/>.

- The unfavourable structure and shape of the plots causes problems with the accessibility of the public road and construction of technical infrastructure.

Example of building plots without access to the public road in the Kikoły village, Pomiechówek commune

Source: own elaboration based on Geoportal 2.



- Single-family houses coexist with farm buildings. Buildings are also constructed in the second, and even further lines of buildings, and access roads running along ownership divisions are constructed for the purposes of new buildings development.

Example single-family housing development in the second line of buildings together with the access road in the Kikoły village, Pomiechówek commune.

Source: own elaboration based on Geoportal 2.



- Many “gaps” appear in building development. Very narrow plots remain not adjusted to it.

Example of “gaps” in building development resulting from failure to adjust plots to building development in the Kikoły village, Pomiechówek commune

Source: own elaboration based on Geoportal 2.



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- A serious problem occurs in the scope of obtaining land for investment purposes due to the progressing suburbanisation process and unfavourable structure and shape of plots that needs restructuring and adjustment of the shape and surface to new functions.

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Example service-production building development on several registered plots in the Czastków Polski village, Czosnów commune

Source: own elaboration based on Geoportal 2.



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Example effects of the application of the land consolidation and division procedure in the Bielawa village, Konstancin Jeziorna commune

Source: own elaboration based on Geoportal 2.



creation of single-family housing properties from the areas previously used for agriculture reasons

CONCLUSIONS

- The change of the political-economic system initiated in 1989, development of the private economic sector, and introduction of the market economy in Poland **intensified changes in the purpose of arable land to building purposes**. Increased demand for investment land and lower prices of land in suburban communes resulted in mass transformations of arable land – approximately 10,000 thousand ha of arable land annually from 1990, and parcellation into building plots.
- In spite of attempts to introduce order in planning processes through planning acts, **no legal remedies are currently available in Poland that would allow for management of uncontrolled allocation of arable land for building development**.

SOLUTIONS

- It should be **limited exclusion of best soils from agricultural or forest production** (which are by the way protected by the act of 3 February 1995 on the protection of arable and forest land) to the minimum, because in the total area of agricultural land in Poland, they constitute only approx. 26%.
- Regarding to the soil conditions and their protection, it is extremely important to consider them not only in the planning at the commune level, but also at the voivodship level and, for example, determining the directions of residential development around Warsaw.

SOLUTIONS

- **Land consolidation and division procedure could be a tool of sustainable development of suburban areas.** It should be treated as a stage following the passing of the local plan, by means of fluid and planned transition from agricultural land use to its use for residential purposes.



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Thank you for your time!

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