

CHALLENGES TO THE DEVELOPMENT OF RURAL AREAS IN POLAND

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Summary

Geodetic management of rural areas in Poland is currently experiencing a kind of decline, caused by the relatively limited range of land consolidation projects. At the same time, structural problems of farms and, much more broadly – of rural areas – are among the biggest development problems in Poland. Therefore, it is suggested that wide-ranging proceedings for the so-called comprehensive management of rural areas should be introduced to the practice of geodesy and to issues of agricultural areas, which would include broad measures enabling sustainable spatial and structural development of rural municipalities, and provide solutions to particular problems occurring locally. This concerns in particular the broad (comprehensive) activities involving the preparation and implementation of spatial and infrastructural transformations needed locally in order to preserve and improve the economic (including also agricultural), residential, natural, and cultural functions of these areas, which would be intended to support the sustainable improvement of working and living conditions in the countryside.

Keywords

rural areas development • land consolidation • management of rural areas

1. Introduction

Polish rural areas are characterized by unfavourable land distribution, poor spatial structure of buildings (from concentrated settlement units to residual buildings – Figures 1 and 2), fallow agricultural land, and lack of local spatial development plans.

The consolidation of land is currently experiencing a kind of decline in Poland, resulting from the relatively limited range of land consolidation projects, at the level of approximately 10 thousand hectares annually. This is due to the very small resources anticipated for consolidation works, and low interest on the part of the farmers in mergers, mostly in the districts with a large share of farms with bigger dimensions. The classic land consolidation that has been applied to date is now becoming obsolete, because the Polish countryside is becoming increasingly multifunctional, whereas its inhabitants no longer make their living from one source of income (farming), but instead, from at least three sources: farming, non-farming, and non-profit. Small farms are gradually



Source: Geoportal

Fig. 1. Concentrated system of the built environment in Wąwolnica village (Lublin region)



Source: Geoportal

Fig. 2. Rudimentary built environment in Barciany village (Warmia and Masuria region)

disappearing, and they are replaced by large farm holdings, and the consolidation of land for larger farms only slightly improves farming conditions therein [Dudziańska and Prus 2017, Jadczyzsyn and Woch 2017].

At the same time, structural problems of farms and – much more broadly – of rural areas are among the biggest development problems in Poland. Therefore, it is necessary that wide-ranging proceedings for the so-called comprehensive management of rural areas (KUOW) should be introduced to the practice of provincial geodesy and agricultural land offices (WBGiTR). These would include broad measures enabling sustainable spatial and structural development of rural municipalities, as well as solving particular problems occurring locally. Wide-ranging (comprehensive) activities are required, including the development and implementation of spatial and infrastructural transformations needed locally, in order to preserve and improve many functions: economic (including agricultural), housing, natural and cultural functions of these areas, which would be intended to support sustainable improvement of working and living conditions in the countryside [Pijanowski and Woch 2017a].

The need for a comprehensive approach to shaping rural areas in Poland is also recognized by the European Union (EU), and this has been included in the Rural Development Program (RDP) for the programming period of 2014–2020 [Ustawa 2015, Obwieszczenie 2017].

The current municipal programs of farm and agricultural land management works and land consolidation tasks are implemented by WBGiTR (Offices of Geodesy and Rural Areas); the tasks in the field of management of agricultural water resources are performed by regional water management boards of the State Water Holding of Polish Waters (PGWWP) – until recently, the regional authorities of drainage and water facilities management – whereas the tasks pertaining to the renewal of the countryside are implemented by the municipalities and non-governmental units. Negative effects of the lacking spatial, temporal and financial coordination of these activities are becoming apparent. The current situation is not conducive to sustainable development of rural areas in Poland. It is necessary, after more than 25 years of preparation, to proceed to the realisation stage of rural development in a comprehensive version, in appropriate legal conditions, through established institutions implementing tasks in the field of KUOW, that is through the regional geodetic authorities and rural development agencies (WBGiROW), implementing these tasks in all Polish regions. These agencies should focus the competences that shall enable comprehensive spatial and structural transformations of rural municipalities [Pijanowski and Woch 2017b].

In the last quarter of the century, Poland has enjoyed unquestionably high social and economic growth compared to the post-war period. For almost 10 years, virtually all segments of the Polish state's development have been covered with the financial support from the EU. Rural areas and agriculture benefit from the European Agricultural Fund for Rural Development (EAFRD). It should be noted that the financing from this fund has benefited mostly agriculture – whereas spatial structures in rural areas have been developing without any coherent policy either on the part of the state, or the local self-government. In addition to the poor spatial structure of built environment, we have

been witnessing a massive fallowing (setting aside) of agricultural land [Pijanowski and Woch 2017a] (Figure 3).



Photo by J.M. Pijanowski

Fig. 3. Fallow (set aside) farmland between Sławków and Olkusz

Municipalities in Poland are very reluctant to work on local spatial development plans (MPZP). At the same time, municipal programs (plans) of spatial and agricultural management tasks have not been sufficiently prepared. The main purpose of these programs is to define the assumptions for a comprehensive, multifunctional development of a given municipality, the development of farm holdings, the improvement of living and working conditions of the population, the protection and shaping of the natural environment, and the preservation of cultural values of the landscape [Woch and Zarychta 2017]. These programs can potentially constitute an instrument enabling the determination of strategic and economic goals for the comprehensive development of rural municipalities. However, their preparation and implementation is not regulated by any legal acts [Szczepanik 2007].

In comparison to Western European countries, Poland is dozens of years behind in terms of regulating rural areas arrangement and management – both in terms of current legislation and the methodology of work. Such a statement is legitimised, for instance, by a comparison to Bavaria, whose methodology already begins to be successfully applied in China [Magel et al. 2017, Qu 2012, Strössner 1993]. Another important problem of work for the development of rural areas in Poland is also the low level of social participation, whereas in other developed countries, the involvement of the community becomes the standard of land management activities [de Vries and Chigbu 2017].

Methods of planning and managing rural areas in Poland in the interwar period were similar to those in the leading European countries at the time. By the outbreak of World War II, a total of approximately 5.4 million hectares of arable and forest land belonging to almost 860 thousand farms located in 10,000 villages, had been consolidated. At the same time, 2.5 million hectares of arable land was improved. In the post-war period, these works continued, but they were subordinated to other political goals. The priority was to create the state and cooperative sector at the expense of the development of family farms. Since 1999, the development of rural areas has become the competence of the state and the self-governments of regions, which initially pursued their own policies in this area, and then successively, they followed the policy of pre-accession programs, and later, selected components of the EU agricultural and rural policy – first within the Sectoral Operational Program (SOP) of “Restructuring and Modernization of the Food Sector and Rural Development” 2004–2006, then the RDP 2007–2013, and currently, the RDP 2014–2020 [Pijanowski and Woch 2017 a].

2. Material and methods

The results of the analyses presented in this article are the outcome of many years of research and implementation works in the field of rural areas management, carried out in recent years by the University of Agriculture (UR) in Krakow, and previously by the Institute of Soil Science and Plant Cultivation (IUNG) in Puławy [Pijanowski and Zedler (ed.) 2015, Pijanowski et al. 2012, Woch et al. 2011, Development of Areas ... 1998]. A study of the subject literature was also conducted [Magel 2017, Seher 2015, Weiss and Pijanowski 2005]. The present paper also springs from the many years' cooperation between the authors and institutions from Germany and the Netherlands as well as with the Ministry of Agriculture and Rural Development, marshal offices and regional geodetic agencies in the form of joint pilot studies, exchange of experiences, and organization of thematic conferences.

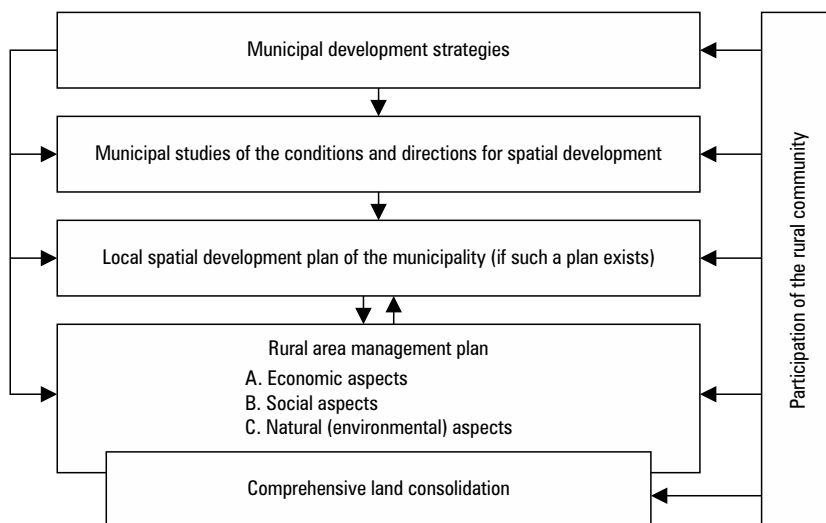
The analyses also used the results of research carried out in the years 1976–1990 by higher education institutions in the framework of the governmental program titled “Development of scientific foundations and methods of rational rural areas' management” coordinated by the IUNG in Puławy [Development of scientific foundations... 1976–1990]. The materials were obtained from the Ministry of Agriculture and Rural Development, Agency for Restructuring and Modernization of Agriculture, marshal (regional) offices, governors of the *powiat* districts, municipal offices and regional agencies of geodesy and agriculture.

3. Research results and proposed changes

3.1. Procedures of spatial planning and management

The arrangement and management of rural areas in Poland should be an element of a comprehensive, multifaceted economy of rural space. It must respect both the municipal (but also supra-municipal) strategic studies, spatial studies in the form of “studies of

the conditions and directions for spatial development”, local spatial development plans and detailed studies included in the plans of individual municipalities or parts thereof, as well as those included in the projects of comprehensive land consolidation of villages or larger areas. A graphical diagram of related planning studies is presented in Figure 4.



Source: authors' study

Fig. 4. Linking the planning documents of the municipality with land management proceedings in rural areas

As follows from the diagram presented in Figure 4, in Poland, the basic planning document at the local level is currently the development strategy of the municipality. With reference to the provisions contained in the strategy, spatial elements should be included in the provisions of the study of the conditions and directions for spatial development of the given municipality or its part, and then detailed in the local spatial development plan for the given area.

It is common knowledge that the vast majority of rural municipalities in Poland do not have local spatial development plans, or they have local plans in an inadequate version, not sufficient to inform comprehensive farming, land management and consolidation works that should be carried out on their basis. The lack of current local plans cannot, however, hamper the development of rural areas. In the current situation, the scheme contained in Figure 4 suggests a mechanism that is opposite to the typical one, namely one in which the municipality, despite the lack of a proper local plan, develops a plan for the land management of the rural area. Further, the municipality analyses which elements are already present, and which must still be included in the local plan, it then proceeds to develop or update the plan, and after the approval of the plan, it proceeds to the implementation of the land management works.

The same mechanism is suggested in the case of comprehensive land consolidation in the conditions of the absence of either the local plan and/or the plan for land management in the given area. The assumptions made are confronted with the provisions of the local plan, and in the absence of some areas in the provisions of the plan, in relation to these deficiencies, an update is made through the procedure of developing a local plan or using Article 59 of the Act on spatial planning and management [Ustawa 2003].

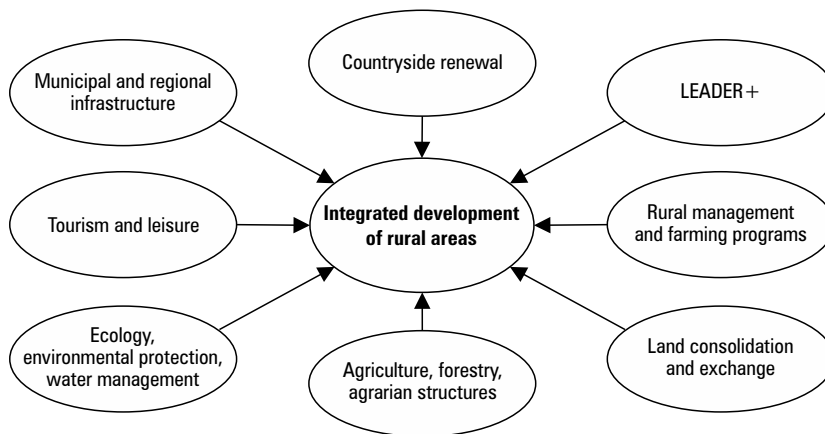
Currently, work is underway on a comprehensive legal document, namely the Urban Planning and Construction Code [Kodeks urbanistyczno-budowlany... 2017]. The draft of this document provides for the prevention of, inter alia, possible use of the so-called “legal loophole,” that is, avoiding spatial management issues outside the spatial development plan.

It should be added here that in areas without current and abiding local spatial development plans, only the classic land consolidation procedure is possible, because the newly created network of agricultural roads does not require a planning record, whereas other spatial elements are not included.

The scheme in Figure 4 clearly demonstrates that all stages leading to the development of the rural area should take place with the active participation of the local community.

3.2. Comprehensive land management of rural areas

Presently, the management of rural areas should take into account the broad development conditions presented in Figure 5. They should be included in the KUOW (comprehensive management of rural areas) framework.



Source: [Franke 2012]

Fig. 5. The map of major issues to be solved for the integrated development of rural areas

The KUOW (comprehensive management of rural areas) covers a wide range of activities enabling sustainable spatial and structural development of rural municipalities and solving any problems that occur locally. This concerns in particular the broad (comprehensive) activities involving the preparation and implementation of spatial and infrastructural transformations needed locally, in order to preserve and improve the economic (including agricultural), residential, natural (environmental), and cultural functions of these areas, with the intention to support the sustainable and lasting improvement of working and living conditions of the countryside inhabitants. Thus, the KUOW brings together and focuses all tasks enabling comprehensive spatial and structural transformations of villages or municipalities [Pijanowski and Woch 2017 a]. Therefore, the KUOW can be compared with furnishing a home, or a flat. Hence, the purpose of the management (or the “arranging”) of the rural areas is to strive for the improvement of the following [Woch, Zarychta 2017]:

- Living and working conditions of the rural population;
- Economic potential of rural areas;
- Income of the rural population;
- Condition of the natural environment;
- Condition of landscape and the cultural environment.

The active subject in the process of arranging and managing rural areas is the local community, which should decide on the setting of goals, the hierarchy of those goals, and the order and manner of carrying out the pertinent tasks.

The KUOW therefore, collects, so to speak, all tasks enabling comprehensive spatial and structural transformations of rural municipalities, which consists of the planning part, and the executive part. The planning part should include the following [Pijanowski and Woch 2017 b]:

- Land management and farming plans (plans for the land management and agricultural works) for each given municipality, which are currently being developed as informal studies, without the appropriate legal basis. In the future, they should be obligatory, either preceding (i.e. prepared in advance of) local spatial development plans, or taking into account the provisions of these plans;
- Concepts for structural and spatial development of respective villages (or village districts).

Whereas implementation (executive) tasks should include the following [Pijanowski and Woch 2017 b]:

- Comprehensive land consolidation projects to improve the agricultural and forestry structure of the production space, along with plans of post-consolidation management;
- Investment projects in the field management of agricultural water resources (including: drainage, flood control, water retention in the agricultural space in the event of drought, tasks linked to the development of renewable energy, anti-erosion measures);

- Activities for landscaping and natural environment protection (including: shaping the agro-forest border, creating “green” ecological corridors and routes, soil protection and water protection, protection of historical landscape forms);
- Countryside renewal projects (in cooperation with the given municipality).

The KUOW (comprehensive management of rural areas) is a challenge for Poland, due to the following factors, among others [Pijanowski and Litwin 2015]:

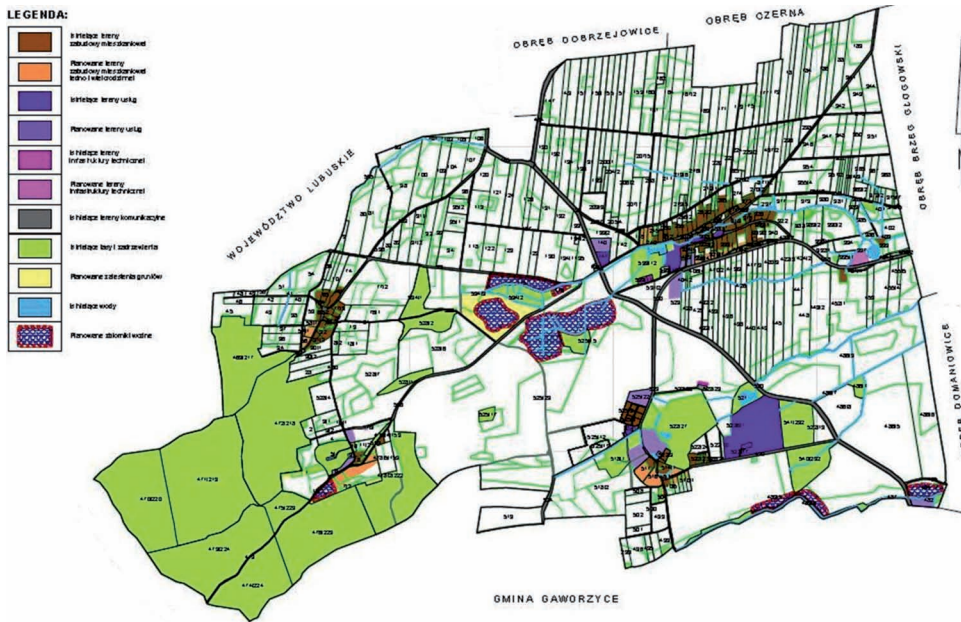
- Outflow of people from the countryside; young people in particular. Thanks to the introduction of the methodology of social participation, this process can be significantly reduced;
- The progressive loss of large acreages of arable land due to land fallowing (setting-aside), and to forest succession, which – to a large extent – results from shortages in the field of agricultural roads and land improvement (whereas the latter should be implemented as part of land management works), but also from the lack of interest in agricultural production in some areas.
- Dramatic neglect in terms of the condition and coverage of agricultural land by the infrastructure of detailed melioration and erosion treatments.

The KUOW (comprehensive management of rural areas) planning activities should be implemented with the active participation of residents (working groups, joint inventory and determination of problems, and of development objectives). This leads towards the participative approach to building a sense of community, which is a necessary condition for the development of social capital and the activation of residents. This is clearly and unequivocally demonstrated by the results of the model project titled “The concept of procedures for integrated development of rural areas, including proposals for conducting future proceedings, developed on the basis of work carried out in the Małopolska region, in Strzelce Wielkie village (Szczurowa municipality, Brest district)”, carried out with the participation of Bavarian experts [Pijanowski and Zedler (ed.) 2015]. Also in the working practice of surveying offices we shall find examples of rural management and farming plans, such as the one drafted for Mietków municipality, developed by the Lower Silesian Office of Geodesy and Rural Areas in Wrocław (Figure 6). However, most such programs are currently being developed with too little involvement on the part of rural communities.

3.3. Comprehensive land consolidation

As indicated in Figure 4, comprehensive management of the rural space is possible under the procedure of both the KUOW (comprehensive management of rural areas), and the comprehensive land consolidation.

The purpose of the classic land consolidation is to improve the size structure of farms, to rationally shape land configuration, and to adjust the boundaries of real estate to the system of land improvement installations, roads and the terrain [Ustawa 1982], along with the post-implementation management provided for in the project.



Source: Dolnośląskie Biuro Geodezji i Terenów Rolnych we Wrocławiu (Lower Silesian Office of Geodesy and Rural Areas in Wrocław)

Fig. 7. Map of the existing and planned land use in the Kromolin village (region of Lower Silesia), undergoing comprehensive land consolidation process

On the other hand, comprehensive consolidation covers a new land order, taking into account the optimal target use of rural space, and also including the post-consolidation management agenda, planned as the part of the project [Woch 2006]. This takes into account the classic land consolidation, leading to the improvement of the land distribution and the size structure of farms, and at the same time, expanding the scope of activities to include a number of issues, featuring predominantly:

- The regulation of agricultural habitats;
- The proposal for a new communication system, including agricultural transport, pedestrian and bicycle routes, along with their proposed development and management, their communication function (including outgoing farming machine traffic from villages), communication between villages, maintenance of water and drainage facilities, and more;
- Excluding the poorest quality land from agricultural use, and designating it for other purposes, including afforestation and proper shaping of the agro-forest border;
- Reduction or increase in the area of farms for cash equivalents;
- Change in the structure of farmland, for example, grassland at the expense of reducing arable land;

- Systematic preparation of the documentation for the introduction of a new entry to the Land Record in the digital format;
- Introduction and protection of mid-field afforestation, constituting the biological casing of watercourses, ravines, gorges, high balks, counteracting erosion phenomena;
- Correction of the course of existing drainage ditches that require renovation, and designing new drainage ditches in areas requiring drainage;
- Protection of cultural heritage, and natural environment, with particular emphasis on soil protection.
- Other tasks resulting from the local plan or social expectations.

Examples of comprehensive land consolidation projects have been presented in Figures 7 and 8.

4. Organisational aspects

Current land management and farming programs, as well as tasks in the field of land consolidation, are carried out by the BGiTR units (Offices of Geodesy and Rural Areas). Tasks in the field of farmland management, and water management, are performed by PGWWP (State Water Holding of Polish Waters), BGiTR, water companies, and farmers themselves (for instance, in the scope of drainage networks).

We should consider the possibility of evolutionary development of institutions implementing the tasks in the scope of the KUOW (comprehensive management of rural areas) in Poland, and their introduction to all the WBGiROW (regional geodetic authorities and rural development agency) units. These offices should focus on those competences, which enable comprehensive spatial and structural transformations of rural municipalities, such as the previously described planning and execution tasks of the KUOW.

The structure of the regional BGiROW units should function according to the current principles, because these offices carry out a whole range of tasks resulting from the responsibilities and competences of regional governors (marshals). Possible future BGiROWs should operate in the number of one per region. Depending on the scale and specificity of problems in sub-regional terms, they should be able to create sub-regional branches accordingly.

The development and strengthening of regional offices is justified by the fact that they possess several decades of professional experience, and strong relationships with local self-governments.

5. Conclusions

The development of rural areas in Poland requires solving many problems, such as: poor agrarian structure, unfavourable land distribution, or lack of local spatial development plans. For sustainable development to take place, the following actions should be taken as soon as possible:

The Act on land consolidation and exchange should be urgently replaced by the Act on comprehensive land consolidation, the mechanism of which will create rural development until 2020; whereas from 2021, it should be replaced by the Act on land management in rural areas.

The Act on land management of rural areas should create a systemic way of implementing works in a given area. According to this principle, there is a need to first develop municipal land management plans, as documents that are necessary to determine the scale of the KUOW (comprehensive management of rural areas) work required in a given municipality; and after the approval by the municipal council of the design ideas for selected villages, the mayor would apply to the governor (“marshal”) of the region to initiate the consolidation works.

Incorporation of the KUOW into the spatial development system, and the assessment of planning objectives in relation to the objectives of other planning areas, as well as defining their mutual correlation should be regulated by law, as part of the Urban Planning and Construction Code, currently under development. At the same time, the procedure for approving the plans and including the institutions representing public interests should be specified, as is the case today in the approval process of the local spatial plans.

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