

Issues Related to Land Consolidation in Poland after Accession to the European Union

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SUMMARY

Poland has many year traditions in implementation of land consolidation works. At present about 3 million farms exist in Poland, which are highly scattered; as an average 10 land parcels occur on one farm. Scattering of parcels is diversified in particular regions of Poland. Land consolidation works may improve this situation. However, the level of development of land consolidation works is relatively low. Performed works are focused on the increase of economic efficiency of farming. When Poland becomes a member of the European Union, land consolidation works aiming at improvement of economic effectiveness of farms will not be sufficient.

It is foreseen that performed land consolidation works will cover considerable areas of Poland, since they will be partially financed by regional funds of the European Union. These works will aim at improvement of economic effectiveness of farms, as well as at environmental protection and landscape development.

The paper presents proposals of legal and technical solutions concerning intensification of land consolidation works, with consideration of economic aspects and environmental protection and landscape development.

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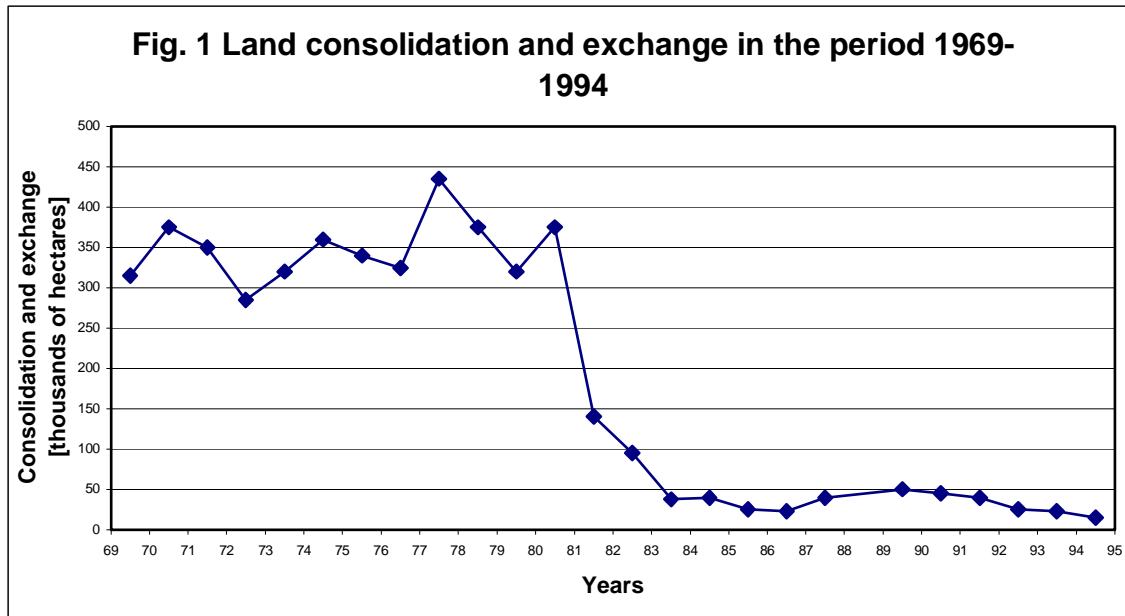
1. INTRODUCTION

Rural areas in Poland are defined as areas located outside the administrative borders of cities; this definition differs from the definition used in the European Union and in the OECD, where the population density is the factor which decides about division into cities or rural areas.

At present, rural areas cover more than 90% of the territory of Poland. Those areas include agricultural fields, forests, areas covered with trees or bushes, water reservoirs and waste lands (which are not used for economic purposes). Rural areas are characterised by various forms of land use. Agricultural fields and forests are dominating land use types, however settlements with rural parks, transport routes, mining areas and industrial sites also occur. Spatial structure of rural areas may be considered in two ways: in the context of property structure and in the context of land use forms. The property structure should be understood as the number of owners of real estates and the number of parcels, which are agricultural real estates or their parts, included in farms. The spatial structure of rural areas should be understood as the spatial structure of farms, which characterises the number and location of parcels, with respect to an economic centre (a settlement), as well as the structure of land use. Transformations of spatial and surface structures of rural areas in Poland were performed through land consolidation and land exchange works, which covered:

- Land consolidation works in the period between the 1st and the 2nd World Wars, (1918 – 1939),
- Division of large land properties into parcels and delimitation of considerably small farms (5 – 10 ha) – the period 1945 – 1947,
- Land consolidation works, which mainly aimed at consolidation of land which belonged to the state and to co-operatives, and, on the occasion, merging of individual farms – the period 1968 – 1981,
- Land consolidation works, which aimed at delineation of farms of the optimum spatial structure with consideration of improvement of their surface structure, by means of applied financial bonuses, depending on the land value – the period since 1989 till present.

The scope of land consolidated works performed in the past was highly diversified. In the period between the wars (1918 – 1939) 5.4 million hectares of lands were consolidated. The area of consolidated lands was much larger than the area of consolidated works performed within the period of 50 years after the war. The widest range of consolidation works was performed in the period of 1977 – 1978; more than 400,000 hectares of lands were covered by land consolidation works every year within that period. Rapid decrease of implementation of land consolidation occurred in the successive years (Figure1).



At present land consolidation works cover the area, which is too small comparing to the potential demands.

However, land consolidation works play an important role in concentration of parcels included in farms and in improvement of the structure of the Polish agriculture. This methods aims at transformation of the spatial structure of farms, consisting of scattered parcels into large parcels, characterised by an appropriate shape and good access possibilities. Regulation of borders of villages is also implemented in the process of land consolidation together with designing a new transport system within a village, which allows to shorten the time of travel between a settlement and parcels included in a farm. The present land consolidation works performed in Poland allow to increase the effectiveness of farming, to decrease production costs, mainly by shortening the time of access to parcels and reduction in fuel consumption. When compared to the scope and aims of land consolidation works performed in the European Union countries, the exclusive consideration of economic aspect of land consolidation works is not sufficient. Land consolidation works performed in the European Union countries are the part of a wide programme of rural areas development.

2. TASKS AND OBJECTIVES OF LAND CONSOLIDATION WORKS AS AN ELEMENT OF RURAL AREAS DEVELOPMENT

The land consolidation works performed in Poland are focused on improvement of the area structure of farms, mainly through the decrease of the number of parcels and improvement of expansion of lands within a farm.

At present, new challenges for the agricultural policy result from the process of integration with the European Union. Within those processes Poland will be obliged to commence activities aiming at gradual adaptation of rules and objectives of the agricultural policy to solutions approved in the EU. The current Agricultural Policy of the European Union aims

towards the integrated agricultural production – the Integrated Farming System in the Netherlands or the Integrated Crop Management in the United Kingdom [1]. The integrated production may be specified as a “system of farming, which combines economic principles with ecological safety by means of improvement management, rational utilisation of ecological regulating systems and systematic implementation of results of the scientific and technical progress, supporting implementation of the system objectives [4]. The system of objectives of the integrated agricultural production includes:

- The long-term economic balance of a farm,
- The high effectiveness of production,
- The ecological safety,
- The technical and organisational effectiveness,
- The social acceptance.

The basic features of the system are holistic approach to a farm and connection of diversified, or even conflicting objectives and methods of achievement of such objectives. The system of integrated agricultural production is located somewhere in between the conventional and ecological farming. In Poland the idea of the integrated agricultural production has not been fully specified and it does not create a complete and defined system.

Principles concerning management of rural areas also include creation of conditions of sustainable and multi-functional development. Development of conditions of sustainable development is performed by means of (2):

- Limitation of negative influence of agriculture on the natural environment and protection of agricultural field against negative impacts of industrial activities,
- Popularisation of methods of agricultural production, friendly for the environment, including ecological agriculture, with particular consideration of areas of the highest natural and landscape values,
- Management of marginal lands, including increase of areas of forests by means of forestation of arable lands of the low soil classes,
- Training and promotional activities,
- Protection and promotion and folklore and folk art.

Considering the above conditions, the basic objectives of land consolidation works should include:

- Delineation of areas for intensive agricultural production,
- Delineation of areas which are periodically used for agricultural purposes,
- Delineation of areas for intensive forest production,
- Delineation of areas which are the subjects of particular protection, according to the law on the protection of the nature and natural environment. This particularly concerns ecological fields, protected zones and areas – buffer zones of national parks, landscape parks, natural reservations and rural parks,
- Delineation of areas to be used for recreational purposes and their management through popularisation of agri-tourism,

- Delineation of areas to be used for housing purposes in the future,
- Delineation of areas to be used for the needs of linear type investments (motor ways, express ways, rapid trains etc.).

The diagram of tasks included in the process of transformation of rural areas within a wide land consolidation process is presented in Figure 2.

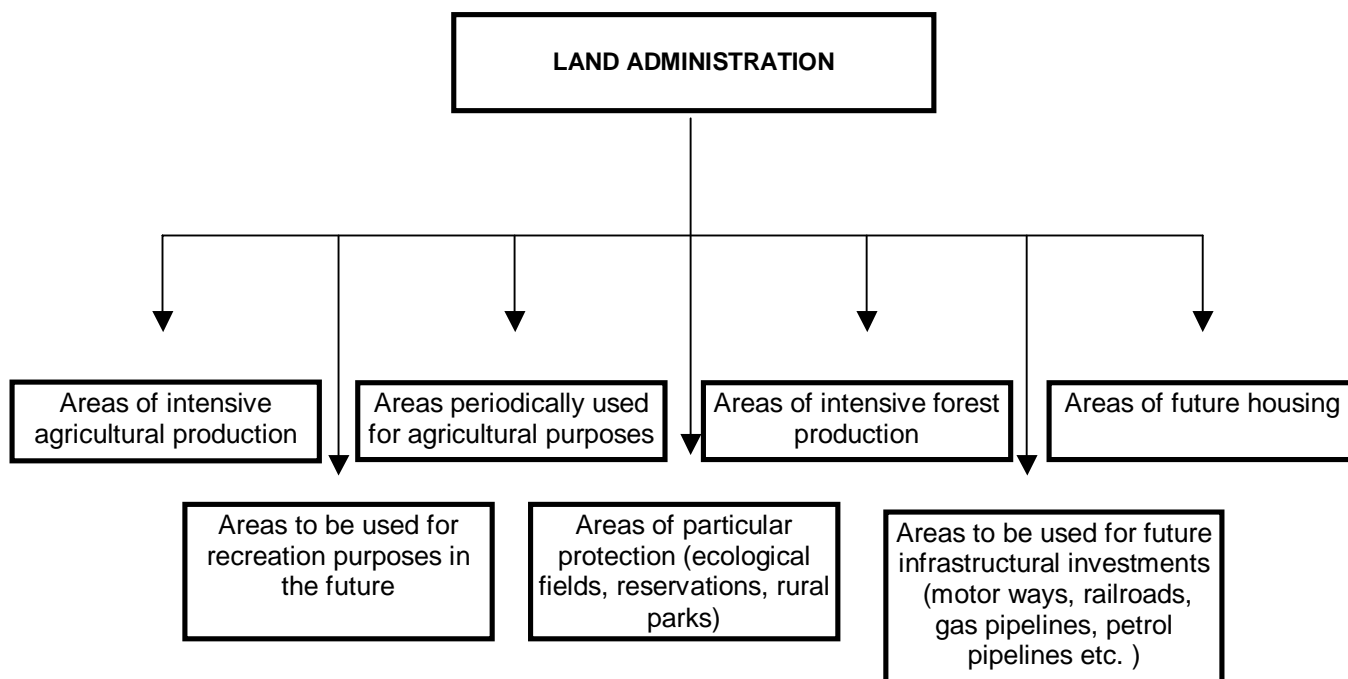


Figure 2

Areas of intensive agricultural production

The usefulness of areas for intensive agricultural production is influenced by the soil quality and complexes of agricultural usefulness. Such areas should include soils of classes between I – IV a, and complexes of agricultural usefulness between 1 – 4 (1 – very good wheat soils, 2 – good wheat soils, 3 – wheat with failures, , 4 – rye good soil). Within such areas, grouped areas of orchards and fruit bushes should be distinguished, due to specific forms of management and protection.

Since utilisation of mineral fertilisers and pesticides will be assumed for those areas, it is necessary to delineate areas for insulation belts along water streams. Insulation belts with protective functions will be created by trees and bushes. For those areas protection of soils against erosion, by means of limitation of surface outflow of waters should be ensured, as well as places for nests of birds and small animals and elements of landscapes and environmental protection.

Areas periodically used for agricultural purposes

It is assumed that areas periodically used for agricultural purposes will include soils of IVb – V classes and complexes of agricultural usefulness: 6 – weak rye, 8 – strong pasture crop, (of excessive moisture), 9 – weak pasture crop (of excessive moisture). Those areas are reserves for agricultural production, stimulated by the rules of supply and demands for food. Therefore it is assumed that those areas may be partially not used, similarly to the EU countries, where it is estimated that about 5% of arable parcels are considered as fallow [3]. Those areas will also be the source of areas to be used for retention reservoirs, and – as they will be permanently to wet – it will be possible to plan their utilisation as permanent green areas. Basing on green areas, farms specialising in milk production and ecological food may be created, which will use environmentally friendly methods of ecological agriculture, eliminating utilisation of mineral fertilisers.

Areas of intensive forest production

The current factor of forest coverage in Poland equals to approximately 29% (The Main Statistical Office - GUS 2003). Areas of intensive forest production will be delineated within the frames of the National Programme of Increasing the Forest Cover. As it turns out from that Programme, excessive utilisation of lands of the low agricultural usefulness occurs in Poland. Following that Programme, increase of forest resources will be performed according to processes concerning forestation of the following types of lands:

- Lands located close to riverheads, on watersheds, along river banks and along banks of lakes and water reservoirs,
- Lands being shifting sands and sandy dunes, steep slopes and cliffs,
- Dumps and areas after exploitation of sand, gravel, peat and clay,
- Soils of low classes VIz, VI i V,
- Lands located on slopes of the average slope angle of more than 15%,
- Degraded lands.

The basic functions of areas of intensive forest production will be creation of a coherent system of the, so-called, “green corridors”, which will influence water and climatic relations as well as which will protect the values of the natural environment against degradation.

Area of particular protection

The task of those areas is to implement objectives resulting from the natural protection and environmental management. Areas of particular protection, planned in the process of land consolidation, should create a spatial system of mutually complementing forms of natural protection, which include:

- National parks,
- Natural reservations,
- Landscape parks,
- Areas of protected landscapes,
- Natural monuments,
- Ecological fields,

- Natural and landscape systems

Areas planned for recreation purposes and development of agri-tourism

The design of land consolidation should assume areas planned for recreation purposes as well as agri-tourism. Those elements of the design consider demands related to recreation of inhabitants of cities, as well as they may be an alternative source of incomes for farmers. Areas around cities and tourist attractive places are particularly useful for those purposes (water reservoirs, large forests, monumental objects). Agri-tourism gradually enters the Polish villages and, considering relatively low incomes of farms, it will become one of the basic sources of incomes in the future. The following factors influence preferences in agri-tourism directions:

- Tidy appearance of an entire village,
- Access (conditions of transport, public transport),
- Recreation possibilities (interesting routes for tourists: for walking, riding bicycles, riding horses, elements of cuisine and cultural folklore),
- Cultural offers within a village and neighbouring areas.

The issue of the so-called “village renewal” is highly correlated with possibilities of agri-tourism development. Processes of “village renewal” aim at:

- Maintenance of the existing nature of a village through reconstruction of conventional buildings,
- Development, or improvement, of tourist facilities of particular villages through delineation of areas to be used for location of hotels, restaurants, places for recreation,
- Development of conditions for development of handicraft and service facilities where local inhabitants may be employed,
- Development, or improvement, of conditions of installations used for recreation and rest,
- Management and reconstruction of buildings which serve for tourists.

Therefore, one of the elements of a general design of land consolidation will be delineation of the following areas:

- To be used for car parking,
- Places for horse riding schools,
- Harbours and riverside hostels located close to lakes and rivers.

Areas to be used for housing in the future

The general frames of the final development specify, that a village renewal means, first of all, improvement of conditions of life, housing and work, and, particular, at improvement of the agricultural structure and unsatisfactory conditions of buildings. That is why the following objectives will be implemented in the process of land consolidation and “village renewal”:

- Strengthening of economic potential of rural areas,
- Support for municipalities in creation and modernisation of public facilities in rural areas,
- Mitigation or elimination of negative impacts on the natural landscape.

Those objectives will be achieved through:

- Construction or reconstruction of infrastructure within particular villages,
- Creation of conditions supporting development of handicrafts and services,
- Creation of conditions for recreation and rest.

Such directions of development of urban areas within villages should be foreseen in a land consolidation design.

Investment of linear characteristics

Investments of linear characteristics, which highly influence the physical and surface structure of farms, include:

- Motorways,
- Railroads,
- Partially pipelines and gas transporting systems.

The following areas should be considered in a land consolidation design:

- Collective access roads, going under or above motorways,
- Areas for accompanying structures, such as car parking places, shops etc.,
- Insulation belts of green, along linear investments (trees and bushes),
- Networks of ecological fields, shelters for animals, green belts leading animals to crossings under or above motorways.

The land consolidation process should be supported by concentration of arable fields in farms included in the process. In Poland, besides development of appropriate physical structure of farms the process of increase of their areas should take place. Lands of the State Agency for Rural Real Estates can be a source of lands to be used for the purpose of increasing the size of farms. Increase of farms may be performed through preference of long-term leases of land or purchase of lands from the current owners, who inefficiently manage farms. The possibility to create new conventional and highly specialised farms should be also assumed. Support for concentration of lands in Poland should be, among others, performed by means of:

- A law of preemption by neighbours,
- Protection of integrity, and, first of all, protection of indivisibility of family farms,
- Application of the rule of indivisibility in case of inheritance proceedings,
- Forbidding division of farms,
- Creation of supporting conditions for flow of lands between farms (mainly in the form of long-term credits for purchase of lands by farmers who run farming with the high economic effectiveness).

The general design of land consolidation should consider the above remarks and it should be preceded by the deep analysis of economic and social-and-demographic conditions within areas to be covered by the land consolidation works.

Implementation of land consolidation works will be the part of regional programmes of development of rural areas. The regional policy of physical management should allow for the

economic development of particular areas and it should, at the same time, protect the natural environment, cultural heritage and maintain reserves of lands for investments, which are important with respect to objectives related to local and regional societies. Such policy should be implemented in the land consolidation process and it should become the basic assumption for preparation of a general design, which should cover:

- Improvement of external and internal transport: construction of new roads, modernisation of the existing road network,
- Village renewal: introduction of more space in built-up areas, liquidation of some settlements, increase and modernisation of old farms,
- Development of a village: delineation of areas for the future housing and public facilities, including ecological infrastructure (as sewage treatment stations, waste treatment plants etc.),
- Settlement of land use: appropriate land use (utilisation of rules of the integrated farming),
- Exclusion of utilisation of marginal lands and using them for the purpose of creation of the agricultural landscape (forestation, water features between field, etc.),
- Rationalisation of water management – modernisation of water melioration, protection of natural declines as small water retention reservoirs, which protect against floods. The possibility of retention of water for recreation purposes is of great importance,
- Protection of the natural environment and landscape management: consideration of local landscape values, meeting protection functions, as protection against erosion, increase of tourist attractions of villages etc.,
- Increase of recreational values – the necessity to develop of agri-tourist infrastructure (bicycle paths, walking routes, parking places, camping sites, nets of tourist services, sleeping possibilities etc.).

Implementation of land consolidation works, which considers the above objectives, allows to create new places of work, as a direct effect of economic activating of rural areas (agricultural services, food processing, agri-tourism and others).

3. FINAL REMARKS

Development of rural areas and agriculture in Poland after integration with the European Union will have to be performed similarly to the existing 15 EU countries. Regional programmes of development of rural areas should be performed in land consolidation processes, which cover:

- Transformation of spatial and surface structures of farms, with consideration of elements of the integrated farming,
- Improvement of economic conditions of farming,
- Priorities of the environmental protection and landscape management (restoration of the nature of ditches and streams, creation of water features, ecological fields and construction of agricultural, pro-ecological roads, development of forested areas between fields, creation of hedges).

Those works will lead to creation of conditions for development of a system of farming, which will combine economic principles with the ecological safety and with the beauty of landscapes of rural areas in Poland.

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