

## MOUNTAIN AND HILLY AREAS DEVELOPMENT IN POLAND – ASPECTS OF AGRICULTURAL POLICY

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### Summary

This study is an attempt to assess the development of agricultural, rural and mountain areas in Poland from 1918 to 2012 with regard to structural policy conceived as a part of the agricultural policy. The paper describes the methodology and organizational requirements for modernizing or creating new investment process that would shape and develop rural areas.

Under Common Agricultural Policy (CAP) implemented in Poland mountain and hilly areas were designated for development. However, financial support for these regions is minimal. Rural and especially mountain areas of Małopolska have very disadvantageous agrarian structure. The economical size of about 86% of farms does not exceed 2 on the ESU scale.

The agricultural and forest production areas have marginal significance in spatial development plans of the communes. This is the reason why these areas require new land management programs, which should be preceded by a thorough analysis of the status quo. Engagement of citizens, village councils and community authorities united under the banner of “Family + Tradition + Education + Innovation” is required in the elaboration process of these programs. These engineering projects should be financed through the CAP and cohesion policy funds.

### Keywords

space • rural area • mountain and hilly areas • agricultural policy • agriculture • sustainable development

### 1. Introduction

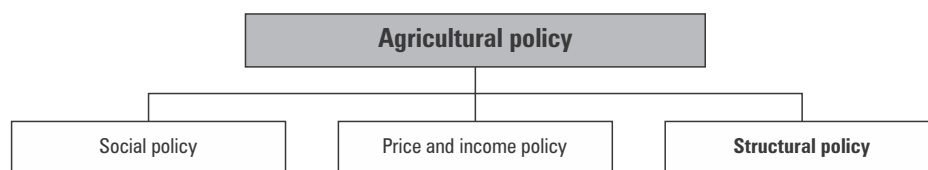
The agricultural policy in Poland, before its accession to the European Union, differed significantly from the European standards and consequently western European standards of shaping and developing rural and mountain areas were not firmly established in our country [Bański et al. 2009, Pijanowski Z. 1998].

Besides, according to the National Development Plan (NDP) currently implemented projects that are a part of CAP do not fully meet the expectations, because of huge backwardness and social problems of rural areas. The development vision of rural and mountain areas is not reflected in the Polish agricultural policy or in the local spatial development plans, which do not take into account the expectations of the rural community [Ministerstwo Rolnictwa... 2006, Pijanowski Z. 2011].

The aim of this study is to analyze and evaluate various investments in Poland, which are a part of CAP and their influence in shaping, protecting and developing of mountain and hilly areas.

## 2. Methodology of the study

The currently implemented projects, which are a part of CAP, consist of price and income policy, structural policy and social policy [Fischler 2000, Flury 1995]. They serve as the basis for the development of agriculture and rural areas, which encompass 96% of the area of the country. The structural policy investments, being a part of the agricultural policy, are the foundation of multifunctional development of rural areas and mountain agriculture (Figure 1).



Source: author's study

Fig. 1. Agricultural policy division with respect to the support characteristics

There are no fixed projects for mountain areas in Polish agricultural policy but there is a uniform agricultural policy for the whole country. As the mountain and hilly regions are a part of rural areas, the term rural areas will include mountain and hilly areas [Ministerstwo Rolnictwa... 2006, Plan Zarządzania... 2011, Zarząd Województwa... 2012].

The study is an analysis of selected materials concerning agricultural investments and the evaluation of their impact on development of agriculture and rural areas in Poland from the point of view of structural policy pursued in 1918–2012 [Kozuch et al. 2000, Parlament Europejski 2008, Pijanowski Z. 2011].

Analyzing the present state of agriculture and rural areas development, the following questions should be asked:

- A) Does Common Agricultural Policy in Poland fully comply with the rules of “sustainable development of agriculture and rural areas”?
- B) Is it possible to properly implement in Poland the EU structural policy in rural (mountain) areas pursuant to the state law and its administrative structure?

An attempt to answer these questions will be preceded by an analysis of the most significant projects which were part of the Polish structural policy in the years 1919–1939, 1944–1989, 1990–2004 and the period after Poland's accession to the EU. This examination will show the source of the current problematic situation and the most significant development barriers.

The analysis will serve as the basis for outlining the list of most urgent actions that will modernize structural policy in Polish rural areas.

### 3. Characteristics of mountain areas

According to the criteria set by the Committee on Management of Mountain Regions of Polish Academy of Sciences in Kraków, mountain areas are the areas located above 350 m a.s.l. Their total area is about 25 000 km<sup>2</sup>, which comprises less than 8% of the area of the country. They occur in three basic physiographic units: Carpathians, Sudetes and Świętokrzyskie Mountains, in five voivodeships [Pijanowski Z. 1998, Uchwała nr 4... 1985, Uchwała Sejmu... 1997, Zabierowski and Czudec 1991].

From the environmental point of view, the most important aspects of mountain areas are their agricultural, forest, hydrological and recreational functions.

The central feature of the mountain areas distinguishing them from others areas is the elevation and the diversified terrain, especially the hillside gradient. As the elevation increases, the basic climate factors change, such as temperature and precipitation. For example in the Carpathians, for every 100 m above 300 m a.s.l., the temperature drops by 0.55°C, annual precipitation increases by 30 to 50 mm, the growing season for plants shortens by 8 days and the snow cover duration increases.

Another equally important factor distinguishing these areas from the lowlands is the slope exposition and inclination. They determine plant cultivation and limit access of agricultural machines.

The largest share of mountain areas is agricultural. It covers on average 55% of the complete area, while forests encompass about 39%. Despite the high disadvantageous land fragmentation and intensification level of soil exploitation, agriculture used to be the main source of income among rural population in Poland [Zabierowski and Czudec 1991].

### 4. The development of rural areas as an aspect of structural policy

Technical and medical progress in the 19<sup>th</sup> century in Europe (England, France, Germany) and the economic development that followed led to population growth and consequently to increase in food demand. This resulted in mass changes in land use caused by spreading deforestation and expansion of arable lands.

The increase in food production was linked mainly with the enlargement of plantation areas achieved by draining the wetlands and river regulation and land reclamation in river valleys. For this time on the development of rural areas is supported by public funds. In the middle of the 19<sup>th</sup> century the first technical investments were made. In order to increase the productivity of the new lands (land reclamations and consolidations), new cultivation techniques and tools were introduced [Pijanowski Z. 2011].

Voluntary and organized water companies were established to control the rivers and prevent floods, as well as to carry out land reclamations and consolidations. Agricultural sciences developed slowly yet systematically. In this period, the term “national agricultural policy” was first used, meaning “a set of rules and regulations followed by the

state when supporting the villages and agriculture". At the time it was mainly legal and financial support for technical investments that were meant to protect the land from the forces of nature, for enlarging agricultural areas and motivating innovations as well as for improving work organization in agriculture [Fischler 2000, Duczkowska-Małysz 1995, Pijanowski Z. 2011].

#### 4.1. 1919–1939 the interwar period

The regaining of Polish independence in 1918 was directly related to the integration of areas that were at different stages of economic development. The actions taken in favor of development of agriculture and rural areas were immediate and impressive. Structural policy was introduced (as there was no other policy) by the parliament adopting fundamental legal acts, such as agricultural reform (1919) and land reclamation (1921) acts, which were of much greater scope than what similar laws have today, and also a land consolidation act (1923).

The investments initiated by Poland's structural policy in the interwar period aimed at accelerating development of agriculture and indirectly of rural areas, were realized by two principal actions:

- land reclamations, which were meant to:
  - adapt and include whole river valleys in agricultural production; these were unusable as they were swamped and/or periodically flooded, and
  - to improve the quality of excessively humid soils by water regulations with the use of ditches and drainages,
- land consolidations, which were meant to:
  - organize and create family farms by improving plot expanses and thus lowering the production costs; this increased average farmers' income and contributed to village development.

The scope of the projects and their methods were similar to what in this respect was done in leading European countries. Land reclamation companies or associations were created. They were the main investors. The consolidations of forests and agricultural lands were performed along with the consolidations of built-up areas by designating new construction sites. Simultaneously, land reclamation and water supply works were pursued. The consolidations were a boost not only to the agricultural development but also the development of rural areas [Pijanowski J.M. 2013, Pijanowski Z. 2011]. In the late 1930's land consolidations were associated with spatial planning and they were a tool for rural development. A good example is the consolidation of the village of Łapsze Niżne, which involved building a bypass, the designation of about 50 construction plots and areas for social purposes (about 6 ha), as shown in Figure 2.

At the time over 2.5 million ha of agricultural lands were reclaimed and over 5.4 million ha of agricultural lands and forests, belonging to 860 thousand farms in 10 thousand villages, were consolidated. Annually, the consolidations covered about 270 thousand ha.

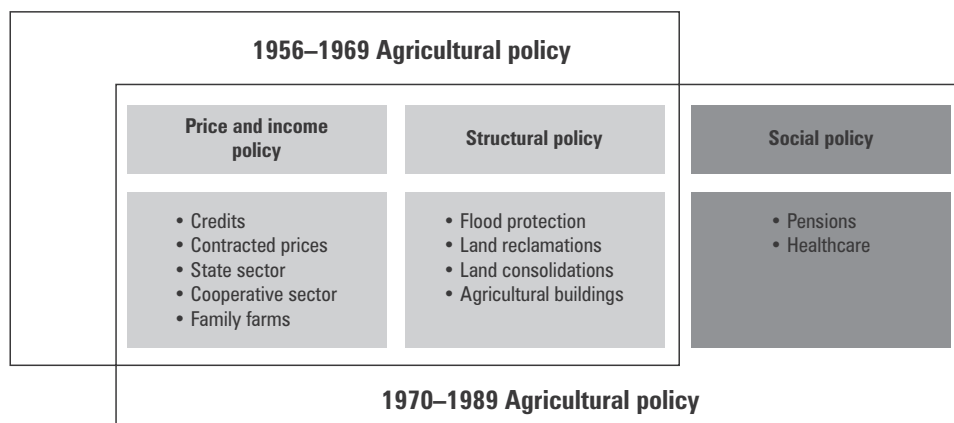
4.2. 1944–1989 – planned economy

Polish agricultural policy after World War II was related to the new political and social order in which the industry, transport and banking were nationalized and a planned economy was introduced. The agricultural policy implemented by the authorities was based on building socialist foundations for agricultural development coping with the issue of food supplies and creating State Farms, also known as “centers of agriculture and progress”. As a result, since 1948 the lands were socialized and collectivized. Several prewar socio-professional organizations and agricultural cooperatives, reactivated after the war, were then closed.

At the time the changes in the economy, especially in agriculture, made extremely low demands on rural areas. Their functions amounted to food production. Despite the absence of decisive actions aimed at changing the structure of family farms the state backed up investments for agricultural development. This was accomplished via structural, price and income policy measures taken since the early 60’s with intent to equalize the income and life standard in cities and villages [Pijanowski Z. 2011].

The goal of structural policy was to increase crop and animal production by performing land reclamations, consolidations and constructions of farm buildings as well as providing villages with some technical infrastructure equipment, mainly power and water supply and local road networks.

In the 1960’s and 1970’s the agricultural policy was supplemented with elements of social policy, that provided peasants, treated as private business entities, with free healthcare (1968) and a possibility to receive a state pension (1976). The scope of the agricultural policy is shown in Figure 2.



Source: author’s study

Fig. 2. The scope of projects implemented under the CAP rural areas in Poland in the periods 1956–1969 and 1970–1989

The basic investments contributing to the development of agricultural production were the land reclamations. Their purpose was to include wastelands into agricultural production and to improve the air water ratio in soils by draining and protecting agricultural areas from floods.

Along with land reclamations consolidations and plot exchanges were performed mainly for the purpose of the state and cooperative sectors. The measures were taken to improve land expanses and decrease the costs of food production. These projects were therefore a tool for a concentration and nationalization of lands and their positive influence on the improvement of individual farm structures was negligible [Pijanowski Z. 2011, Flury et al. 1998].

In this structural policy of water management and land reclamation, land consolidation and agricultural building over 400 000 people were engaged. They worked in administrative and design offices and other enterprises. Only a very small fraction of this branch functions today.

The projects realized as a part of the structural policy were characterized by lack of coordination and paying very little attention to the environmental functions of rural areas [Pijanowski Z. 2011].

#### 4.3. 1990–2004

The social and political changes that took place in Poland in 1989 began a process of implementation of market mechanisms that replaced a controlled and distributive system of national economy management.

The free market has drastically changed the agricultural sector in Poland. The years 1990–1991, known as the free market therapy period [Duczowska-Małysz 1995, Kłodziński 2000, Flury et al. 1998], were accompanied by the liberalization of price mechanisms (complete deregulation of prices), letting in foreign competition to the Polish economy and the liquidation of agricultural food products subsidization.

Economic recession in 1990–1993 radically decreased the real income of Polish agricultural population. Its income in 1992, the lowest one in comparison with other sectors of the economy, constituted only 53% of that in 1989. The decrease of real income in agriculture, aside from expensive credit and high level of debt, proved a serious obstacle to the modernization of farms [Flury et al. 1998].

The changes in the political system and the anti-inflation policy enacted since 1990 has meant a radical decline and change in agriculture and its surroundings. For example, after 1990 the grants for biological progress, agricultural education and land reclamation investments made about 5% of the grants from 1965 and 1989. Structural policy was completely eliminated from the agricultural policy and thus the foundation for development of agriculture and rural areas was undermined.

In this period many strategic documents were prepared. They were meant to be the basis for the development of agriculture and rural areas. However, as there were not enough financial resources, they were not implemented and had purely political significance. Since 1990 Poland started to implement programs for the development

of agriculture and rural areas to prepare and accelerate the process of its accession to European Union. These were the PHARE and SAPARD programs, which proved helpful and were successfully implemented, and Poland was able to make the most of them financially [Duczowska-Małysz 1995, Kłodziński 2000, Pijanowski Z. 2011].

#### 4.4. After May 2004 and the EU accession

Implementation of CAP in rural areas in 2004–2006 was ensured as a part of the Sectoral Operational Program “Restructuring and modernization of the food sector and rural development” (SOP-RURAL) and the Rural Development Plan (RDP) for 2000–2013. Besides, problem solving of rural areas was supported by other regional programs. The aforementioned programs, as well as direct financial support, were realized nationwide. The SOP-RURAL was an investment program that covered such actions as: farm investments, land consolidation, water resource management, rural infrastructure development, renovation of villages, diversification of rural activity and others. RDP covers eight different projects focused mainly on improving the environment and the condition of Polish farms [Ministerstwo Rolnictwa... 2006, Pijanowski Z. 2011]. Implemented operational program SOP-RURAL had a character of investment undertakings and included following activities: investments in farms, land consolidation, water resources management, farm infrastructure in the countryside, countryside renewal, diversification of agricultural activities and others.

According to the principles of CAP reform, in 2007–2013 rural areas are supported from the European Agricultural Fund for Rural Development (EAFRD). The RDP developed as a part of the aforementioned fund is implemented according to four priorities [Ministerstwo Rolnictwa... 2006, Sorys 2012]:

- improvement of competitiveness of the agricultural and forest sectors by supporting restructuring, development and innovation,
- environmental improvement of rural areas,
- improvement of quality of life in rural areas and diversification of rural economy, and
- the “LEADER” program.

The aforementioned priorities involve funds for improvements and development of production infrastructure, including: land reclamations, consolidations, farm modernizations, village renovation and non-investment measures aimed at improving the natural environment, structural rents, trainings, information, promotion and others. A detailed list of projects for the three priority axes along with the amount of money in millions of euro is presented in Table 1.

**Table 1.** A detailed list of activities for the three priority axes, along with the amount of funds in million euro in the context of the development of mountain and piedmont areas in Poland – aspects of Common Agricultural Policy

Rural areas support within the limits of priority axes					
Improving the competitiveness of the agricultural and forestry sectors		Improving the natural environment and rural areas		Quality of life in rural areas and diversification of rural economy	
Name of activity	Total in EUR million	Name of activity	Total in EUR million	Name of activity	Total in EUR million
1. Professional training and information actions for persons employed in agriculture	100.0	1. Support for farming in mountain areas and other areas less favored areas (LEA)	2 300.0	1. Diversification of non-agricultural activities	320.0
2. Setting up of young farmers	525.0	2. Payments for farmland under Natura 2000 network and Directive 2000/60/EC	550.0	2. Basic services for the population	570.0
3. Structural pension	817.0	3 Agri-environmental program and non-productive investments	950.0	3. Village renewal and development	1 200.0
4. Modernisation of farms	1 700.0	4. Afforestation of agricultural land and other land	470.0	4. Creation and development of micro-enterprises	200.0
5. Increasing of added value in agriculture and forestry	1 000.0	5. Agri-environment payments, including forest land areas NATURA 2000 network	81.0	5. Training and information	30.0



6. Improving and developing infrastructure related to the development and adaptation of agriculture and forestry (consolidation, reclamation)	430.0	6. Restoring forestry potential and introducing proper preventive instruments	140.0	TOTAL	2 320.0
7. Support for farmers who participate in food quality programs	154.0	7. Liabilities for 2004–2006	950.3		
8. Support for producers groups for information and promotion activities for products under food quality schemes	30.0	TOTAL	5 581.3		
9. Agricultural producers groups	128.5	<b>Total support 15 043 mln euro</b>			
10. Advisory services for farmers and forest owners	400.0				
11. Liabilities for 2004–2006	1 853.5				
TOTAL	7 142.0				

The aim of the LEADER program is to empower the inhabitants of rural areas by building a social capital in rural areas and also to improve local resource management. The goal of the program is to organize local communities and involve them in planning and implementation of local initiatives. Detailed rules and criteria of applying for funds, kinds of beneficiaries, access criteria, the form and the amount of aid are determined in the detailed regulations [Ministerstwo Rolnictwa... 2006].

This short period of CAP implementation in the years 2004–2013 can be summarized as being very beneficial for agriculture and rural areas, as the available EU funds were fully utilized. Apart from the direct financial support, many other investment needs in the rural communes were met [Bański et al. 2009, Pijanowski Z. 2011].

However, these programs have been implemented within the existing institutional and organizational framework, which is a big drawback, because of competency deficiencies of governmental and local administrative institutions. This is the biggest obstacle, together with political and social awareness, in the way of achieving the desired results. Partial, narrow and uncoordinated investments have resulted in partial effects, which are not always consistent with other actions. Unfortunately, this *modus operandi* has been practiced during the realization of investments in rural areas in Poland [Pijanowski Z. 2011, Zarząd Województwa... 2012, Zrównoważony rozwój... 2008].

## 5. Legal acts supporting development of rural areas

### 5.1. Western Europe

Due to difficult natural conditions in mountain areas most of the farms cannot survive there without the state's intervention and support. Mountain areas in Western Europe – as areas agriculturally impaired, in which this kind of economic activity is necessary to maintain a satisfactory state of the natural environment, to preserve the rural settlement and infrastructure favouring the development of tourism and recreation on these lands – are subject to special protection.

In the field of technical infrastructure financed by the state the first investments in alpine countries were carried out at the beginning of the 20<sup>th</sup> century. However, the protectionism for agriculture began with the support investments in agriculture and environmental protection [Fischler 2000, Flury 1995, Zrównoważony rozwój... 2008].

As early as in 1946 England began its financial support for mountain areas. In the years of 1944–1948 in Switzerland mountain areas were designated, and in a legal act adopted in 1951 difficulties in agricultural production and life conditions in these areas were taken into account and assistance was provided.

Financial support for mountain areas was also introduced in Germany (1951), and in Austria and France (1961). In 1975 a Directive 75/268/EEC was announced for the member states, which regulated the problems of mountain agriculture and handicapped zones. Currently, the old EU member states support the mountain regions financially, as a part of their own policies [Fischler 2000, Flury 1995, Pijanowski Z. 1998].

## 5.2. 1985 Mountain Resolution

Until 1985 there were no legal regulations in Poland promoting economic and social activation and agricultural development for the mountains regions. The aid for mountain areas and for the rest of Poland was given to improve agriculture, rural technical and production infrastructure, and the scope of help depended on the state's financial condition [Uchwała Nr 4... 1985, Zabierowski and Czudec 1991]

It was the mountain resolution adopted on January 21<sup>st</sup> 1985 and based on existing criteria that designated mountain and hilly areas in Poland [Uchwała Nr 4... 1985]. The resolution, aimed at accelerating the development of economic and social infrastructure as well as agriculture, allotted budget funds to fully support the following investments: land reclamations, river and stream regulations, land consolidation and exchange, water supply, sewage systems, reclamation and anti-erosion actions, modernization of electrical network, construction of local roads for agricultural and forestry purposes, building small manufacturing companies, trade and service facilities, housing, telecommunication and construction of social infrastructure facilities (education, healthcare, recreation and sport).

One of the largest financial projects during the five years when the act was in effect were the price subsidies to: milk purchase (by 30%), beef and veal livestock (by 20%) and wool (by 10%). Also, detailed rules for lower interest rates of loans for agricultural investments were established [Uchwała Nr 4... 1985, Zabierowski and Czudec 1991]. The governors of mountain voivodeships were obliged to develop annual plans of act implementation and funding plans. Moreover, they had to report on their actions during the year.

Liquidation of minimal prices for agricultural products, done by the government in 1989, has caused the subsidies to cease, and therefore the 4<sup>th</sup> Resolution of the Council of Minister, also known as mountain resolution, was no longer in force [Pijanowski Z. 2011, Zabierowski and Czudec 1991].

## 5.3. Present support for mountain areas

When the "mountain resolution" was no longer in effect and mountain agriculture was subordinated to the rules of free market, liquidation of minimal prices resulted in a drastic decline in agricultural production profitability. This factor along with the loss of outlet markets led to a significant drop in prices, decrease of production and setting-aside of arable lands. Moreover, the transformation resulted in high unemployment in rural areas.

In southern Poland since 1991 actions were taken to restore the preferences for mountain areas. In 1997 the parliament adopted a resolution on sustainable development of mountain and hilly areas. This act obliged the government to develop a program aimed to induce a social and economic activation by modernizing mountain agriculture and building environmental, tourist and resort infrastructure.

From 1996 to 2000 two teams “Sudethian” and “Carpatian” were actively working on developing and adopting the “mountain resolution”. Unfortunately, results of their work were not put into effect, and the resolution adopted by the parliament was vetoed by the president [Pijanowski Z. 1998, Uchwała Nr 4... 1985].

Supporting the economy in mountain and other areas under disadvantageous conditions (e.g. humid lowlands) was not accomplished until May 1<sup>st</sup> 2004, at the moment of Poland’s accession to the EU.

As a part of delimitation of areas under disadvantageous economic conditions (DEC) in mountain and hilly areas two zones were designated [Ministerstwo Rolnictwa... 2006]:

1. Mountain areas where agricultural production is limited by disadvantageous climate and terrain shape. These areas include communes and cadastral districts, in which more than half of the arable lands are located above 500 m a.s.l. – they make 251.1 ha of arable lands, that is 1.5% of Polish arable lands.
2. Areas with specific natural difficulties – they include communes and cadastral districts of hilly areas, whose elevation ranges from 350 to 500 m a.s.l., i.e. 479.8 thousand ha of arable lands, that is 2.8% of Polish arable lands.

The subsidies negotiated with the EU in 2004 for areas with unfavourable conditions for agricultural production were equal 63 euro per hectare for the mountain areas and 46 euro per hectare for areas with unfavourable conditions.

## 6. Agricultural condition analysis for Małopolska

Social and political changes that took place in Poland after 1990 had a very negative impact on the profitability and condition of small-scale farms. Accession to the EU and the CAP deepened the declining tendencies instead of stopping them.

The land use structure in Małopolska is similar to that of whole Poland. About 62% of the area is used in agriculture, forests take up 28.7% of the area, and the remaining 9.3% is used for other purposes. In Małopolska especially one can observe that the overall area of forests and wastelands is growing larger. This phenomenon is particularly strong in mountain areas. According to the agricultural census of 2010, there were 283.3 thousand farms, whose average area was about 3.9 ha. 56.7% of these farms were engaged in plant and animal production, 42% were connected strictly with plant production and 1.3% were engaged only in animal production [Bański et al. 2009, Zarząd Województwa... 2012 ].

In comparison with 1990 disadvantageous changes took place as to the number of farms having livestock (150% decrease). This caused unsystematic mowing or burning of grasslands and led to moving of the agricultural-forest boundaries and to overgrowing of precious grasslands with shrubs and weeds. In 2010 the total sowing area was equal to 306.7 thousand ha, which is a 20% decrease if compared to 2002 (total arable land area of 800 thousand ha).

As far as cattle is concerned Małopolska in 2010 had 200.3 thousand headage, including 111.4 thousand cows. This means an overall decrease of more than 30%, and almost 40% drop in number of cows. These falls were observed especially in small-scale farms, in which the farmers completely gave up animal breeding.

In 2010 the average area of arable lands subject to subsidization was 3.8 ha, which is less than half the number for the rest of Poland. In Małopolska only 55% of farms were interested in direct funding, 38% benefited from the DEC, less than 8% applied for support for small-scale farms and the arable land area covered by the Agricultural and Environmental Programs was only less than 8 thousand ha (for 2006) [Bański et al. 2009]. In 2010 direct funding covered about 484.0 thousand ha, which is about 75% of all arable lands. This is a low indicator, as more than 90% of the arable lands in Poland are subject to subsidization [Zarząd Województwa... 2012].

One of the most important branches of agriculture in Małopolska is horticulture. Małopolska is one of the biggest fruit and vegetable producers in Poland. Fruit and vegetable farms are the leading producers who developed their market position based on knowledge and tradition. The decrease tendencies in cultivation of areas do not apply to fruit and vegetable plantations.

The presented characteristics indicate that agriculture in Małopolska has a disadvantageous spatial structure which leads to stagnation. The problem of faulty agricultural policy of Małopolska is strictly connected to the economic vitality of its farms. In the year 2007 for about 86% of more than 283.000 farms the economic size did not exceed 2 ESU. According to the experts of the Institute of Agricultural and Food Economics, the farms whose economic size does not exceed 8 on the ESU scale should not be treated as competition for the EU agricultural market.

In the programs, documents and studies on the rural and agricultural development strategies in Małopolska, the Government of Małopolska does not distinguish mountain areas, nor does it analyze the present state of their development. In all probability the state of agriculture in the mountains is below the voivodeship's average and these areas, due to the environmental resources, require special treatment.

## 7. Actions required for the shaping and development of rural and mountain areas

The policy of supporting agriculture and rural areas in Małopolska should be based on effective and rational use of their developmental potential, which comes from the unique qualities of the region. When evaluating the state of agriculture in Małopolska one should bear in mind that the basic characteristics make this region less competitive than the rest of Poland. The principal obstacle for agricultural production is the faulty agricultural structure. Moreover, in discussions on modern agriculture it is often emphasized that it fulfils very important environmental functions. The proposed slogan for the agricultural development programs for mountain and hilly areas is: "Family + Tradition + Education + Innovation".

### 7.1. Required actions in terms of the price and income policy

When determining actions for development of agricultural and rural areas (including mountain areas) of Małopolska in the perspective of price and income policy the author tried to use all official development programs and resolutions that were taking into account the priorities of the Małopolska Common Agricultural Policy adopted by the Government of Małopolska.

The main objective of these documents [Plan Zarządzania... 2011, Zarząd Województwa... 2012], defined as: “sustenance of biological diversity, maintaining traditional agricultural landscape and cultural heritage as well as high quality food production” is adequate to the needs. The detailed objectives are reasonable too. In the case of mountain and hilly areas, in the current agricultural development stage, “fallowing of arable lands” should be eliminated and “stock raising increased”. Also, it should be made easier to establish local, small-scale production enterprises (such as meat plants, dairies etc.) and local markets and outlets should be organized [Pijanowski Z. 2011, Zabierowski and Czudec 1991].

Due to poor agricultural policy from 1990 to 2004, which was ineffective for small-scale farms during the accession to the EU, farmers in the hilly and mountain areas do not have sufficient funds for restructuring of agriculture and for competing with other Polish regions. In mountain and hilly areas the basic means of agricultural production (often unused) is their soil and workforce, however they lack development programs (extensive or intensive). Due to the structure of farms and their excessive fragmentation, breeding of dairy cattle, beef cattle or sheep is possible via cooperatives, companies, farmer groups or producers groups.

In Common Agricultural Policy and in programs and strategies for the rural development of Małopolska many other significant actions and opportunities were highlighted (agrotourism, tourism, small-scale enterprises, etc.). They are essential for sustainable development of villages in Małopolska [Bański et al. 2009, Zarząd Województwa... 2012]. Due to the scope and volume of the study, they will not be discussed in this article. The remaining part of the study will focus on the details of structural policy problems.

### 7.2. Actions required for planning and development

The rural and agricultural development programs are elaborated on the government level and they are partially implemented by the local governments of voivodeships, which can extend and reinforce them within their own resources.

The rural and agricultural development programs adopted as a part of CAP (reinforced with budget funds) are uniform for the whole country and do not take into account regional differences. The data used in these programs, obtained by the Central Statistical Office from the agricultural census, are incomplete and do not fully reflect the real situation. This incomplete data is used on the voivodeship and district level. Also, communes use this general data for the creation of development strategies, spatial management plans or feasibility studies.

Spatial management plans for communes basically do not deal with forests and agriculture. These areas are usually blank spots marked by a letter "R" (for "rural") or "F" (for "forests"). Therefore every commune should be covered with detailed agricultural and organization plan, which would determine the degree of protection development and the development programs for these areas.

Programs of agricultural organisation for each village and the commune should provide clarification of the data and assumptions contained in the local development plans and other applicable local acts as: environmental protection programs, local development programs, agricultural development programs or waste management plans. These programs should describe in detail the principles of: maintenance and development of agriculture and forestry in agro-forestry production, agricultural restructuring and modernization of the villages, water management (protection against flooding or inundation), landscape shaping and environmental protection, land use and improvement of the agrarian structure, improvement of agricultural land system and agricultural and forestry roads construction.

These programs should include a summary of the intended works, their costs and available legal sources of funding. Local authorities, the Village Council and rural residents must obligatory participate in elaboration of the programs. Methods of implementing structural policies of the CAP and ways to solved some of their problems are presented in the next section.

### 7.3. Actions required in the field of structural policy

Single-purpose development of rural areas during the period of real socialism that consisted in associating rural development almost exclusively with agricultural development was the reason for their stagnation and civilizational underdevelopment.

Currently we are witnessing an important change in relations between agriculture and rural areas. Agriculture, in spatial terms, is still associated with villages. However, the bonds between them have significantly weakened and in some cases disappeared [Duczowska-Małysz 1995]. Presently, the agricultural activity in farms is the third source of income of rural communities – after wage labour and social benefits. The agricultural crisis that began in 1990 comes from absence of a proper agricultural policy (lack of agricultural organization programs), from which structural policy was eliminated. And without the latter there is no multipurpose development.

For more than 60 years, in highly developed countries, the rural development is multipurpose-oriented. It consists in allocating different forms of non-agricultural economic activities in rural areas. The process of multipurpose development is connected with local development, initiatives, strategic planning, agricultural diversification, infrastructure development and environmental protection [Fischler 2000, Flury 1995, Flury et al. 1998]. In a multipurpose rural development the problems of village development and agricultural development have to be treated comprehensively and not selectively. The Common Agricultural Policy of the European Union focuses only on multipurpose development. The question arises here whether the Polish Common

Agriculture Policy serves the multipurpose development and adheres to the rules of “sustainable rural and agricultural development”? Unfortunately, there are no comprehensive system solutions for creating and realizing comprehensive designing of rural areas in Poland. Chaotic building development resulting in needless costs of technical infrastructure, disproportions between water supply and sewage development, as well as a dieback of rationalization and protection of agricultural space and forests. These are the most important, nationwide effects of the lack of a proper structural policy [Pijanowski J.M. 2013, Pijanowski Z. 2011].

It should be emphasised in this analysis of programs implemented under the CAP, namely SOP-RURAL and currently RDP, that they are fragmentary, narrow and lead to inconsistent and uncoordinated actions. The CAP launched in the EU states and approved by Poland does not fully meet our needs. The development stage of agriculture and rural areas, especially for southeastern Poland, which is agriculturally overpopulated and fragmented, needs a revised policy. The financial support in the form of direct subsidies and other actions goes directly into the farmer’s pocket. Although all the farms use it, it is the large commercial farms located in central and northwestern Poland that make the most profit from it.

Too little attention is paid to such actions as land consolidations, water resources management or village renovation, which are beneficial not only for agriculture, but most of all for rural areas. From 21 different projects realized in the years 2007–2013, whose budget was 15.043 billion euro, only 1.63 billion, which is 10.7% of the resources (Table 2), were spent on consolidations, land reclamation and village renovations, namely on measures that are the basis of the structural policy.

**Table 2.** The amount and distribution of funds on consolidations, land reclamation and village renewal in billion euro

Rural areas support according to priority axes in years 2007–2014 – 15.043 mld EUR			
<i>Improving the competitiveness of agriculture and forestry</i>	<i>Improving the environment and countryside</i>	<i>Quality of life in rural areas</i>	<i>LEADER</i>
7.142 together	5.581 together	2.320 together	
0.43 consolidation, land reclamation		1.200 village renovation	
2.8% of total cost		7.9% of total cost	
<b>10 activities</b>	<b>6 activities</b>	<b>5 activities</b>	

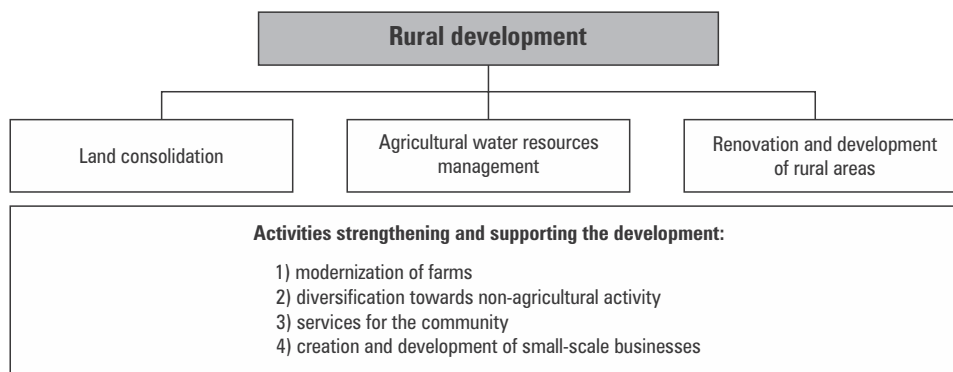
Source: author’s study

Currently in Poland, like in the real socialism period, land consolidation is treated only as a means of improvement of the checkerboarding [Pijanowski Z. 2011]. According to the EU criteria, the goal of this task is to reorganize the agricultural areas and forests, as well as built-up areas and to designate new construction, investment and other areas.

That is why in the new period of CAP implementation (2014–2020) there is a propostion to create a new “investment axis for rural development” as a part of RDP



implementation. The types of suggested actions, which should be implemented in comprehensively, are presented in Figure 3.



Source: author's study

Fig. 3. Proposed axis of investing in the CAP for 2014–2020 implementing the rural development

In order to improve the effectiveness of this project, the investment process should be supported by farm modernizations, diversification towards non-agricultural activity, services for the community and creation and development of small-scale businesses.

These actions should be supported from the regional funds. It should be emphasised that investments of scale comparable to this one (including construction of village bypasses) were already made in Poland in 1936–1939.

It is necessary to introduce in Poland an investment process for development and shaping of rural areas, similar to the ones introduced for example in Germany since the beginning of the 1950's, but these investments should tackle specific Polish problems [Flury et al. 1998]. Methodology of such measures was developed in cooperation with ETH Zurich in 1986–1990, and refined in 1995–2002 for the purposes of Polish accession to the EU. This methodology was based on the experience of Switzerland, Germany and the Netherlands and on the studies conducted in Poland since 1984 in mountain and hilly communes. Rural development would be sustainable only if is multipurpose [Pijanowski Z. 2011] and encompasses simultaneously:

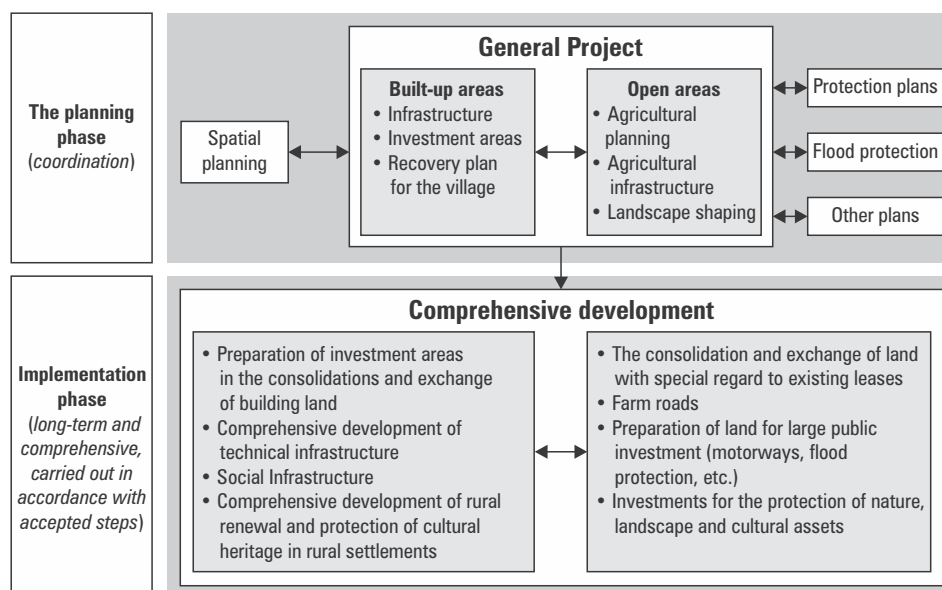
- rural management, especially agriculture management,
- settlement along with technical and social infrastructure, and
- environment protection.

It is especially important that all these aspects are taken into account at the planning stage in a given village/commune. This sets the ground for coordination and use of synergy. The diagram of the new “Proceedings for shaping and development of rural areas” and its relationship to selected projects is presented in Figure 4.

In the implementation stage of the new investment process the intended projects are expected to be carried as part of one continuous, organizationally and essentially coordinated General (Management) Project. Each investment is to be utilized in precisely defined stages. These stages depend, among others, on the EU funding procedures.

New investment processes must be closely coordinated with local land use planning, mainly because the planning documents determine the functions of land. These documents should be in line with the provisions of the General Project for rural areas. If the area is covered by a valid local spatial development plan, the provisions of the General Project are a part of a local law.

The proposed investment process has to be implemented in two stages: planning (development of a general project) and realization (executive works according to defined stages). This should be the case for both built-up areas and agricultural lands and forests. The scope and kinds of investment works are shown in Figure 4.



Elaborated by J.M. Pijanowski 2013

Fig. 4. Diagram of the new "Proceedings for shaping and development of rural areas" and its relationship to the selected planning studies

The proposed investment process should be called: "Proceedings for shaping and development of rural areas". It is based on Polish and EU legal and financial systems.

In order to fully implement it, correction and modification of the existing Polish legal and organizational framework is necessary. Currently, there are no legal regu-

lations in Poland that would define rural development in a comprehensive way. The existing law regarding land reclamations or consolidations as well other legal acts in this field is not adequate with the current needs. Therefore, it is necessary to rewrite the law or develop a new legal act on shaping and development of rural areas [Pijanowski J.M. 2013, Pijanowski Z. 2011].

The institutional framework of the new investment process should be based on the voivodeship government, which is responsible for structural policy regarding rural and agricultural development and for the regional policy. Marshal's Offices are subordinate to both the Voivodeship Management and Water Reclamation and the Voivodeship Bureau of Surveying and Agricultural Areas. It should be emphasised that the current role of the latter is of minor importance. These units should form "Voivodeship Offices for Shaping and Development of Rural Areas", which should be essentially subordinated to the one appropriate Marshal's Office. Voivodeship offices would be responsible for the coordination and execution of actions for rural development. These offices would also be responsible for preparation of Agricultural Organizational (General) Projects, as well as their coordination and participation in their implementation.

## 8. Conclusions

The social and political changes which took place in Poland in 1989, the accession to the EU, as well as collaboration of Polish and European science have resulted in rapid qualitative changes imposed on science and practice. In 1992 a new branch of agricultural sciences came into being: "environment shaping". It deals with objectives and methods contributing to sustainable rural and agricultural development, tries to predict the effects of interference with the environment and to find ways to improve it.

The results of the actions taken in the framework of CAP in Małopolska and south-eastern Poland did not meet the expectations. Due to the size and structure of farms and workforce resources, these areas require a modern structural policy supported by regional programs. Polish science is ready to develop and implement modern and innovative programs. However, it should be stated that the government and the local governments as well as the politicians who are professionally responsible for rural development do not keep abreast with the requirements for shaping and the development of rural areas in Poland.

Implementation of organizational programs for villages and communes, introduction of the new investment process called shaping and the development of rural areas, would result in the creation of thousands of new jobs (estimation based on German administration), or even more. It could possibly be more, if we include the technical and material support positions (gravelling, prefabricates, transport). Most of the new employees would be recruited from rural areas.

The expected and most positive outcome would be the proper management of the EU funds. Only full utilization of these funds for essential programs can result in achieving the desired effect in the form of rapid rural development in Poland. It can be assumed that introduction of a new investment process with the local government

reform and stabilization in the growth of economic development is the “third flywheel” of Polish development.

Common introduction of the new investment process would also undoubtedly be beneficial in a non-material way and would foster such values as:

- civilizational development of Polish villages,
- social activation of rural communities for a common idea,
- spatial order,
- more effective protection of the environment, landscape and cultural values.

The above-mentioned will influence the way villages and local communities are perceived both by foreigners and Polish people. It will strengthen the sense of community and pride of one’s local homeland. Most of all, the new investment process would result in rural development, which has already occurred in other EU member states.

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