

*Original Research*

# The Role of Local Association of Communes in Environmental Management Systems: Selected Case Studies in the Wielkopolska Region

**Marta Kubacka\***

Department of Integrated Geography, Institute of Physical Geography and Environmental Planning,  
Adam Mickiewicz University, Dziegielowa 27, 61-680 Poznań, Poland

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## **Abstract**

This paper discusses the importance of integrated local planning for establishing a system of protected areas. There is a growing literature that explicitly focuses on studies that reveal the existence of an extremely rich variety of systems of management of common-pool resources. In relation to natural resources, the term management can be understood as the “right to regulate internal use patterns and transform the resource by making improvement.” Partnerships between local communes are vital in the quest for integrated sustainable development and conservation. Since 2004, when Poland acquired the status of a European Union Member State, local authorities in Poland have shown an increased interest in voluntary environmental commitments in order to decrease the negative environmental impacts caused by their organizations and activities, and to further the process of sustainable development. Good governance is a prerequisite for effective management, and is fundamental to securing the political and community support essentials to the development – indeed the survival – of the global protected area system. Without support from management of the local communes, it is difficult to integrate environmental issues into landscapes parks and other protected areas. Activities of associations of communes and other environmental organizations aim at reaching a compromise between competitive interests of the economy and the needs of ecosystems, which is important from the point of view of eliminating potential human being-environment conflicts.

**Keywords:** association of local communes, integrated local planning, protected area, land management, landscape park

## **Introduction**

The conservation of biodiversity requires a significant commitment by governments, industry sectors, and the wider community to encourage cultural change across community and industry sectors, which ensures long-term balance between sustainable land management and biodiversity conservation. At the local level viable biodiversity con-

servation requires a range of management strategies [1]. Decisions made by individual landholders in one part of the landscape matrix spread effects across the landscape. In Poland cooperation at the lowest level of governmental administration (commune) toward environmental protection place bigger and bigger roles in sustainable development.

Walery Goetel – the creator of sozology (1956), which combines environmental protection issues with rational use of its resources, was the forerunner of sustainable develop-

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\*e-mail: marta.kubacka@amu.edu.pl

ment in Poland and internationally. In his theses he paid particular attention to those economic issues that are important for human life. According to the author, the development of technology and industry (especially after World War II) reached such huge dimensions that it was high time to think about effective measures to prevent, among other things, destruction of landscape [2].

Planning the conservation of biodiversity needs adequate understanding of environmental, social, and economic factors at the local and regional levels [3]. Given that no one landholder usually has planning and management control at the local and regional level, this necessitates that key stakeholder groups in the government, community, and industry form partnerships to agree on environmental goals and indicators [1]. A considerable number of tools, all with more or less different approaches, are available for the purpose of making the organizations more environmentally proactive and efficient. These tools can provide organizations with information about the environmental situation, help improve the structure of environmental work, and support the environmental decision-making process. Substance flow analysis, strategic environmental assessments, and standardized environmental systems (EMSs) are just a few of the tools available for these purposes. These tools may improve the work directed at sustainable development. However, it is important to remember that none of them represents a universal solution, thus other strategies, tools, and methods that include political, social and economic components should be used as well to fully address sustainability [4].

The policy, which has to be publicly available, should provide a framework for the environmental improvement process and should include commitments to comply with relevant environmental legislation, commitment to continual improvements, and it should be a basis for setting targets and objectives [5]. Many protected area problems require a landscape-scale response, so that governance, by addressing the wider connectivity of protected lands, must consider issues that cross the boundaries of protected areas into the surrounding matrix of forestry, agricultural, fishery, urban, and other uses. Territorially-based state actors are increasingly challenged to engage with and influence policy responses across complex trans-boundary arrangements and networks of state, sub-state, non-state and civil society organizations [6].

The issue of cooperation at the local, regional, domestic, and international scales has been developed by international conferences, commenced in 1989, regarding the European Cooperation for Sustainable Development Euro-Eco. A number of special editions of the *Polish Journal of Environmental Management Studies* are devoted to materials from these interdisciplinary symposiums [e.g. 7, 8].

### Materials and Methods

In relation to natural resources, the term management can be understood as the “right to regulate internal use patterns and transform the resource by making improvement” [9].

These activities can be performed by single actors or jointly by groups of individuals or as a result of cooperation among different groups.

The World Bank has defined co-management as “the sharing of responsibilities, rights, and duties between the primary stakeholders, in particular, local communities and the nation state” [10]. This definition is illustrated in Fig. 1. In essence this is the same definition as the one adopted by the World Conservation Congress, Resolution 1.42: “a partnership in which government agencies, local communities, and resource users, nongovernmental organizations and other stakeholders negotiate, as appropriate to each context, the authority and responsibility for the management of a specific area or set of resources” [11].

The idea is that an agency with jurisdiction over an area (usually a state agency) might develop a partnership with other relevant stakeholders (primarily including local residents and resources users) which specifies and guarantees their respective functions, rights, and responsibilities with regard to the area [12].

Partnerships between local authorities are vital in the quest for integrated sustainable development and conservation. Since 2004, when Poland acquired the status of a European Union Member State, local authorities in Poland have shown an increased interest in voluntary environmental commitments in order to decrease the negative environmental impacts caused by their organizations and activities, and to further the process of sustainable development.

The readiness of Wielkopolskie Voivodeship communes to perform joint actions in the area of using environmental assets was considered on the basis of the analysis of actions taken by the Puszcza Zielona Association of Communes (“Związek Międzygminny Puszcza Zielonka”), which operates at the area of Puszcza Zielonka Natural Landscape Park.

The International Union for Conservation of Nature (IUCN) has been instrumental in coordinating global protection. The above-mentioned professor W. Goetel was the co-founder of this organization. The general assembly of IUCN accepted his action strategies concerning rational management of natural environment resources as early as 1956. In 1994, IUCN developed standardized guidelines for protected areas designation, based on six categories

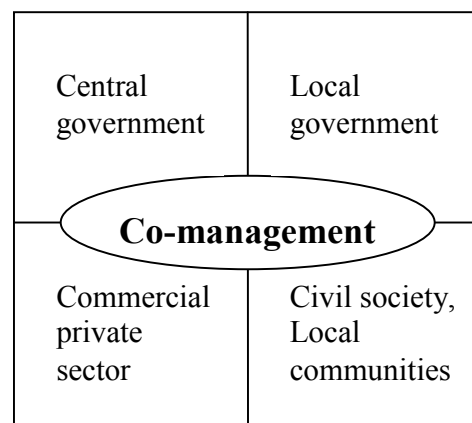


Fig. 1. Stakeholder categories and co-management [10].

(Ia, Ib, II, III, IV, V, and VI) that were intended to represent levels of legislative or regulatory protection, and the nature of intensity of permissible land uses [13]. Accordingly, IUCN Category V protected areas aimed at maintaining “values created by interactions with humans through traditional management practices” [14]. Categories V-VI include “multiple-use” protected areas, where there is a focus on the sustainable extraction of natural resources.

Due to a large share of landscape parks in the area of Poland (approximately 8.1%), these parks play a significant role in environmental protection of our country, and on a local scale they play an important role by stabilizing landscape natural systems [15]. A lot of data proves that with the end of the 1990s we entered the stage of environmental loading increase and subsequent degradation of a country's ecological system. The main tendencies observed in the changes in the natural environment are: drainage of moist areas, acceleration of surface runoff, decrease in water abundance of rivers, diminishing of biologically active surfaces, fragmentation of landscape, thickening of ecological barriers net and spatial isolation of ecosystems, as well as a decrease in biological and landscape diversity. In the face of such pressure, it is necessary to recognize natural protection and strengthening of the ecological structure of Poland as one of the key elements of new spatial planning policy of the country [16].

A landscape park comprises a protected area due to environmental, historic, and cultural values as well as landscape assets for the purpose of maintaining and popularizing these values in the conditions of sustainable development. It also defines the forms of protected area management and introduces bans concerning activity at these areas by means of the obligation to prepare and implement environmental protection plans by a director of the complex of landscape parks of the Wielkopolska region. As opposed to national parks and reserves, natural landscape parks are not areas free from economic activity, thus agricultural lands, forest lands, and other real properties located within the boundaries of natural landscape parks are subject to economic utilization (clause 16 section 6) pursuant to the Act on Environmental Protection. However, forms of management are subject to some restrictions in order to ensure the maintenance of natural and landscape values of parks. This is expressed in the ban to locate particularly environmentally arduous projects within the areas of natural landscape parks [17].

Resolutions passed by commune councils on neighborhood cooperation are indirectly linked with the planning of commune sustainable development, mostly in a practical, and therefore a very significant, sense. Communes creating joint strategic-planning reports and implementing ecological policy, have the possibility of joint, rational action. Self-governments take up such cooperation willingly. This cooperation gives the opportunity to gather material and financial resources (the possibility of using the sources of project financing unreachable for single self-governments), and therefore it will increase effectiveness and efficiency of performed tasks. Associations are established by communes that have similar problems and tasks to be performed [18].

These associations are optional commitments of communes to improve their environmental efforts. Such actions, apart from measurable environmental and economic effects, result in an increase in social integration and the sense of belonging to the region.

As of 31 December 2010 228 associations of communes operated in Poland, which were entered into the Register of Associations of Communes run by the Ministry of Internal Affairs and Administration [19]. In Wielkopolskie Voivodeship there are 15 associations of communes in operation (Fig. 2).

Out of 226 communes in the voivodeship, 114 are connected with another commune and a few dozen with more than one commune, the major statute task of which is environmental protection, including among others:

- economic cooperation (water management and water supply, upgrading of existing and construction of new sewage treatment plants and pumping stations, the construction of water lines and sewage systems, collection and purification of sewage, waste storage, rationalization of water consumption, coordination of investment undertakings with respect to water-sewage management, municipal waste management)
- the promotion of sustainable tourism (tourism is to serve the promotion of communes with respect to environmental and cultural assets, but it should also become a significant element of economic activation in the conditions of sustainable development; activity with the application of modern infrastructure – eco-engineering, meaning actions reducing the effects of the development of mass tourism negative for the environment, should become means to an end; touristic development of communes is to create the feeling of citizen pride due to belonging to a little homeland and raise the attractiveness of the area as a good place for relaxation. It also is important to develop in concept form the cooperation of local society with tourism for proper implementation of qualified tourism principles and interworking for the benefit of sustainable development)
- environmental protection (preventing degradation and devastation of the environment caused by wrong land management; preparation of development plans with respect to environmental protection)
- ecological education (education in this area should be directed at the formation of attitudes necessary to more efficient co-operation of experts and the whole knowledge-based society to solve common problems both in local habitat as well as on the global scale, such as wastes segregation and management, are renewable energy use) [20]

## Results

Puszcza Zielonka Natural Landscape Park was established pursuant to regulation No. 5/93 of the Voivode of Poznań of 20 September 1993 in order to preserve, protect, and revitalize the biggest and closest to natural forest complex in central Wielkopolska, with substantial environmen-

tal, landscape, and scientific-educational assets. Currently the Park area amounts to 11,999.61 ha. The environmental Protection Plan for Puszcza Zielonka Natural Landscape Park was prepared with Regulation No. 4/05 of Wielkopolskie Voivodesip Voivode (Fig. 3). The environmental protection plan is a planning-strategic document, which comprises, among others: the inventory of data on environmental assets of a given area, identification of subjects and objectives of protection, defining major hazards, and defining the ways of their elimination or minimization. The preparation of this document has prompted spatial management in member communes that must respect the principles of environmental management and protection, as well as the requirements of environmental planning. Pursuant to the Polish law that the arrangements of protection plan for natural landscape park are binding when

preparing a local spatial development plan (it is a commune regulation and the decision on development conditions and area development can be issued on its basis).

The border of Puszcza Zielonka Natural Landscape Park does not overlap with administration borders of self-governmental units, but it constitutes a part of a few communes: Czerwonak, Kiszkowo, Murowana Goślina, Pobiedziska, and Skoki. Simultaneously, the status and actions taken for environmental protection depend, to a large extent, on the approach and policy run by the above-mentioned communes in this respect. The above-mentioned communes are located in the central part of Wielkopolskie voivodeship, in direct neighborhood with the city of Poznań. The location of the park at a small distance from large metropolitan areas implies strong human impact at the area of the Park and its close surroundings. It demonstrates

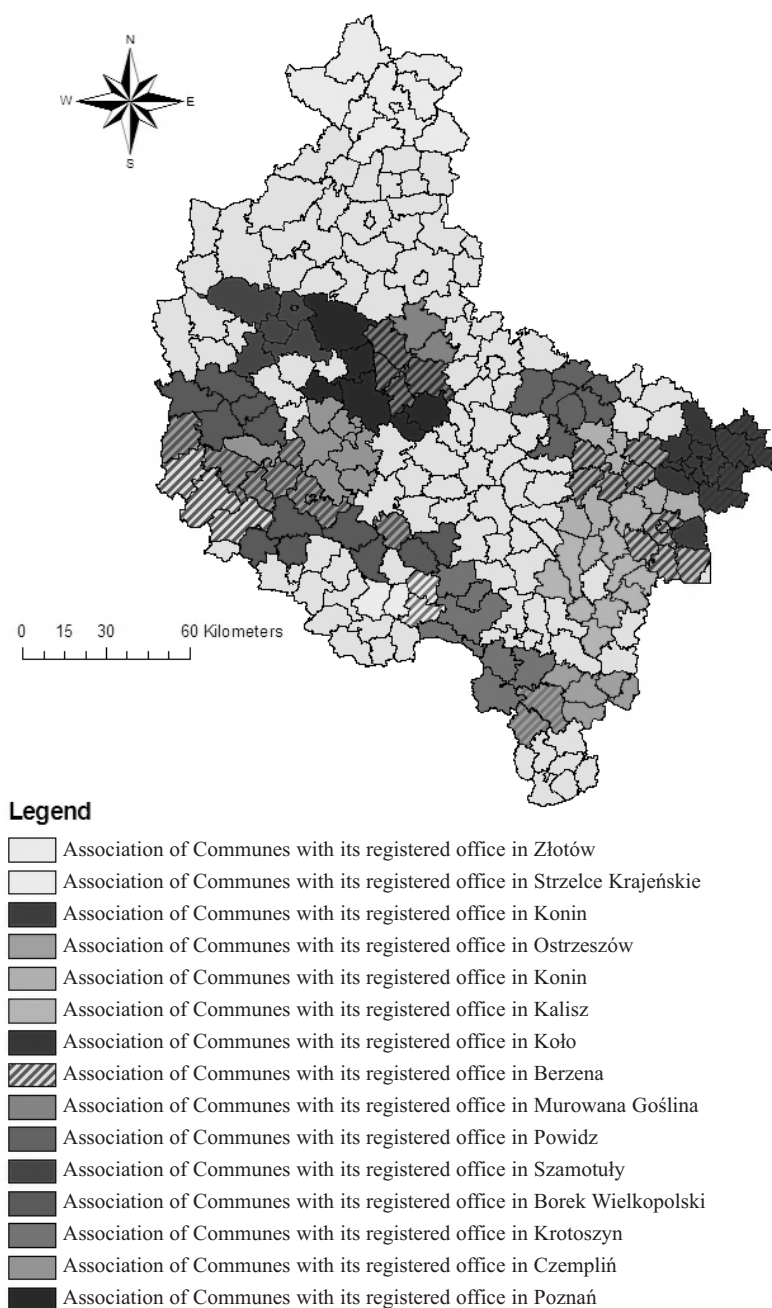


Fig. 2. Associations of communes in Wielkopolskie voivodeship in 2010.

Table 1. Task principles.

Priorities of the Association	Implementation date (year)
Preparation of the Protection Plan for Puszcza Zielonka Natural Landscape Park	2005
Full-range solution and settlement of sewage management at the area of member communes	Project “Sewage system of the area of Puszcza Zielonka Natural Landscape Park and its surroundings” – in the process of implementation
Full-range waste management	-
Gasification of rural areas	-
Construction of tourism infrastructure	Preparation of Tourism Development Strategy – 2007
	Preparation of Tourism – Bicycle Map – 3 editions
	Organizing bicycle route systems – 270 km
	“Puszcza Zielonka” Canoe Route – in the process of implementation
Construction of communication infrastructure	-
Creation of alternative work places for agriculture	-

itself by intensive penetration of the land, connected with various kinds of tourism and leisure activities, and by the increase in demand for land with the intention of building housing developments (housing estates and summer houses). The change of preferences regarding place of domicile causes the development of non-forest areas and the establishment of new settlement communities are areas with substantial environmental and landscape-related assets. After a few years of the Park's existence it became obvious that without active participation of the hosts of the park area and its buffer zone (namely the following communes: Czerwonak, Kiszkowo, Murowana Goślina, Pobiedziska, Swarzędz, and Skoki) (Fig. 3), there are no prospects for real protection of the park's environmental resources. The first kick-off meeting at which the “Puszcza Zielonka” Association of Communes was established took place 16

November 1999. The representatives of communes and institutions, among others Wielkopolskie Voivodeship Natural Landscape Park Complex, participated in the meeting. At the same time the willingness to take up point actions and projects aimed at the protection of environmental assets of Puszcza Zielonka Natural Landscape Park and rational use of this area for tourism purposes as well as the possibility of obtaining aid funds from the European Union within the framework of the Infrastructure and Environment Operational Program for these purposes, was declared. For the next few months organization and administration actions, aimed at final elaboration of the association operation formula, were taken. The above-mentioned actions were finally crowned with information on entering “Puszcza Zielonka” Association of Communes into the Register of Associations, item 209, dated 11 December 2000.



Fig. 3. “Puszcza Zielonka” Association of Communes.

Statutory tasks of the association are inextricably linked with the protection of the park's environmental resources, in particular by limiting negative impact of human actions on the environment and creating pro-ecological environmental planning.

The basic tasks of the association include:

- development and ordering tourism infrastructure
- settlement of sewage management at the area of the association member communes
- environmental protection

## Discussion

Clause 7 of the association Statute stipulates that the association task includes joint planning and performance of the following tasks at the area of communes – members of the association (Table 1).

Apart from investment actions, the association also plays an important function of the cooperation platform for member communes, powiat starosties, and authorities of Wielkopolskie Voivodeship, PTTK, local self-governmental organizations and natural persons, State Forests, and the Agency for Restructuring and Modernization of Agriculture, as well as universities, in particular the University of Natural Sciences in Poznań.

The association implemented, in 2004 and 2005, the program co-financed with SAPARD funds, within the framework of which tourism rest areas were built, tourism routes were marked, the map of Puszcza Zielonka and tourist guide and other promotional materials were issued. Owing to this, Puszcza Zielonka and its area is well prepared for active relaxation. This was the first extensive and full-range program concerning tourism management of Puszcza Zielonka and the first one that obtained co-financing from European resources. Implementation cost amounted to PLN 150,000 and the subsidy amount constituted ca. 50%. Another large project implemented since September 2005 – the program called “Trail of wooden churches around Puszcza Zielona,” of the value of PLN 600,000, financed in ca. 50% by the Integrated Regional Development Operational Program fund. Moreover, preparations for the elaboration and implementation of the program called “Cistercian Route Poznań-Owińska-Wągrowiec-Lęko” are ongoing. The association closely cooperates with Wielkopolska Tourism Organization (Wielkopolska Organizacja Turystyczna). Tourism is to serve the promotion of the association's communes in respect of their environmental, cultural and economic assets [21].

On 3 November 2010 the Puszcza Zielonka Association of Communes received the long-awaited information that the European Commission had issued a decision on co-financing of the project “Sewage system of the area of Puszcza Zielonka Natural Landscape Park and its neighborhood.” Total value of the project amounts to PLN 292 million, including construction-installation works amounting to PLN 234 million. Cohesion fund subsidy rate amounts to 68.6%. Material scope of the project comprises the construction of a sanitary sewage system, including 247 km of

gravitational canals and 121 delivery pipelines and 151 sewage pumping stations, including 2 disposal stations in the area of 5 communes near Poznań (Czerwonak, Murowana Goślina, Pobiedziska, Skoki, Swarzędz). After the completion of the project in 2013, it will be possible to connect over 42,000 new users to the built sewage system, simultaneously increasing the connection rate from 55% in 2007 to 83% in 2015 in Murowana Goślina, and from 84% to 85% in the Poznań metropolitan area.

The project is co-financed with the Cohesion Fund within the framework of Infrastructure and Environment Operational Program. The area subject to the project includes locations with the greatest number of people and most attractive recreation areas. These areas constitute naturally valuable areas and the project is aimed at their protection. The implementation of the project helping meeting objectives defined in National Strategic Reference Framework 2007-13 and in the Infrastructure and Environment Operational Programme 2007-13 as well as it helping reach the objectives of the shared strategy regarding environmental protection at international, domestic, voivodeship, regional, and local levels.

In connection with the above-mentioned project, since 2005 Puszcza Zielonka Association of Communes has been conducting, in cooperation with Voivodeship Sanitary Epidemiological Station in Poznań, the tests of the purity of water in lakes and water courses located at the area of Puszcza Zielonka Natural Landscape Park and in its direct surroundings. These tests are performed twice a year: at the end of May and the beginning of June, and at the end of September and the beginning of October. After the completion of the implementation of the above-mentioned project, the quality of water in lakes and rivers should improve significantly.

## Conclusions

Good governance is a prerequisite for effective management, and is fundamental to securing the political and community support essential to the development, indeed the survival, of the global protected area system. Without support from the management of local authorities, it is very difficult to integrate environmental issues into landscape parks and other protected areas. A common problem among local Polish authorities is a scarcity of resources such as money, personnel, and time to manage the environment (protect and improve). The resources that local authorities put aside for environmental management are limited. A lot of local authorities have a lot of environmental goals and are fairly aware of the environmental problems, but they don't have enough tools or strategies to realize these goals. Thus, the best solution is partnerships between landholders, the best example of that is the actions of Puszcza Zielonka Association of Communes and others at the area of Wielkopolskie Voivodeship and the whole of Poland. Actions of associations of communes and other non-environmental organizations are aimed at reaching a compromise between competitive interests of the economy and the needs of ecosystems, important from the point of view of

eliminating potential human being-environment conflicts. In addition, they promote the economy based on knowledge as the main element of sustainable policy, the basic assumption of which is activating the economy by universal and rational use of environmental resources. The education of citizens for the benefit of increasing ecological awareness should be the fundamental element of effective integration of environmental, economic, and social function. The concept of sustainable management of natural resources, adequate to recommendations of human ecology, is necessary for contemporary civilization.

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