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Public goods and rural development in Poland

Abstract: *In this paper an institutional policy approach is outlined that interprets rural development as a problem of public goods provision. It is argued that rural development policy should focus on the establishment of institutional arrangements that provide rural public goods effectively. Incentive structures that lead to the underprovision of public goods are studied in a simple game-theoretic model. Market, state, and community as three institutional alternatives for solving this incentive problem are then analysed and their strengths and weaknesses discussed. Based on recent fieldwork, it is shown how these institutions interact to achieve rural development in three rural Polish regions. It is concluded that, in order to achieve rural development goals, a locally adapted strategy to utilise complementarities among the three approaches is needed. Further success factors include the availability of leader personalities, the responsiveness of government to local needs, and the organisational efficiency of local initiatives.*

Key words: *public goods, regional policy, social capital*

Introduction

Several recent studies have revealed an increasing gap in economic development between rural and urban regions in Poland (Christensen and Lacroix 1997; Zegar and Floriańczyk 2004; Zillmer 2003). Zegar and Floriańczyk (2004) see the main reasons for the current situation in the diminishing role of agriculture as an important source of income for rural inhabitants and the high unemployment rate. Increasing income disparities and the lack of non-agricultural job opportunities led to out-migration and an increasing obsolescence in many rural regions. In the last decade, the Polish government therefore implemented a number of policy measures, which mainly address the agricultural sector. Klodziński and Wilkin (1999) claim that these primarily agricultural measures are not able to solve most of the income-related problems in rural areas as, due to the decreasing role of agriculture, there is a need of alternative economic activities besides agriculture. They write: "Society in general and farmers in particular must be widely informed that, although agriculture is a very important branch of the rural economy, the need to develop rural areas, e.g., in such forms as infrastructure, education, crafts and services, is just as important" (ibid., p. 13). Christensen and Lacroix (1997, p. 2) argue similarly and emphasize that rural development policy should focus more closely on the problems of small-scaled

farm structure; rural poverty; rural unemployment; and the absence of investments in physical and institutional infrastructure. Therefore, the questions arise: How should policy measures be composed in order to respond to the diversity of rural problems? How could rural economies be strengthened by not focusing on single sectors, but by creating adequate preconditions for a variety of economic activities?

In this paper we sketch an institutional policy approach that interprets rural development as a problem of public goods provision. We argue that a desirable rural development policy establishes institutional arrangements that provide public goods in rural areas effectively. Local public goods comprise, e.g., a positive image of a region as an attractive place to work and live, a well prepared local infrastructure and a good state of natural resources; effective local governance and service institutions; or high levels of human and social capital. The provision of these local public goods constitutes an essential precondition for diversified economic activities and for an increase of inhabitants' identification with their region, and therefore will counteract phenomena such as out-migration and rural poverty.

We aim to make two contributions to the literature. First, we provide some theoretical building blocks which address the frequently expressed need for a coherent theoretical framework capable of guiding an intersectoral rural development policy (Baum and Weingarten 2005, p. 218; Maier and Tödtling 2002, p. 195). Second, we draw on recent fieldwork to illustrate how this approach could be fruitfully applied to the current problems of Polish rural areas.

After introducing a taxonomy of public goods in rural areas (section 2), we examine how wrong incentives lead to the underprovision of public goods in a simple game-theoretic model. We then discuss market, state, and community as three institutional alternatives for solving this incentive problem. Based on our fieldwork, we show in section 4 how these approaches were combined to achieve rural development in three rural Polish regions. Section 5 draws some conclusions and gives recommendations for rural policy.

Taxonomy of public goods in rural areas

Table 1 presents a taxonomy of public goods in rural areas. This taxonomy classifies goods with regard to their degree of indivisibility and non-excludability (Cornes and Sandler 1996; Taylor 1987). A good is characterised by perfect indivisibility if any given unit can be made available for the use of every member of the public, or if the individuals' consumption of the good does not reduce the amount available to others. Non-excludability of a good exists if it is impossible or prohibitively costly to prevent individuals from the consumption of the good. According to the taxonomy goods are *pure public goods* if every individual is allowed to utilize a good (non-excludable) and every individual's actual consumption of any given unit is the same and does not prevent the consumption

of any other individuals (perfectly indivisible). In rural areas these goods are mostly provided by nature like for example, the non-use value of landscapes and natural habitats. Goods, like a positive image of a region as an attractive place to work and live, effective local government or service institutions or a high level of human and social capital, due to their provision within jurisdictional boundaries and their exclusion from non-residents, are characterized as local public goods. These goods, once provided, enable benefits for all residents of a jurisdiction. However, since providers are not able to exclude non-contributors from consuming these goods, free-riding easily emerges. In the end, the latter fact might lead to an absence of these goods or to a low level of provision. These goods will be of particular relevance for the further discussion in this paper. Also of interest for our research are public goods that are to some degree indivisible but non-excludable. We categorize them as *common property* or common pool resources (Ostrom 2005, p. 79). Once any unit of these goods is appropriated or consumed by an individual the amount of units available for consumption by others is reduced. Additionally, for these goods once provided by nature or created by humans it is difficult to exclude users from its consumption. Common property resources are, e.g., producer groups endowed with common property facilities like processing plants or marketing arrangements. Goods can also be indivisible and excludable. For example, parks once supplied to a certain group of individuals can be offered to others, too. However, it does not

Table 1. A taxonomy of public goods in rural areas

		<i>Benefits are</i>	
		<i>Perfectly indivisible</i>	<i>Imperfectly indivisible</i>
<i>Consumers are</i>	<i>Non-excludable</i>	Pure public goods <ul style="list-style-type: none"> • Landscape (non-use value) • Natural habitat (non-use value) 	Open access resources <ul style="list-style-type: none"> • Landscape (use value by visitors) • Recreation value (use value by visitors)
	<i>Excludable only if they were non-residents of the jurisdiction or outsiders of the community</i>	Local public goods <ul style="list-style-type: none"> • Positive image as an attractive place to live and work • favourable conditions for local businesses • effective local government and service institutions • high levels of human and social capital • natural resource protection 	Common property resources <ul style="list-style-type: none"> • Groundwater recharge • Local brand • Irrigation system • Natural habit • Biodiversity
	<i>Excludable</i>	Toll goods/spite goods <ul style="list-style-type: none"> • Natural habitat • Recreation and amusement facilities 	Club goods <ul style="list-style-type: none"> • Natural habitat • biodiversity

Source: based on Taylor (1982, p. 40) and Petrick (2006, p. 3).

need to be as it is possible and not prohibitively costly to exclude other individuals. In our taxonomy these goods are classified as *toll* or *spite goods*. *Club goods* are characterised by imperfect indivisibility and a particular exclusion mechanism involving voluntary membership and user fees. As long as the number of the club members is below the carrying capacity of the club, the consumption of a unit of the club good by a member does not reduce the consumption by other club members. But as the number of club members increases due to the good's imperfect indivisibility, the quality of the club good will be deteriorated or a competition for access to the good occurs. Some country clubs belong to this category.

Public good provision in rural areas

Lack of public goods as a result of coordination failures

Development problems in Polish rural areas, as asserted by many different authors (Klodziński and Wilkin 1999; Chaplin et al. 2005), often result from a lack of seed capital for small businesses or funds for farm investments in general, a lack of infrastructure, a lack of educational services to improve inhabitants' skills, a lack of social capital as well as a lack of involvement of inhabitants and organizations in the local decision-making process. Klodziński and Wilkin (1999, p. 17) write: "In other words, the Polish village needs not only money and help in kind. Above all it needs information, motivation, the will and the ability to co-operate. Education is the factor which will decide whether rural areas will break free from the vicious circle of poverty and underdevelopment or not." And further in the paper they continue: "If individuals, organization and institutions are to become more involved in local development, the authorities must not only allow them to share responsibilities, they must also allow them to join in the decision-making" (ibid. p. 18). Local labour or business start-up offices, institutions which involve all inhabitants in the decision-making about the region, the positive image of a commune, the good state of the natural resources in a region, the access to well-working public services, seminars and workshops in order to improve local capabilities, access to seed capital or an adequate infrastructure are local public goods, whose provision would be in every inhabitants' interest and would contribute to the local economic development. However, even if every member of a community profited from these public goods the latter would often not be provided. The lack of public goods is caused by the goods' properties and the impact of the latter on inhabitants' decisions concerning the goods provision. As Table 1 shows, goods which are categorized as local public goods and common property resources are hardly excludable for local inhabitants. Additionally, they are also characterized by joint consumption. The non-excludability of the goods gives rise to the free-rider problem whereby contributors are unable to prevent non-contributors from consuming the good. Such a problem has the payoff characteristic of a social dilemma (Petrick and Pies 2005, p. 4).

In Figure 1 a situation is assumed in which a public good is characterized by joint supply and consumption by a local community without having the possibility to exclude single inhabitants. An inhabitant A has the choice whether to not-contribute to the good's provision what would lead to an absence of the good if every inhabitant does not contribute. His pay-offs are given on the left-hand of each quadrant in the matrix, whereas the pay-offs of the other inhabitants are given on the right-hand. The best case for individual A emerges if all other inhabitants contribute to the public good's provision and he does not (quadrant III). In contrast, all other contributors prefer quadrant II whereas individual A would be in the worst position as his marginal costs of provision would exceed his marginal private benefits. However, since each inhabitant anticipates that other inhabitants will not contribute, the public good will not be provided (quadrant IV). This situation is equivalent to the Nash equilibrium of low returns for all as indicated by the arrows. Otherwise, had every inhabitant contributed to the good's provision, a Pareto-superior outcome for all would have been possible. However, this is not individually rational.

Figure 1. Public goods provision as a social dilemma

		All other individuals: Contribute?	
		Yes	No
Individual A: Contribute?	Yes	I 3 ; 3	II 1 ; 4
	No	III 4 ; 1	IV 2 ; 2

Source: Authors' depiction.

The social dilemma is an example of the disjuncture between individual and group rationality. Individual rationality leads "[...] to a strictly Pareto-inferior outcome. That is, an outcome which is strictly less preferred by every individual than at least one other outcome" (Taylor 1987, p.18). These situations, in which the "[...] pursuit of individual interests does not lead to outcomes that none would have chosen [...]" are classified by Bowles (2004, p. 40) as *coordination failures*. As he asserts, coordination failures occur "[...] when the non-cooperative interaction of two or more people leads to a result which is not Pareto-optimal" (ibid., p. 40). According to Petrick (2005, p. 15) the situation displays the following characteristics:

- Actions are mutually dependent. Both common and conflicting interests are existing simultaneously. Actors have partial, but not complete control over outcomes. Mutual advantage can only be realised by way of cooperation.
- There is an incentive problem inherent in the situation: individual interest conflicts with cooperation and results in a Pareto-inferior outcome.
- The exogenous variables in this model are the individual pay-offs, which are hence the control variables for policy action. Policy action should therefore

aim at the establishment of an (attainable) institutional alternative that allows the realisation of gains from cooperation.

According to the described problems in local public goods provision, we shall ask: How can potential gains from cooperation be realised by way of institutional reforms in order to overcome the coordination failures in local public goods provision? That is, on what terms can institutional arrangements emerge that provide all involved actors with incentives to contribute to the provision of public goods?

Three ways to overcome coordination failure in public goods provision

In the following, we analyse three governance structures (market, government, community) in respect to their ability to overcome the above mentioned coordination failures in public goods provision in rural areas. Based on recent literature, we discuss the advantages and the disadvantages of the three governance approaches and assess their ability to solve problems of finance, coproduction, regulating patterns of use and free-riding in public goods provision.

The market approach

”Practically every individual has some advantages over all others in that he possesses unique information of which beneficial use might be made, but of which use can be made only if the decisions depending on it are left to him or made with his active cooperation” (Hayek 1945, p. 521). As Hayek asserts, every individual possesses private information whose use would be beneficial for all individuals of a community, region or even nation. A means to induce actors to make their private economically relevant information available for the public is market competition (Bowles 2004, p. 485). In competitive markets producers have no incentive to misrepresent their productive capabilities as the provision of their products on the market at prices not equal to the marginal costs offer them lower profits than other producers whose prices reveal the actual production costs. On the other hand, consumers are induced to express their private preferences for a good as the price they pay expresses the worth they actually attribute to the good. As Bowles (2004, p. 485) mentions, competitive markets also provide an effective mechanism to impede collusion between actors in situation in which those voluntary agreements are not socially beneficial. Furthermore, markets also provide a decentralized and relatively incorruptible disciplining mechanism that ”punishes the inept and rewards high performers” (Bowles 2004, p. 486; Pies 2001, pp. 155–176).

However, the disciplining mechanism of markets would be limited if the relevant actors do not own the complete results of their decisions. This is true with regard to positive and negative externalities. In the case of goods constructed by an individual but used by many others (due to a lack of possibilities to exclude others from consuming the good), the latter have an incentive to *free-ride*. Free-riding could also occur if an individual produced additional costs for other

individuals, which he does not consider in his production decisions (e.g., environmental externalities). The problem of free-riding would appear, too, if small groups in rural areas agreed to provide certain goods for their common consumption (e.g. common property resources). Because, as Olson (1965) argues, it might be the case that, if the contribution of a single individual was not noticeable he would only contribute if a selective incentive in terms of an offer or a threat existed. Since with the increasing size of a group it becomes more difficult to monitor individuals' contributions or to sanction non-contributors, Olson (1965, p. 48) argues, that larger groups are less likely than small groups to provide any amount of collective goods¹.

The problem of free-riding already gave Samuelson (1954) reason to argue, that private provision of public goods is inefficient. In contrast, Spann (1977) emphasizes that there are incentives inherent in private production of public goods under market conditions, which are absent in the case of public good production by governmental enterprises. In addition, Alchain and Demsetz (1972) show, that there is also a greater incentive to shirk in governmental than in private enterprises. Therefore, Spann (1977, p. 89) argues, that private firms are able to produce public goods or services at the same or lower costs than public enterprises as they have the incentive to minimize their costs as well as the size of private enterprises is not restricted by political boundaries (which enables them to reach the maximum efficient size). With regard to public goods provision in rural areas also market-based solutions should not be excluded. As in some cases of public-private owned marketing cooperatives or regional brands (Gramzow 2005; Gramzow 2006a) in rural areas, we can see the provision of goods that remain public in nature but are produced under competitive market conditions.

Tiebout (1956) also involves market conditions in his model of public goods provision by modelling an intergovernmental competition across local jurisdictions, which are competing for mobile residents by offering different taxing and local public goods packages. In this context, the mobility of residents is the mechanism which should guarantee that public service outcomes closely match individual preferences (Ostrom et al. 1993, p. 183), whereas local taxes have the same function as prices in markets. Based on this, persons or firms are able to decide by "voting with their feet", which jurisdiction may serve their preferences the best. Though, different assumptions have been made, e.g., the costliness of mobility and residents' access to perfect information. However, according to Bardhan (1996) and Ostrom et al. (1993) these assumptions hardly match with real-world conditions as, e.g., most residents with the purpose to change the jurisdiction face problems concerning the sale of their recent properties as well as due to spill over effects neighbouring jurisdictions may also profit from

¹ Olson (1965, p. 48) underpins his assumption with three arguments: 1) The larger the group, the smaller is each individuals' net benefit from the public good. 2) The larger the group, the less the likelihood that it will be privileged or intermediate. 3) The larger the group, the greater the organization costs of providing the public good.

local public goods provided by a single commune. Further limitations are seen in finding adequate public choice mechanisms and ways to provide local taxes for funding local public goods as well as its implications for housing and rental markets (Petrick 2006).

In summary, there are many advantages involved in a stronger privatization of public goods provision since the market mechanism allows to reveal private information and enables producers to respond more closely to beneficiaries' preferences. These properties of markets as well as its disciplining mechanism might lead to an efficient provision of public goods in rural areas. However, the existence of externalities due to the coordination failures inherent in these situations often hamper markets from reaching outcomes which are preferable for all involved parties. Models based on market competition between jurisdictions for residents bear great problems, since residents are not totally mobile and public choice mechanisms are not able to mirror residents' preferences adequately. Therefore, the success of privatizing public goods provision is always strongly related to the goods' properties.

Government regulation

Governments, in contrast to private individuals, are able to attenuate coordination failure between actors „by their ability to allow and often compel individuals to interact cooperatively in situations where non-cooperative interactions are inefficient (Bowles 2004, p. 486). Therefore, regulation often occurs when contracts are incomplete and difficult to enforce as we see in the case of information asymmetries². Causes for public intervention can also lead to more efficient outcomes in the case of what Ostrom and Ostrom (1977) call the *”Problem of regulating patterns of use”*. For example, when multiple uses of a certain public good occur, one pattern of use may drive out other patterns of use. Particular situations appear in association with the use of public places or state owned resources in rural areas as the contamination of those resources caused by a resident may drive out the recreational purposes of other local inhabitants or even its use for tourism activities. Therefore, the contamination of the resource by the single resident will reduce significantly the efforts of other residents to cultivate and maintain the resource since a use for recreational purposes is not possible anymore. Finally, the resource will be deteriorated as the parties affected by the contamination are not authorized to enforce sanctions against the contaminator. Therefore, *”jointness of use under conditions of partial subtractability may*

² Insurance markets are an often cited as an example for market failure due to information asymmetries: *”An example involving the availability of some kinds of insurance illustrates this principle. Before they have learned the capacities, health status, and the special risks they face as individuals, all members of a population might prefer to purchase insurance. But after they have learned their own special position, those with a low probability of collecting on the insurance will not be willing to purchase it since they would be subsidizing those with a high probability of collecting. Thus the low-risk people would drop out of the market and the price of the insurance would be too high for the high-risk people. [...] By providing the insurance and compelling all agents to pay for it, the state overcomes this market failure”* (Bowles 2004, p. 487).

require rules for ordering patterns of use so as to reduce potential conflicts among different uses [...]” (Ostrom and Ostrom 1977, p. 32). According to these coordination problems the state has comparative advantages in the production of rules to reduce potential conflicts by implementing, e.g., property rights, regulations of environmental and other external or “spill over” effects, regulations for natural monopolies or by providing some form of insurance as mentioned above (Bowles 2004, p. 486).

Furthermore, governmental intervention is often also favourable with respect to the creation of infrastructure facilities (roads, parks), as under market conditions (due to the non-excludability of non-contributors) free-riding would often lead to the absence of these goods (see section 3.2.1). In these cases the state intervenes by collecting taxes and providing the goods out of its own budget. However, also the *financing of public goods* by tax money bears problems insofar as beneficiaries often cannot directly influence the decisions concerning the budget which should be spent on a particular good. Therefore, actors who decide on the public goods provision often fail the optimal level of expenditure due to a lack of knowledge about local circumstances. Ostrom et al. (1993, p. 50) emphasize that knowledge of local social and physical environment characteristics and human and physical capital are necessary to respond to local needs. This information about local circumstances are categorized by Hayek (1945, p. 524) as knowledge of time and place. Its availability may have an immense impact on the costs of public goods provision. Bardhan (1996, p. 140) claims: “Local information can often identify cheaper and more appropriate ways of providing public services, apart from getting a better fit for locally diverse preferences.” Furthermore, the individual costs are widely separated from the individual benefits. This may even lead to an inadequate use of the provided public services or insufficient actions to maintain the offered public infrastructure. For example, beneficiaries, since they are not aware of the costs for providing a single public good, do not contribute to its maintenance as much as needed to realize an adequate economical life of the good. Finally, a precocious rebuilding of the good is often inescapable. Even if certain requirements, which should secure the maintenance of rural public facilities by local inhabitants or local governments, are introduced by regional or national governments, an effective monitoring would be impossible as the upper administrative levels still face a lack of appropriate information about the local circumstances and maintenance efforts.

Besides these problems in financing public goods by tax money, there are other disadvantages of governmental provision of public goods. For instance, if governmental authorities decided about the quality and the quantity of the public good, their assessments would depend mainly on voting mechanisms. However, voting mechanisms do not automatically translate diverse citizen preferences into a well defined preference order for a variety of goods in a community as a whole. Also, citizens usually vote for officials who make many decisions regarding the provision of different goods and services. In elections all votes are given equal weight, no matter how intensive preferences of some voters are

(Buchanan and Tullock 1962). Furthermore, rent-seeking behaviour emerges if decisions made by national, regional or local governments concerning the kind of public services or the nature and location of public facilities or its use would enable particular individuals to gain unearned profits or advantages. “Rent-seeking makes the productivity of any particular investment secondary to the private gains of the rent seeker” (Ostrom et al. 1993, p. 96). Bowles (2004, p. 488) also criticizes a lack of accountability when public goods are provided by higher administrative levels. Furthermore, public provision may also drive out private contribution to the provision of public goods. Andreoni and Payne (2003) found that private organizations that provide public goods reduce significantly their fundraising activities if they receive government grants.

Community governance

Another way to overcome coordination failure in rural areas is by using community governance (Agrarwal and Gibson 1999; Ostrom et al. 1993). Many environmental resources in rural areas are public in the sense of common property resources (see Table 1). That is, users cannot be excluded from consumption and the imperfect indivisibility of these resources leads to congestion and rivalness. As recent literature shows, the coordination problems that can emerge due to the joint consumption of those public resources³ have often been overcome by community governance (Bowles 2004, pp. 489–93; Bowles and Gintis 2002; Ostrom 2005; Scott 1998). Agrarwal and Gibson (1999, p. 634) adhere, that “[i]f top-down programmes to protect resources failed because of the inability of governments to exercise authority at a distance [...] then decentralization of those social formation that are located near the resource might work better”. A similar assessment is made by Bowles (2004, p. 490): “Communities sometimes solve problems that both states and markets are ill-equipped to address, especially where the nature of the social interactions or the goods and services being transacted preclude complete contracting.”

There are many different aspects that favour communities in solving coordination problems concerning the provision and maintenance of rural public goods. (1) Local provision of public goods enables a better access to information about local preferences. This may lead to a precise respond to local needs (Ostrom et al. 1993, p. 85). Due to the knowledge about local resource specifics also a more realistic estimation of the construction and maintenance costs for the resources and hence, a more efficient public good provision might be possible. Additionally, community governance based on local knowledge is more likely to solve what Ostrom and Ostrom (1977, pp. 33–34) call “*Problem of coproduction*”. That is, users of public services also function as essential coproducers⁴. An appropriate example can be seen in vocational trainings provided for

³ This example for coordination failure is similar to the problem of regulating patterns of use mentioned above.

⁴ Ostrom and Ostrom (1977, p. 34) write: “Without the intelligent and motivated effort of service users the service may deteriorate into an indifferent product with insignificant value.”

rural inhabitants. Ostrom and Ostrom (1977, p. 34) assess: “When professional personal presume to know what is good for people rather than providing people with the opportunity to express their own preferences, we should not be surprised to find that increasing professionalization of public services is accompanied by a serious erosion in the quality of those services.” (2) Local residents interact regularly and more frequently with each other. They share the same geographic space (Agrarwal and Gibson 1999, p. 634) and often have similar beliefs and values (Taylor 1982, p. 26). This can strengthen cooperation and helps to constitute local trust⁵. Community governance also fosters and utilizes the incentives that people have traditionally deployed to regulate common activity, e.g., solidarity, reciprocity, reputation, personal pride, respect vengeance, and retribution (Bowles 2004, p. 490). (3) Public goods provision on the local level relies on dispersed private information, which is unavailable for the state or large formal organizations to apply rewards and punishment to members (Bowles 2004, p. 490). Close interaction often enables residents to monitor their behaviour and make collective decisions in order to maintain common property resources on low costs. Ostrom et al. (1993, p. 78) mention: “In very small groups those affected are usually able to discuss their preferences and constraints on a face-to-face basis and to reach a rough consensus”. Therefore, communities are more apt to wield with great effectiveness a range of positive and negative sanctions against free riders and that even boosts the cooperation⁶. The fact that given knowledge about other actors’ behaviour in an interaction process and the existence of sanction mechanism encourages people to cooperate and to maintain cooperation is also shown in different experimental studies (Page et al. 2005; Fehr and Gächeter 2000). (4) Community governance increases the accountability of actors for failures in public goods provision. Also, representatives of the local government, often involved in local public goods provision, have strong incentives to keep some of their constituents (in order to secure their re-election) and hence, try to provide public goods and services for local inhabitants as adequate as possible. Local representatives will also try to keep themselves informed about changing preferences in their commune (Ostrom et al. 1993, p. 181).

Besides these unique capacities of community governance, there are also aspects which might hamper communities in their ambitions to provide public goods. Personal and durable contacts that characterize communities require them to be of relatively small scale (Bowles and Gintis 2002). This smallness and the

⁵ Dasgupta (2003, p. 313) emphasizes the importance of regular interactions in terms of constitution of trust between individuals: “You don’t trust a person (or an agency) to do something merely because he says he will do it. You trust him only because, knowing what you know of his disposition, his available options and the consequences of his various possible actions, his knowledge base, ability, and so forth, you expect that he will choose to do it.”

⁶ Taylor (1988, p. 67) assesses: “Community is important because it means that individual behaviour can more easily be monitored and because a strong community has at its disposal an array of powerful, positive and negative sanctions which are highly effective in maintaining social order.”

homogeneity of communities can preclude exploitation of gains from trade and economic diversity (Bowles 2004, p. 491). The small size will to some extent also prevent municipalities to realize the provision of certain public goods⁷. Moreover, as many different studies show, communities that comprise just one group of individuals are scarce. That is why institutions that enable these different interest groups to discuss their different point of views are needed. An absence of such institutions often results in conflicts between and a foreclosure of different interest groups what may constitute development barriers for small municipalities (Agrarwal and Gibson 1999; Streeck and Schmitter 1985).

In this chapter, after analysing the lack of public goods in rural areas as a coordination failure between local actors, we discussed three different approaches of public goods provision; market, government and community. The next chapter presents, based on the results of our case studies, different endogenous initiatives, which successfully provide public goods in rural areas. We will classify the ways of public goods provision in respect of the three governance structures and discuss their ability to respond to the main problems of public goods provision in rural areas, namely the problems of: financing public goods; coproduction; regulating patterns of use; and free-riding.

Public goods provision in rural areas: Illustrations from three Polish case studies

In the following, we present three case studies on rural partnerships, which undertook actions to counteract specific development problems by providing different kinds of local public goods. The partnerships consist of local government members, local NGOs and local businesses. In the first part of the section, we give an overview of the case study regions in general and describe their main problems. After this, we present five different endogenous initiatives starting from local partnerships, which concern: 1) infrastructural development, 2) marketing initiatives for peasant farms, 3) the creation of a regional brand mark, 4) the establishment of local business start-up offices, and 5) the creation of tourism facilities in order to improve the image of the commune. Finally, a table will summarize all five described initiatives, distinguished with respect to their governance structures, their decision-making bodies as well as their respond to problems of financing, coproduction, regulating patterns of use and free-riding.

4.1. Overview of the case studies

Two of the case studies (Bałtów and Dolina Strugu) were conducted in South-Eastern Poland and one (Dębrzno) in the North-Western part⁸. Altogether, we

⁷ This is especially true for many Eastern European Countries. As Nam and Parsche (2001, p. 161) assess, the small size municipalities, which were created, e.g. in Poland, in the early 1990s, “quite often limited the expansion of local economic base for generating own revenues and hindered the realization of economics of scale in collecting municipal tax revenues and providing public goods and services.”

⁸ More detailed descriptions of the case studies can be found in Gramzow (2005; 2006a; 2006b).

made 103 qualitative interviews with representatives of the local or regional governments, local entrepreneurs, members of local endogenous initiatives, farmers, and inhabitants in general. Interviewees were asked about local problems, development potentials of the region, agricultural development, and the impact of endogenous initiatives on the local economic development. Table 2 shows, that our three case study regions exhibit similar characteristics as Zegar and Floriańczyk (2004) mentioned for Polish rural areas in section 1. The local economies of the study regions are strongly related to agriculture. Bałtów and Dolina Strugu are characterized by very small and partly semi-subsistence farms, which are poorly equipped and generally endowed with a fragmented land structure. As a result of the low farm mechanization and the lack of non-agricultural job opportunities, there is still a high level of agricultural employment. In Dolina Strugu, e.g., agricultural employment amounts two thirds of the economically active population. As local farmers assessed, their income situation, although they received direct payments since 2004, has permanently worsened in the last five years⁹. Main reasons for this development are seen in the decreasing producer prices for plant products as well as in peasants' tremendous problems to fulfil EU product quality-requirements. Furthermore, their inability to produce to certain standards as well as the low amount of grain peasants produce often lead to the situation that farmers do not have any marketable products. Although the local economy in Dębrzno (North-West Poland) is strongly related to agriculture, too, agricultural employment is lower compared to the South-Eastern regions. Farms in this region generally emerged from the former state owned farms and are larger-structured and well equipped. Agricultural workers in Dębrzno mostly lost their jobs due to the shut down of the state farms and a military base in the early 1990s. This is also a main reason why the unemployment rate for Dębrzno still exceeds the rates from the South-Eastern parts, since in the latter region hidden unemployment in agriculture is still present.

The lack of non-agricultural job opportunities appears also as a characteristic of the labour market in all three case study regions. In the South-Eastern part the shut down of the rural industry companies at the beginning of the transformation process led to a tremendous lay-off of workers and forced many rural inhabitants to return to their small family farms. In the North-Western part the situation looked quite different. Agricultural workers, who moved to the places where state owned farms emerged during communist times, were mostly low skilled and poorly endowed with entrepreneurial skills. Therefore, they were often not able to find a new employment since the state owned farms disappeared. Additionally, due to their age and their low job prospects they are often highly unmotivated, which also results in a low level of social capital. The high unemploy-

⁹ According to EUROSTAT (2004) estimations the income per agricultural labour in Poland increased in general in 2004 about 73.5 %, due to the direct payments and the successful harvest in the concerning year. However, to put these estimations in perspectives with our interview results we have to consider the very strong regional differences especially regarding the farm-size structure and the soil quality in Poland.

Table 2. Data on case study regions

	Baltów	Dolina Strugu	Dębrzno	Poland
Location	South-East	South-East	North-West	
Unemployment rate (2004, county level in %)	29.0	19.0	34.3	19.0
Average farm size (in ha, 2004)	5.3	3.0	16.5	7.5
Economy dominated by	agriculture, tourism	agriculture	agriculture	
Average monthly gross wage (2004; compared to the Polish average)	1,923 PL [424 €] 84.6	1,819 PLN [401 €] 80.0	1,939 PLN [428 €] 85.3	2,273 PLN [501 €] 100
Population density (2004, inhabitants/km ²)	38.5	95	42	122.1
Net-migration rate (2002)	-1.4	-1.9	-4.1	-1.1

Source: Cross Border Friendship Database (2006); GUS (2005); Statistical Office of the Ostrowiecki County (2006).

ment rate in all three case study regions leads further to a low level of wages, which forces combined with the lack of jobs younger inhabitants to emigrate. Furthermore, there is a lack of small businesses in all three study regions. This is mostly a result of unfavourable conditions like a lack of seed capital, lack of entrepreneurial skills, a low demand for offered products and services, as well as an unfavourable legal framework.

Endogenous initiatives of public goods provision

A) Telecommunication infrastructure (Dolina Strugu)

In the early 1990s, a main problem for small businesses was seen in the lack of communicational infrastructure in Dolina Strugu (Gramzow 2005). During that time, four communes with approximately 38,000 inhabitants were endowed with about 800 telephone subscribers and the state owned telephone company was not willing to invest in this region any further. As a response, starting from an initiative of local government members and other local inhabitants, a regional telephone company was founded. The seed capital for the company consisted of membership fees every inhabitant who joined the company had to pay. In addition, the four local governments of Dolina Strugu and single local inhabitants acted as guarantors for further commercial credits. Within a short period, the telephone company had about 6,500 members and was able to increase the number of subscribers in the region up to 9,600. Furthermore, in the last years they started also to provide businesses and private households with access to the internet. This improvement of local infrastructure resulted, amongst others, in a comparatively strong increase of local business start-ups (UNDP 2003). The telephone company and the provision with telecommunication infrastructure can be seen as a club good according to our taxonomy in section 2, since all beneficiaries had to join the company and had to pay certain fees. The latter fact also

excludes free-riding since only contributors are provided with services. The strong involvement of local inhabitants and local government members also enabled a more detailed response to local needs based on local knowledge. However, the success of the telephone company does not only result from initiatives based on community governance. The involvement of local governments as well as the market-based approach of the company rather combine all three discussed governance structures. In contrast, disadvantages of this approach result from the lack of exploitation of economies of scale. Furthermore, even though the company operates on a market approach, it is essentially a monopolist which may lack social accountability.

B) Marketing cooperation to enable peasant farms market access (Dolina Strugu)

As many interviewees mentioned, the only chance for peasant farms in Dolina Strugu to increase their income would be by increasing their market power in the negotiations with wholesalers or by selling their products directly to the consumers. For both ways collective action between farmers is needed (Gramzow 2005; Petrick and Gramzow, forthcoming). But, although there is a tremendous need for agricultural producer groups or cooperatives, the latter did hardly emerge in the region or even if they were founded they mostly have not lasted for longer than three years. The absence of common actions of farmers can be reconstructed as a coordination failure for several reasons: 1) *Finance*: Even if farmers founded a producer group their market power in negotiations with wholesalers would increase only slightly, due to the small size of peasant farms in the region. Therefore, farmers have to sell their products directly to the consumers. For this, they need different facilities in common property to process and market them. However, two problems would emerge: On the one hand, peasants are mostly not endowed with enough seed capital to contribute to the investments. On the other hand, even if a bank agreed to give credits, a suitable guarantor would be hard to find. So, if guarantors were group members, a trust problem between guarantor and the remaining members appears. As mentioned in section 3.2.1, larger groups favour free-riding and therefore monitoring costs and costs for exercising sanctions would emerge. 2) *Difficulty of finding consensus*: As a result of the large number of members a producer group in the region must have in order to finance the latter or to increase market power, decisions made by consensus will be combined with high transaction costs. 3) *Quality assurance of the products*: Furthermore, control mechanisms are needed to assure every member's production to certain standards which leads to further transaction costs.

Based on these problems, a public-private partnership consisting of local government members and local entrepreneurs (both groups were mostly already active in the telephone company mentioned above) was founded in Dolina Strugu. They invested in a marketing cooperative, which buys products from about 500 peasants, processes these products and sells them to 70,000 customers

in the further ambit. As a result peasants are able to sell their products and 400 new jobs for local inhabitants were created. The investment funds were taken from commercial credits as the local governments and single local entrepreneurs acted as guarantors. Hence, farmers could be excluded from the funding. Furthermore, negotiation costs were reduced since decisions are made by the small group of investors consisting of local government members and local entrepreneurs. Additionally, the quality of the products will be assured in the future due to the requirement, which induces all farmers to fulfil certain national ecological production standards. The ecological production standards are controlled by state agencies.

The marketing cooperative could be characterized as a local public good unless all peasants are able to sell their products individually. The initiative involves all three governance approaches, too, since local inhabitants and the local government members constitute the decision-making body and therefore enable the adoption of local knowledge. In contrast, the market-based approach of the cooperative prevents free-riding activities, which might be present in producer groups. However, since the cooperative only buys products from peasants up to a particular farm-size, bigger farms are discriminated against.

C) Regional landmark (Dębrzno)

The region around Dębrzno, as mentioned above, is not only characterized by a high unemployment rate. Most unemployed people also lack professional and entrepreneurial skills, are long-term unemployed and often of older age (Gramzow 2006a). Seminars and workshops organized by the regional labour agencies mostly did not match the local needs as many unemployed people are not able to conduct a drastic change in their profession. Furthermore, due to their age and in spite of vocational trainings no employment offers after the seminars were available in the region. In 2000, a partnership consisting of representatives of 32 local governments, local NGOs and local businesses was founded with the general aims to encourage sustainable development of the region and to establish tourism facilities. Starting from this partnership an 870 km long bicycle loop route was created. In addition, vocational trainings especially for low-skilled and long-term unemployed people were organized in order to advise them mainly in handicraft work and provide them with basic marketing and entrepreneurial skills. The partnership also initiated the founding of a local landmark, set certain standards for its products, elaborated a logo, and promoted the brand on regional and national fairs. The brand is available for inhabitants who produce local handicraft products or other local products and services. These products are sold in different shops on the area of the bicycle loop route. As a result of these activities already 35,000 tourists used the route in the first year and more than 70 small shops, businesses and accommodations emerged. Financial sources to fund these initiatives were basically taken from national and international funds the partnership had applied for.

According to the taxonomy of public goods in section 2, the local brand can be categorized as a local public good. The partnership always initiated their activities based on their knowledge about the local circumstances and by involving local inhabitants. The standards the users of the brand have to fulfil, also help to exclude free-riding. Additionally, free-riding with respect to the provision of the brand could be overcome by financing it with public money. Furthermore, the funds were applied by the partnerships in competition with other regional entities what also includes the market-approach. For that reason, the creation of the local brand also involves all three governance structures. But, the public finance also leads to a dependence on central government decisions. Hence, free-riding concerning the finance of the maintenance of the brand as well as of further initiatives could emerge if public sources were not available. The availability of national funds may determine inhabitants' willingness to contribute to the partnerships' activities.

D) Advice for small businesses and access to micro credits (Dolina Strugu and Dębrzno)

Besides a lack of infrastructure, also the lack of seed capital and the lack of entrepreneurial skills influence the number of business start-ups and the performance of small businesses in rural areas negatively (Gramzow 2005; Gramzow 2006a). Founder of businesses reported, that they are often not able to receive commercial credits due to a lack of guarantees or they cannot pay the high interest rates the banks demand resulting from the risky business environment in rural areas. To provide local businesses with funds and to offer seminars for business start-ups and young entrepreneurs in Dolina Strugu and Dębrzno, business "incubators" starting from local development associations were created. With the help of financial assistance from a World Bank programme, local businesses could apply for credits to a local business start-up agency if they were able to nominate two guarantors. The interest rates for the credits are way below those of commercial credits and the agency additionally provides borrowers with management assistance. These services are free of charge as the costs were covered by the World Bank programme. The business "incubator" in Dębrzno provides small and medium sized enterprises (SMEs) with loans up to 50,000 PLN [12,435 €]. The funds derive from the Polish Entrepreneurs Foundation. The Polish Entrepreneurs Foundation is funded by a Canadian Fund but decisions are made by the Polish government. Business start-up agencies in rural areas are able to cooperate with the Polish Entrepreneur Foundation as the development association in Dębrzno does. They deal credits with an interest rate of 7%, which is way below the interest rates of commercial banks. Requirements for the credit application are a business plan and a capital flow calculation. If a lender was not able to provide guarantees he should sign an agreement declaring the investment object as property of the fund until he repaid the whole credit amount. In both regions, due to these agencies, different business start-ups emerged on the market as well as existing ones were able to finance further investments.

The provision of business start-up offices and the provision of loans for local firms can be categorized as local public goods. Although the offices created by the partnerships provide the credits, the financial sources are from the central government or international funds. This prevents free-riding as it may emerge in rural rotating credit associations. The funding involves, besides the local development associations consisting of local inhabitants, also central government in this initiative. However, a fixed interest rate with a given budget can also lead to an inefficient spending of the funds, since not the customer, who is able to pay the highest interest due to the highest profitability of his investment, always receives the credit, but the one who applied for the credit first.

E) Creation of tourism facilities and provision of a tourism development framework (Bałtów)

Another example for endogenous initiatives which undertook actions in order to improve the local standard of living, to encourage the local economic development and to create new non-agricultural jobs can be found in Bałtów (Gramzow 2006b). First initiatives in the commune emerged starting from a development association consisting of a small group of local entrepreneurs and inhabitants in general, which started to clean up local natural resources. Based on this, the local development association increased and started to cooperate with another local NGO as well as with the local government to provide first tourism facilities consisting of canoeing treks on the local river. Furthermore, within a short period of time also a local Dinosaurs' park was created by the two local NGOs. The expenses for constructing the park were mostly taken from bank credits, whereas a local entrepreneur acted as guarantor. Starting from the two local NGOs seminars and workshops concerning agrotourism, young entrepreneurship and tourism development were organized. These activities were mostly financed by European or national funds. As a result the commune Bałtów evolved into a tourism place and attracted already 156,000 tourists within the last two years. Furthermore, due to these new income possibilities new non-agricultural jobs were created and different small shops and tourism accommodations emerged. All this led to a reduction of the local unemployment rate from 29% to 17%. The development of Bałtów also encouraged different associations from neighbouring communes to provide tourist offers and to cooperate within a regional partnership that comprises NGOs, members of local governments and entrepreneurs from nine different communes.

The initiatives undertaken in Bałtów contribute to the positive image of the region as a place to work and live. Also this example involves all three government structures. The decision-making body consists of local inhabitants and local government members, which allows a response to the local conditions. Besides the credits the local entrepreneur guaranteed for, other investments were mostly funded by public expenditures, the partnership or the associations applied for in competition with other regional entities. Free-riding within the associations can be largely prevented by the small number of members. The partner-

ship consists of small associations, which can, due to their small group size, rely on peer monitoring. However, inhabitants who do not contribute to the partnerships' activities cannot be excluded from the benefits. Furthermore, certain interest groups in the local society, which might be able to represent their interests more effectively, will also have bigger influence on the use of the common resources. This might probably lead to conflicts between different interest groups or even to an exclusion of groups who prefer a different use of the common resources. In addition, inhabitants who are not willing to contribute to the activities of the associations can not be excluded from their benefits.

Table A-1 in the annex gives an overview of the described initiatives and their response to problems of financing, coproduction, regulating patterns of use and free-riding.

Summary and conclusions

The major aims of the paper were twofold. First, it introduced a theoretical approach to understand rural development as a problem of public goods provision and analysed how well the institutional arrangements of market, state and community are able to provide these goods. Second, it looked at a number of case studies to learn how complementarities between these institutions facilitated rural development in Poland.

The positive image of a region, effective local governance and service institutions, or a high level of human and social capital can be considered as local public goods, which are able to contribute lastingly to local economic development. However, the supply of these local public goods often does not fulfil current needs. This under-provision of local public goods mainly results from a lack of proper incentives. That is, individual rationality leads to a Pareto-inferior equilibrium. Therefore, rural development policy should focus on the creation of institutions which are able to overcome the existing incentive problems between potential contributors of local public goods in rural areas. Incentive problems often concern the finance and the coproduction of the goods, the regulating patterns of their use, as well as free-riding. Market, state and community have different strengths and weaknesses in dealing with these issues.

Our empirical analysis showed that a successful provision of local public goods in Polish rural areas mostly not just starts from one of the mentioned approaches but commonly involves all three of them. Central governments on the one hand, e.g., lack information about local conditions and this often leads to problems in monitoring and maintaining the publicly provided goods. Community-based governance on the other hand makes these information available indeed, but often lacks financial resources or is ill-equipped to solve problems of regulating patterns of resource use. This is due to its strongly restricted legislating power regarding property rights or regulations of environmental and other external effects. Furthermore, also market-based conditions contributed to the success of

the analysed initiatives. For example, certain goods like an agricultural marketing cooperative and a local landmark operate under competitive conditions. A locally adapted strategy to utilise complementarities among the three approaches is hence needed.

Further lessons learned from the case studies include that (1) there have to be leader personalities in the communities to improve inhabitants' trust in the initiatives and to increase social capital; (2) local governments have to be open for inhabitants' recommendations and they must be willing to involve the latter in their local decision-making; and (3) the local initiatives have to be endowed with a well-working organizational structure and defined responsibility assignments as well as with a platform which also provides non-members with the opportunity to express new ideas.

A rural development measure, which combines all three approaches and already shows promising results in the EU-15 countries, is the Community Initiative LEADER+ (European Commission 2000). Since 2004, actions have been undertaken to implement the Community Initiative in Poland with the help of a pilot measure. LEADER+ is based on the creation of local development strategies by using local capabilities. The core of LEADER-type projects constitutes "local action groups (LAGs)", which involve local government members, local businesses and local NGOs. The LAG therefore, constitutes an institution which enables different local interest groups to compete for a certain budget available for different local projects as well as the LAG itself competes with other LAGs for grants in the further region. This should lead to a more efficient use of funds according to local needs and enables different local interest groups to negotiate the best way local resources should be employed. Furthermore, the requirement that LAGs have to be composed by different private and public institutions, enables a better monitoring of free-riding as the LAGs do not act as big groups but as what Olson (1965, p. 63) calls "federal" groups. That is, the LAGs represent a large group as a whole but members are still induced by the social incentives which are more strongly present in their smaller local associations than in larger groups. However, the partnership makes it possible to finance and conduct larger projects which could not be provided by single local associations or even by single communes.

References

- Agrarwal A., Gibson C., 1999, *Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation*, *World Development*, 27, 4, 629–649.
- Alchain A.A., Demsetz H., 1972, *Production, Information Costs, and Economic Organization*, *American Economic Review*, LXII, 777–795.
- Andreoni J., Payne A.A., 2003, *Do Government Grants to Private Charities Crowd Out Giving or Fund-raising?*, *American Economic Review*, 93, 792–812.

- Bardhan P., 1996, *Decentralized development*, Indian Economic Review, 31, 2, 139–156.
- Baum S., Weingarten P., 2005, *Interregional disparities and rural development challenges for regional policy in the new EU member states*, Agrarwirtschaft, 54, 4.
- Bowles S., 2004, *Microeconomics. Behavior, Institutions, and Evolution*. Russell Sage Foundation, New York.
- Bowles S., Gintis H., 2002, *Social capital and community governance*, Economic Journal, 112, 419–436.
- Buchanan J.M., Tullock G., 1962, *The Calculus of Consent, Logical Foundations of Constitutional Democracy*, Ann Arbor, University of Michigan Press.
- Chaplin H., Davidova S., Gorton M., 2005, *Impediments to Employment and Enterprise Diversification: evidence from small-scale farms in Poland*, IIS Discussion Paper, 102, Institute for International Integration Studies, Trinity college, Dublin.
- Christensen G., Lacroix, 1997, *Competitiveness and Employment – A framework for rural development in Poland*, World Bank Discussion Paper, 383, Washington, D.C.
- Cornes R., Sandler T., 1996, *The Theory of Externalities, Public Goods and Club Goods*, Second Edition, Cambridge University Press, Cambridge.
- Dasgupta P., 2003, *Social Capital and Economic Performance: Analytics*, in: Ostrom E., Ahn T.K. (eds.): *Foundations of Social Capital*, Cheltenham, 309–39.
- European Commission, 2000, *Commission notice to the member states laying down guidelines for the Community initiative for rural development (Leader+)*, C 139/5, http://europa.eu.int/comm/agriculture/rur/leaderplus/pdf/library/methodology/139_en.pdf.
- EUROSTAT 2004, *Landwirtschaftliches Einkommen je Arbeitskraft in EU25 real um 3,3 % gestiegen* [Agricultural income per worker increased about 3.3% in the EU-25], EUROSTAT press release, No. 154/2004.
- Fehr E., Gächter S., 2000, *Cooperation and Punishment*, American Economic Review, 90, 4, 980–94.
- Gramzow A., 2005, *Experience with Endogenous Rural Development Initiatives and the Prospects for Leader+ in the Region 'Dolina Strugu', Poland*, IAMO Discussion Paper, 89, Halle (Saale).
- Gramzow A., 2006a, *Local partnership as an incubator for rural development: the case of Dębrzno, North-western Poland*, IAMO Discussion Paper, 90, Halle (Saale).
- Gramzow A., 2006b, *Endogenous Initiatives as a Chance to Improve Rural Livelihood: Results of a Case Study in Bałtów, South-eastern Poland*, IAMO Discussion Paper, Halle (Saale), (forthcoming).
- Główny Urząd Statystyczny [Central Statistical Office], 2005, *Rocznik Statystyczny Województw* [Statistical Yearbook of the Regions], Warsaw.
- Hardin R., 1971, *Collective Action as an Agreeable n-Prisoners' Dilemma*, Science, 16, 472–81.

- Kolodziński M., Wilkin J., 1999, *Rural Development in Poland: Barriers and priorities*, *Wies i Rolnictwo* [Village and agriculture] selected papers, 2 (103).
- Maier G., Tödtling F., 2002, *Regional- und Stadtökonomik 2: Regionalentwicklung und Regionalpolitik* [Regional and Urban Economics II: Regional development and Regional Policy], Second Edition, Springer, Wien, New York.
- Nam C.W., Parsche R., 2001, *Municipal Finance in Poland, the Slovak Republic, the Czech Republic and Hungary: Institutional Framework and Recent Development*, *Moct-Most: Economic Policy in Transitional Economies*, 143–64.
- Olson M., 1965, *The logic of collective action*, Cambridge, MA, Harvard University Press.
- Ostrom V., Ostrom E., 1977, *Public Goods and Public Choices*, in: E.S. Savas (ed.): *Alternatives for Delivering Public Services: Toward Performance*, Boulder, Westview Publishers, 7–49.
- Ostrom E., Schroeder L., Wynne S., 1993, *Institutional incentives and sustainable development – Infrastructure policies in perspective*, Westview Press, Boulder.
- Ostrom E., 2005, *Understanding Institutional Diversity*, Princeton University Press, Princeton.
- Page T., Putterman L., Unel B., 2005, *Voluntary association in public goods experiments: Reciprocity, mimicry and efficiency*, *Economic Journal*, 115, 1032–1053.
- Petrick M., 2005, *Governing structural change and externalities in agriculture: toward a normative institutional economics of rural development*, in: K.M. Ortner (ed.): *Assessing Rural Development Policies of the Common Agricultural Policy*, Vauk Wissenschaftsverlag, Kiel, 85–104.
- Petrick M., 2006, *Should the government finance public goods in rural areas? A review of arguments*, Working paper, Department of Agricultural and Applied Economics, University of Wisconsin-Madison.
<http://www.aae.wisc.edu/pubs/sps/pdf/stpap497.pdf>
- Petrick M., Gramzow A., (forthcoming), *Decentralised rural governance in a post-socialist economy: a case of community-based agricultural marketing in South-eastern Poland*, in: G. Kochendörfer-Lucius, Pleskovic B. (eds.): *Agriculture for Development*, Berlin Workshop Series, The World Bank, Washington D.C.
- Petrick M., Pies I., 2005, *In Search for Rules that secure Gains from Cooperation: The Heuristic Value of Social Dilemmas for Normative Institutional Economics*, Discussion Paper, 5–6, Chair for Economic Ethics at Martin-Luther-University Halle-Wittenberg,
http://www.wiwi.uni-halle.de/linebreak4/mod/netmedia_pdf/data/DP-05-6n.pdf
- Pies I., 2001, *Eucken und von Hayek im Vergleich* [Eucken and von Hayek in Comparison], J.C.B. Mohr Siebeck, Tübingen.
- Ross S., Yinger J., 1999, *Sorting and Voting: A Review of the Literature on Urban Public Finance*, in: E.S. Mills, Cheshire P. (eds.): *Handbook of Regional and Urban Economics*. 3, Elsevier, Amsterdam, 2001–2060.
- Samuelson P.A., 1954, *The Pure Theory of Public Expenditure*, *Review of Economics and Statistics*, 36, 387–389.

- Scott J., 1998, *Seeing like a state: How certain Schemes to improve the human condition have failed*, New haven, Yale University Press.
- Spann R.M., 1977, *Public versus Private Provision of Governmental Services*, in: T. Borcherdig (ed.): *Budgets and Bureaucrats: The Sources of Government Growth*, Durham, N.C., Duke University Press.
- Statistical Office of the Ostrowiecki County 2006,
http://www.ostrowiec.starostwo.gov.pl/html/opis_pow.htm#balt.
- Streeck W., Schmitter P.C., 1985, *Community, Market, State and Associations? The Prospective Contribution of Interest Governance to Social Order*, *European Sociological Review*, 1, 2, 119–38.
- Taylor M., 1982, *Community, Anarchy, Liberty*, Cambridge and New York, Cambridge University Press.
- Taylor M., 1987, *The possibility of cooperation*, Cambridge and New York, Cambridge University Press.
- Taylor M., 1988, *Rationality and revolutionary collective action*, in: M. Taylor (ed.): *Rationality and Revolution*, Cambridge and New York, Cambridge University Press, 63–97,
- Tiebout C.M., 1956, *A Pure Theory of Local Expenditures*, *Journal of Political Economy*, 64, 416–424.
- UNDP, 2003, *Development of the Strug Valley in Result of the Application of Information and Communication Technologies and Innovations*, Warsaw,
<http://www.undp.org.pl/en/center.php?nr=196>.
- Zegar J., Floriańczyk Z., 2004, *Structure of the rural population incomes in Poland before and after the accession to the European Union*, in: J. Bański (ed.): *Changing functions of rural areas in the Baltic Sea Region*, ERDN, IERiGŻ, IGiPZ PAN, Warsaw, 79-94.
- Zillmer S., 2003, *Regional Structural Development in Selected Polish Regions*, IRS Working paper, Institut für Regionalentwicklung und Strukturplanung, Erkner.

Table A-1: Classification of the endogenous initiatives of public goods provision analysed in the case studies

Description of the public good	Measure	Governance Structure of Provision	Decision-making body	How does the way of public goods provision respond to problems of				Problems emerging from the conducted measures
				Finance	Coproduction	Regulating patterns of use	Free-riding	
Positive image as an attractive place to live and work; favourable conditions for local businesses	Founding a telephone company to improve the communication infrastructure	Local government, community and market	Association consisting of local government members, local entrepreneurs and inhabitants	Membership fees and commercial credits whereas single inhabitants and the local governments acted as guarantor for the latter	Emerged as a result of local infrastructural needs, which were observed by local inhabitants and therefore respond to local problems	Market-based approach of the telephone company assures the most efficient use of the local resources	Club good secures exclusibility from consumption	Economies of scale not exploited; lacking competition between communication infrastructure providers can lead to inefficiencies
Favourable conditions for local businesses	Agricultural marketing cooperative	Local government, community and market	Public-private partnership consisting of local government members, local entrepreneurs and inhabitants	Local governments and private actors acted as guarantors for commercial credits	Emerged as an initiative of local actors, who identified local problems and respond to actual needs	Market-based approach of the marketing cooperative assures the most efficient use of the local resources	(1) Small group of local public and private investors renders farmers' financial contribution unnecessary and prevents free-riding in financing; (2) Peasants' commitment to produce to ecological production standards (which are controlled by state agencies) overcomes free-riding in quality security	Discrimination against "bigger" farms from Dolina Struga
Positive image as an attractive place to live and work; high level of human capital	Regional brand	Central government, local government, community and market	Partnership consisting of representatives from local governments, businesses and NGOs	Seed capital to create the regional brand and to organize workshops derived from international and national funds	Emerged as an initiative of local inhabitants, who knew the regional labour market conditions and are able to assess local capabilities	Market-based approach of the regional brand assures the most efficient use of the local resources	Inhabitants who sell their products under the label of the regional brand have to fulfil certain standards, which are controlled by the partnership members	Strong dependence on governmental decisions since activities are mostly financed by national and international funds

Favourable conditions for local businesses	Local business start-up offices	Central government and community	Partnership consisting of representatives from local governments, businesses and NGOs	Credit programmes based on national and international funds	Agency emerged due to the initiative of the partnership, which consists of local inhabitants who know the local conditions	Connecting the conditions for raising a credit on market conditions (interest rate, guarantees), that supposed to ensure an efficient use of the resources	Fixed conditions of credit raising as well as the provision of the financial resources by national or international funds reduces the probability of free-riding	Fixed level of interest rates may lead to inefficient allocation of credits
Positive image as an attractive place to live and work	Initiatives to create tourism facilities and to protect local natural resources	Central government, local government, community and market	Partnership consisting of representatives from local governments, businesses and NGOs	Seed capital to finance tourist offers derives from commercial credits whereas a local entrepreneur acted as guarantor; vocational trainings were financed by international and national funds (tax money)	Emerged as an initiative of local inhabitants, who know local problems and therefore respond to the current needs	The partnership as well as the single development associations consist of different interest groups within the communities and negotiate to find the most efficient local resource use by intern negotiations	(1) Free-riding within the associations is controlled by the small number of members; this is also true in respect of the partnership as the latter consists mainly of single associations, whereas each of them is monitored by its members (2) Local inhabitants which are not active in the associations or partnership are hard to exclude from the outcomes of the activities	Exclusion of non-contributors is hardly possible; strong local interest groups may force a certain use of local resources, which can lead to the exclusion of other uses preferred by local groups which are not able to express their interests as effectively

Source: Authors' depiction