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Dorota Jegorow

The John Paul II Catholic University of Lublin e-mail: dorotajegorow@kul.pl

KEY NATIONAL CLUSTERS IN REGIONAL POLICY

KRAJOWE KLASTRY KLUCZOWE W POLITYCE REGIONALNEJ

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Summary: Development policy defining trends of changes in Polish economy is the source of many solutions implemented from the top down into economic practice. It also happens around initiatives realized in the area of clusters. The confrontation of program documents and research reports with cluster theory does not give rise to a positive evaluation of this organizational formula in the Polish economic practice. The newly established institution of key national clusters has been integrated into the complex public-private system far from universally accepted theoretical concept of a cluster. The chosen method of selecting key clusters raises serious concerns as it leads to the unauthorized segregation of market operators/participants in the access to public funds.

Keywords: European funds, cluster, key national cluster, regional policy, regional development.

Streszczenie: Polityka rozwoju wyznaczająca kierunki zmian polskiej gospodarki jest źródłem wielu rozwiązań wdrażanych odgórnie do praktyki gospodarczej. Tak również dzieje się wokół inicjatyw realizowanych w obszarze klastrów. Konfrontacja dokumentów programowych oraz raportów badawczych z teorią klastrów nie daje podstaw do pozytywnej oceny tej formuły organizacyjnej w polskiej praktyce gospodarczej. Powołana nowa instytucja krajowych klastrów kluczowych została wkomponowana w złożony system publiczno-prywatny odległy od powszechnie przyjętej teoretycznej koncepcji klastra. Poważne zastrzeżenia budzi przyjęty sposób wyboru klastrów kluczowych, prowadzący do nieuprawnionej segregacji podmiotów rynkowych w dostępie do funduszy publicznych.

Slowa kluczowe: fundusze europejskie, klaster, krajowy klaster kluczowy, polityka regionalna, rozwój regionalny.

1. Introduction

Imperfections and unreliability of many theories and solutions as well as more and more contradictions referring to the assessment of the socio-economic situation of regions, countries and the world make the necessity of searching for new developmental solutions indispensable. Contemporary crises and problems escalating in various areas and with different intensity confirm that the constructs serving the purpose of planning and predicting the effects of organization and management have failed. Clusters and then key clusters were created as a result of looking for new solutions.

Cognitive dimension of the issue of clusters as entities written into the landscape of Polish economy is still small. An access to complex research based on the analysis of hard data is in this case highly desirable. Survey research, being the basic source of knowledge about clusters, does not create, after all, full and objective cognitive spectrum [Kowalski 2013]. Conducted case studies are a valuable source of knowledge. However, they do not give rise to the extrapolation of results over the whole population of clusters. In the research conducted periodically by the Ministry of Economy the basic method of obtaining information for benchmarking analysis is the data from the questionnaire interviews with representatives of cluster coordinators [Plawgo 2014]. Objectivity and impartiality of the assessment in case of opinions of the interested commenting on themselves is a deeply disputable issue whereas the image of an organization created in this way can be far from reality.

Clusters, which were supposed to be a development panacea for Polish regions, have insufficient initial base. Organizations calling themselves clusters in many cases are not clusters at all, being merely agreements of partners representing public, economic, scientific/educational or social sphere. Hopes lying in clusters, particularly in key national clusters (KKK), do not provide justification for the way of doing public policies in Poland. Once again, first actual actions are undertaken, followed by theoretical analysis of the issue. The conducted study, based on content analysis, text analysis, context and comparative analysis as well as the synthesis of the gathered materials has proven that the functioning of KKK was integrated into the complex public and private system which was in reality distant from the commonly accepted theoretical concept of a cluster. The way of programming the implemented changes was based on both quantified and indicative system of choosing key national clusters which in practice meant members of the appointed groups. Such a solution leads to unauthorized segregation of market operators.

2. Cluster as an element of economic ecosystem

The issue of clusters has been widely discussed by many scientists and academics representing various scientific fields. This has led to the lack of definition consensus and a clear dichotomy inscribed in theory and practice of the management and

complexity of the project included in the concept of a cluster. Starting with initializing of the network, formalizing connected with the agreement, through cooperation in terms of organization, the final goal is the economic benefit of the members joining a cluster.

Clusters function in Poland on the basis of both formalized and informal structures. Their quantity is systematically growing both taking into consideration the number of entities and membership. Statistical reporting does not impose submitting standarized reports on these entities, though, which will dramatically narrow cognitive dimension of the potential of clusters. Formalizing of relationships and making reports obligatory is not, by any means, a desirable solution in the public sector which is already extremely bureaucratized. However, when self-styled coordinators of loose relationships of the national economy subjects face an opportunity to obtain multimillion grants inscribed in European funds, a minimum level of formality is desirable. The formality of the subject serving the function of a cluster coordinator is not extended to the created network.

Unfortunately, the activity of many Polish clusters is only a "sham". In practice it turns out that among the members of some clusters there are many entities which are not at all interested in any specific cooperation within the created network. Immaturity of Polish clusters influences the imperfection of managing at least part of their population. It refers to both leadership and passive participation of the members of a cluster in a formal partnership [Plawgo 2014]. Formal participation in clusters has its roots, among others, in the accepted assessment of clusters. Such an assessment is connected with external financing, the target of which is quantity not quality, whereas the participation of the network members in benefits from the projects undertaken by coordinators is small.

There are extremely high hopes connected with Polish clusters. Unfortunately, in many cases, these hopes are not relevant to their potential. Terminological chaos around clusters linked with identified superficiality of numerous initiatives proposed and ratified by clusters each time demands an answer to the question if the created partnership deserves to be called a cluster. In Poland it is often common practice that projects are called clusters although they do not depict the characteristic features of cluster environment. As a result, it leads to the situation where the idea of a cluster is changed, distorted and it annihilates potential benefits inscribed in the concept of development based on clusters [Jankowska 2012]. In Polish practice of economy, the terms "cluster" and "cluster initiative" are used interchangeably and at the same time in a totally unauthorized way. Assuming that clusters are "geographical agglomeration" of interrelated companies and enterprises, highly specialized providers, entities providing services, companies operating in related sectors and institutions connected with them (universities, normalizing committees and industry associations) in particular fields, competing with one another but also cooperating" [Porter 2001], whereas cluster initiative is "organizing actions aiming at intensification of growth and competitiveness of clusters in a region, engaging cluster companies, government and/or research environment" [Sölvell et al. 2003] national clusters in their structure are definitely closer to cluster initiative. Actions of cluster initiatives involve, among others, representing its members and managing the internal and external relations. Cluster initiatives are created on the area where a particular cluster operates and they serve the purpose of supporting an increase and competitiveness of the existing network. Thus, it is a mistake to identify a cluster initiative as a real regional economic structure [Kowalski 2013].

A serious problem restraining effective influence on regional development is the formal-institutional environment of the surrounding of clusters. Lack of competence represented by public administration doing development programming together with an ineffective system of financial support do not implement the idea of a cluster into economic practice. Instead, they regulate the area in a technocratic way. For such an area to be competitive, it must not be controlled in the way it is controlled at present. Implementing efficient policy of development using clusters demands from the public administration to possess vast knowledge of the subject area, including implication of clusters on economic development. The most recent research shows. though, that the level of knowledge of clerks representing local authorities is by far insufficient [Holecki, Romaniuk 2015]. It also turns out that, up till now, instruments of providing financial support to clusters, included in the financial planning from 2007 to 2013, have been used without thorough consideration. The institutions responsible for implementing projects did not know for sure what should be the presumed complex final outcome of undertaken actions. Unequal treatment of clusters having its reflection in top down and unjustified restriction of access to grants has been joined with depending on financing – taking advantage of "easy" and "big money". A peculiar fashion was introduced for "the only proper" clusters assigned to a trade, range of operation and quantitative structure of participants. Moreover, a highly bureaucratized system of carrying out projects based on rather discretionary rules of classifying expenses excluded some of the clusters from applying for available grants and support. As a result, there was a violation of the fundamental idea of clustering [Szymoniuk 2014]. The state, controlling and regulating the order and, at the same time, a real partner of economic institutions, by principle should secure private property, including equal treatment of all the subjects of economy. Strong synergy between politics and economy influences the fact that institutional policy has a key importance for successes and failures of countries [Acemoglu, Robinson 2014], but still, in Poland it demands thorough reconstruction and correction.

Apart from the critical and unfavorable opinions presented above, a lot of contradictory evaluations can be found showing a wide range of benefits connected with functioning of clusters. Rich resources of theoretical analyses provide abundant evidence of economic usefulness of clusters. Empirical workshop is in this case much less impressive. In both cases these are microeconomic and macroeconomic analyses. In Poland the development of clusters, planned on the governmental level,

involves a conviction concerning the existence of empirical evidence for [Dzierżanowski (ed.) 2012]:

- increased level of interaction of members of the set up networks, cooperation and exchange of knowledge,
- faster adoption of the existing solutions and knowledge,
- creating new innovative projects,
- development of new intelligent specializations,
- faster transfer of knowledge and technology,
- better use and implementation of the available private and public resources,
- increasing the intensity of private investments on R+D,
- modernization and upgrading of economic structure,
- development of sectors generating high added value,
- greater openness of Polish economy,
- including Polish enterprises and clusters in international cooperative connections,
- increased flow of foreign investments to Poland,
- founding new clusters in areas important from the point of view focused on solving crucial socio-economic challenges.

It is unquestionable that clusters have positive theoretical influence on regional development, yet, there is lack of research concerning the existence of such implications in Poland. Serious doubts arise in this area after reading the research "Benchmarking klastrów" ("Benchmarking of clusters") because the diagnosis of the entire population of Polish clusters was based on the data obtained from questionnaires filled in by coordinators and members of clusters. Entities which are leaders in the created network usually know the theoretical foundations behind the idea of a cluster very well. They are aware at the same time that their declared high potential is a chance for the realization of lucrative projects co-financed by the European funds. As the results of the already finished projects show, not everybody is truly interested in the real participation in the regional development.

3. Key clusters as a new organizational concept

The formula inscribed into the definition of clusters turned out to be insufficient in the practical dimension in Polish socio-economic reality. Decisions made in the area of public policies in the top down mode have re-modelled the environment of clusters. A new procedure of choosing leaders called key national clusters (KKK) was created together with key regional clusters (RKK). Nevertheless, the introduced solution became a real venture contradicting the idea of a cluster present in the definition created by Porter. It does not mean, though, that this definition is the only correct one, still, regardless of its weakness, setting up institutions of coordinators of other coordinators, naturally leads to building new hybrid formations as well as lengthening the chain of agents in development management. Real support given to

entrepreneurs has been shifted to provide benefits to efficient managers, successful at counseling and consulting. As a matter of fact, everything will be carried out according to the assumptions, still with a real risk of copying substitutes for goals characteristic of actions undertaken within the period of programming from 2007 to 2013.

Empirical evidence clearly proves that the very creation of a cluster through its formalization does not guarantee any benefits. Formal structures of a cluster do not provide a remedy to low innovation level of companies. The fact that enterprises participate in such formal structures of a cluster can promote innovative activity of businesses and companies but this positive influence refers to a very small percentage of enterprises, which also means that, in most cases, their presence in a cluster does not necessarily lead to introducing more innovations in the company [Żminda 2011].

Refusing to draw conclusions from experience, both good and bad, seriously hampers development. The fact is that it is not an appropriate solution to build new structures on the foundations of those which proved wrong in practice. Desirable reconstruction or rebuilding of Polish cluster structures has been in practice reduced to formal strengthening of leaders of chosen entities.

3.1. Key national clusters

The definition of key cluster was created on the basis of the major aim of the future cluster policy oriented to strengthening the innovation and competitiveness of Polish economy based on the intensification of cooperation, interaction knowledge flows within clusters as well as supporting the development of strategic economic specializations. Two levels of realizing actions were created, inscribed in the regional and central system [Dzierżanowski (ed.) 2012]. The concept of formation of key clusters has its roots in solutions undertaken within the policy of regional development of EU. The new formula concerning the functioning of clusters is the effect of implementing the ideas of "Europe 2020" strategy and the concept of smart specializations postulated by the European Commission. This concept assumes the concentration of efforts and resources on a specific limited number of priorities or economic specializations [Hołub-Iwan, Wielec 2014].

KKK is defined as a cluster of crucial importance for the national economy and of high international competitiveness. KKK is identified on the national level, among others, on the basis of criteria referring to: critical mass, developmental and innovative potential, existing and planned cooperation as well as the experience and potential of the coordinator [Hołub-Iwan, Wielec 2014]. The definition given above, or rather a description, has a technical character connected with the procedure of forming and emerging of entities applying for doing projects financed partially by the European funds within the period of programming from 2014 to 2020. The mentioned characteristic has been copied by the Ministry of Economy, yet without giving the source.

The appearance of a new organizational form of a cluster was accompanied by the introduction of a new verifying key of subjects entitled to apply for support. This key was the answer to the dedicated financial support. Paradoxically, the new system of ranking was based, to a large extent, on a quantitative assessment derived from the survey research done by the coordinators of clusters who were interested in receiving grants. This option was accepted despite the critical opinions formed during public consultation concerning the project of choosing KKK. "If the system is to be trusted by the target group, it cannot be suspected that people creating the system will be representing the interests of a particular cluster at the same time. Mr Łukasz Wielec, as can be read on his Linked-In profile, is the Vice-President of the Mazovian Cluster ICT. By creating the criteria of choosing key clusters, he becomes a judge in his own case. It infringes credibility and the system image" [Buczyńska et al. 2014]. In fact Mr Łukasz Wielec is not only the Vice-President of the Mazovian Cluster ICT but also a coauthor of two key analyses serving the purpose of incorporation of KKK into Polish reality: raport I "Charakterystyka Krajowego Klastra Kluczowego w oparciu o analize źródeł wtórnych" (Report 1 "The Characteristics of a Key National Cluster based on the analysis of secondary sources") and raport II "Opis systemu wyboru Krajowych Klastrów Kluczowych w Polsce" (Report 2 "The Description of the System of Selecting Key National Clusters in Poland"). In the first report we can read that "[...] in Poland there is a lack of independent sources of complex/detailed information on clusters, in particular, providing constant monitoring system of the key measures of success of the activity of clusters" [Holub-Iwan, Wielec 2014], that are the subjects directly interested in the support. Undoubtedly, the situation is controversial. Still, it is a pity that it has been omitted in the public debate. The fact is that the Mazovian Cluster ICT, represented by Stowarzyszenie Rozwoju Społeczno--Gospodarczego "Wiedza" (the Association of Socio-economic Development "Knowledge") gained the status of KKK in the first round of the contest organized by the Ministry of Economy.

Key national clusters, in the designed shape, are closer to the concept of a cluster initiative rather than a cluster. This, in turn, undermines the durability of the actions planned to be undertaken as the part of projects done in the area of clusters. The new formula passes on the competences on chosen clusters on the basis of doubtful, concerning their quality and impartiality, analyses. Lack of evaluation of the efficiency of the actions undertaken by clusters and for clusters, thanks to the support of public funds, is a serious negligence in the programming of development. Once again it turns out that development in Poland is treated as an arena to formulate solutions which are not examined in practice, where the priority is locating the European funds in such a way that the more and the faster they are spent, the better. Recommendations formulated in the area of public policies are oriented towards ensuring the access of clusters to external public sources of funding. It is to be carried out through supporting the coordinators of clusters in exchange for providing specific services to companies, for example, training services, R&D base or promotion/

advertising on new markets [Plawgo 2014]. Linking the presented concept with the idea of a cluster is highly doubtful. The proposed model is definitely closer to training activity and PR.

3.2. Clusters in regional policy

Numerous theoretical analyses point out to the fact that the existence of clusters has a positive influence on economic condition of the enterprises functioning in them. Through, so called, effect of spreading, clusters influence their environment by increasing the level of innovativeness in regional economy. Still, clusters should not be treated as a way to develop single companies but rather as a mechanism to activate whole regions [Ginter 2013].

Hopes lying in projects done on the basis of clusters, aroused in theory, are not easy to extrapolate in practice. In ex-ante diagnosis among the arguments for the policy of supporting clusters we can find imperfections of public policy. At the same time, it is assumed that cluster policy is able to correct the ineffective policies which were used before because of its cross-cutting nature. In the meanwhile, it is demanded that cluster policy should be constructed in such a way to avoid the risks connected with the imperfection of public policy [Dzierżanowski (ed.) 2012]. Unfortunately, the recommended changes do not have too much in common with economic practice. The aims involved in cluster policy deeply rooted in public policy exist in a sloweddown and bureaucratized system of processes and procedures. Economic activity cannot tolerate emptiness whereas innovations do not stand stoppages and solutions imposed on them. The environment which was created top down does not take these arguments into account. As late as in 2015 terminological arrangement and order was introduced as far as clusters are concerned, adequately to Polish economic practice [Sługocki 2015]. Interpellation (oral question) of Deputies No. 31023 concerning clusters' possible grants gained from European funds from 2015 to 2020 was not answered until 48 days later [Interpelacja ...].

Considering the fact that at present huge public resources inscribed in the fulfillment of the aims of coherence policy have been programmed to support clusters, all actions focused on improving the cluster structures and making them more efficient should be treated as a priority. The continuation of the actions started under the financial perspective between 2007 and 2013 was slightly modified for the period from 2014 to 2020. At present not all the clusters are planned to be financially supported but only the coordinators of clusters on the level of PLN 120 million [Klastry ...]. The planned actions are concentration of support from the resources of cohesion policy of the European Union for implementing investment projects by the enterprises cooperating within clusters.

Operational Programme Smart Growth (PO IR) was supposed to allocate funds especially to projects done by enterprises functioning within Key National Clusters. Activities connected with marketing, branding, national and international networking

will be financed in this way. The support will cover activities performed by coordinators of clusters having KKK status for the benefit of its members. Moreover, additional points are planned to be used during assessing applications submitted in competitions in different actions of PO IR by the enterprises forming KKK. Potential benefits for a company, resulting from belonging to KKK are, in this case, undeniable. Projects should deal with internationalization as well as development of cooperation with external companies. Operational Programme Eastern Poland (PO PW), in turn, creates an opportunity for clusters which are part of transregional cooperative connections to apply for financial support for activities aiming at creating innovative products or services on the national level through implementing the results of their R&D work. What is more, within Regional Operational Programmes (RPO), depending on a specific range of support in particular programs, investments of entities are planned to be made in cooperation with other companies, educational institutions as well as specialized business support institutions [Sługocki 2015].

Regardless of the diagnosed system disadvantages of supporting clusters in the past decade, still no corrective actions have been undertaken. The assessment of actions undertaken by clusters and for the benefit of clusters in the qualitative dimension is almost absent in strategic analyses. Development programming in the conditions of the socio-economic environment changing dynamically cannot refer to well-worn theories in the coming years but the implemented solutions should be validated as soon as possible.

4. Conclusions

Today the power of a country is not determined by its vast territory but, above all, by its quality understood as the ability of administrative services to perform activities "smarter and faster" in the face of free market [Makarewicz-Marcinkiewicz 2013]. Adopting different areas of free market and determining the desirable directions of development as well as assuring their financing within public funds, Poland has caused a situation in which entities of national economy are segregated. Clusters are an example of such segregation. The connection between clusters and regional development was included in the frame of new institutional economy. Institutions responsible for programming of the regional development and implementing operational actions, in this respect in a very technocratic way, have inscribed in the process of supporting clusters so far.

Poland needs a diagnosis of credible and genuine structure presenting quantity and quality of clusters and their potential. Nevertheless, this cannot be performed through survey research aimed at coordinators of clusters. Entities which are leaders in the created network in most cases know the theoretical basics lying behind the concept of a cluster. At the same time they are aware that their declared high potential is a chance to carry out profitable projects co-financed by European funds. As the

results of the already finished projects show, not all entities are focused on real participation in regional development. Full monographic research of representative clusters constitutes a true opportunity of learning about their actual connection with regional development in the context of the members of a cluster. It is even more needed because key national clusters are closer to the definition of cluster initiatives instead of that of clusters.

Creating the institution of key national clusters has to be perceived as impossible to understand regarding lack of an assessment of efficiency of activities undertaken and finished by clusters so far. Focusing on the organizational structure of the existing and formed entities cannot blur the aim inscribed in the economic dimension of network configuration. Giving key national clusters the tasks including specialized and professional training and coaching as well as marketing activities will not influence development. Efficient constructing of international competitiveness of economy in the created formal and organizational system is doubtful. Unquestionable popularity of clusters in Poland is, first of all, perceiving them as an attractive business model.

Paradoxically, a group of recently appointed key national clusters is formed by a cluster, whose vice-president was the author of an ex ante analysis creating the frame for functioning of this type of organizations in Poland. A team of experts establishing the criteria of selecting KKK should be impartial and uncommitted, but this rule has been evidently broken. Relying on declarations of cluster coordinators while choosing them in the situation when they were gathered according to the rules formulated by one of them, is a vivid example of activity resulting in market segregation. Instead of creating new organizational and institutional options having weak foundations, due to their basing on unproven subjects/entities, other solutions should be produced which will lead to optimal allocation of European funds.

References

I runda Konkursu o status Krajowego Klastra Kluczowego, information from 20.10.2015, http://www.mg.gov.pl/Wspieranie+przedsiebiorczosci/Polityki+przedsiebiorczosci+i+innowacyjnosci/Klastry/I+runda+Konkursu+o+status+Krajowego+Klastra+Kluczowego (access 26.10.2015).

Acemoglu D., Robinson J.A., 2014, Dlaczego narody przegrywają, Zysk i S-ka, Poznań.

Buczyńska G., Frączek D., Kryjom P., 2014, Raport z konsultacji społecznych projektu Systemu Wyboru Krajowych Klastrów Kluczowych, PARP, Warszawa.

Dzierżanowski M. (ed.), 2012, Kierunki i założenia polityki klastrowej w Polsce do 2020 roku. Rekomendacje grupy roboczej ds. polityki klastrowej, PARP, Warszawa.

Ginter M., 2013, Klastry jako lokalna polityka stymulowania przedsiębiorczości na przykładzie województwa lubelskiego, Nauki o Zarządzaniu, no. 3(16), pp. 21-35.

Holecki T., Romaniuk P., 2015, *Administracja publiczna wobec regionalnych inicjatyw klastrowych*, Studia Ekonomiczne, no. 209, pp. 65-73.

Hołub-Iwan J., Wielec Ł., 2014, Opracowanie systemu wyboru Krajowych Klastrów Kluczowych. Część I: Charakterystyka krajowego klastra kluczowego w oparciu o analizę źródeł wtórnych, PARP, Warszawa.

- Interpelacja nr 31023 w sprawie możliwości korzystania przez klastry w latach 2015-2020 ze środków europejskich, http://www.sejm.gov.pl/sejm7.nsf/interpelacja.xsp?typ=INT&nr=31023 (access 10.10.2015).
- Jankowska B., 2012, Koopetycja w klastrach kreatywnych. Przyczynek do teorii regulacji w gospodarce rynkowej, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań.
- *Klastry ważny element ekosystemu innowacji*, information from 22.09.2015, https://www.mir.gov.pl/strony/aktualnosci/wpisz-tytul-6 (access 02.11.2015).
- Kowalski A.M., 2013, Znaczenie klastrów dla innowacyjności gospodarki w Polsce, Oficyna Wydawnicza SGH. Warszawa.
- Makarewicz-Marcinkiewicz A., 2013, Nowa Gospodarka. Uwarunkowania polityczne i konsekwencje społeczne, Wydawnictwo Adam Marszałek, Toruń.
- Plawgo B., 2014, *Benchmarking klastrów w Polsce edycja 2014. Raport z badania*, PARP, Warszawa. Porter M., 2001, *Porter o konkurencji*, PWE, Warszawa.
- Sługocki W. (the Secretary of State in the Ministry of Infrastructure and Development), *Odpowiedź na interpelację nr 31023 w sprawie możliwości korzystania przez klastry w latach 2015-2020 ze środków europejskich*, information from 31.03.2015, http://www.sejm.gov.pl/Sejm7.nsf/Interpelacja-Tresc.xsp?key=1C7D0FD5 (access 10.10.2015).
- Sölvell Ö., Lindqvist G., Ketels Ch., 2003, *The Cluster Initiative Greenbook*, Ivory Tower AB, Stockholm
- Szymoniuk B., 2014, *Polityka klastrowa dobrodziejstwo czy przekleństwo dla polskich klastrów?*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, no. 369, vol. 2, pp. 212-221.
- Żminda T., 2011, Rola klastrów w kształtowaniu innowacyjności przedsiębiorstw na przykładzie województwa lubelskiego, Organizacja i Zarządzanie, no. 4(16), pp. 141-159.