

[Draft – please do not cite]

The performance of sub-national biodiversity governance – insight from practitioners in Małopolska region, Poland

Agata Pietrzyk-Kaszyńska and Małgorzata Grodzińska-Jurczak
Jagiellonian University, Institute of Environmental Sciences
Gronostajowa 7
30-387 Kraków, Poland
Email: agata.pietrzyk@uj.edu.pl

Abstract

The following paper explores sub-national interactions in biodiversity governance in a view of practitioners and experts from local and regional administrative levels. A case study for our research was Małopolska region in Poland. Poland itself is an interesting country to analyze international influences on governance at lower levels - mostly due to accession to European Union and because of emerging multi-level governance. Małopolska is a particular region of Poland with valuable biodiversity and high proportion (60%) of territory under some form of protection.

The paper presents the results of quantitative research conducted among representatives of local authorities and of regional nature conservation and environmental institutions in Małopolska. The overall objective of the study was to compare perspectives of various practitioners on nature conservation system and its performance at sub-national level. The main research goals referred to (1) differences of various stakeholders' opinions on the performance of nature conservation institutions within Małopolska and (2) perceived legitimacy of biodiversity governance mechanisms. To analyze the prior we asked a set of questions concerning the cooperation of institutions at various levels, responsibilities division, public participation, effectiveness of undertaken actions, accuracy of law and procedures etc.

To investigate the latter, we asked about respondents' opinion on site selection and management processes of Natura 2000 sites (types of knowledge used, stakeholders included, result of the process etc.).

We describe and specify the similarities and differences in opinions of practitioners from local and regional level and we endeavor to assess the legitimacy of chosen governance mechanisms.

Introduction

Over the last decades the change from government towards governance has been observed in majority of developed countries. This change concerned, in short, a shift from traditional, top-down, command-and control approaches in policy-making with a central role of the state towards wider inclusion of various actors into decision-making processes, enhancing private-public partnership, emergence of new institutional arrangements etc. (Swyngedouw 2005, Kluvankova-Oravska et al. 2009, Hogl et al 2012). Even there is no common definition of 'governance' (van Kersbergen and van Waarden 2004, Jordan et al. 2005, Biermann et al. 2009, Hogl et al. 2012), environmental governance refers to broad processes and institutions through which societies make decisions that affect the environment (Lemos and Agrawal 2006, Paavola 2007, Armitage et al., 2012). Similarly, biodiversity governance, as one of the elements of environmental governance, encompasses a wide spectrum of institutions, state and non-state actors, their actions and interrelations as well as processes in which they take part that influence the state of biodiversity. Therefore, biodiversity governance (in contrast to government) implies extended public participation in decision-making process as well delegation of responsibilities to lower levels of administration. Participation aims to improve effectiveness of the governance (Newig and Kvarda 2012) and increase its legitimacy (Biermann 2007). Both notions – effectiveness and legitimacy – are important criteria for biodiversity governance, the latter having, to a certain extent, a potentially positive impact on the former (Hogl et al. 2012).

Assessing legitimacy of the process is not an easy task, particularly due to multiple interpretation of this term. Still, some criteria can be defined, such as, for example, procedural justice and representation (who makes and implement decisions and how, who is involved in

the process (Adger et al. 2003, Green 2010)), trust amongst stakeholders (Green 2010), social approval of using power (Wallington et al. 2008). Another approach to assess legitimacy is to focus on either input or output legitimacy (or both). Input legitimacy relates to democratic processes, the way environmental institutions perform, while output legitimacy refer to the outcomes of the process, i.e. successful solving the problem (van Kersbergen and van Waarden 2004, Hogl et al. 2012).

In this paper we refer to the process of making decisions on Natura 2000 sites in Małopolska (one of Polish administrative regions - voivodship) in the context of actors involved and information used in the process, power and influence relations among actors, perception of those who benefit and those who lose according to various stakeholders etc. We therefore analyse some aspects of sub-national biodiversity governance performance. This kind of analysis is contextual and the frame of references to assess the governance performance or its legitimacy can be slightly different depending on the analysed case. Beside the fact that the local context is usually shaping local governance, it also influences conservation outcomes at higher levels (regional, national) and eventually is interpreted and summed up internationally. On the other side, sub-national levels are often ignored in international agreements or documents as they are not recognized in the process of decision-making (Happaerts 2012). There is also, to a certain extent, a scepticism concerning the analysis of local environmental policies, that stem from the “ideal that local environmental action alone is insufficient to address the complex causes of the contemporary ecological crisis” (Gibbs and Jonas 2000). Yet, local level stakeholders and institutions, and local governments in particular, have an important and, in certain cases, crucial role in both environmental and biodiversity governance .

Poland as a country in transition

For the last twenty years, Poland has undergone major political and institutional changes stemming from a turnover from a communistic to a democratic country in 1989 and from the European Union (EU) accession in 2004, both of which are seen as the most important stepping stones in Poland's and other Central Eastern Europe (CEE) countries' latest history (Tickle & Clarke 2000, Kluvánková-Oravská et al. 2009). In the 90's Poland and its society was subjected to a very intensive process of change that affected economy, institutions, social structures and modes of behavior within society, creating a mixture of old and new approaches of democracy (Bernhardt 1996). Joining the EU was seen by many people as a

kind of guarantee to maintain democracy (Sadurski 2006). In fact, the accession imposed a wide spectrum of requirements on Poland concerning legislative changes which in turn implicated organizational and institutional reforms. The requirements had, among others, a strong influence on biodiversity governance, resulting in a gradual institutional change and in consequence progressive development of multi-level governance (Kluvánková-Oravská et al. 2009). Before the accession, tradition, understanding and practice of public participation had not been well-developed in Poland (Bell et al. 2008, Vandzinskaite et al. 2010, Bell et al. 2011, Grodzińska-Jurczak & Cent 2011). After the legislative changes imposed on Poland by the EU, the involvement of non-state actors and inclusion of wider public, also from lower administrative levels, have been enhanced (Bell et al. 2008, Börzel and Bugozány 2010). Even though the above mentioned changes explicitly influenced on the shape and performance of environmental governance in Poland, it can still be seen as a hybrid system – a mixture of old, hierarchical and new institutions and processes (Kluvánková-Oravská et al. 2009).

The dynamics of change in environmental governance in Poland after accession to the EU is best illustrated by the case of Natura 2000 network implementation. The process provoked considerably strong opposition, mostly among local level governments and other local stakeholders (foresters, farmers, entrepreneurs among others) (Weber and Christophersen 2002, Grodzińska-Jurczak and Cent 2010). Even though the designation process was legally secured by the obligation of public consultation of the proposed borders, the implementation of Natura 2000 network was assessed inefficient and with insufficient information flow and public participation (NIK 2008). The evolution of biodiversity governance in Poland is still explicit and rather dynamic and still Natura 2000 network management is one of the focal point of this process.

In this paper, we analyse opinions and judgements of people working at sub-national levels within formal (state) biodiversity governance structure. The overall goal of the presented research was to compare perspectives of various practitioners on nature conservation system and its performance at sub-national level. We aimed to shed a light on the legitimacy of the process of Natura 2000 implementation and juxtapose different perspectives on that process.

Methods

Research area

This research was conducted in one of 16 Polish voivodships – Małopolska. This voivodship consists of 182 municipalities (*gmina*) that – according to Polish legislation – constitute the basic and the lowest administrative unit in Poland’s administrative division. Małopolska is a particular in comparison with other voivodships of Poland. Six out of 23 Polish national parks are situated in this region. Almost 60% of its surface is under some form of protected areas whereas in Poland 32,4% is within some form of protection (majority - less rigorous protection, i.e. Areas of Protected Landscape, landscape protection area). Almost 17% of the voivodship’s surface is covered with Natura 2000 network (for Poland it’s almost 20%). Thus, Małopolska is a region of significant proportion of valuable biodiversity elements as well as a territory of wide-ranging nature conservation. Additionally, majority of municipalities’ representatives is familiar with the process of Natura 2000 sites designation mostly due to the pilot project of public consultation conducted in the region (Cent et al. 2010, Grodzińska-Jurczak and Cent 2010).

Sampling procedure

The study was done among representatives of all of Małopolska’s municipalities (182). Detailed questions on Natura 2000 designation and implementation process were asked only to representatives of the municipalities where the sites had been designated (114 in Małopolska). To reach a higher response rate and to explore possible differences between two groups of respondents, we sent the questionnaire both to local politicians and clerks responsible for environmental issues. We applied a mix mode survey and gave the respondents a choice of the best fit method of filling in the questionnaire. They could choose between e-mail survey and survey sent by a traditional post. In second and third round of phone calls (reminders) respondents were also offered the arrival of researchers to their municipality for face-to-face survey. In all, 144 surveys from 108 municipalities were filled in (response rate 59,34%), from which 78 municipalities have Natura 2000 site on its territory (out of 114 in Małopolska, 68% response rate). In the second phase of the research we sent modified questionnaire to people working at a regional (voivodship) level for nature conservation and other environmental public institutions as well as to scientific expert working on biodiversity and nature protection within Małopolska. In total, 105 questionnaire was sent and 75 people responded for the survey (response rate 71%).

Results

Nature conservation system in the view of local level authorities

Local level (LL) authorities' representatives in Małopolska assess that the nature conservation is effective in their municipality (59%), only 14% do not agree with this. More than a half (57%) claim that nature in their municipality is unique. Majority agree that due to nature conservation, the air is clean (69%) and so is the water (70%) in the neighborhood and also that the state of nature affects inhabitants' well-being (61%). Only marginal part disagree with the statement saying that nature conservation should be a priority in Poland (27% neither agree, nor disagree, 36% somewhat agree, 25% strongly agree). A significant part of local authorities' representatives also acknowledge that the nature conservation system is effective in Poland (61%) as well as in Małopolska region (64%).

Even though local governments claim to cope well with making decisions related to nature conservation (83% agree), there are some drawbacks of the system seen by LL representatives. According to some of the respondents, responsibilities of local governments are too big in comparison to the financial and professional (human resources) support, while the legal basis and practical procedures are, according to part of respondents, questionable (Tab. 1).

Local respondents assessed the cooperation with regional authorities for nature conservation to be neither good nor bad (30%), good (54%) and very good (11%). Still, they would prefer to have wider support from the regional level, as illustrated in Table 2.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Responsibilities on local authority in my municipality are too big in comparison to the financial outlays	2%	7%	21%	34%	35%
Responsibilities on local authority in my municipality are too big in comparison to the qualifications of the staff	12%	22%	25%	30%	11%
In my municipality number of employees responsible for nature conservation is sufficient to the amount of work to be done	11%	31%	23%	27%	8%
The legal basis for making decisions about protected areas in the municipality are clear	7%	19%	20%	43%	10%
Decision-making procedures related to nature conservation at the municipal level are appropriate	4%	17%	21%	46%	12%
Local government in my municipality copes well with making decisions relating to nature conservation that is within its responsibilities	2%	9%	6%	61%	22%
Nature conservation on a national scale requires above all action at the national rather than local	12%	24%	21%	27%	16%
Nature conservation limits the development of the municipality	15%	17%	39%	21%	8%

Table 1. Summary of LL respondents for questions on nature conservation system performance in their municipality.

	advice, consultancy	financial support	support in a form of projects implemented in the municipality	other	the municipality does not get/need any support
What kind of support does your municipality get from regional nature conservation authorities?	68%	21%	12%	1%	22%
What kind of support does your municipality need from regional nature conservation authorities?	64%	90%	53%	1%	1%

Table 2. Needed and received support from regional level in LL respondents' declarations.

Local versus regional perception of nature conservation system

Opinions on nature conservation system effectiveness presented by regional level (RL) representatives are not that consistent as among people from the local level. 41% say that the nature conservation system is effective in Poland and 47% say the same with respect to Małopolska, the proportion of those who disagree is comparable – accordingly 42% and 37%. In general, regional representatives are more critical and not that unanimous as those from the local level, their answers on nature conservation system effectiveness in Poland are almost evenly distributed on the five-point Likert scale, whereas LL representatives assess it as more effective (N=206, $p < 0,01$, $\chi^2 = 25,55$).

Fundamental differences concern opinions on how local authorities cope with making decisions on nature conservation that are within their responsibilities (local level representatives were asked only about their municipality, regional representatives were asked in general about municipalities in Małopolska). While LL representatives claim that they cope well with decision-making (61% ‘somewhat agree’ and 22% ‘strongly agree’), majority of RL assess that it’s not that good (41% ‘somewhat disagree’, 16% ‘strongly disagree’ and 25% neither agree nor disagree (N=208, $p < 0,001$, $\chi^2 = 81,251$)). Similarly, when asked about respondents’ assessment of cooperation between local level authorities and regional authorities responsible for nature conservation, LL has much more positive opinion (N=194, $p < 0,01$, $\chi^2 = 32,9$) (see Tab. 3).

		very poor	rather poor	neither poor, nor good	rather good	very good
How do you assess the cooperation between regional NC and local authorities?	local	0%	5%	30%	54%	11%
	regional	3%	23%	45%	29%	0%
		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Local authorities cope well with decision-making concerning NC that are within their scope of responsibilities	local	2%	9%	7%	61%	22%
	regional	16%	41%	25%	14%	4%

Table 3. Comparison of LL and RL respondents’ answers on mutual cooperation and coping with the responsibilities related to nature conservation by local authorities.

Respondents from both levels are quite consistent on the cost and benefits distribution related to nature conservation (Fig. 1). Although LL respondents more often claim that the costs are borne by local inhabitants (34% to 25% at RL) and less often that nobody bears the cost (26% to 36%), it is still not a statistically significant difference. The benefits of nature conservation are assessed differently ($\chi^2=29,373, p<0,01$) – LL claims that Polish society (53%), local inhabitants (50%) and local forestry (24%) office gain the most and 10% say that nobody has any benefits, while RL responds that society (72%), local inhabitants (37%) and ‘other group’ (19%) gain the most and only 4% say that nobody has any benefits.

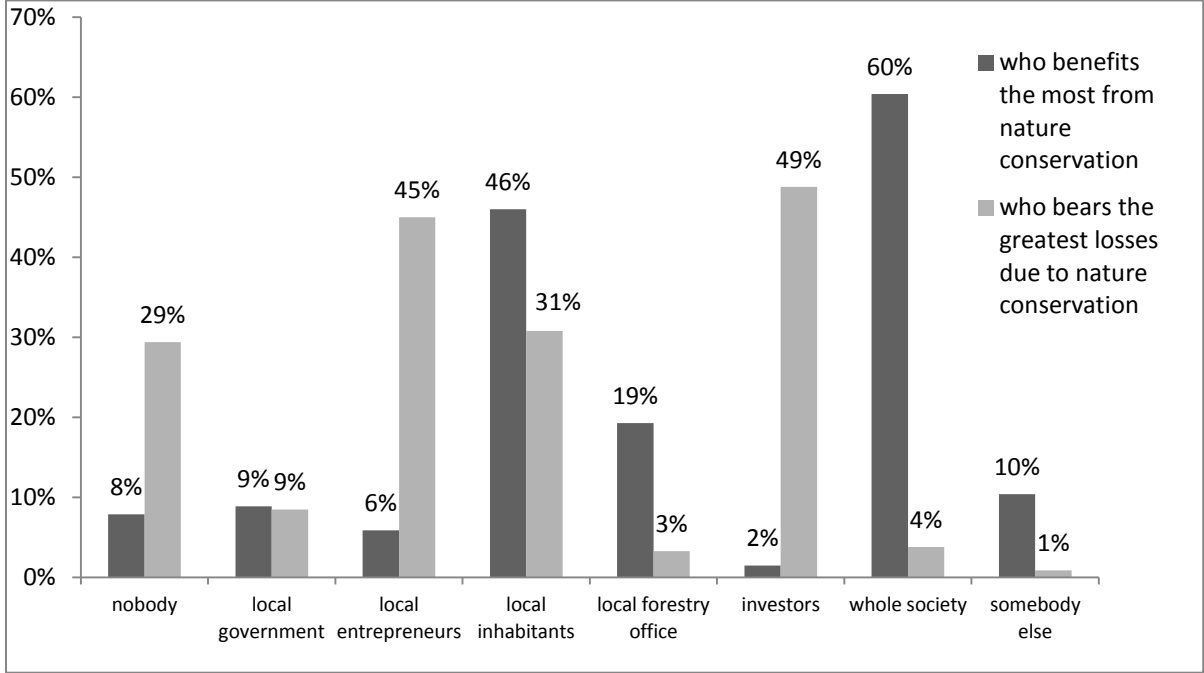


Figure 1. Distribution of costs and benefits of nature conservation according to LL and RL representatives (data from all respondents presented together).

The actual share of influences does not go in line with the desired share. According to the respondents, EU has much stronger influence on environmental decision-making in Poland, that it should have while the lowest administrative levels – community and district – have much weaker influence than they should have (Tab. 4).

	Average rank the level should have	Average rank the level has	Wilcoxon signed-rank test (p-value)	Influence of each level representative on nature conservation in Poland
EU	4,01	1,96	0,000	Too strong
national	2,34	2,19	0,045	Too strong
voivodship	2,49	2,66	0,041	Too weak
district	3,2	3,96	0,000	too weak
municipality	2,89	4,16	0,000	Too weak

Table 4. Responses to the questions ‘How strong or weak influence on nature conservation in Poland should have/has in reality each administrative level?’. Data from all the respondent presented together. Respondents were asked to rank administrative levels from 1 – having (or should have) the strongest influence on Polish nature conservation system, to 5 – having (or should have) the weakest influence. P-value calculated using Wilcoxon signed-rank test.

The most distinct differences between the two levels’ respondents are observed in relation to the desired order of influential levels – LL representatives wish for stronger influence of municipalities and lesser role of the EU and national levels than RL representatives. In reference to the actual balance of power LL more clearly points on itself to be the less influential and on the European level to be extremely influential.

	Which rank should have the level according to local level (LL) and regional level (RL) representatives			Which rank the level have in practice according to local level (LL) and regional level (RL) representatives		
	LL	RL	p-value	LL	RL	p-value
EU	4,19	3,62	0,006	1,86	2,21	0,023
national	2,52	1,99	0,022	2,11	2,37	0,121
voivodship	2,47	2,52	0,897	2,72	2,57	0,338
districs	3,12	3,38	0,082	3,93	3,97	0,570
municipality	2,62	3,43	0,000	4,29	3,9	0,034

Table 5. Responses to the questions ‘How strong or weak influence on nature conservation in Poland should have/has in reality each administrative level?’ by groups of respondents. Average ranks for each administrative level. P-value calculated using U-Mann-Whitney test.

Natura 2000 designation in Malopolska

Natura 2000 designation process was assessed by all the respondents in relation to type of information used during the process and the extent to which opinions of particular stakeholders were influential on the outcome of the process. Respondents from regional level pointed out much more information sources used while site designation in the region. Respondents from local level were asked only about types of information used in their municipality but still they indicated mostly scientific knowledge and official documents as knowledge sources (Fig. 2).

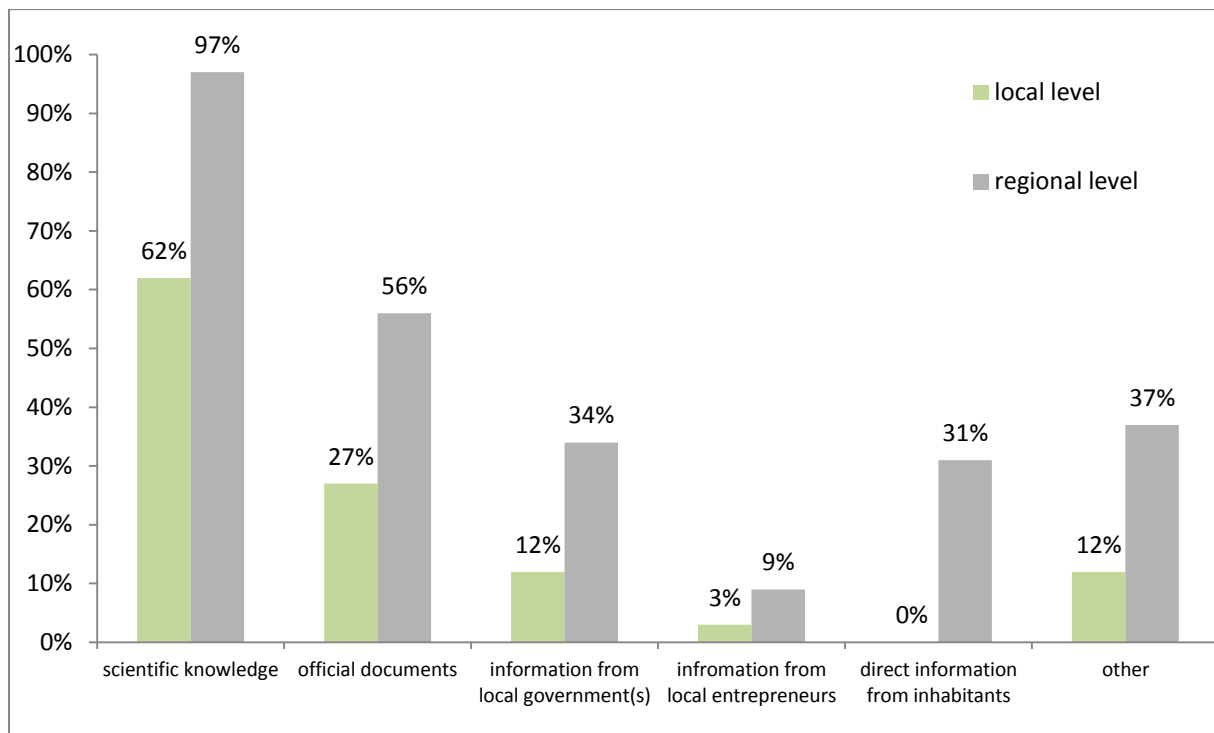


Figure 2. Types of information used during Natura 2000 sites designation in Małopolska according to LL and RL respondents. Percent of the observations (each respondent could choose all the information types that were used in his/her opinion).

In relation to the opinions taken into account while designating Natura 2000 sites there is a common conviction that scientists', regional authorities' (RDEP's), Ministry's and NGOs' opinion were included in the process and local entrepreneurs' opinions were ignored (Tab. 6). However, perception of local governments' and inhabitants' influences is significantly different. LL representatives claim that both local governments and local inhabitants were ignored while RL point out that both groups were included ($p < 0,01$ $\chi^2 = 16$ for opinion on local governments and $p < 0,01$ $\chi^2 = 24,729$ for opinion on inhabitants).

	definitely ignored		somewhat ignored		neither ignored, nor included		somewhat included		definitely included	
	LL	RL	LL	RL	LL	RL	LL	RL	LL	RL
Scientists, experts	0%	3%	0%	3%	6%	0%	22%	22%	72%	72%
RDEP	0%	3%	0%	3%	6%	0%	45%	28%	48%	65%
Ministry of Environment	4%	0%	0%	5%	10%	15%	34%	40%	52%	40%
Local Governments	41%	8%	35%	38%	8%	27%	9%	23%	8%	4%
NGOs	0%	4%	6%	8%	15%	4%	30%	69%	48%	15%
inhabitants	52%	11%	29%	39%	9%	29%	2%	21%	9%	0%
Local entrepreneurs	57%	26%	27%	35%	10%	30%	0%	9%	5%	0%

Table 6. Summary of the responses to the question ‘To what extent the opinions of particular groups have been taken into account while Natura 2000 designation?’ by LL and RL respondents (the former asked about their own municipality, the latter about the region in general).

In relation to information used and influences on a shape of Natura 2000 network, LL representatives were asked whether their local government sent a comment to the Ministry in respect to Natura 2000 planned on municipality’s territory (which was a sort of formal public consultation process during the designation process in Poland). 64% of LL respondents claimed that their local government sent a comment and only 13% of them claimed that the comment was partially included into the later designation outcome (no one said it was fully included), 70% that it was ignored and 17% did not know what was the reaction on the sent comment. Respondents from LL were careful in judging the ecological effects of designation process – on question if Natura 2000 site designation influenced on better conservation of local nature, LL representatives answered affirmatively but this affirmation was not common (25% ‘rather not’, 28% ‘neither yes nor no’, 34% ‘rather yes’, 13% ‘definitely yes’). RL representatives were more positive about ecological outcomes – when asked if Natura 2000 sites designed in the whole region (Małopolska) influence on better biodiversity conservation, 62% replied ‘rather yes’ and 30% ‘definitely yes’. Respondents from RL who participated in Natura 2000 designation process were also asked to assess it in terms of several criteria. The efficiency of carrying out the process in Małopolska was assessed as ‘rather good’ (53%) or ‘definitely good’ (6%), similarly covering with Natura 2000 protection all the habitats and species to the extent that was needed was judged positively (56% ‘rather yes’ and 13% ‘definitely yes’). However, the participation of all stakeholders in the process was assessed

more ambiguously – 34% of RL respondents claimed it was not proper and 41% on the contrary.

Discussion

Research conducted among local and regional level representatives working in environmental sections of public administration gives a contribution to several aspects of the discussion on sub-national biodiversity governance. Firstly, the research revealed that LL representatives are rather laudatory in relation to the performance and effectiveness of biodiversity governance at the local level and at the same time they claim the burden of biodiversity conservation to fall on the local level. In general, they claim that nature conservation is effective, the cooperation with RL is good and local level is coping well with all the responsibilities. And at the same time, they feel aggrieved by the conservation measures. Secondly, RL representatives are clearly more skeptical towards biodiversity conservation effectiveness at the local level as well as towards local authorities' operation in this respect. Thirdly, there are major differences between LL and RL respondents in assessing the legitimacy of Natura 2000 designation process in the region. Respondents from LL pointed out less – comparing to RL respondents - information/knowledge sources used in their municipality while sites designation process. LL representatives claimed that both local governments and local inhabitants were ignored during the process while RL stated that both groups were included. LL remarked that majority of local governments' comments referring to Natura 200 sites borders were ignored or rejected. Nonetheless, RL sees the legitimacy of the designation process higher, people from RL assess it was conducted properly and the outcomes are relatively good.

Previous research carried on in Poland demonstrated that not so much concern is given to environmental issues by the society (Bołtromiuk and Burger 2008) and local governments' representatives (Grodzińska-Jurczak and Cent 2010). It was also observed that local authorities clearly prioritize development (mostly infrastructure development) over environmental protection (Judge et al. 2004). Due to those reasons and because of the mode of Natura 2000 designation, the implementation of the program provoked a lot of insecurity and resistance among various stakeholders groups, mostly from the local level throughout the European Union (Hiedanpää 2002; McCauley 2008, Keulartz 2009, Pietrzyk-Kaszyńska et al. 2012). In general Natura 2000 implementation may serve as an argument that top-down

actions must be supported by inclusive, participatory approach allowing all the stakeholders to take part in decision-making and – to a possible extent – influence the final outcome. Local level actions and local performance of biodiversity governance is of particular importance to maintain valuable sites and species. In practice, in many developed countries more and more responsibilities is put into hands of local authorities as they are seen as a significant part of national and international environmental programs (Gibbs and Jonas 2000). This process of scaling downwards the responsibilities is however not accompanied by scaling upwards the needs and perceptions of biodiversity governance at the local level. It should be acknowledge that decision makers from various levels have different values and different priorities for biodiversity conservation (Arponen et al. 2005, Moilanen and Arponen 2011) . In fact, as our research also revealed, perception of governance actions and processes at the higher (here: regional) level is not equal to the ‘sum of perceptions’ of the same actions at the lower (local) level. Similarly, interpretation and perception of legitimacy of biodiversity governance is different at different governance levels, as exemplified in this manuscript. Those differences are often significant but still in day-to-day practice these differences are rarely taken into account and the general assessments, summaries or policy solutions are based on more vague and approximate perception from regional or national level. This might, and probably in many cases does, distort the picture of biodiversity governance performance at the national scale. Based on this picture strategic, long-term planning, legal acts or projects are made which from the very beginning diminish their potential to improve the governance.

Based on the results of the quantitative research done among local and regional level representatives in Małopolska on nature conservation system perception and Natura 2000 designation, we conclude that perception on both biodiversity governance and legitimacy of certain processes within governance is different for practitioners and experts from different administrative levels. Thus, we draw attention to the need of scaling upwards perspectives and judgments of people working at lower administrative levels instead of oversimplify them with general judgments of higher-level policy-makers.

Acknowledgement

The study described here was based on research supported in part by SCALES project (*Securing the Conservation of biodiversity cross Administrative Levels and spatial, temporal and Ecological Scales*) funded by the European Commission (FP7, grant 226 852). The leading author of this manuscript completes her PhD at the Jagiellonian University, Kraków, Poland and has been awarded a stipend within the program "Doctus – Małopolski fundusz stypendialny dla doktorantów" co-financed by the European Union under the European Social Fund.

References

- Adger W. N, Brown, K., Fairbrass, J., Jordan, A., Paavola, J., Rosendo, S. and Seyfang, G. (2003) Governance for sustainability: towards a 'thick' analysis of environmental decisionmaking. *Environment and Planning A* 35: 1095-1110
- Armitage, D., de Loë, R. and Plummer, R. (2012), Environmental governance and its implications for conservation practice. *Conservation Letters*, 5: 245–255
- Arponen, A., Heikkinen, R.K., Thomas, C.D., Moilanen, A. (2005). The value of biodiversity in reserve selection: representation, species weighting, and benefit functions. *Conservation Biology* 19: 2009–2014.
- Bell, S., Marzano, M., Cent, J., Kobierska, H., Podjed, D., Vandzinskaite, D., Reinert, H., Armaitiene, A., Grodzińska-Jurczak, M. & Muršič, R. (2008). What counts? Volunteers and their organizations in the recording and monitoring of biodiversity. *Biodiversity and Conservation* 17: 3443–3454.
- Bell, S., Reinert, H., Cent, J., Grodzińska-Jurczak, M., Kobierska, H., Podjed, D. & Vandzinskaite, D. (2011) Volunteers on the political anvil: citizenship and volunteer biodiversity monitoring in three postcommunist countries. *Environment and Planning C: Government and Policy*, 29: 170–185.
- Bernhardt, M. (1996) Civil society after the first transition: dilemmas of post-communist democratization in Poland and beyond. *Communist and Post-Communist Studies* 29(3): 309–330
- Biermann, F., Betsill, M. M., Gupta, J., Kanie, N., Lebel, L., Liverman, D., Schroeder, H., Siebenhüner, B., (with contributions from Conca, K., da Costa Ferreira, L., Desai, B., Tay, S. & Zondervan, R.) (2009). Earth system governance: people, places and the planet. Science and implementation plan of the earth system governance project. *Earth System Governance Report 1*, IHDP Report 20. Bonn: IHDP.

- Bołtromiuk, A. & Burger, T. (2008) Polacy w zwierciadle ekologicznym. Raport z badań nad świadomością ekologiczną Polaków w 2008 r. Warszawa, Polska, Institute for Sustainable Development
- Börzel, T. & Buzogány, A. (2010) Environmental organisations and the Europeanisation of public policy in Central and Eastern Europe: the case of biodiversity governance. *Environmental Politics* 19: 708-735.
- Cent, J., Grodzińska-Jurczak, M. & Nowak, N. (2010) Ocena efektów małopolskiego programu konsultacji społecznych wokół obszarów Natura 2000. [Public consultation programme Natura 2000 sites in Małopolska - effects' evaluation]. *Chrońmy Przyrodę Ojczyznę*, 66(4): 251-260.
- Gibbs D., and Jonas, A.E.G. (2000) Governance and regulation in local environmental policy: the utility of a regime approach. *Geoforum* 31: 299-313
- Green, D.R. (2010) The role of Public Participatory Geographical Information Systems (PPGIS) in coastal decision-making processes: An example from Scotland, UK. *Ocean & Coastal Management* 53: 816-821
- Grodzińska-Jurczak, M. & Cent, J., (2011) Expansion of nature conservation areas: problems with Natura 2000 implementation in Poland? *Environmental Management*, 47: 11–27.
- Happaerts, S. (2012) Are you Talking to us? How Subnational Governments Respond to Global Sustainable Development Governance. *Environmental Policy and Governance* 22: 127–142
- Hiedenpää J. (2002) European-wide conservation versus local well-being: the reception of the Natura 2000 Reserve Network in Kavia, SW-Finland. *Landscape and Urban Planning* 61: 113-123.
- Hogl, K., Kvarda, E., Nordbeck, R. and Pregernig, M. (2012) Legitimacy and effectiveness of environmental governance – concepts and perspectives, In: Hogl, K., Kvarda, E., Nordbeck, R. and Pregernig, M. (Eds.) *Environmental Governance. The Challenge of Legitimacy and Effectiveness*. Edward Elgar Publishing Limited, Cheltenham, UK, Northampton, MA, USA.
- Hunter, M.L., Hutchinson, A., 1994. The virtues and shortcomings of parochialism: conserving species that are locally rare, but globally common. *Conservation Biology* 8, 1163–1165.
- Jordan, A., Wurzel, R.K.W. & Zito, A. (2005) The Rise of ‘New’ Policy Instruments in Comparative Perspective: Has Governance Eclipsed Government? *Political Studies* 53: 477–496
- Judge, E.J, Werpachowski, K., Wishardt, M. (2004) Environmental and economic development issues in the Polish motorway programme: some findings on local authority attitudes. *Journal of Transport Geography* 12: 287–299
- Keulartz, J. (2009). European Nature Conservation and Restoration Policy—Problems and Perspectives. *Restoration Ecology*, 17: 446–450

- Klůvankov-Oravsk, T., Chobotov, V. & Banaszak, I. (2009) From Government to Governance for Biodiversity: The Perspective of Central and Eastern European Transition Countries. *Environmental Policy and Governance*, 19: 186–196.
- Lemos, M.C. & Agrawal, A. (2006) Environmental Governance. *Annual Review of Environment and Resources* 31: 297-325
- McCauley D. (2008) Sustainable Development and the ‘Governance Challenge’: the French Experience with Natura 2000. *European Environment* 18: 152-167.
- Moilanen, A. and Arponen, A. (2011) Administrative regions in conservation: Balancing local priorities with regional to global preferences in spatial planning. *Biological Conservation* 144: 1719–1725
- NIK, (2008) Informacja o wynikach kontroli wdrażania ochrony na obszarach Natura 2000. [www document] URL <http://www.nik.gov.pl/kontrole/wyniki-kontroli-nik/kontrole,1664.html>
- Newig, J. and Kvarda, E. (2012) Participation in environmental governance: legitimate and effective? In: Hogg, K., Kvarda, E., Nordbeck, R. and Pregernig, M. (Eds.) *Environmental Governance. The Challenge of Legitimacy and Effectiveness*. Edward Elgar Publishing Limited, Cheltenham, UK, Northampton, MA, USA.
- Paavola, J. (2007) Institutions and environmental governance: A reconceptualization. *Ecological Economics* 63: 93 – 103
- Pietrzyk-Kaszyńska, A., Cent. J., Grodzińska-Jurczak, M., Szymańska, M. (2012) Factors influencing perception of protected areas - The case of Natura 2000 in Polish Carpathian communities, *Journal for Nature Conservation* 20: 284- 292
- Sadurski, W. (2006) EU Enlargement and Democracy in New Member States. In: ed. W. Sadurski, pp.27–49, *Spreading Democracy and the Rule of Law?* The Netherlands, Springer.
- Swyngedouw, E. (2005) Governance Innovation and the Citizen: The Janus Face of Governance-beyond-the-State. *Urban Studies*, 42(11): 1991-2006
- Tickle, A. & Clark, R. (2000) Nature and Landscape conservation in transition in Central and South-Eastern Europe. *European Environment*, 10: 211–219.
- Vandzinskaitė, D., Kobierska, H., Schmeller, D.S. & Grodzińska-Jurczak, M. (2010) Cultural diversity issues in biodiversity monitoring – cases of Lithuania, Poland and Denmark. *Diversity*, 2: 1130–1145.
- van Kersbergen, K. and van Waarden, F. (2004) ‘Governance’ as a bridge between disciplines: Cross-disciplinary inspiration regarding shifts in governance and problems of governability, accountability and legitimacy. *European Journal of Political Research* 43: 143–171
- Wallington, T., Lawrence, G. and Loechel, B. (2008) Reflections on the Legitimacy of Regional Environmental Governance: Lessons from Australia's Experiment in Natural Resource Management. *Journal of Environmental Policy & Planning* 10(1): 1–30

Weber, N. & Christophersen, T. (2002) The influence of non-governmental organizations on the creation of Natura 2000 during the European Policy process. *Forest and Policy Economics* 4: 1–12