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DOES PARTICIPATION MAKE SENSE? EFFECTIVE METHODS OF INCLUDING PEOPLE IN BIODIVERSITY CONSERVATION

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ABSTRACT: Though current conservation policy in Poland reflects world trends and approaches to action, compliance with all of its assumptions would entail the Polish authorities remodelling both the system and the methods by which natural resources are managed. On the one hand this requires a change of approach to the management of natural resources from the traditional, purely nature-related one, to a more modern inter-disciplinary one that takes in social and economic conditioning. On the other hand, a system need to be put in place to allow these ideas to be introduced in practice. The work described here deals with the participation of different stakeholder groups in nature management, with this regarded as a method of increasing the latter's efficiency. The many examples (of good practice) presented by the author well illustrate the wisdom of the approach, which often seems to achieve success where it is attempted.

KEY WORDS: public participation, Natura 2000, plan of protection tasks, managing environmental protection, social aspects of nature conservation.

INTRODUCTION

The disturbances to be noted worldwide in the functioning of the Earth's natural processes (in large part due to human activity) have made it essential that a new, more effective model of *environmental governance* be devised and developed. This model

entails a broader understanding of the environment than hitherto, with the natural aspect now being joined by the social, the economic and the political. What is more, the responsibility for the state of the environment now extends, not only to decisionmakers (for example in public administration), but also to wider stakeholding circles of various kinds, up to and including individual citizens, whose participation in decisionmaking as regards the environment and nature is now made possible. This kind of governance system is obviously characteristic for democratic states that enjoy access to information on the environment, and the possibility of public participation in decisionmaking, as both guaranteed by domestic law in line with the instrument of international law that is the Aarhus Convention (*Konwencja*… 1998; Lemos and Agrawal 2006).

In Poland, the chance of participation in nature conservation and environmental--protection activity is likewise guaranteed, thanks to such instruments as the 2008 Act on access to information on the environment and its protection and on public participation in environmental protection, as well as on environmental impact assessment (Ustawa o udostępnianiu… 2008); the 2001 Act on access to public information (Ustawa o dostępie… 2001); and the 2007 Regulation of the Minister of the Environment on the model for a publicly accessible list of data on documents containing information on the environment and its protection. These draw in many ways on the provisions of the aforesaid (1998) UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. Unlike other instruments of international environmental law ratified by Poland and dealing with obligations between one state and another (or others), this Convention is first and foremost concerned with states' obligations towards their own citizens.

Various forms may be anticipated – and taken – when it comes to the said participation of different groups of stakeholders (be these the institutions responsible for the environment, local-authority representatives, entities engaged in the pursuit or planning of economic activity, private owners of land enjoying different forms of protection, NGOs, representatives of local communities, or of still-other categories). Those taking an interest and wishing to express their opinion on a given subject (e.g. the creating of new legal instruments, the determining of land-management rules and the devising of protection plans, etc., etc.) may do this themselves in the course of the traditional 21-day public consultation period, by submitting an opinion in person, sending it by post, or making an online submission, to a given institution; or else take part in open debates, as part of the work of Local Cooperation Teams (*Zespoły Współpracy Lokalnej*). They may also make their remarks known in questionnaires, in the course of referenda, or during other actions (most often organised by local government or NGOs), for example involving door-to-door visits by home advisors and/or questionnaire-carriers (Luzar-Błaż *et al.* 2017).

Engagement of as many stakeholders as possible in pro-environmental activity may – by way of cooperation, the establishment of relationships, interaction, the search for compromise, and ultimately even the assuming of joint responsibility – lead to a far more effective and higher-quality protection of given natural sites or elements of

the environment (Grodzińska-Jurczak 2008; Stachowiak-Kudła 2014). Furthermore, decisions regarding the environment for example taken by managing bodies with the active participation of local communities will be better adapted to the local aspect, and hence to the expectations of both parties. Local authorities will be satisfied because decisions proving acceptable to communities will be put into effect more effectively, while residents will be pleased with the protective strategy agreed jointly, given the attention that has been paid to their views and opinions (Dubel *et al.* 2016). In addition, the embracing of a broad group of stakeholders helps prevent conflicts, quite often even before they arise (Grodzińska-Jurczak and Cent 2011).

Described here are the results of a review of: 1) an innovative participatory workshop devised by the authors to improve management of nature conservation and environmental protection, and 2) the results of the application of this workshop in practice, in relation to the designation of *Natura 2000* sites, the drawing-up of plans for protective actions, the monitoring of protected areas, the management of municipal wastes, and renewable energy. The author presents the means of developing certain tools found to be effective (i.e. social consultations, Local Cooperation Teams (*Zespoły Lokalnej Współpracy*), visits to inhabitants made by "home advisors", online platforms and participatory mapping). Due to limits on space, the detailed descriptions here are nevertheless confined to the home advisors and the participatory mapping, from the point of view of their testing, introduction and appraisal. At the same time, it shows the degree to which involvement of local communities can work to generate changes of attitude regarding nature and its resources.

CASE DESCRIPTIONS

HOME ADVISORS

The programme involving the so-called "home advisors" derives from a British method by which to inform and encourage the inhabitants of a given region, local-authority area or district into different behaviours, habits and activities where the environment and nature are concerned, notably the segregation and recycling of household wastes, the use of renewables and the connection of sewers to wastewater treatment plants. The method entails face-to-face visits during which residents are informed about given environmental problems by the specially-trained advisors. There are in fact various scenarios for the advisors' work, but it is most typical for them to go through a brief questionnaire with members of a household, this concerning, for example, waste segregation. Questions are asked to identify any possible problems linked with the process, as well as the reasons behind any decision or inclination not to take part. In addition, the advisors supply householders with materials informing them about local waste collection, i.e. timetables for – and details concerning – the collection of pre-sorted refuse (Read 1999).

Thus far, the home-advisor method has been applied successfully in the boroughs of London, as well as – following modifications and adaptations to local conditions – in Poland, as in Jasło, Jordanów and Zakliczyn, in gminas belonging to the Union of Gminas of the Wisłoka and Górna Raba Drainage Basins, and in Kraków. In both countries, the activities of the advisors were found to raise the effectiveness of the selective collection of waste, as well as the motivation people felt to augment traditional sources of energy with alternative sources (i.e. galvanic cells). Such pro-environmental changes of attitude reflected an increased level of knowledge among the inhabitants visited, in relation to the given environmental question. Appraisal of the level of knowledge and of behaviours (attitudes) was achieved with the aid of the so-called pre-post testing (i.e. questionnaires given to inhabitants before and after advisors swung into action). In Poland, the advisory role was in fact played by pupils of local schools at junior-high level or above, as well as by members of the Voluntary Fire Service, trained at specially-organised workshops (Grodzińska-Jurczak *et al.* 2003; Grodzińska-Jurczak *et al.* 2006). The home-advisor method is regarded as the most effective one, given the active and direct way in which communities are motivated into action in the name of the environment. Other traditional methods of communication or information (media campaigns, leaflets, posters, etc.) prove markedly less effective, and usually lead to only a limited increase in the level of awareness or of pro-environmental activity (Holland 2000).

Public Participation GIS or PPGIS

Methods of managing natural resources often take on a participatory character, with different groups brought into the making of decisions regarding a given piece of land. This is in fact true of both protected areas and sites located beyond them. The inclusion of the opinions of stakeholders, e.g. as plans of protective tasks for a given area are drawn up, entails the collection of information regarding perceptions of valuable natural features among those inhabiting a given area or residing nearby, as well as tourists in a given area on visits. Where planning needs are concerned, the opinions of greatest applied relevance would seem to be those regarding spatial locations, especially where attributable to given groups of people who utilise the area under consideration. As a great deal of research has shown, knowledge of this kind can prove very useful in the effective management of a given area, helping with decisions regarding utilisation, or the scope for possible modification or change (Beverly *et al.* 2008).

A methodology applied in gathering spatial data is the still-novel and (from the Polish point of view) still rarely-applied public participation GIS (*PPGIS*), which combines cartographic methods with those of social research, and/or the techniques relating to public participation. Unlike the traditional quantitative and qualitative suite of methods available to social research, PPGIS allows for: 1) the collection of information relating unambiguously to a given place or area, 2) the application as tools of both traditional and online maps (internet apps and soft GIS), with this ensuring the inclusion of a large and representative sample of respondents in respect of the given area (Brown 2012).

Thus far, participatory mapping of this kind has mainly been used: 1) to gather information on the way a landscape or nature are perceived by inhabitants of a studied area, with this later being applied to spatial planning and nature conservation planning in the given area, 2) in spatial planning as regards towns and cities (thanks to identification of locations of places of value, areas important for recreation, cycle routes, etc.) – Brown and Reed, 2009.

Recently, PPGIS has also been used to research perceptions of ecosystem services (Brown and Fagerholm 2015). This concept – relating to all the benefits capable of being obtained from the environment by households, communities and the economy – provides for a new look at economy-society-environment relationships, making clear the economic justifications for protecting the environment, by way of respect for the value (economic and otherwise) of the services nature supplies to humankind. The combining of participatory mapping with ecosystem services would seem to be especially useful in debates run between different groups of stakeholders in which resort to arguments of an economic or financial nature (as opposed to natural or social) can cut more ice, and help encourage joint decisionmaking in regard to a given area.

Participatory mapping incorporating the ecosystem services concept has been used in regard to areas falling within the *Natura 2000* European Ecological Network, the aim being to learn of the opinions of inhabitants and tourists alike, regarding areas that concentrate different kinds of valuable features of the natural environment, as well as places in which human activity might be ushered in, intensified, eliminated or limited. The mapping involved in this was carried out using traditional maps and/or the *geo-ankiety* online application. In the former case, representatives of different occupational and social groups present at organised workshops (i.e. employees of the national parks, of institutions managing nature or the environment, of the State Forests and of local government, as well as inhabitants of the given area) marked on maps the ecosystem services they perceived as most important from the point of view of quality of life among the local community. They also identified the parts of particular areas considered to generate the selected services. Obtained in this way was information on the ways in which different groups of stakeholders perceive ecosystem services in a given area, as well as – conversely – the areas regarded as supplying given services. Further plus-points of the participatory mapping method applied with a group in the course of a meeting are seen to be the chances offered for individual participants to express individual opinions, as well as the possibility of joint decisions being arrived at regarding the different characteristics ascribable to different places. This denotes an ultimate participation-mediated strengthening of solutions proposed, e.g. in relation to planning.

In the case of the online application with (*geo-ankiety*) questionnaires, spatial information is conveyed autonomously by respondents, by way of their placing the symbol for a given value or activity at a selected point on a map. This approach leaves no possibility of the opinions of others prevailing on the person taking part, and it also allows such opinions to be received from a far greater number of people than would be the case with a workshop. This would seem to be a very valuable aspect in the context

of the research being carried out. On the other hand, there is a need to take account of the fact that independent work on a so-called *geo-ankieta* will mostly have less time allocated to it, and be more superficial. The analytical value of the results will thus emerge as lower. The effect of participatory mapping is the obtainment of a database with information on the ways in which studied characteristics are located in space, as visualised in a map of set of maps, most often as generated for particular features or groups thereof showing the frequency with which their occurrence is marked out in different parts of the map (Brown *et al*. 2015).

DISCUSSION

The aforementioned methods by which various groups of stakeholders may be included in a joint process of decisionmaking as regards the environment and nature may be thought of as the most effective one, and as one that in most cases translated directly into a high level of involvement in the management of given areas. In line with the concept of the so-called "ladder of participation" after Arnstein (1969), this involvement may be of various different strengths – from minimal (in which the given group has no influence on (i.e. no power to "inform") a decision, for example taken by one public institution or another; all the way through to a very significant involvement in which the decision taken is virtually dependent on the given group (and there is therefore effectively co-decision power). Co-decision or joint decisionmaking ensures an increase in social capital thanks to the responsibility taken for decisions, which become binding. This leaves citizens further enfranchised within the civil-society context, with a greater remit for the public when it comes to the management of public goods that effectively become collective in nature and are managed in line with decisions taken (Poteete *et al.* 2010). A participating community can be expected to develop faster, with further problems that arise being resolved more effectively, and goals achieved more readily. What is more, cooperation based around participation gives rise to joint responsibility (even accountability), not only for the decisions as such, but also for their implementation. An effect is also exerted in ensuring more efficient management by way of self-determination (Ostrom 2010).

The two methods detailed here represent proposals for instruments that can raise the level of engagement, involvement and commitment of local communities in the processes inherent in both planning and the management of natural resources (Kyttä *et al.* 2013). The growing popularity of both the PPGIS and home-advisor methods attests to these avenues' capacity to ensure the efficient obtainment of information for research from various social, natural and economic spheres. Information-gathering in the course of interviews or conversations with inhabitants; or else via the individual or collective marking of selected attributes on maps, are indisputably beneficial, as unique information can be obtained from different groups of people, and can then

serve as a very valuable resource capable of being used by the organs administering and managing the given area (Brown 2012). However, the innovative method of the participatory workshop will need to be helped along by appropriate legislation in regard to the management of natural resources, in order that unimpeded access to participation in decisionmaking over the environment can be extended to all social and professional groups.

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