

50 YEARS OF PRESERVATION IN DOÑANA (SPAIN). PUBLIC INVOLVEMENT AS THE PRESENT CHALLENGE AND MANAGEMENT STRATEGY TO FACE FUTURE CHALLENGES (CASE STUDY)

Juan Francisco BEJARANO BELLA*, Adolfo TORRES RODRÍGUEZ

¹Department of sociology, University of Granada, Calle Rector López Argüeta, 18071, Granada, Spain.

Abstract

In social sciences, scientific approaches to nature preservation in Protected Natural Areas (PNA) are scarce, and those aimed at assessing the involvement of local communities with PNA are particularly deficient. In this paper, we show how management strategies of Protected Areas (PA) have created a lack of trust since the beginning on those social agents who are more directly affected by them. Even if sustainable development policies have tried to diminish the rift between local populations and PNA, they must be reinvented in order to face present preservation challenges and generate or increase citizens' commitment to PNA. Regarding the Natural Area of Doñana (Spain), some of the main challenges are conflicts due to water scarcity, the impact of agroindustry proliferation and the loss of traditional environmental knowledge. Social research provides us with critical elements to create management strategies capable of minimizing negative social and environmental consequences of the persistent and deceitful preservation/development dichotomy. Our main conclusion is that new responsibilities in ecological heritage management must be the result of public involvement, due to its ability to produce civic education and governability. This means that whether public involvement in the management of nature preservation in PNA succeeds or fails will determine the success or failure of preservation itself.

Keywords: Conservation; Civil society; Doñana; Protected Areas; Governability.

Introduction

Thanks to the initiative of Spanish naturalists such as José Antonio Valverde and Francisco Bernis, and of European naturalists like Guy Monfort, Max Nicholson and Luc Hoffman, the Spanish government and WWF created Doñana Biological Station in 1964¹. Five years later, in 1969, the Doñana National Park was created through an executive order. Since then, Doñana has received several awards due to the variety of its ecosystems and its high ecological value. We are talking about Europe's most important wintering grounds for aquatic birds, with over half a million specimens. It has received particularly important honors, such as being declared a Biosphere Reserve by UNESCO in 1980 and World Heritage Site in 1994. Doñana received its most recent recognition in June 2015, when the International Union for

* Corresponding author: jbejarano@ugr.es

¹ Research institute belonging to the Spanish National Research Council (CSIC) that studies biodiversity in Doñana and other Spanish ecosystems.

Conservation of Nature (IUCN) included it on its Green List among the best preserved protected areas in the world. Despite Doñana's numerous recognitions and the good health of its ecosystems, this natural area is not free from threats to its nature preservation. Furthermore, UNESCO has confirmed that this world heritage wetland is under "very high threat". Scheffer, Barrett, Carpenter, Folke and Green note that it is urgent that the Spanish society and its administrations minimize the *local threats* that affect this iconic ecosystem, as the collapse of its important role preserving global biodiversity could lead to the extinction of many species. These authors believe that raising a fence in the perimeter of Doñana National Park is no longer enough to protect it from threats, hence *the need of a much more efficient local management*, primarily one aimed at stopping water pollution and illegal extraction for the agroindustry, two key issues to increase this wetland's resistance to climatic change [1].

In the last decades, sociology has incorporated a new environmental paradigm which implies a dynamic notion. This sociological thought rises from the concept of *socioenvironmental relations* as a theoretical construct that assumes the transition from natural ecosystems to anthropologically transformed systems. This means the transference of certain physical functions of preservation and feedback from the natural ecosystem to the social system [2]. Also, the IUCN opens a new stage in nature preservation strategies in protected areas with the fifth World Parks Congress, "Benefits beyond boundaries" (2003, Durban, South Africa) and the sixth World Congress on Protected Areas (2014, Sydney, Australia), where it was made clear that it is paramount to include PA in broader preservation and development programs in order to forge synergies between preservation, maintenance of life supporting systems and promotion of a sustainable development. The Durban Congress highlighted the importance of protected areas and denoted the negative impact those areas can generate in local communities if they are not taken into account and do not fully intervene in the elaboration and implementation of decisions thereof. Therefore, the congress assumes the imperativeness of measures that allow active involvement in the decision making process of the wide variety of sectors, communities and interests present in every case. In order to make concerned parties responsible, it will be paramount to create an environment of trust and dialogue among all parties. This will lead to better *governance* [3, 4]. The concept of governance encompasses the interaction among structures, processes, traditions and knowledge systems that determines how citizens exercise their responsibilities, adopt their decisions and express their opinions. To efficiently face these big issues, in addition to traditional governability methods, we must count on new governance means. Governance does not get rid of bureaucracy or management at all, it coexists with them and simply designates the focus change in the search of good government. With the purpose of putting this government method into practice, it is necessary to create interactive sociopolitical structures and processes that boost the communication between involved parties and the creation of common responsibilities. Therefore, the present great challenge of administrative reforms is to restructure governing responsibilities, tasks and activities based on the integration and differentiation of various expectations and interests as well as of the parties who express them in interaction processes [5, 6].

In accordance with these processes, some decades ago, Doñana's management incorporated sustainable development policies and public involvement tools designed to improve commitment between the local population and the natural area, which minimize recurring threats to the region. These threats were related to an excessive stocking rate in the 1980s, to real estate speculation in the 1990s, and to agriculture since the 1960s, it is one of the main future challenges for this symbolic natural area. One key measure undertaken by the Junta de Andalucía (Andalusian regional government responsible for Doñana) was to gather an international experts committee (led by sociologist Manuel Castells) that gave birth to a Ruling on Strategies for the Sustainable Socioeconomic Development of Doñana – known as the "experts ruling". This ruling established the first Plan for Sustainable Development (PDS) for the protected natural area and its environment, in which a number of measures aimed at

coordinating interests between preservation and development were taken. Thus, Doñana became the first Spanish natural area with a sustainable development plan. The first stage of these socioeconomic policies promoted by the Andalusian regional government had a nine year term (1993 - 2002). Its objective was to maintain and consolidate the connection among economic development, social welfare and natural resources as main objectives; as well as to update road structures, diminish the issue of water quantity and quality, regenerate the environment, restructure agricultural land and modernize economic structures. In short, to define the Natural Area of Doñana as the region's main asset for development. The second PDS for Doñana was drafted in September 2005. It was considered an integral development plan and it was carried out in 2008, a year marked by the beginning of the world economic recession, which translated into less funds for the second PDS and, in our opinion, announced a new stage in protected areas management and its environment economy.

The Natural Area of Doñana not only has been groundbreaking regarding the implementation of sustainable development plans in Spain but also in the search of management participatory models. The Participation Council of Doñana was created in 2007, an advisory body for collaboration and joint participation among administrations involved in Doñana. Its mission is to achieve efficient coordination among administrations and to facilitate the necessary public involvement in the area's management [7, 8]. This was not the only participatory method implemented: environmental forums, participatory budgets, participation tools to draw the Action Plan for Doñana's second PDS, sectorial participatory committees, and conferences and debates about decision making in Doñana. This shows that plenty of participatory methods have been implemented in the natural area. However, have initiatives for sustainable development and public involvement been useful to improve Doñana's governance? Are they enough to stop such paramount threats as the ones abovementioned? In this paper, we will assess and value those initiatives through social research because, although natural areas have historically risen an extraordinary interest on natural sciences in order to research all its ecological processes, there have been fewer scientific approaches from social sciences, particularly those intended to understand the satisfaction, identification or involvement of local communities in protected areas [9]. Likewise, there is extensive literature concerning the implementation of many kinds of participatory processes, but there are not many studies of these processes about Spanish protected natural areas. Thus, we understand that the public perception can be a key element to evaluate and understand the determining factors and results of these processes in the environment field. Their interest and contributions are undeniable, even if we are aware of the implied difficulties, as the vast majority of the population has too little information and therefore, very few defined opinions to deliver regarding participatory democracy. Nonetheless, even if the degree of information and formed opinions was less significant, it would still be essential to count on all those opinions so we can approach the abovementioned processes in a participatory manner [10].

Objectives

Doñana's management has undergone an evolution process similar to other protected natural areas in Europe. However, the journey has been and is full of distinctive features. Our main objective is to assess the degree of public acknowledgment vis-à-vis sustainable development policies implemented in Doñana National Park's² planning and management, and to identify the main challenges faced by the natural area in order to conclude if public involvement is the best way to manage the always difficult preservation/development

² The Natural Area of Doñana is located in the southwest of the Iberian Peninsula, between the regions of Huelva, Seville and Cádiz. It covers 14 townships with a population over 150 000 inhabitants, not including the seasonal population (during summer), which can double that figure.

dichotomy. In conclusion, to analyze the degree of involvement between local communities and the Natural Area of Doñana.

Methodology

This investigation carried out in the natural area and its Socioeconomic Impact Area the 14 municipalities which make up the natural and national park from December 2011 to December 2014, uses qualitative social research and in-depth interviews to obtain data. The main qualitative sampling criteria followed were heterogeneity, accessibility and strategic representation. Therefore, interviewees of all municipalities and several socioeconomic sectors were chosen which resulted in a typological classification that facilitated the selection of interviews. Over 50 interviews were carried out in several time sequences between 2009 and 2014. Data were subsequently analyzed with ATLAS.ti, a qualitative data analysis and research software, in order to generate theoretical propositions according with Glaser and Strauss's Grounded Theory [11], also known as Constant Comparative Method.

Results

Achievements and deficiencies of sustainable development in Doñana

Doñana's population acknowledges two stages in the national park's management. The first stage ranged from 1969 to the mid 1990's. It was defined by the isolation of the protected area and by an elitist environmental management from a technical point of view, where the concept of the "bubble of Doñana" led to a widespread rejection by the region's local communities. The period between 1985 and 1995 was particularly troublesome, as the relationship between the National Park's managers and its neighbors was filled with insults and threats. Citizens identify the second stage—which began in the 1990s and ended with Spain's economic recession³ – with sustainable development policies and a more caring and integrating management.

The launch of Doñana's first Plan for Sustainable Development⁴ involved a process of social change in the region, which helped to dismiss conflict as the problem solving method. This was due—among other reasons—to the fact that Doñana's National Park was no longer seen as an obstacle to development, but as an economic boost. This had a conciliatory effect between local communities and the National Park. The new sustainable development concept took root in Doñana's society. However, citizens did not fully comprehend this concept due to its ambiguity. In fact, the PDS will be defined by civil society, local administrations and businessmen with a simple equation: limiting a development pattern based on the exhaustion of resources—landscape, nature, space related, etc.—in exchange for "compensations". But what do citizens mean by "compensations"? Doñana's most clear contributions to society were direct employment in the natural area (technicians, guards, guides, forestry works, etc.), active ecotourism, the certified quality Doñana grants to the region's products and public aid in the form of subsidies (European funds). These subsidies have been very controversial since a vast majority of the population considers that they have not been used to generate strategic patterns for development nor have they allowed to pave the way for living without them once they decrease or disappear. In fact, the second PDS was launched without any budget allocation as it coincided with the first year (2008) of the Spanish economic recession. Given these circumstances, the unanimous discourse about the virtues of sustainable development was decimated. This ventured a new stage in the management of protected areas and its environment

³ Spain's economic recession began in 2008. Its economy did not start to grow until 2014 (although the unemployment rate is near 27%).

⁴ Sustainable development comes with a 360 million Euros action plan that will be invested in the region for a decade.

economy. Local Mayor consider: “...any PDS has to be accompanied by a budget allocation that covers the actions therein carried out... I remember when the second Plan for Sustainable Development was fulfilled and we had to lay out that it would not bring another 300 million Euros like the first one. Then, the situation changes dramatically...”.

During the first PDS execution, financial investment was determinant to stress citizens' commitment to the protected area. To this powerful investment, we had to add Doñana's economy diversification before the global economy recession. At present, given the fall of many productive sectors, agroindustry accumulates over 60% of the region's gross domestic product (GPD) – 8 million day wages⁵, which in great measure weakens the preservationist discourse against illegal water extraction (we must remember this is one of the main threats to the protected area). Thanks to the first PDS, Doñana was considered more of an economy asset in the region, and citizens started to feel a certain openness in the protected area regarding its surroundings. In fact, in those years, mayors and other public representatives were gradually but fully assimilated in Doñana's participation agencies. Even if criticism towards its management and managers was toned down, civil society still felt estranged from the protected area, an estrangement that fostered criticism towards its management, based on ignorance. An example of that was the widespread idea about recovery plans for the Iberian lynx⁶ “...subsidies are needed for the lynx to be bred... But subsidies must be allocated to production, because if you pay me a lot when there are few lynxes, I will make sure there aren't too many” (Agribusiness representative). A mistaken idea, since the population of Iberian lynxes in Doñana has increased exponentially in the last 20 years thanks to the captive breeding program taken by LIFE⁷. This indicates that the protected area suffers a severe lack of "preservation pedagogy", which means reporting and sharing interventions, policies, researches and results with the local "people". Actions that should surpass what is taken into account in environmental education plans, and although it can seem difficult, it will prevent misunderstandings and harmful speeches that encourage disengagement from the natural area and its population “...scientific results must be explained beyond the academic world, starting with the local population. Otherwise, the importance of preserving this natural area will never be understood” (Biologist Doñana).

Another issue derived from the sustainable development strategic plan has been to exclude groups connected to traditional ecological knowledge in the natural area management. At present, beyond giving details on the challenges that traditional ecological knowledge will have to face in order to survive in a globalized world [12, 13], it will be important to define the role this knowledge will play in a protected area's management plans. It seems clear that these activities have decisively contributed to preserve and shape the natural heritage as we know it today, but will PNA be willing to incorporate these groups into preservation strategies? Traditional ecological knowledge understands that protected areas must admit the abovementioned knowledge and uses as imperative preservation activities “...not only because of their ecologic purposes, but also because of the social ones, given that they consolidate and maintain sociability bonds between the area and the environment, as well as the transmission of traditional preservation values” (Traditional livestock). Furthermore, the active involvement of traditional ecological knowledge in Doñana's strategies and management plans will mean the reconciliation and final acknowledgment of a historical work: an effective bid to the commitment of the Protected Natural Area and its inhabitants, the acceptance of an irreplaceable local action group whose essential purpose is to divulge the ecological importance

⁵ Press article published in the national newspaper El diario.es on 09/24/2013, titled "Head on collision between development and preservation in Doñana".

⁶ Let us not forget that the Iberian lynx is one of this natural area's symbolic mammals, and that it is critically endangered.

⁷ We refer to the million-worth conservation effort (in Euros) taken by LIFE to prevent the Iberian lynx's extinction. LIFE is the EU's financial instrument supporting environmental, nature conservation and climate action projects throughout the EU.

of the site. This has become a necessary incorporation, especially at the present time, when the reality of issues related to the environment in general, and to preservation in particular, holds no longer the privileged position of truth and "normal" scientific knowledge, a truth which is more and more relative and submitted to test and empiric verification, where a principle of caution is imposed.

Finally, beyond the fact that these trades are acknowledged as part of Doñana's cultural heritage and their activities considered of ethnological interest, this National Park's traditional uses and management claim they are "active" productive sectors. They represent essential activities for the preservation and maintenance of the PNA's ecosystem balance as we know it today, and also suggestive activities to innovate and research new sustainable development models. To this effect, it will be necessary to get beyond the concept of traditional use as an outdated practice (not adapted to the logic of economic modernity), and to assume it provides key elements – environmentally friendly values, uses, knowledge and technical management—for a social transformation inspired on the protection of ecological heritage. To avoid identifying these kinds of traditional productive practices with "prehistory" will mean we are starting to recognize sustainability paradigms in traditional ecological knowledge, which are applicable to productive and economic development models in the rural field of protected natural areas. It will also mean we are helping create steady productive and social structures that drive away conflicts derived from the preservation/development dichotomy. In conclusion, preserving traditional ecological knowledge will strengthen protected areas vis-à-vis its main threat: the disengagement of citizens from the preservation of their ecological heritage [14, 15].

Discussion

Methods to involve citizens in natural areas or how to efficiently face challenges and threats

As it has been shown herein, world experts have given international recognition to Doñana's preservation. However, many obstacles have been encountered on the way. The means by which results have been faced and achieved serves us as a lesson. There are indeed problems, there will always be, even if they change. Issues and challenges in Doñana and protected natural areas preservation will always exist, therefore we need to highlight positive and negative aspects of what we have learnt; and most important, of what we have yet to learn. Our work's main contribution is to evaluate the involvement of Doñana's civil society in the National Park's preservation through an analysis and follow-up of different participation mechanisms applied. We also dare to design a new information, communication and participation structure that facilitates the coming together of local communities with Doñana's "cosmology" as a shared project. The proposal is based on arguments set out by *S. Funtowicz and J. Ravetz* [16]. When they talk about post-normal science, they expose the need for extended peer communities as decision-making structures to solve complex problems. These participative designs would be concluded following – in the theoretic field – *John S. Dryzek* [17] and his discursive democracy practices as a more participative democracy model and – in the applied field – *J. Cohen and J. Rogers's* [18] deliberative arenas as institutional mechanisms derived from organizational imagination. Secondary associations are needed to represent interests. New public deliberation arenas that include negotiators who have not been traditionally present in protected areas will need to be built.

Several participation initiatives have been put into practice in Doñana National Park for the purpose of involving citizens in Doñana's preservation, as well as in the development of its area of influence. Although those actions have helped to introduce the concept of a "commitment to preservation and involvement in the Park", they have not been an efficient tool to incorporate citizens into the management of Doñana. On one hand we find the Participation Council, where only administrations and other corporate organizations—most of them estranged from the environment—will be included due to its limited and restricted representation. This

situation will increase Doñana's vision of *inaccessibility* and therefore, the idea that other parties and not local communities are responsible for its preservation. On the other hand, although the second Plan for Sustainable Development included a participation process for the elaboration of the Action Plan, it disappointed citizens due to its exceptional and temporary nature, and also because they saw how conclusions drawn from citizens' forums were not taken into account when the plan was designed. The consequence of a limited participation in addition to inaccessible information and scarce communication was a misguided vision among the population regarding preservation limitations, compensations, objectives, management and practices. These participation experiences hindered citizens' expectations to participate in Doñana's matters. However, they paradoxically helped to increase their demands with regard to democratic management. Indeed, Doñana's society–social organizations, economic, cultural and political sectors–is prepared to assume the importance of planning development in the region, and it is aware of the paramount role played by the Park in their life.

The aim of our proposal for an information, communication and participation structure in the Natural Area of Doñana – which we have named Local Participation Councils or LPCs – is to achieve agreements that facilitate sustainability and preservation in protected areas while minimizing the threats. This participation approach has been set up using assessments made by parties intervening in participation processes already implemented in Doñana. This analysis allows us to present the thesis by which combining, at present and in the future, direct democracy and representative democracy can be the best way to involve and increase citizens' commitment to Doñana in particular, and to the rest of national parks in general. Aware of difficulties derived from designing a new participation method, our research has focused on presenting the methodological approach which would help us draw this new tool's general guidelines. We did not set out to design this participation method in detail, nor its daily functioning. Therefore our contributions should only be treated as recommendations.

A) The first characteristic of this new tool will be its local nature, although subordinated to the Participation Council as Doñana's highest collegiate participation organization and administratively affiliated to the Environmental Affairs Office (autonomous government). In order to overcome Doñana's territorial complexity, the LPC must comprise permanent delegations in each and every municipality of the National Park.

B) Agreements made in local delegations will be received by at least one representative who will be a member of the Participation Council. This characteristic will be the main innovation in the process, as it combines direct democracy – LPC delegates, and representative democracy, mayors and other administrations.

C) Participation in LPC will have a hybrid nature, where both representatives of municipalities' social and economic agents and all Doñana citizens who do not belong to any organization, but are interested in its management and preservation, are included. Analyzing participation initiatives shows that citizens stress the need for participation processes which are neatly planned, accessible and transparent, with flexible dynamics and easily accessible to any citizen.

D) A *permanent and long term* participation process to avoid an imported "scissors and paste" participation carried out by foreign experts and technicians who *"always end up leaving without sharing their results"*, *"...yes, but permanent forums. There have to be permanent forums, because we have already created temporary forums and the problem is that when you create a temporary forum, it works for three or four months, but afterwards it disappears and everything goes down the drain. And if you disappoint citizens, which is what happened with those forums, they will never take part on them again and they will stand against them"* (Local residents association representative).

E) The need for a technical team specialized in training and advice focused on dynamic participation. This team will be dependent on the Natural Area of Doñana and coordinated with different participation technicians of municipalities in the area of socioeconomic influence. The

dynamic technical team will be able to coordinate an efficient information system to enable and provide Doñana's citizens with reliable and plural information about preservation and development initiatives. Any information which is not understood cannot be considered as such. Therefore, a previous training process will be occasionally required.

F) New information and communications technology (social media, etc.) must play a paramount role for the local civil society in the protected area to previously know, discuss and decide on matters that will be subsequently included in the plenary session's agenda of Doñana Participation Council.

G) To integrate scientific and traditional knowledge by using an accessible language that creates common preservation interests. All ideas and proposals that are unable to exert influence over real decision-making will be unsuccessful, as proposals made until today have proved. That is why the Local Participation Council's ability to communicate allows social stakeholders to acknowledge their interests, it facilitates mutual learning, generates new ideas and gets beyond simplistic perceptions of the real world.

H) To teach participation methods in order to build a "preservation pedagogy". Although several participation processes have been laid out in Doñana in the last fifteen years, they have not been sufficiently efficient to meet citizens' expectations and commitment to environmental preservation and development.

Conclusions

Making preservation and development compatible has been, is and will be Doñana's and any other protected area's greatest challenge. However, sustainable development plans opened an important breach in that dichotomy and supported a broader economy diversification. The current economic recession has once more polarized discourses in Doñana, confronting the main economic sector (agroindustry) with preservation of the natural area. A Manichean discursive confrontation in the hands of an economic elite who affects the behavior of a civil society who is heavily hit by the recession. The weakness of sustainable development policies—as strategic guidelines for a development compatible with long-term preservation—critically jeopardizes a project which, despite its weaknesses, has reduced unrest between the protected area and its inhabitants.

To avoid taking steps back that can lead to the withdrawal of socioenvironmental sustainability in Doñana, an economic investment is required, as well as political courage to create efficient participation structures—given that participation has been sufficiently tried out in Doñana. These structures must be able to involve in and commit civil society to Doñana by finding agreements issued from below, from experience, taking into account local communities' needs vis-à-vis the present and future development method. To build new communication and participation environments, National Parks' managers—both political and technical—will have to offer their willingness and support. This, which may seem an obvious remark, has been the greatest obstacle to processes applied in the past, given that they were created from discredit. Although combining representative democracy and direct democracy is still a long shot, we understand that institutionalizing local communities' participation in the management of National Parks will become—hopefully on the short term—a great ally for preservation, beyond ethical and ideological matters, due to a strictly practical reason: because the estrangement feeling existing between the preservation project and the development project in local communities is still a constant, as shown by Doñana. If you manage a natural area by involving citizens (through information, communication and participation), you achieve everyone's commitment to preservation. This is the present challenge: managers must improve those aspects (pedagogy) while the population needs to accept that the Natural Area of Doñana must exist and that it has its own demands (commitment). In sum, citizens' involvement in

preservation is the conceptual proposal suggested to face future challenges—that will without the slightest doubt manifest—but from this point on, from everybody's strong commitment.

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