Chapter 10 Wind Power and Environmental Policies

Ethnography in "Protected Landscapes"

Ana Isabel Afonso and Carlos Mendes

Abstract Wind farms in Portugal have spread enormously during the last decade and are transforming social and physical landscapes. The map of classified areas in the country shows a great overlap between main sites of potential wind development and protected areas. Starting from case studies in different regions where wind power has been recently developed, we approach issues of landscape management, protection, fruition, and how they are intertwining with energy policies. Through ethnographic lenses, our aim is to understand how global issues are perceived at local level, selecting as case studies projects involving protected areas in Portugal.

Keywords Wind power • Protected areas • Landscape and environmental conflicts • Local acceptance • Management of the commons in Portugal

10.1 Introduction

This chapter is based on previous research on the topic of wind power, landscape, and environmental policies – the main focus of an international collaborative project.¹ In this project, wind farms in France, Germany, and Portugal were taken as starting points from which to reflect on the systems of knowledge that frame local practices concerning landscape construction, fruition, and negotiation.

¹ 'Eoliennes et paysage: La politique éolienne entre politique de l'environnement et politique du paysage' research project in collaboration with the Centre International de Recherche sur l'Environnement et le Développement (CIRED), under the sponsorship of the Ministère de l'Écologie et du Developpement Durable (MEDD, France) – "Paysage et développement durable" Program (2006–2010).

A.I. Afonso (⊠) FCSH - CICS.NOVA, Universidade Nova de Lisboa, Av. Berna, 26 C, 1069-061 Lisbon, Portugal e-mail: ai.afonso@fcsh.unl.pt

C. Mendes Centro de Estudos Comparatistas (FLUL), Instituto Politécnico de Viana do Castelo, Avenida do Atlântico, 4900-348 Viana do Castelo, Portugal e-mail: cmendes@estg.ipvc.pt

The spread of wind power throughout the Portuguese territory since the beginning of the twenty-first century shows two important specificities in comparison with France and Germany. On the one hand, some wind power projects were built in protected areas, with only weak resistance of the local populations inhabiting in nature parks and even with some local groups claiming for greater development of wind power. On the other hand, the construction of wind farms in communal lands (the *baldios*) has contributed to empower the local populations and to renew long-standing antagonisms between rural inhabitants of protected areas and conservationist authorities regarding the management of the commons (*baldios*). In Portugal, the *baldios* (sing. *baldio*) are characterized by their nature of communal land, managed by a group of neighbors according to law and local custom. Some of the more frequent uses of these properties were, for example, collective cutting of firewood, irrigation, cattle raising, or shared community buildings (such as mills or ovens).

This article aims at approaching these issues through the analysis of three case studies in Portuguese-classified areas where significant controversies around wind power development recently emerged. A wind farm settled in communal lands in the Natural Park of Aire and Candeeiros Mountains has been contested by a local association, which considers that the incomes it brought to the local community do not compensate its negative impacts on the landscape and the environment.

In the Natura 2000 site of Arga Mountain (NW Portugal), three of the originally planned wind turbines were relocated, after strong local opposition due to its visual impact on a landscape charged with religious symbolism in the region.

Lastly, the recent public debates on a new planning scheme for the Natural Park of Montesinho (NE Portugal) were dominated by the controversy around the construction of wind farms in communal lands. Local populations argued against the environmentalists' and conservationists' viewpoint expressed by the governmental institution ICNF² and maintained that it was their own right to decide whether or not it should be allowed in the protected area.

We carried out ethnographic research in these wind farms and protected areas and proposed ourselves to follow the shifts in existing networks and customary practices, as well as to trace the activities of the main actors and the rise of new ones. In accordance with the actor network theory, we consider windmills as active parts and as agents in these networks (Latour 2005), which have the ability to bring forth new assemblies, as our case studies may illustrate. This "grassroots perspective" is focused primarily on the concrete techno-human networks that bring forth wind power.

Wind energy is a highly symbolic mode of production, and its specific history is revealed by a detailed analysis of the different discourse constellations that are

²At the time of our research, the Institute for Nature Conservation and Biodiversity (INCB) was the governing body that supervised protected areas in Portugal. From 2011 onwards, this organization became known as the Institute for the Conservation of Nature and Forest (ICNF). Henceforth, we will adopt the present denomination in this text.

associated with its emergence. Thus, we suggest situating the process of wind energy implementation in relation to the historical and societal discourses that enabled it. It is our assumption that the proliferation of wind power and other renewable energies is more than an economic or local phenomenon. Following Çalişkan and Callon (2009), the "process of economization" of wind power through which that energy is endowed with a qualification and an economic value cannot be understood without taking into account the social and cultural relations in which it is being embedded.

Ethnography of the case studies started by media survey and analysis – news published in the press, blogs, or other digital media. While surveying the news on the topic of renewable energy, we could acknowledge that the topic of landscape in Portugal seemed to be, with a few exceptions, a red herring or, perhaps, an invisible issue. This invisibility makes a paradoxical contrast with the unmistakable physical (but also social and economic) transformations brought about by the spread of wind power in the country, either in sparsely populated mountains or in enclaves along the urban centers near the coast.

From this still distanced approach based on media analysis, we felt that, in comparison to what was happening in other European countries, different conceptions of landscape, beyond the visible or contemplative, could be evidenced in the dynamics of the processes underlying the various transformations generated by the emergence of this new energy.

In the regular visits we made to the field, we interviewed key informants (unstructured and semi-directed interviews) and captured different perspectives: local citizens and technicians – with favorable and unfavorable opinions about wind energy in protected areas, local administrators (mayors and chairmen of parish councils), representatives of regional and national environmentalist associations, representatives of the Institute for the Conservation of Nature and Forest (ICNF), and finally, entrepreneurs from different companies with investments in the wind power industry. Key informants were selected following snowball strategy. We have also had informal conversations with local inhabitants from different backgrounds.

The initial surveys and the interviews conducted were complemented by documentary research. Particularly relevant materials were provided by ICNF. It included dossiers about licensing process of wind farms, as well as legislation concerning nature parks management. With this combination of methods, our goal was to capture the perspectives of different actors in the process of development of a wind farm that would allow us to consolidate our knowledge about the local impact of these changes.

The paper is organized around three main axes – we start with a panoramic view of the context, addressing the emergence and expansion of wind power in Portugal, as well as the discourses associated with it. Then we reflect on the processes that accompanied this expansion, sorting out relevant tensions and conflicts that occurred. In the last section, we approach the issue raised by the built-up of some wind farms in protected areas, through the presentation of our case studies.

10.2 Wind Power Policies in Portugal: A Brief Overview

Portugal is highly dependent on imported energy, mainly primary fossil sources. Currently, renewable energies are considered an important alternative source of energy and became a priority in the national energy policy agenda. National concern has also been fuelled by European directives and other international commitments within the Kyoto Protocol.

RES development in Portugal has been slow. Administrative barriers (especially the bureaucratic licensing process with the high number of entities involved) have hindered a greater development, especially for hydropower and solar technologies. Wind energy constitutes a notable exception within this framework. It has been growing at a high rate during the last decade and decisively contributed to fulfill its obligation with last Renewable Energy Directive (EUR-Lex 2009), i.e., producing circa 40 % of the total electricity consumed through RES.

In the footsteps of other European countries, Portugal promoted RES – especially wind energy – through the adoption of feed-in tariffs for renewable energies, direct subsidy payments, and tax incentives. Beginning in 2005, a tendering/concession process has also been established. In practice, subsidy payments and tax incentives have been both largely used for smaller-scale renewable energy applications, while feed-in tariffs and tendering schemes have been mainly used for larger-scale renewable projects. Nowadays, with the severe economic crisis that is affecting the country, some of these incentives are being reconsidered. This has slowed down the development of ongoing projects and almost stalled the application of new ones.

Looking back at the recent history, the first Portuguese wind farm was built in 1988, in Santa Maria, Azores. At this early stage (from the end of the 1980s until the end of the 1990s), cautious investments restricted to small wind farms predominated. The boom in terms of installed capacity and number of wind turbines started only in 2001, greatly due to the introduction of feed-in tariffs, differentiated by technology (wind, solar, hydro, or biomass). Moreover, legislation establishes that city councils will benefit from a 2.5 % share of income from all the wind farms located in their municipal territory.

During this expansionist period, we could follow the emergence of megaprojects with national impact. Installed by the end of 2008, the Alto Minho Wind Park, for instance, was strongly advertised by the government as "the biggest in Europe" (120 turbines and 240 MW of installed capacity) and became very emblematic of the alleged environmentally benign economic growth and technological development of the country. Recent statistics show that in 2012, Portugal has occupied the third position within EU15, having incorporated 42.7 % of RES in the total of electricity consumption (DGEG 2013).

Nevertheless, the current economic crisis barred this expansion and has profoundly affected future wind power investments. Only 19 MW has been licensed since 2010, which roughly corresponds to 5 wind turbines (DGEG 2013). The activity in the sector has been restricted to a few cases of repowering and has almost stagnated. The majority of the licensed RES power capacity is situated in the north of the country, where a considerable number of wind farms were constructed, mainly because of the big hydro and grid access resource. It is also in the north of the country that the best areas of wind potential are concentrated.

As we can see in Fig. 10.1, there rises a strong overlap between areas of wind potential and protected areas, which constitutes an important issue that has been at the core of controversies around the sitting of wind farms throughout the country. In some cases, wind farms were even constructed in protected areas, which strongly motivated the focus of our research and reflections, presented in the following sections.

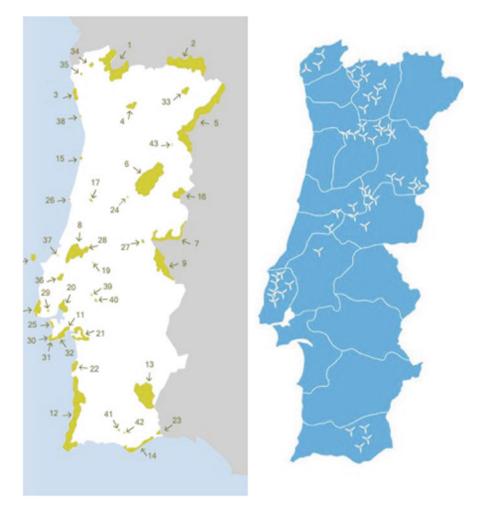


Fig. 10.1 Protected areas and wind farms in Portugal (Source: ICNF/ENEOP-Eólicas de Portugal)

10.3 Wind Power, Technological "Drive," and the Environment

Apart from its intrinsic economic interest, wind power has been seen as an opportunity to reimagine the collective identity of the country in terms of "modernity" as well as to argue its undisputed condition as a member of "Europe." The desire to harmonize the social expectations of modernization with increasing environmental sensibilities through the spread of a new (and benign, as it is presumed) mechanized landscape seems to prevail. Due to the lack of a broad public debate on the environmental, aesthetic, and social impacts of wind power, this perspective has been essentially unquestioned. In a way, it can be said that the expansion of renewable energy in Portugal is literally turning the remotest areas of the country into "laboratories of modernity (Stoler 1995)."

Even the construction of wind farms in protected areas has raised only some sporadic opposition from environmental groups, mainly through press releases distributed to the media. However, the so-called environmentalists (belonging to NGOs or working for ICNF) also seem unable to get support from civil society in their own spheres of action. In general, people living in protected areas resent the restricting rules regarding the construction of wind farms in national parks and tend to interpret them as illegitimate interference from external forces – particularly the preservationist authorities with their aspirations for modernization and economic development.

It is important to note that the creation of protected areas in Portugal is very recent, when compared to most countries in Europe. In practical terms, politicians decided to create protected areas in order to align with international agreements (Ramos et al. 2003). The adoption of preservationist policies in Portugal was not vindicated by civil society. Therefore, the history of interactions between local authorities and conservationists has been particularly contentious.

The perception that conservation restrictions are futile obstacles to modernization projects is relatively popularized in Portuguese society. This has especially been the case during the expansionist period of the 1990s, when construction in general and proliferation of motorways in particular took place under strong pressures on the protected areas.

In the north, the circumstance of the prevention of a motorway construction, allegedly because it would cross the territory of a threatened population of Cabrera's voles, is still fresh in the collective memory. It has attracted the interest of public opinion because of the sarcastic tone of the debate, ridicularizing the irrationality and blindness of top-down protectionist measures.

Thus, the prospect of new wind power structures in protected areas revives these controversies and suspicions, taking into account that a significant part of the Portuguese territory with wind power potential is located in protected areas, such as natural parks or Natura 2000 Network sites. It also reignites old tensions between local populations and central government representatives.

This ancient conflict cannot be understood as detached from the national process of landscape classification and from the constitution of heritage sites. The management

of Portuguese-protected areas has ever been threatened by diverse real estate lobbies and local aspirations of "development." Confronted with EU Directive of RES quotas, environment policies and politicians face the dilemma of promoting the expansion of "clean" energy sources or blocking it, as it might have severe negative environmental impacts.

It was then interesting to follow the emergence of new regulations, restructuring efforts towards planning instruments (such as natural parks' planning schemes) or the battles to reinterpret the existing ones, underlining different lobbies interested in the regulation of their own interests (local citizens, wind power developers, ICNF officers, tourist enterprises, municipalities). In hindsight, the processes of public consultation (usually a pro forma, with insignificant expression) occurred with a rate of participation that had never been seen before. Different voices, ranging from local and regional administrators, to entrepreneurs, ICNF officials, or environmentalists from different NGO's, could be heard by spontaneous groups of inhabitants, giving visibility to different local interests, doubts, and expectancies towards future wind power projects in the country.

As far as we could acknowledge, wind power, even in the very embryonic stage of a remote hypothesis, had the strong capacity of promoting the dialogue, opening future channels of communication through which local populations could take part in the decision process that directly addresses and affects their everyday uses and practices related with landscape, the environment, and endogenous resources (Hess 2007).

In the course of our research, we were able to follow different regional debates and controversies. In some cases, local groups and authorities supported the new wind farm, as it was expected to bring economic benefits to the community; in other cases, they did not. Regional and national environmental associations generally opposed the construction of wind farms in natural parks. In addition to their fears of negative impacts on the "natural values" of the region, the environmental NGOs particularly feared that in this atmosphere of general acceptance of the expansion of wind power in the country, the areas subject to greater restrictions were being strategically target by wind power developers, so that they could no longer face opposition in allegedly less protected or valued natural areas.

With this respect, we have commented earlier (see Afonso and Mendes 2010) on a campaign sponsored by the Portuguese government consisting of a series of advertisements intended to promote the results of recent efforts of "modernization" and a country in tune with its age. We noted then the significant absence of images of wind turbines and solar panels in the advertisements echoing the growing weight of renewable energies in the Portuguese economy.

This campaign seemed to sum up recent efforts from national and local government authorities to transform both physical and symbolic landscapes of the country through the extensive adoption of renewable energies, notably wind power. Apparently, politicians found there a new ground to bridge the divides between "tradition" and "progress," "nature," and "culture."

Obviously, this expensive worldwide campaign was also meant to attract new investors and tourists to the country. Thus, although the extensive and fast adoption of renewable energies was apt to suggest the modernizing vein of the present Portuguese policies and therefore to obtain some interest from potential investors, a landscape full of wind turbines could keep tourists away from the country. This could particularly be the case of those from economically developed countries, who value environmental sensibilities, but may be disappointed by the dissemination of mechanical structures throughout the countryside. In order to mitigate the impacts of wind power on the tourism industry (we shall remind at this point that during our research, the large majority of wind power skeptics we met are developing local tourism projects), the political authorities struggled to "green" the decision of "spoiling" the "unspoiled" landscapes of the country with the arguments of globalization and climate change.

As a result of these ambiguities towards nature, conservation policies and the management of protected areas, a strong impetus for the restructuring of the existent official instruments of landscape management (such as the PO³), took place under strong political and economical pressures. In parallel, local traditional structures responsible for the management of the commons (mostly abandoned), in places considered with great potential for wind power, were suddenly revitalized.

While such processes were taking place, the first wind farms started to emerge in some protected areas. They illustrate different histories of acceptance, conflicts, or success, as we will explain, based on three case studies in protected areas, where wind farms have been or might be constructed. Such case studies allowed us to reflect upon relevant issues which emerged with the spread of wind farms in the country, focusing our study on the arena of negotiations over landscape uses and management, as well as on the articulation between environment and energy policies.

10.4 Wind Parks in Protected Areas

10.4.1 PNSAC: Global Concerns and Local Costs

The wind farm visible from the tiny village of Aldeia de Chãos was the first to be settled within the perimeter of the Natural Park of Aire and Candeeiros Mountains. Each of its 37 wind turbines is 90 m high and is rated at 3 MW capacity. Around the natural park, other wind farms have been installed during the last decade.

Local authorities in the region struggle for wind power, as it brings them opportunities to get extra incomes by agreeing with the companies on a share of the profits they obtain from the energy produced locally. The authorities celebrate a new wind farm, not only as an unquestionable achievement for the development of a local community but also as a non-negligible effort in order to contribute to national environmental objectives.

Anthropologists dealing with the theme of wind power dissemination in Portugal may have the opportunity to study emergent possibilities of political appropriation of environmental discourses and the production of new senses of "locality" (Appadurai 1996). It is now increasingly arguable that local decisions in a

³PO (Plano de Ordenamento) is the official planning scheme that regulates the national park.

"remote area" may have a valuable impact on the national level or even on the whole humanity.

Wind power seems to be also reshaping political power and relationships locally. Recently, in Alqueidão da Serra, after the *Junta de Freguesia* – the entity that governs the civil parish – had settled an agreement for the installation of a new wind farm in the vicinity of the protected area, the president of the junta offered two expressos to each of its inhabitants (a total of 1,600 expressos). "A toast to the future," he declared to a local newspaper. By "future" he was not only meaning "development" for the parish, but also invoking a new order in the relationship between the junta and the town council of Porto de Mós that was deliberately put aside of the negotiations – usually tripartite – with the wind power developer.

When we visited the wind farm in Candeeiros guided by a Park ranger, he suggested to us amusedly that we should take a picture of an official sign and a nearby wind turbine in the same frame. The sign – sponsored by the wind energy enterprise and composed by ICNF – adverts the potentially unaware visitors that they "are in a protected area." We take this ironical disposition, following the anthropologist James Fernandez, as a "perception of incongruity" (Fernandez 1986) that deserves to be noted (Fig. 10.2).



Fig. 10.2 Wind turbine in the Natural Park of Aire and Candeeiros Mountains (Photo: Ana Isabel Afonso)

Incongruity reflected by the "care towards nature" that the quote in the sign suggests, and the "thread towards nature" represented by the proximity of the turbine with the sign. The sign also asked the visitors not to pick plants or to capture animals and to contribute to the protection of species and habitats.

The issue in this incongruity is not as much the visual impact of the turbine, as background for the photo, but the "damage" it has caused for being there, reinforced by the incongruent quotes it exhibits (although the visitors are asked "not to take animals or plants," how many animals have been affected and plants been picked during the installation stage?).

So, in itself, the sign denounces another "impact," an ecological one, as an increasing number of visitors started to threaten the fauna and the flora. As our informant told us, in a mountain ridge rarely visited before, it was possible to see around 600 visitors in the weeks next to the settlement of the wind farm, surely attracted by the novelty of the "technological sublime" (Marx 2000) that some tourism companies were already highlighting in their pedestrian trail packs.

In other words, what the park ranger wanted to underline using irony was the incongruity of environmental policies in relation with what they (pretend to) protect, suggesting, in addition, traces of corruption in the business that are being promoted.

Although visual or aesthetical "impacts" have been addressed by local informants and propagated in the media (press and blogs), such visual impacts tend to be quickly belittled by local officials as matters of personal taste, as if questions of taste were subjective and individual, not socially constructed.

We were only aware of a single episode of effective collective opposition to wind power in Portugal, argued fundamentally on the basis of scenic values, in the Arga Mountain – a Natura 2000 Network site in northwestern Portugal. The local pilgrimage commission has demanded successfully that the wind turbines in the region were not visible from the São João de Arga Monastery (see below).

Besides visual (eventual) negative impacts, other objections to the wind power settlement in the Candeeiros Mountain were the noises heard in the Aldeia de Chãos, the village nearest to the wind farm, and the windmills flicker effect. Divergent voices came from members of a local association, the Cooperativa Terra Chã, which was actively engaged in promoting "sustainable local development" projects, notably on the development of rural tourism (for instance, thematic trails inviting visitors to observe local people practicing traditional agriculture). Besides the potential damaging effects of the noises emitted by the wind turbines on the welfare of the Chãos inhabitants, the predictable negative consequences to leisure activities in the village were particularly underlined. It has been argued that urban visitors would not want to expose themselves in the countryside "to the same noise they are used to in the cities." In a way, wind power brought the "city" to the village (Williams 1973).

The dubious position of the municipality in the negotiations with the developer, which contributed to the construction of the wind farm in Candeeiros, was also put in question. On the one hand, the town council of Rio Maior is accused of usurping the management rights over the commons of Aldeia de Chãos. According to a member of the association, the commons were registered as properties under town council administration without the agreement of the assembly of neighbors. On the other hand, the *Junta de Freguesia* – to whom the assembly of neighbors had temporarily delegated the management of the commons – was blamed for complicity with the town council and accused of taking decisions without consulting the assembly of neighbors. Apart from the involvement of the different parts in the controversy, we must sort out that a key claim against the wind farm is based on the traditional rights of a local community to manage the communal lands.

Local populations do recognize the commons as collective property. They know every other neighbor that is allowed to make use of it according to customary uses and knew their former owners. On the other hand, the natural park introduced a new conception of "collective property," that is, the notion that local landscape and natural resources also belong to the "national community" and even – through the Natura 2000 Network – to the "Europeans." This obviously requires some disposition to accept that complete strangers may legitimately have a word on the management of their own local resources. But on the contrary, our informants inhabiting protected areas tend to resent the measures imposed by the conservationist authorities as particularly intrusive ones.

Complaining as much as before, when they were being deprived from the scarce resources they had in hand (mainly the extraction of stone from the quarries), some inhabitants of Aldeia de Chãos experience the same feeling of bearing all the costs of modernity and global concerns related with environment protection, without gaining any of its benefits – "if at least we were offered a discount in the electricity bill...," commented one of our informants. In so doing, he suggested the relevance of the counterparts in the negotiation of conservationist measures that can only succeed with the direct involvement of local populations (through the consultancy of the assembly of neighbors) and not against them, using the interstices of law to implement top-down measures of landscape management.

10.4.2 Serra d'Arga, Not from the Monastery

In the Arga wind farm, 12 turbines with 36 MW installed capacity are placed within the perimeter of an environmentally "sensitive area" already declared a classified site under the European Natura 2000 Network (PTCON0039-Serra de Arga).

Besides its preservation status, the Arga Mountain is also an emblematic religious place in Minho. Vernacularly, Arga is frequently referred to as the "Holy Mountain." Also, hermits used to inhabit the mountain in the past. Monasteries and chapels still remain all over the mountain. In a sense, it is almost as if the mountain retained the sacred attributes of the religious men that inhabited there, and the remaining buildings where they lived kept sanctifying the whole place since then (cf. Miller 1998).

Inaugurated in 2006, the Arga wind farm is the result of the ambitious efforts sponsored by a partnership of several local municipalities of the Alto Minho region

to increase the wind power installed capacity in the area with the addition of 310 MW more by the construction of 16 new wind farms (also known altogether as the Alto Minho wind farm). At that time, the wind farm was expected to produce around 57 GWh yearly.

A Declaration of Environmental Impact (DIA) was emitted in March 2003. Although generally favorable to the construction of the Arga wind farm, the DIA imposed some constraints. The most relevant constraint consisted in the relocation of three wind turbines. Otherwise, if the original plan persisted unchanged, these turbines would be visible from the São João d'Arga Monastery. The DIA determined that not even the end of the wind turbines' blades could be observable from the monastery.

Dating from the twelfth century, the sanctuary's chapel is the typical rustic and late Romanesque architecture that one can find in Minho (Oliveira 1995). Since it is considered to be "one of the most important medieval testimonies in the region," the classification of this small monastery as a national monument was proposed in 1998 by the Portuguese Institute for Architectural Heritage (IPPAR) that took part in the environmental impact assessment commission as a member. Consequently, it was mainly the IPPAR that insisted in the need of conditioning the emission of a permit to the relocation of those wind turbines.

Having in mind its profile of a classified site under the Natura 2000 Network, the imposed constraints not only restricted what should not be seen from where, but also the licensing entities introduced specific requirements on building works, interdicting construction one hour after sunrise and another hour before sunset, in order to minimize potential negative environmental impacts and limit perturbations in wildlife during the works.

Another constraint imposed by the licensing entities was the installation of gates in the park, so that cars could not enter into the site. The authorities were surely aware of previous experiences in Portuguese wind farms – as in the Candeeiros Mountain, for instance (see above, Afonso and Mendes 2010) – where people, attracted by a mixture of nature, gigantism, and technology, got used to visiting wind farms, intensifying the circulation of vehicles in environmentally sensible areas as the Arga Mountain. According to the manager of Empreendimentos Eólicos do Vale do Minho, José Miguel Oliveira, "nowadays, everyone wants to visit the wind farm and we had to place gates for the first time in our parks." Albeit that, visitors are allowed – and even encouraged – to visit the wind farm on their foot. The promoters are planning "to build an information center and pedestrian trails" around the place.

The main section of the wind farm is located on a plateau – the Chã Grande – that the surrealist poet António Pedro once described as a "quiet atmosphere of sensitive ruins." This is a very evocative place, with its religious temples and pastoral land-scape, full of vestiges of cultural and geological past, a place full of ruins.

In the environmental impact assessment (EIA) submitted by the promoters, the "presence of the wind turbines" – all twelve – was already invoked as a negative result of the construction of a wind farm. Nevertheless, the EIA also mentioned that this impact over the landscape is "a subjective matter."

However, although the pilgrimage's committee opposed to the location of three wind turbines in the project, the installation of a wind farm in the Arga Mountain was fairly peaceful. *Vestas*, the manufacturers of the turbines, do not exaggerate when they claim that there is "strong local support" to wind power in the Arga Mountain. Once the problem of the impact on the sanctuary and the festive activities that take place there yearly is surpassed, the wind farm became generally consensual, as well as the perspective of future wind farms in the "Holy Mountain."

The Arga Mountain is sparsely populated. Only 300 persons inhabit an area of more than 3,000 ha. In addition to the unproductive nature of the vast majority of the mountain's lands and the peripheral condition of the area, the growing depopulation of Arga throughout the twentieth century is often regarded as the main cause of the present-day preservation of its natural and cultural heritages. Here, a mere half an hour away from a national district capital, Vestas' technicians found themselves "in the savage side of the world" – the expression they used to title a document defending the Arga wind farm as exemplary in terms of respect for local "natural values." In a poor mountain inhabited by much more semi-savage cattle than persons, smaller impacts were to be expected, notably social impacts. Truthfully, and contrarily to the Candeeiros wind farm, in Arga the remaining inhabitants do not claim to be affected by noise or shadows in consequence of the presence of the turbines. They only see the turbines, and this apparently does not constitute a problematic issue for them.

Nowadays, the wind farm revenues to the community from the rental of the commons sited in the civil parishes of Arga de Cima and Arga de Baixo are highlighted locally as a rare opportunity to guarantee the funding of local social and cultural projects. Moreover, the wind power in Arga is also expected to detain the demographic decay, as the local administration is believed to be able to offer better life conditions to the mountain inhabitants. In short, wind power represents now the opportunity of a "new order" for the region again.

10.4.3 Natural Park of Montesinho (PNM): The Commons at the Center of Negotiations

The Natural Park of Montesinho was established in the late 1970s in the extreme northeast of Portugal, often described as one of the most remote and wild regions in Europe with significant and rare natural resources. This protected area covers the region of the Montesinho and Coroa mountains and therefore the northern part of the municipalities of Bragança and Vinhais.

Although the exploration of wind power in the hills of Montesinho is still only an eventual possibility reclaimed by the local populations and authorities, while having strong opposition by the conservationists and nature tourism entrepreneurs, the negotiations and debates that are being promoted at the local level are reactivating old antagonisms. Initially, during the discussion of a new planning scheme for the Natural Park of Montesinho, the ICNF argued for the total prohibition of wind farms within the nearly 75,000 ha of this protected zone. Later, the ICNF accepted its possible exploitation, under certain vaguely defined conditions and apparently related to political lobbying. This fuzzy process of decision making may be interpreted as the political result of the dilemma pitting conservationist policies against the threat of global warming.

In some of the parishes of the Natural Park of Montesinho, companies involved in the wind energy sector, foreseeing possible future permissions to construct wind farms in the protected area, have already rented some communal lands. Such a strategy of anticipation combines two main factors that leave the door open for future wind farms in Montesinho: the prospect of returns from the investment done by companies and the achievement of local acceptance, without much tensions and conflicts, at least in what concerns intra-community level.

The uses of the commons (*baldios*) have had in the past an important social function in the everyday practices of the community, contributing to attenuate social inequalities and allowing the subsistence of those who did not possess land, by giving them access to cultivation or collection of basic resources in the common lands. An assembly of neighbors manages those communal lands – a "neighbor" (a "comparte") is the resident of a village, who has the right to explore the commons "according to tradition and custom's laws"⁴ usually established by the oral tradition transmitted across generations.

In the ongoing negotiations for the rental of lands where wind turbines could be installed, the neighbors' representatives directly handle the contracts with the stakeholders (based on the expected power to be installed) for the benefit of the whole community. For instance, in the village of Aldeia de Montesinho, the money received has been invested to build up an irrigation network for communal use.

Wind power brought to these neighbors a high negotiable power, even a certain empowerment, reactivating and redirecting traditional collective uses, in decline, towards these unexpected winds of bonanza. At this time, the almost obsolete communitarian structures quickly became protagonists in a process that was not unnoticed to the companies, either from outside (which directly addressed them in order to sign rental contracts) or local companies (adding private interests, some village councils, and municipal investment) that without any experience in the renewable energy industry soon discovered that it could be interesting to invest in those so coveted commons.

The mere prospect of an eventual future construction of wind farms in the Natural Park of Montesinho has decisively contributed to the restructuring of important instruments of territory management – such as the long-awaited revision of the planning scheme. It has had a major role in the dynamics of traditional practices of landscape management, being the empowerment of the neighbors and the improvement of living conditions of the villagers the most visible local outcomes.

⁴Law N° 89/97 of 30 July.

10.5 Final Remarks

As we understand through the case studies conducted in protected areas, these physical spaces are now the subjects of new controversies with old protagonists: local populations, conservationist authorities from ICNF, local power.

Different perceptions of "landscape" traditionally coexist in the Portugueseprotected areas, sometimes conflicting with each other. On the one hand, the conservationists tend to valorize its scenic value in accordance with their perception of "landscape" as an abstract entity. On the other hand, local populations usually perceive the "landscape" as a legacy from their ancestors and a tangible place from which to extract a livelihood.

Reinforcing these antagonistic views, the discursive subjectivation of the scenic value of landscape has been emergent throughout the research, either by what has not been said or by what has been explicitly verbalized. Local opponents to wind power and conservationists avoid the issue and rather focus on other more tangible arguments (birds, noise, shadow, counterparts). Politicians prefer to discharge the argument of the visual impact as a matter of personal taste. The mayor of Montesinho, for instance, stated provocatively in one of our interviews: "the visual impact of the turbines is totally subjective, for me they look like flowers...."

Beyond that, our observations in the field illustrate how the implementation of wind power is encouraging local participation and revitalizing ancient structures of landscape management, in order to reclaim a share in the benefits of the exploration of their lands' resources. This is particularly notorious when the areas of wind potential are coincident with communal lands, which, as we have exposed, is frequently the case in protected areas.

The sudden and gigantic landing (either physical or economical) of wind farms in remote rural portions of the country, strongly dominated either by domestic agriculture or declining fragile industries, gave continuity to ancient conflicts around communal land uses and property rights, allowing to revitalize traditional informal local organizations (as village neighbors' assemblies) who used to manage the commons. Consequent revitalization and empowerment of such local structures contributed otherwise to reconfigure well-established quarrels that had always opposed local populations and governmental conservationist policies, represented by the ICNF.

On the other side, it is not difficult to acknowledge that the new landscapes of energy also constitute an important arena of negotiations, where stakeholders and local inhabitants all have something to gain with it. With this respect, it is interesting to note how the emergence of new landscapes of energy, so contested in other European countries (such as Germany, France, or the United Kingdom), has owned such pacific acceptance in Portugal. Even the usual conflictive interests, as those that usually oppose wind energy and tourism, for example, could be, in a certain way, neutralized, through strategic solutions and negotiations.

In a certain way, this conviviality is consonant with the idiosyncrasies of the country as regards landscape culture, either viewed from above (if we take national

policies towards environmental issues) or from below (if we focus on local practices and processes under negotiation). Those key outcomes of the research clearly point to a decisive role of landscape for wind power deployment (Nadaï et al. 2013).

In what concerns Portugal, the economic dimension of wind power, meaning by this the fact that it is both local (distributed generation) and reinforced with an economic power (the promise of benefits) by the national feed-in framework (with transfer of value to city council), endows it with the capability to revitalize (and empower) ancient structures of landscape management during the local negotiation process. This becomes the occasion for local communities to contest the rules and regulations of nature protection institution, which imposes the national landscape as a shared norm (heritage), when landscape is shared as a practice on the local level (commons, property rights, agricultural production).

The embedding of wind power in local politics has followed different directions in the three situations – while in PNSAC negotiations took part between entrepreneurs and the municipality (institutional level), in PNM entrepreneurs rented the commons directly from the local, through their representatives at the "assembly of neighbors." A mixed participation occurred in Arga Mountain, where locals, entrepreneurs, and the municipality, altogether, figured out the displacement of some turbines in order to respect the shared religious value of the scenic landscape.

By means of the reclamation of communitarian property rights (commons), for (in Montesinho) or against (in Serra dos Candeeiros), or even "only if" (the turbines won't be seen from the monastery) in Serra d'Arga, wind power not only reveals the top-down dimension of nature protection; it also points at a positive dimension of landscape in wind exploration: the mere fact that such communities of practices are the channel through which this deployment gets embedded into the social.

Landscape, characterized here as a social process and a practice, is also a resource for the energy transition. Yet, when compared with other European countries, wind power has been much more controversial in Portugal. It does not only claim for an actualization of established institutional patterns regarding landscape management, but for a complete change in the way through which local societies and cultures get articulated with national environmental policies and landscape values.

References

- Afonso AI, Mendes C (2010) Energía eólica y paisajes protegidos: Controversias en el parque natural de montesinho. Nimbus: Revista de climatología, meteorología y paisaje 25–26:5–20 Appadurai A (1996) Modernity at large. University of Minnesota Press, Minneapolis
- Çalişkan K, Callon M (2009) Economization, part 1: shifting attention from the economy towards processes of economization. Econ Soc 38(3):369–398
- DGEG Direcção Geral de Energia e Geologia (2013) Renováveis. Estatísticas Rápidas 95

EUR-Lex (2009) Official Journal of the European Union, 5th April

- Fernandez J (1986) Beyond metaphor: the theory of tropes in anthropology. Stanford University Press, Stanford
- Hess D (2007) Alternative pathways in science and industry: activism, innovation, and the environment in an era of globalization. MIT Press, Cambridge

- Latour B (2005) Reassembling the social: an introduction to actor-network-theory. Oxford University Press, Oxford/New York
- Marx L (2000) The machine in the garden: technology and the pastoral ideal in America. Oxford University Press, Oxford/New York
- Miller D (1998) Why some things matter. In: Miller D (ed) Material cultures: why some things matter. University of Chicago Press, Chicago, pp 3–21
- Nadaï A, Krauss W, Afonso AI, Dracklé D, Hinkelbein O, Labussière O, Mendes C (2013) Une comparaison de l'émergence de paysages éoliens en France, Allemagne et Portugal. In: Terrasson D, Luginbuhl Y (eds) Paysage et Développement Durable. Quae, Paris, pp 157–169
- Oliveira EV (1995) A Romaria de S. João d'Arga. In: Festividades cíclicas em Portugal. D. Quixote, Lisbon
- Ramos MJ, Medeiros A, Sena P, Praça G (2003) Managing natural resources in Eastern Algarve, Portugal: an assessment of the policy uses of local knowledge(s). In: Pottier J, Bicker A, Sillitoe P (eds) Negotiating local knowledge: power and identity in development. Pluto Press, London, pp 155–170
- Stoler AL (1995) Race and the education of desire: foucault's history of sexuality and the colonial order of things. Duke University Press, Durham/London
- Wiliams R (1973) The country and the city. Oxford University Press, New York