

ENVIRONMENTAL POLICY INTEGRATION AND THE CASE OF THE ODELOUCA DAM IN THE ALGARVE, PORTUGAL

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Abstract

The paper evaluates which actors were able to introduce the consideration of environmental protection, into the construction of the Odelouca dam in the Algarve, Portugal. Even the European Commission implicitly acknowledges that the dam infringes the Habitat Directive. The paper concludes that the European Commission through introducing the Habitat Directive, the EIA directive and the complaint procedure opened scope for the environmental NGOs to question the legitimacy of the actions of the national and European authorities. However, physical development relying on and increasingly necessitating the dam and a cross-sectoral, cross-level community of actors promoting it accomplished its currently ongoing realisation. Finally, the paper makes concrete suggestions for strengthening the physical manifestation of conservation claims and it asks if the Environmental Policy Integration principle is the best-suited instrument for the accessible assessment of the implications of human interactions with the environment.

1. Introduction

This principally empirical paper presents the case study of the construction of the Odelouca dam in the Algarve, Portugal, for evaluating the dynamics and interactions that led up to its construction in the light of Environmental Policy Integration (EPI). EPI is one of the keys to understanding the agenda of European Environmental Policy (EEP) in the 90s and in the new century. The 6th EAP states the implications of the principle as requiring “all other policy areas to take full and proper consideration of the European Community’s environmental objectives when making policy decisions” (CEC, 2001, p65). However, environmental policy objectives themselves can be contradictory, as for example those demanding the delivery of a specific quality of drinking water to populations, which, as in the case study below, interferes with the protection of the habitat of a species, protected under the Habitat Directive. The consideration of the environment due to the EPI principle can imply the consideration of exploitative implications of an interference with the environment as well as the consideration of its conservationist implications. However, the construction of a dam, which is the subject of the case study presented below, automatically considers the exploitation of the environment. Therefore, here we are going to treat to what extent the competing claim about the protection of the environment has been considered in the decisions that led up to its construction.

The question the paper will try to answer on the basis of the empirical material presented below is therefore: what role did the consideration of the protection of the environment play in the way the Odelouca dam in the Algarve, Portugal is being constructed? Protection of the environment is thereby defined as minimizing the exploitation of the environment. It is aimed at maintaining the environment in an equilibrium that is people value for its specific biodiversity features.

Hence, firstly we reconstruct what societal dynamics and decisions led to the construction of the dam. Secondly, we evaluate to what extent these dynamics and decisions considered their implications for conservation. Reconstructing what has been considered means identifying the actors involved and reconstructing the way the actors took decisions. We encounter significant methodological difficulties, as consideration is a process inherent to an actor, which is largely closed to the researcher. The failure to consider can be down to a variety of reasons which we often have problems to reveal: knowledge of conservationist implications may not have been available, it may have been considered but judged of minor importance, or

it may not have been considered deliberately. In this work we do not pay too much attention to these methodological difficulties of judgement for which we lack data, instead, specifying the question above we ask: who introduced the consideration of the protection of the environment most effectively with regard to its physically manifesting result, how and why? In other words: whose intervention led to what environmental protection and why? We assess the effectiveness in integrating environmental protection as a consideration on the basis of the claims derived from currently available knowledge about implications and their impact on environmental protection values.

We ask which actors, on the basis of which capacities, which policy-coordination instruments, and which levels of governance, were most effective in introducing the consideration of the conservation of the environment into the dynamics and decisions that lead up to the construction of the Odelouca dam.

Assessing EPI against its physically manifesting result the paper examines the weakness of existing studies on EPI in evaluating the physical outcome of the processes EPI is to address (see for example: Lenschow, 2002). Furthermore, by assessing EEP in view of its physical result, we judge it across its various dimensions and laws. This enables us to analyse the interrelations between various policies enacted by the EU and their interaction with contextual factors and actors, as opposed to a variety of studies evaluating the implementation of specific pieces of legislation, omitting their implications for other dimensions of environmental policies, overall EEP and interactions with its context (see for example: Knill and Lenschow, 2000). Assessing EPI against the physical result of the interactions of actors we can furthermore draw conclusions about how actors shaped this physical outcome, or by means of which capacities and powers.

We can only overcome the above mentioned methodological ‘risks’ implied in judging the considerations that lead to the construction of the dam, on the basis of extensive data gathering. The paper is founded on such in depth understanding. It is part of a doctoral thesis on a related topic, which allowed the depth of contextual and case understanding that was necessary for judging ‘what has been considered’¹.

In the following we will answer the research question by first of all presenting the “explanandum”, the Odelouca dam, its features, the reason why it is built, who and what purpose it is to serve, and what implications it has for environmental protection and how negative impacts could be minimised.

Next, we point to the instances in which the protection of the environment has been considered in the development leading towards the construction of the dam. We explain why the actors have considered environmental protection in these dynamics and the decisions involved. We are going to exhibit which actors², by means of which capacities³ and which

1 Newspaper review 1986-2003; papers consulted: Público, Expresso, Diário de Notícias, Commercio do Porto, Jornal do Algarve, Correio da Manhã, Água e Ambiente, Sulstício, Litoral, Algharb, Documents from the region mainly from the series of “Congresso Nacional Sobre o Algarve”, 1980-2002; No.1-12, and Bolletim Municipal Albufeira and Bolletim Municipal Silves, 1984-2003

51 interviews with all main actors held between 01.2003 and 07.2003

² Actors: Actors can be single persons or entities comprising many people, the same person can act as various actors depending on the goal he pursues in interaction with the object he wants to act upon. In other words, a person as member of an NGO pursue different goals from those pursued as human being. Actors pursue specific goals for specific purposes by means of specific capacities which vary with the goals they pursue.

³ As capacities we distinguish 5 categories which emerged from the field work as a way of shaping the construction of the dam: the legitimating, regulatory and authoritative capacities are specific to the modern

levels of governance⁴, dynamics⁵ and policy co-ordination instruments⁶ were most effective in shaping the dam physically in line with environmental conservationist objectives. Finally, we answer the research question, by confronting the consideration of environmental protection with the overall considerations and dynamics that it was part of, in order to assess the role it played for the construction of the dam and the way it was built.

2. The Odelouca dam: rationality and implications for the environment

The Odelouca dam is the last piece of an integrated surface water supply system (ISWSS) in the Algarve, Portugal. It is one of four dams which are to store surface waters from streams and rivers in the interior hills of the Algarve in order to provide it to a variety of water uses on the coast, mainly for permanent populations, fluctuating populations such as tourists and second home owners, irrigation of green spaces, golf courses and agriculture.

Currently, the large parts of the Algarve that have access to piped water are supplied with water of drinking water quality. In high season in the dry years, however, the way surface and groundwater sources are exploited currently, irrigation in agriculture is sidelined by the demands of the tourism sector. Hence, water demands outstrip supply.

The overall supply pipes of the network are already built, as are water treatment plants and three dams, two in the eastern corner of the Algarve, Odeleite and Beliche and one in the west, Funcho⁷. The first plans for the overall scheme go back to the fifties. The general layout in which it is being implemented dates back to the beginning of the seventies.

European state. Legitimizing capacity means the capacity to legitimise actors in a certain position: voters>politicians, Prime Ministers>Ministers, Minister>Directors of Institutes in their scope of competence; the regulatory capacity is the capacity to draft legislation and regulations for a specific territorial unit; the authoritative capacity is rooted in regulatory capacity, and implies the right and duty to take on a certain task in a certain way; furthermore we distinguish the financial/physical capacity (they are closely bound up in capitalist societies) to physically interfere, and finally the socially constructive capacity standing for the establishment and influence of conceptions and perceptions guiding human interference in the environment.

⁴ Levels of governance: In the case of Portugal we distinguish 5 levels on which actors interact according to the spatial extension of their capacity to shape the object of research: supranational, national, regional, local and individual/ sublocal.

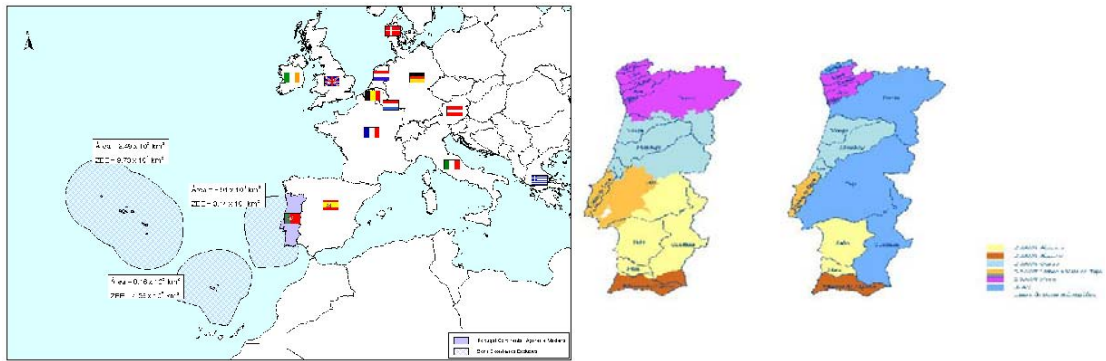
⁵ Dynamics: Dynamics we take to be the result of an accumulation of single decisions by actors. A dynamic emerges if the majority of actors take the same or similar decisions, so that the dynamic shapes the object of research in a certain fashion.

⁶ Policy co-ordination instruments: As policy coordination instruments we define any attempt to make a sectoral policy aware of its implications, interactions or interdependencies with other policies, or issues they impinge upon. The EPI agenda for example tries to introduce the consideration of the environmental implications into other policies. The policy-co-ordination instruments it proposes are: participation, Environmental Impact Assessment, Strategic Environmental Assessments, plans, indicators, economic instruments, consultation.

⁷ Furthermore, in the West there are two more dams, Arade and Bravura. Arade supplies water for irrigation in agriculture, Bravura as well, only in the summer months it provides water to the tourism zones in the West of the region.

Figure 1: Portugal in Europe

The Algarve in Portugal

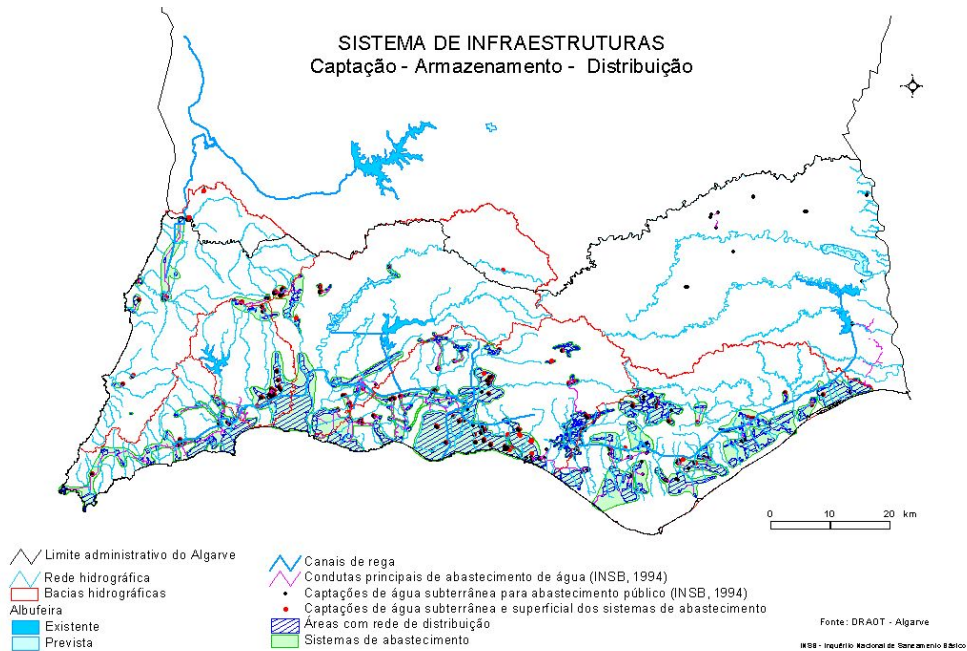


source: Electronic resource: www.dra-algarve.pt, 2.2.2004

The Beliche dam was built in the first half of the eighties, the Funcho dam was built from 1986, the Odeleite dam was built in the nineties along with the pipes connecting the dams as well the water treatment plant. The system based on these three dams started functioning in 1999.

The Odelouca dam is a large dam that will make a substantial difference to the surface water storage capacity of the scheme, as it comprises further sub-basins, which are not exploited yet.

Figure 2: Configuration of surface water supply in the Algarve



source: Electronic resource: www.dra-algarve.pt, 2.2.2004

Figure 3: The Barlavento system

The Sotavento system



source: Águas do Algarve, 2001

Yet, the dam by itself has deep implications for the survival of the Iberian Lynx⁸, a species close to extinction that is protected under the Bern Convention and the Habitat Directive. The dam is located in an area that was designated Corine Biotope in the eighties for its biodiversity value, the Serra de Monchique, and that has been designated a NATURA 2000 site. The area is considered one of the most valuable existing habitats of the Lynce Iberico, which was sighted there frequently in the nineties. While it is not certain that the species is still living in the area, it remains a site where its re-introduction would be highly promising. Throughout the construction of the former dams no similar interference with what is valued as habitats worth protecting occurred.

3. The introduction of the consideration of environmental conservation

The implications of the dam for the conservation of the environment have been probably first been considered in the course of its construction when the President of the National Water Authority (NWA) intervened to avoid that the National Environmental Protection Authority designated the site of the dam as Natura 2000 site in 1994. He intervened with the Minister for the Environment in charge of both agencies, as he rightly feared that the designation of the area as NATURA 2000 site might pose problems to the construction process of the dam. However, the site was designated as Natura 2000 site. On many other occasions the national environmental protection authority changed the designations of sites. However, we can assume that this was specifically difficult in this case as the Serra de Monchique is one of the few habitats that had already been recognised beforehand for its “biodiversity value”.

With the implementation of the remaining parts of the ISWSS after 1994, the NWA launched the procedures for constructing also the Odelouca dam. At the same time several national and regional environmental non-governmental organisations (NGOs) re-iterated environmental conservation considerations when they write letters and meet the NWA to contest the dam and its legitimacy. They argue that the implications of the dam for environmental conservation are extremely grave and that the dam is not necessary for supplying sufficient water to agriculture, residents and the tourism sector. Instead they argue that growth projections of both economic sectors by the NWA and the government are far too optimistic, that the aquifers available and already catering for 90% of water supply are sufficient and could also cater for the projected water needs, and that great potential could be mobilized by cutting water losses in pipes and agriculture and introducing modern water saving technologies.

The NWA, argued the opposite: aquifers were not sufficient and of deficient quality, growth would be strong in agriculture as well as in the tourism sector (especially with a focus on “quality tourism” and golf courses) and as a result the dam would be necessary for meeting the public health demands in the region and their future growth and maintaining the desired diversity of the regional economy.

The Minister for the Environment did not approve of the subsequent Environmental Impact Assessment (EIA) following the verdict of the report of the various entities of the Ministry that evaluated it. No zero alternative has been considered and the alternatives that were considered were too negative for the environment. The environmental NGOs in fact had direct crucial influence on the verdict of the Evaluation Commission through one of its members that had researched the Iberian Lynx in the Serra de Monchique.

⁸ We will focus on the Iberian Lynx as the most emblematic species that is threatened by the dam. Further rare and protected flora and fauna are present in the area.

Yet, the government, the NWA, the agriculture sector, the tourism sector and all political parties in the region including all municipalities implicitly supported by a population that experience the NGOs as a nuisance demand the realisation of the dam with varying intensity.

The Minister approved the second EIA in 1999 under the condition that a reduced version of the dam would be built and that extensive mitigation, compensation and accompanying measures were involved. Meanwhile several studies had been produced by the NWA and consultancies linked to the project that confirmed exorbitant growth of tourism and agriculture and insufficient capacity of the aquifers. They fed into the EIA, which therefore concluded that the dam was inescapable for securing public health of the permanent and fluctuating populations in the region.

In consequence most environmental NGOs withdraw from the process. One NGO submits a complaint to the European Commission (EU COM) arguing that the dam would infringe the Habitat Directive, as public health was not in question through the dam. Furthermore, they argued that directly or indirectly the dam would promote agriculture in the region, which would further damage aquifers through the use of fertilizers and pesticides, which in turn made groundwater unusable for the future. Furthermore, they asked whether DG REGIO of the EU COM had already received an application for co-funding, whether it was intending to co-fund the dam and whether maybe it even demanded the construction of the dam after all other infrastructures of the ISWSS had already been co-funded. DG REGIO denied having received an application for co-funding or demanding its implementation, however, it makes clear that it considers the dam to be necessary in principle. The Portuguese authorities however always assumed that they would receive 85% of the funds for the dam from DG REGIO.

As a result the EU COM, DG REGIO and DG ENV had to consider the implications of the dam for environmental protection. It has not been clarified by the EU COM if the dam was infringing the Habitat Directive or not. Yet DG ENV tried to close the case at one point arguing that the Habitat Directive was not applicable, as the first EIA had been started before the Directive came into force. However it soon withdrew this claim as the second EIA essentially was a new separate EIA.

In the meantime the Portuguese authorities including the Minister made a variety of efforts to satisfy the Commission, behind the scenes as it were. DG REGIO advised on mitigation and compensation measures and further extrapolations of data and justifications of the dam were submitted to the EU COM. Officials in DG REGIO as well as in DG ENV that dealt with co-funding are all Portuguese. They are aware of alleged former water shortages in the Algarve and support the dam unofficially. They furthermore remarked that Portugal had already selected an option that implied the least possible harm to the environmental conservation value of the area. In 2001 the NWA starts the construction works. Throughout 2003 officials in Portugal are still convinced that the dam will be constructed and that it would receive co-funding from the Commission. The Commission however examines the applications firstly with regard to the allegation that the water from Odelouca itself is to serve agriculture. This cannot be totally excluded as the water distribution infrastructure of the whole ISWSS provides water for agriculture as well as for populations. In such a case co-funding was not possible, firstly as the Cohesion Fund may not co-fund agriculture and secondly as consequently the dam was no longer exclusively for public health.

At the end of 2003 it becomes clear that Portugal will not receive co-funding from the EU COM for the construction of the dam. However, on the complaint procedure no judgement has been made yet. The works on the dam come to a halt as the government cannot pay the

contractors anymore. Alternatively, the municipalities that are to benefit from the dam agree to successively pay for it through an addition to the water charges. Meanwhile the construction of the dam continues, accompanied by an environmental monitoring commission. Furthermore, a study centre for the Lynce Iberico is introduced in the area and the authorities envisage re-introducing the species at another location in Portugal

We now evaluate the effectiveness of actors in introducing the consideration of environmental protection into the decisions concerning the dam.

Clearly, without the regulation of the Habitat Directive and the EIA and the enforcement authority of DG ENV and the EU COM, the NWA would not have had to consider the implications for environmental protection at all. Given this regulatory framework and the increasing emphasis of DG ENV on actually implementing the directives and their meaning on the ground, the environmental NGOs obtained two potent levers to raise the consideration of environmental protection throughout the construction of the dam.

Firstly, one of its members was able to influence decisively the judgement of the members of the Evaluation Commission of the first EIA, which led to the disapproval of the first EIA. Therefore they ensured that in the second EIA the dam received deep scrutiny and the project had to be altered, as approving the same dam in the second round would not have been credible. Furthermore, extensive mitigation, compensation and accompanying measures had to be introduced. Their socially constructive capacity, exercised over the Evaluation Commission, was decisive therefore. With this altered scheme the NWA already tries to preempt later doubts of the EU COM with regard to the dam. Hence, we can assume that the capacity of the EU COM to condition the financial/physical contribution it made to the dam also played a role already at that time in making it as little environmentally harmful as possible, testifying the Portuguese authorities good will without compromising the core purpose of the project, to provide unlimited water ubiquitously from large easily controllable sources.

Secondly, due to the complaint regime environmental NGOs on the one hand were able to alert the Commission to the potential infringements of the dam and on the other were able to threaten bringing a case in the European Court of Justice against it. Also, they could raise the salience of the project in the EU COM to an extent that not only a small group of officials of Portuguese nationality dealt with it. The legitimacy of the actions of the EU COM as well as the government could therefore be effectively questioned through the authoritative capacities of the environmental NGOs to submit a complaint.

However, so far the environmental NGOs did not manage to inhibit the building of the dam.

The diffuse stance that the EU finally adopts is highly ambiguous and based on its authoritative capacity to drag the complaint procedure on. Implicitly, by not co-funding the dam, the EU COM, despite extensive informal demands by the Portuguese authorities and internal support by Portuguese EU officials, admits that it is not the only way to secure public health. Therefore automatically the dam also infringes the Natura 2000 directive. On the other hand the EU COM officially never had to make this statement as in fact Portugal never formally applied for the funds. We assume, as officials of the EU COM and the Portuguese authorities worked on justifying the dam, that these contacts were intense but informal. On the other hand, the EU COM never responds to the complaint against the Odelouca dam and instead drags the case on while construction advances.

Unofficially the EU COM decides not to co-fund the dam, presumably due to important reasons of infringement, as the Portuguese authorities including the Minister for the Environment vehemently argued for it. On the other hand it tolerates the construction of the dam through its authoritative power over the complaint procedure.

Furthermore, with recourse to their socially constructive and authoritative capacities, the NGOs heighten public salience of the project through questioning the legitimacy of the Portuguese government, and of the EU COM in exercising its co-funding procedures and its authority and duty to implement and enforce environmental legislation. We can assume that it is not least the responsibility of the NGOs therefore that Portugal does not receive co-funding for the project, which on the other hand will not inhibit its realisation. The Portuguese authorities in order not to put their own legitimacy and that of the EU COM at risk pre-emptively downscale the project and introduce significant mitigation, compensation and accompanying measures. They are in some way, to make up for the irreversible destruction of one of the last habitats of the protected Iberian Lynx.

To answer the question of this section, the EU COM gave scope for the NGOs to introduce the consideration of the environment and put the legitimacy of the authorities to the test. The authorities in response consider environmental protection, alter the project and therefore, using their financial/physical capacities, shape the project physically taking account of these considerations. Yet the core of the project goes ahead therefore manifesting in its core physical interference with environmental protection.

The NGOs used their socially constructive capacity in order to raise the public salience of the project and reinforced it through recourse to their authoritative capacity to submit a complaint. The Portuguese authorities used their financial/physical as well as their authoritative capacities to implement their view of the consideration of the environment (the works on the dam) physically. The EU COM decided not to use its financial/physical capacity for promoting this part of the ISWSS after already co-financing the rest of the ISWSS. Yet, at the same time it uses its exclusive authoritative capacity by delaying the complaint procedure. Also, it does not use its exclusive authoritative power to make the infringement of the NATURA 2000 directive official. This would have effectively halted the construction until the potential decision by the European Court of Justice.

The most effective instruments for introducing the consideration of environmental protection into the construction of the dam were the Habitat directive, the EIA procedures, the complaint procedure and the possibility of the EU to condition co-funding.

4. The role of the consideration of environmental conservation

In this section we look briefly at the role the consideration of environmental protection played in the overall decisions that led up to the currently ongoing construction of the dam.

The project underlying the dam dates back to the beginning of the seventies, when surface water supply projects were unquestionably positive, economic development policies, mainly to serve agricultural development. One expert described the paradigm as “every drop of water that reached the ocean was perceived as lost” and “every investment into water supply works was economically viable”. Environmental exploitation was inherently considered throughout its preparation. It was not of several large agriculture development projects were developed at the time. In reality agriculture hardly developed in the Algarve, and since the mid-eighties it is in a deep crisis due to a lack of competitiveness in Europe and the higher profitability of tourism in the region.

Traditionally aquifers were never considered in plans to expand water uses, in fact they were only studied throughout the eighties by external development agencies. Also, there were no later studies of how the Algarvian economy could be sustained by water supply from the extensive aquifers. Similarly, until now the potential of water demand management was never seriously examined.

Tourism however developed in an uncontrolled and extremely dynamic fashion until the end of the eighties, leading to ever increasing water demands. It soon became one of the most significant export sectors of Portugal. The regional economy increasingly relied on tourism and the construction sector catering for its expansion. In the beginning of the nineties, when significant parts of the Algarve were already subject to mass tourism offering a degraded product the sector entered into a crisis. Regional and national actors introduced measures to control land use development to a greater extent and to plan and co-ordinate tourism development. At the same time a new development paradigm for tourism was introduced: “quality tourism” relying on an upgrading of Algarvian facilities, accommodation, aesthetic qualities and leisure programmes. With regard to water use, this implied a reinforcement of the irrigation of green spaces and the projection of a large number of golf courses. In certain contexts this also implied the protection of water bound eco-systems, where these were in reach of tourists and where they were ascribing a specific value to them. Soon, construction picked up again, second homes and resorts were developed, and in many significant cases planning restrictions were overridden after the intervention of the government. Increasing accessibility, a deficient local planning system and a local tax system that rewards the promotion of construction continued to fuel tourism. More and more golf courses were built and projected. The conservation of water bound ecosystems and the implications of the expansion for water supply were never considered.

On the whole therefore water demands increased and remained just as seasonal and concentrated on the coastal zones as before, while agriculture implied a stable level of basic consumption. At the same time coastal aquifers continued to deteriorate due to increasing overexploitation and expanding water supply systems. Many of the municipalities (CMs), in charge of water supply and sanitation did not comply with the Drinking Water Directive (DWD). To overcome their problems they tried to organise the ISWSS among themselves, which they failed to accomplish. As a result the government decided to implement the ISWSS through a publicly owned private company that would deliver the water to the CMs that paid in return. That way the Ministry would gain extensive control over municipal water supply and it could make sure that the DWD was implemented. The private company would finance its works from the European funds and the contributions of the CMs. To become viable however, CMs had to agree to consume a certain minimum quantity of water for which they paid a specific price. As a result the regional water company depended on the Odelouca dam for delivering sufficient water for it to become viable. Its existence introduced a further driver for the implementation of the dam as the concession contract depended on the delivery of water from the dam and few large surface water sources were considered to be the most effective way to provide water and raise a price from consumers for it.

At the same time the national and regional agricultural authorities subsidised extensively the modernisation and investments into the expansion of intense irrigation agriculture, with strong contributions from the EU. Farmers themselves turned away from agriculture and oriented their activities entirely towards what would secure European subsidies. Yet, some significant expansion was still officially assumed.

None of the above decisions/dynamics considered their implications for environmental protection.

All actors, including the permanent populations and tourists, always assumed ubiquitous, unlimited water supply. Those in charge of water supply based it on an institutionalised surface water development paradigm. In the light of these assumptions the need for the dam became a self-fulfilling prophecy.

Tourism expanded relentlessly, with increasing demands since the adoption of quality tourism as paradigm of development, and increasing accessibility. The private water company systematically depended on the dam for becoming viable. The economic strategy of the CMs, the region and the Portuguese state which started to be implemented physically by the end of the nineties depended on supply from the dam. In consequence they agreed to pay for the dam themselves through a surplus on their payments to the regional water company. The water company needed the dam to become viable and the Ministry built its strategy to implement the DWD on it. The lack of earlier water saving and water management made the dam necessary. Coastal aquifers were already largely deteriorated, and physical development presupposed increasing water supply so that due to the extended time scales of aquifer recuperation their recuperation and the realisation of water savings could not result in sufficient available water on time for catering for the continuously increasing needs.

5. Conclusions

Concluding this paper we have to acknowledge the following points for the integration of the consideration of environmental protection into development, based on the reality of the case described. The most effective factor in introducing the consideration of environmental protection is the introduction of the NATURA 2000 directive by the EU COM. The EIA and the complaint procedure are most effective in inciting the examination of its adequate implementation. Both give environmental NGOs the authoritative right to question the legitimacy of the actions of the EU COM and Portuguese authorities through introducing their social constructions of the need for the dam.

Due to this questioning of legitimacy, together with their fear of losing European financial support, national authorities use their physical/ financial and socially constructive capacity to lessen the implications of the project for environmental protection, to demonstrate their good intentions. At the same time the national authorities use their socially constructive capacity to prove the inescapable need for the dam, through studies and prognoses of water demand and availability.

As a result the implications of the dam for environmental protection are considered by the NGOs, by the national and regional authorities and the water company involved in the construction of the dam, and by DG ENV and DG REGIO. The consideration of these implications however fell short of inhibiting the physical implementation of the dam with its irreversible consequences for a species protected under European legislation. Implicitly however, by not co-funding the dam as proposed, the EU COM unofficially acknowledges an infringement.

A variety of factors led to this lack of implementation:

Inside the EU COM officials of Portuguese nationality favoured the construction of the dam. Together with intense lobbying by the Portuguese authorities, they ensured that the EU COM adopted an ambiguous position, in which it tolerated the realisation of the scheme, while it did not actively promote it through funding. We can assume that this way the legitimacy of the actions of the EU COM was to be maintained. It steered the maintenance of legitimacy, while tolerating its realisation by using its authority over the progress of the complaint procedure.

Inside Portugal the environmental NGOs lacked the financial capacity to fund their social construction of absence of the need for the Odelouca dam on their own quantitative data.

A tightly knit coalition of interests including the population of the region hung on to the social construction of the dam as essential for the prosperity of the region as had been reiterated already for decades. Alternatives were never seriously considered, and the implications for environmental protection were only considered when the authorities were obliged to do so.

Furthermore, developments in the region created a physical necessity for the dam as time passed. The local taxing and planning regime facilitated the expansion of tourism along with the improvement of accessibility, the expansion towards quality tourism, the simultaneous state-driven development of intense irrigation, the implementation of the rest of the ISWSS and the need to make it financially viable through the delivery of large quantities of water. Ultimately, the integration of Portugal and the Algarve into the European Union promoted the economic development of the region and its physical implications.

As a consequence the following proposals need to be considered for strengthening the likelihood of the implementation of environmental conservation regimes.

Independent bodies should make studies of the bases for infrastructure projects. EU officials dealing with a project should not come from the countries proposing it. The complaint procedure should follow a fixed schedule, so that the creation of physical facts does not make the procedure redundant and its temporal advance is impartial. Large development schemes comprising various stages should be assessed examining their input and output implications. They should be continuously re-evaluated throughout their implementation with regard to changing data, values and regulations. The privatisation of infrastructures should be studied with regard to its systematic implications for the physical shape of the infrastructures and its implications for environmental protection. Last but not least, land use development mechanisms and regimes should be assessed with regard to the implications they have for the input and output of land use. In Portugal specifically the land use control regime should be strengthened, its co-ordination with other input and output policies linked to land use, and agricultural development and other water consuming policies should be improved and adapted to economic realities.

Here we limited our analysis of EPI to the consideration of environmental protection. However, the consideration of the environment can also imply the exploitation of the environment, as for example in the case of drinking water supply. Therefore, the EU COM celebrates the co-funding of another dam, the ISWSS in the Algarve as a successful example of EPI, as it secured drinking water supply to populations in the Sotavento. Although the area where the Odelouca dam was built was not a pre-eminent habitat of the Lynce Iberico the question arises as to whether EPI itself covers up the basic conflict between the exploitation of the environment, even if directed at public health and the conservation of the environment. Environmental policies themselves are aware of this conflict. The Habitat directive aimed at conservation prescribes itself that, in such a case of conflict, public health and therefore exploitation has priority where no alternative exists to maintaining public health. Exploitation is valued higher than conservation therefore. It does not make the distinction that public health satisfaction for example in a tourism region aims at maintaining an essentially economic activity. However, everyone would agree that maintaining the public health of millions of additional people in the summer months alongside the irrigation of golf courses and green spaces is something different from maintaining public health of the resident population, and it is only partially for the benefit of the residents and not for public health reasons.

This desire not to raise awareness of this crucial distinction and of the implications of tourism for the environment as a whole may in fact be the reason why DG ENV and the EU COM hardly single out tourism as a policy field. In DG ENV it is what is called a “negative priority” which as I understand EU jargon, equates tourism with ‘not to be talked about for reasons of political discomfort and sensitivity’.

One way forward for making EPI and sustainable development less prone to covering contradictory claims on the environment may be to reorganise language about environmental conflict and possibly the management of the environment openly around the two alternative implications of human interventions in the environment: exploitation and conservation.

The conflicts emerging in the case study are a vivid example of what Kaïka (2003) described as “multiplication of the actors involved and the reconfiguration of their respective roles”. This includes the “liberalisation and subsequent internationalisation of water markets” introducing the private sector as a powerful player, and the “increasing concern for the environment” as dimensions of change of “social capital formation at different level of government” (pp301-302) throughout the last two decades.

References:

- Águas do Algarve, S. A. (2001) *Relatório e Contas 2001*. Faro: Águas do Algarve, S. A.
- Lenschow, A (ed.) (2002) *Environmental Policy Integration*. London: Earthscan
- Knill, C and Lenschow, A (eds.) (2000) *Implementing EU environmental policy*. Manchester: Manchester University Press
- Castro J E (1999) *Conflito e políticas de desenvolvimento: o caso da Barragem de Odelouca*. Study no.2. Projecto Episódios de conflito Ambiental em Portugal, unpublished document
- CCRA (1985) *PDR Algarve 1986-1990*. Faro: CCRA
- CCRA (1989) *Plano de desenvolvimento regional do Algarve, 1990-1994* Faro: CCRA
- CCRA (1990) *Programa Operacional Plurifundos do Barlavento Algarvio*. Faro: CCRA
- CCRA (1990a) *Plano Regional de Ordenamento do Território do Algarve*, Faro:CCRA
- CCRA (2000) *Algarve 2000-2006 O Algarve em Números*. Faro: CCRA
- CEC (2001) *On the sixth environmental action programme of the European Community 'Environment 2010: Our future, our choice', The sixth Environment Action Programme*. Com (2001/0029 (COD). Brussels: CEC
- Comissão para o Levantamento e Acompanhamento da Gestão dos Recursos Hídricos do Alentejo e Algarve (CLAGRHAA) (1988) *Os Recursos Hídricos No Sul de Portugal*, SEARN - MPAT
- de Avillez F X M (1984) Desenvolvimento agrícola pelo regadio - política agrícola, adesão à CEE e desenvolvimento do regadio. In: *Recursos Hídricos* vol.5 no.3
- de Avillez F X M (1993) Portuguese Agriculture and the CAP. In: da Silva Lopes J (ed) (1993) *Portugal and EC membership evaluated*. London: Pinter
- DRA Algarve, Electronic resource: www.dra-algarve.pt, 2.2.2004
- Hay, C (2002) *Political Analysis*. Houndmills: Palgrave
- Kaïka M (2003) The Water Framework Directive: a New Directive for a Changing Social, Political and Economic European Framework, in: *European Planning Studies*, Vol.11, No. 3, pp299-316
- Krämer L (2003) *EC Environmental legislation*, 5th Edition, Thomson: London
- MAOT (1999) *Plano de Bacia Hidrográfica das Ribeiras do Algarve*, Lisbon: MAOT
- MAOT (2000) *Plano Estratégico de abastecimento de água e de saneamento de águas residuais (2000-2006)*. Lisbon: MAOT
- MAOT (2000a) *Plano de Bacia Hidrográfica das Ribeiras do Algarve*, Lisbon: MAOT
- Nunes Correia F (1991) A Problemática da água no contexto do Ambiente em Portugal. In: *Livro Branco sobre o Ambiente relativo aos anos de 1987-1990*. Lisbon
- Nunes Correia F (1998) *Institutions for Water resources management in Europe*. Rotterdam: Balkema
- Nunes Correia F (1999) *PolAgWat The relationship between sectoral policies and agricultural water use in mediterranean countries - country report on Portugal*. Draft Version of 18.7.1999. Lisbon: IST

Oliveira Baptista F (2001) *Agriculturas e territórios*, Oeiras: Celta

Pimpão A (1991) *Economia do Algarve - preparar o terceiro milénio*. In: *Sociedade e Território*. Ano 5, Junho 1991. pp.17-22

Plano Regional de Turismo do Algarve (PRTA) (1994) *PRTA*, Faro: PRTA

PRTA (2000) *PRTA Anos 2000*, PRTA: Faro

Soromenho Marques V (1999) *O Estado do Ambiente em Portugal*. Colóquio "Ambiente, Economia e Sociedade", Lisbon: Conselho Económico e Social, 1999, pp.83-96