

# Facing Anti-commons in Aquaculture Projects in Portugal— An Ethical Problem in Fisheries\*

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This work intends to show how ethical problems occur when bureaucracy is present in aquaculture projects which are intended to be exploited. The delay of projects approval generates loss of value once projects may not be implemented or implemented after the suitable time. Theory of anti-commons is presented in the contextualization of the problem. When an “anti-commons” emerges, resources may be prone to under-use. In an anti-commons situation, there are too many exclusion rights that lead to the under-use of resources. In Portugal, bureaucracy in projects approval contributes to such a situation of anti-commons.

*Keywords:* anti-commons, anti-commons tragedy, property rights, exclusion rights, ethics

## Introduction

Problems in fisheries have increased since resources are going gradually being overexploited. Considering that, a way to contribute for fisheries sustainability may be the development of aquaculture projects. However, because often there are too many interests involved and bureaucracy is present, projects in this area are not implemented or extremely delayed with consequent effects in terms of ethics.

Managing fisheries has brought increasingly new contextualization in terms of the limits of the analysis. This work intends to have in consideration anti-commons theory and the way anti-commons contribute to loss of value in aquaculture area. Some ecological problems could have potentially, at least a partial solution, through the development of this kind of projects, but often they get unviable as the existence of a problem of anti-commons happens. In fact and in particular, they could contribute to solve some fisheries problems if implemented, but bureaucracies and administrative procedures or self interests involved make these projects often unviable.

A general consideration of commons and anti-commons problems, and commons and anti-commons theories is posed first. Additionally, some considerations about the status of fisheries in this context are given. After that, the study shows the role of anti-commons theories and how tragedies happen in this context. The Portuguese case is studied about projects in aquaculture; it shows the confuse process for projects approval in

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this area. Some concluding remarks end this study.

### **Commons and Anti-commons**

The two faces of the same coin: commons and anti-commons. In the last decades of the 20th century, the world had attended the existence of big problems that resulted from under-defined property rights for commons. This has generated tragedies around the world (Filipe, Coelho, & Ferreira, 2007). Hardin's "tragedy of the commons" (Hardin, 1968) aimed to explain problems about, for example, human overpopulation, overexploitation of species and resulting extinction or air pollution. People have no incentives to preserve common areas and consequently resources are overexploited. A resource is prone to overuse when too many people have the privilege of using it and no one has the right to exclude others (Filipe, 2006; Filipe, Coelho, & Ferreira, 2006b).

In such a situation of a Tragedy of the Commons, very important ethical problems are created. The overexploitation of resources is discarding the availability of the resources for the next generations, because resources may collapse or they may get exhausted. Many examples may be obtainable from the reality in the last decades. For example, the collapse of several species (and accordingly their fishing stocks) or the collapse of many forests in the world can be presented.

Meanwhile, the discussion on property rights has brought other kinds of problems in the resources' theory. A new approach has been presented on some issues generated by the excessive fragmentation of property rights: the anti-commons. Michelman (1982) had exposed the anti-commons as "a type of property in which everyone always has rights respecting the objects in the regime, and no one is ever privileged to use any of them except as particularly authorized by others". Later, Heller (1998) stated that in an anti-commons problem there is a property regime in which numerous owners hold effective exclusion rights over a scarce resource. Therefore, the co-existence of multiple exclusion rights creates conditions for the suboptimal use of the common resource.

In this kind of problem, several situations may be created about ethical issues. For instance, one agent's veto power makes that a resource may rest idle or sub-used. Often, this resource is important for one specific agent that has its co-proprietorship but has not the right of using it without the consent of others.

Many live resources, particularly many marine resources have suffered drastic reductions motivated by their overexploitation. Populations of many species have been led to the rupture and close to the extinction. Aquaculture may be viable and a part of the solution for some problems of overexploitation of marine resources. However bureaucracy can reduce the aquaculture projects to projects that are just not implemented. A loss of value is the corollary of that.

Can authorities modify this state of things? Is it possible to explain this kind of events and shape these facts in this perspective? Is there any ways to invert the trends? Or simply to find the principles that underline the facts? May the main agents in this process be questioned?

### **Anti-commons and Tragedies**

In anti-commons situations, the undefined limits for property rights produce several problems that are seen through the under-use of the resources as well as by a loss of value. Indeed, an anti-commons problem creates tragedies that are seen as the mirror effect when it is compared with the tragedies of the commons. A "tragedy of the anti-commons" arises when multiple agents have the right to exclude others from the use of a scarce resource but none of them has an effective privilege for using it.

If several agents may take decisions about the use a resource jointly detained which can be exploited by all of them, and if one of them may impose his/her own decision on the others, imposing his/her veto power, a problem of anti-commons happens. In this situation, all the agents must agree on the utilization given to the jointly used resource otherwise the resource may simply not be used or it will be underused.

One way of overcoming the inherent problems of anti-commons situations is to gather all the rights in a usable private property. However, this is often slow and complex (Filipe et al., 2007). The case of projects in aquaculture for over passing the problem of overexploitation of marine species can be seen.

In “Tragedy of the Anti-commons”, resources stay idle even in the economic region of positive marginal productivity. Acting under conditions of individualistic competition, exclusion rights will be exercised even when the use of the common resource by one agent, individual or a group, could yield net social benefits.

### **Aquaculture Projects in Portugal—A Global Problem in the Approval Process**

As seen before, projects in aquaculture area can be developed and can contribute for reducing marine fisheries. The problem is that an anti-commons situation may be arisen. In Portugal, many entities must give their approval for a project to be implemented and there are too many administrative procedures which often motivate a situation of delayed global authorization. Consequently, many interesting projects, profitable and fishing-friendly, as well as economically viable, will simply not to be exploited because there are too many exclusion rights. Existing an agent that wants to exploit a resource with important economic, biological and social consequences, bureaucracy and administrative procedures simply make the project unviable.

This aquaculture sector is fitted under the control and supervision of Ministério da Agricultura, do Desenvolvimento Rural e das Pescas (see Decreto Regulamentar n° 14/2000—September, 21st, 2000), that is the Ministry for Agriculture, Fishing and Aquaculture Sector. This decree specifies the requisites and conditions needed to install and exploit a plant on this area. The Decreto Regulamentar n° 9/2008 (March, 18th, 2008) defines a set of rules specifically for installations offshore.

The responsible Department for Aquaculture is specifically DGPA (Direcção Geral das Pescas e Aquicultura), which is responsible for supervising and controlling the activity of aquaculture sector.

The initial steps for a project approval are (Decreto Regulamentar n° 14/2000):

- (1) Request to DGPA;
- (2) The request must have the following elements attached (Art 10° - n° 3):
  - (a) Copy of ID card of the requester;
  - (b) Authorization to use the hydraulic domain, issued by the competent authority;
  - (c) Property documents for the land;
  - (d) Technical description of the productive process;
  - (e) Topographic plant of the local (1:25000);
  - (f) Design layout of the facilities (1:5000);
  - (g) Detailed project of the infrastructures, at 1:200;
  - (h) Coordinates of the area referred to a central country reference point;
  - (i) Plant and detail drawings of the infrastructures at 1:50 or 1:100;
  - (j) Sea sign project, depending on the type of installation.

The competent authority for this specific kind of activity is named Administração da Região Hidrográfica and has a huge power, demands a hydraulic tax and controls all the activities within 500 m from the coast line.

This decree refers that (Art 12º) whenever the site is located on an area under maritime jurisdiction, DGPA along with “Capitania do Porto”, promotes the following two actions within the next 30 days after having received the whole process:

(a) Writes an edict (Edital) with the authorization request, which must be visible for 30 days on a few legal buildings, so that third parties can claim against the request.

(b) Call the survey committee.

If there are reactions against the project, it may be enough to block the project.

Art 10º- nº 7 states that the project referred on (j) of the nº 3, is sent by DGPA to “Capitão do Porto” of the area, with the objective of emitting a binding opinion, within 60 days, after consulting the Instituto Hidrográfico and the Direcção de Faróis (Lighthouse Direction).

The process is sent now by DGPA to each of the 10 entities involved in the survey that are described in the 13th article—see Art 11º, nº 4.

This part of the process may have already consumed 2 to 3 months.

The referred entities that compose the survey committee are the following:

- (a) “Capitão do Porto” or another officer who may replace him;
- (b) DGPA representative;
- (c) IPIMAR representative;
- (d) Maritime public domain representative;
- (e) ICN representative (today ICNB);
- (f) DRA representative (Direcção Regional do Ambiente);
- (g) Instituto Português de Arqueologia representative;
- (h) Direcção Geral de Veterinária;
- (i) Direcção Geral de Saúde;
- (j) Municipalities’ representatives (all involved areas).

Gathering all these representatives on a certain date is quite difficult. The committee only works with the presence of the majority of its members.

There are at least 3 members of this committee whose starting point is usually against:

- (a) “Capitão do Porto”, because he predicts more work and trouble in the future if the project is installed;
- (b) Maritime public domain representative, for the same reason;
- (c) ICN because they are always against everything in advance.

All the other members do not even care about the subject and their participation is not pleasant at all for them.

The survey has to be scheduled within the next 30 days after the end of the edict term (Art 14º).

The result of the survey is considered favourable just if the whole committee members agree (Art 15º).

DGPA informs the requester about the result of the survey within the next 30 days. If the result is favourable under restrictions the requester has 30 days to correct the project according to these restrictions (Art 16º).

So, the edict is usually published two or three months after the request demand. It has to be published for 30 days before the survey is set up and the scheduled date for the survey may still take 30 days more to be set. All this may have taken more than five months.

This view is consistent with the suggestion of Buchanan and Yoon (2000) that the anti-commons construction offers an analytical means of isolating a central feature of “sometimes disparate institutional structures”.

All these procedures show that all the authorities involved in the approval process (environmental, territorial,

health, etc) have prevented some value-reducing development but also value-enhancing development.

### Concluding Remarks

A very first conclusion appears very clearly. Aquaculture projects may contribute for fish production and very often they are ecologically sustainable, and consequently they contribute for solving some fisheries' problems usually raised on this area. However, it can be seen that in Portugal, there are too many regulators (some of them with veto power), which analyze projects. They spend too much time to overpass all the steps and when the process is ready for implementation it may be too late (and sometimes, the project may be refused). Too many resources were spent on the project and the project simply is now unviable. An ethical question is posed. The project is viable and creates value for the investor and for the community but all the time wasted in bureaucratic analysis made the project unviable. A considerable amount of money was spent in the project for nothing. Besides, sometimes there are conflicting interests considering the promoters of the project (investors) and entities who are analyzing the project. And this may make the project inconsequent as well.

Considering the importance of aquaculture activity in Portugal and considering that there are many problems in administrative procedures and with the involved entities and their competences and the inherent diligences in the approval process, probably the best solution would be the creation of a High Authority, which would be the only responsible for the processes' approval. The other entities nominated would be strictly consultant entities of the High Authority. Besides, the binding consultant entities should be reduced to three: DGPA, Health Authorities and IPIMAR.

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