

## CASE STUDY

### ***Waste and litter management on natural coastal zones: a French initiative to tackle with the issue***

#### **ABSTRACT:**

Over the years, the mission of protection has been more and more precise by successive laws. Lately, in 2002, two rules engaged an important change : the obligation to open areas to visitors, as far as it is compatible with the aim of conservation ; the extension of intervention field on the intertidal zone. This was a new momentum for an almost 30 years old organization, and the 2002 legislation led the Scientific Council of the Conservatoire to give the priority to following main topics among natural areas management issues: how to fit human presence and waste management in with protection of natural coastal areas?

#### **LOCATION:**

*France*

#### **KEYWORDS:**

Natural resources, management of waste and litter, legislation, conflict resolution

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## EXECUTIVE SUMMARY

Thirty years ago, the French Government created a public organisation (named *Conservatoire du littoral*) aiming at ensuring the definitive protection of outstanding natural areas on the coast, lake shores and stretches of water of 1000 hectares and more. Over the years, the mission of protection has been more and more precise by successive laws.

The *Conservatoire* (helped by the *Procter & Gamble Foundation for coastal areas and Rivages de France*) started with a research study about the visitors access on its properties, asking the questions: how many visitors are there, who are they, which kind of activities do they practice and what are their impacts on natural resources ?

Sharing experiences among coastal managers network is an efficient way to go further.

## INTRODUCTION

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Over the years, the mission of protection has been more and more precise by successive laws. Lately, in 2002, two rules engaged an important change : the obligation to open areas to visitors, as far as it is compatible with the aim of conservation ; the extension of intervention field on the intertidal zone. This was a new momentum for an almost 30 years old organization, and the 2002 legislation led the Scientific Council of the Conservatoire to give the priority to following main topics among natural areas management issues: how to fit human presence and waste management in with protection of natural coastal areas?

## HOW TO MANAGE WITH HUMAN ACTIVITIES AND NATURE CONSERVATION?

The *Conservatoire* (helped by the *Procter & Gamble Foundation for coastal areas* and *Rivages de France*) started with a research study about the visitors access on its properties, asking the questions: how many visitors are there, who are they, which kind of activities do they practice and what are their impacts on natural resources ?

The first issue was to improve knowledge on human activities trends on open coastal zones: that means to get better understanding of both visitors numbers and visitors behaviours. We show that there are about 30 millions visits per year on the metropolitan Conservatoire's properties, and that related main problems are the trampling (by human, horses, cycles...), the fauna disturbance by dogs and the wastes disposal (coming from human activities).

The second issue is now to build a management tool for use by local managers. Using the same tool – or at least the same basis – at several places around French shores, we aim at following the evolution of human access to natural coastal areas and at sharing data about those areas management. So far researches on human activities impacts are quite difficult to lead at large scale, because of the specificities of each zone and the lack of communication between managers and scientists. Nevertheless several *Conservatoire's* sites are used for testing new methods about observation and evaluation of human disturbance on protected zones. In the short term, a practice guide (methods and information book) is going to be published and spread to coastal protected areas managers. This guide should be improved year after year thanks to comments from different

managers networks. The *Conservatoire* keeps on working on the better way to invite managers and scientists to work together.

## ABOUT THE MANAGEMENT OF WASTE AND LITTER ON THE NATURAL SHORES

Research about this topic have started with the oil slicks on French Atlantic coasts caused by the wrecks of the ships *Erika* in 1999 and *Prestige* in 2003. On these occasions, there was a higher frequency of shores cleaning and a massive investment in cleaning machines. Then those one were often used for daily waste management. The scientists wondered if such a strong cleaning pressure on the shore could not damage the ecological balance of natural zones. The actual knowledge establish that the natural part of the wastes (algae, wood...) is useful for the ecological balance and that the mechanic cleaners, if not well designed and used, can damage the shore. A selective gathering of the natural/human part of the wastes (by hand) appears as an evident and simple solution; but it is sometimes really difficult to develop.

In this context, the *Conservatoire* asked: how to deal with both daily waste management and sustainable natural resources protection ? Which technical respond could at the same time satisfy both the visitors and the managers ?

As a starting unit, it was useful to have an idea of the main trends of cleaning practices in France (manual, mechanic or both); the first study deals with this topic. The prior results show that only in a few cases the cleaning tend to be ecological, with manual cleaning and waste recycling. But interesting initiatives of recycling have been recorded.

On this basis, the second question was: is that possible to change the situation ? It depends on a large part from the willing of the visitors. So the *Conservatoire* engaged a sociological study in order to know the users meaning and behaviour about dirty and clean things in natural costal areas. For example the results show that the visitors consider the algae both "natural" and "unpleasant"; but although they know quite nothing about the ecological balance, they look ready to accept a selective gathering of the wastes.

Now the *Conservatoire* and its partners (*Procter&Gamble Foundation, Rivages de France...*) keep on working on the topic. It is obvious that the biological and technical questions are really complex, and have to be studied more precisely. Sharing experiences among coastal managers network is an efficient way to go further.