

## Chapter 3

# Deactivated Saltpans: What Are the Consequences for Nature and Tourism Behavior?

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### EXECUTIVE SUMMARY

*In coastal areas, there are economic activities that have been established for some time now – decades or even centuries – which help to maintain not only the local economy, but also to achieve a balanced relationships with nature. Tourism and leisure activities benefit from this balance. Sometimes, due to disturbing causes, these balances are destabilized, which generates setbacks. For example, in Salinas de Cabo de Gata (Almería, Spain), heavy rains in the spring of 2022 caused an obstruction in the channel that carries seawater to the wetland located there. This occurrence caused a desiccation of the area that is dramatically affecting the waterfowl that depended on the evaporators of the salt flats. The involvement of different interested parties put pressure on to resolve the problem, which however was technically resolved, but whose results in a broad sense are gradual. In this chapter, this case study is explored in more detail.*

### INTRODUCTION

In coastal areas one can find economic activities that have been established for some time – for example, decades or even centuries – that help maintain not only the local economy, but also establish balanced relationships with nature. Tourism activities benefit from this balance and sometimes nature-inspired nomenclatures are chosen, for example, used in hotels and restaurants. The purpose of this inspiration also serves to attract tourism, particularly from segments sensitive to environmental causes (Blanc, 2009). This whole process tends to imply greater sustainability.

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## **Deactivated Saltpans**

Sometimes, due to disruptive causes, the nature-economic balances are destabilized, which generates setbacks (Girard, 2019). Some of these disruptive causes are due to natural causes originating from sudden events such as floods or prolonged droughts over time, or of human origin such as oil spills (Silliman et al., 2012), or induced land use (Almeida et al., 2014). The disruption found in the *salinas* of Cabo de Gata where, due to an obstruction in the channel that carried seawater to the wetland located there, has caused a desiccation of the area that is dramatically affecting the aquatic birds that depended on the evaporators of the saltpans, among them the flamingos, which constitute a very representative symbolic image of the place.

As the artificial habitat of the saltpans had already been established for several decades (López, 2013), the waterfowl that depended on the cycle of salt production – that is, from the seasonal activation of the saltpans, through production in the warmest season, to their migration at the end of the salt production season – currently have become disoriented, some of them taking refuge in small nearby ponds. If nothing is done, however, the salt marsh habitat and its characteristic species will be irreversibly lost. If, however, there is a recovery of the wetland (salt marsh), the species will eventually return slowly, but the reestablishment of the trophic chains will be slow and could take decades to be restored (Buchsbaum, 2021).

The aim of this chapter is to explore the *salinas* (saltpans) of Cabo de Gata, Spain, by identifying a disruption (the problem), what causes have been observed, analyzing the role of three key stakeholders and other actors, describe scenario of events occurred and eventual policies and management actions taken place to find solutions in order to solve the problem.

## **LITERATURE REVIEW**

### **Historical Context of Production of Salt and Salt Pans**

There are signs of salt production as a commodity of prime importance in the easternmost peoples of the globe, namely in China since a millennium BC (Flad et al., 2005). It is known that these peoples introduced and developed salt production techniques (Flad, 2011). There are also records of salt production in other continents such as Africa (Wilson, 1986) and America (Williams, 2009). However, the first signs of salt production are found in Europe in the Balkans and date back to the Neolithic period (Weller & Dumitroaia, 2005). In Europe, ancient records of salt production can still be found in various places (Rodrigues et al., 2011; Harding, 2013).

Salt production depends on several sources. The main sources for salt production, however, come from mines or sea water. To produce sea salt, coastal areas with permanently evaporating ponds – as they are subject to great sun exposure and are sometimes located in semi-arid areas – are generally used over time (Asencio, 2013).

In general, the sea salt production process in salt pans consists of introducing sea water into a reservoir and letting it precipitate in a chemical form called halite. It is from this transformation that common salt is obtained through long evaporation processes in ponds that acquire various colors from bluish to reddish tones (Oren & Meng, 2019).

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