Comparative study of water resource management policies between China and Denmark

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Abstract

This paper compares water resource management policies between China and Denmark at the planning level. It takes two vulnerable freshwater bodies as a case study: Baiyangdian wetland in China and Mariager fjord in Denmark. It explores the commons and differences between the two ecosystems from the characteristics of the ecosystems, historical and cultural background of the society, the technologies affect the way the common is used, how the common is seen at different times, the existence of property rights through time and their development process. It also compares the environmental regulations and its impact on both water bodies. The analysis shows that both in Denmark and in China it can be expected that goals, once they are decided, will be implemented. But in reality it seems to be much easier to accomplish in Denmark than in China, probably due to the complicated administrative structure in China and clearer goals and better resources in Denmark. Denmark has also accomplished a large degree of environmental policy integration (EPI). But China has opened up the gate to the whole world and shows a positive attitude to participating in international affairs and environmental protection as well as sustainability.

Keywords: Comparative analysis, Water resource management, Denmark, China

1. Introduction

For many years humans have caused impacts on and transformed wetlands, lakes and rivers in order to make them fit their own needs, are it for agriculture, waste-water discharge, navigation or fishing. In recent centuries these changes have been particularly dramatic, especially those caused by population increase and the industrialisation of

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production. In recent decades this has led to increased interest in restoring these often vulnerable ecosystems. After adopting environmental legislation, especially after the United Nations Stockholm conference in 1972, many countries have launched such policies.

In Denmark nature protection has been an issue for many years, the first Law on Nature Conservancy was passed in 1916. In the 1970s a range of laws were passed that were designed to protect the environment from pollution. In the 1980s the focus was on agricultural production and a range of action plans were proposed to protect the aquatic environment. At the end of the 1980s a growing focus on nature restoration was established. Since the EU directives on protection of birds (1979) and later on protection of habitat (1992) have formed a new basis for protecting and restoring the environment, establishing the Natura 2000 network of the EU as well as the parallel efforts of the Water Framework Directive. The overall policies are now that the decline in biodiversity should be stopped by 2010 and that good ecological conditions should be found in all natural water bodies by 2015.

In China there is also a long history of protecting the environment. As early as 1929, the Fishery Law clearly stated that ‘anyone engaged in aquaculture should protect the water eco-environment, scientifically determine the feeding density, fertilization and use of drugs [and] should not pollute the water’ (Fishery Law, 1929). The Environmental Protection Law of the People’s Republic of China (1989) is now the basis for environmental protection activities. After its adoption the protection of the environment developed fast, and especially in the last 10 years a series of laws have been established covering, for example, ocean protection and prevention of water pollution. The Chinese government and the public now pay great attention to environmental protection. Still, China is undergoing a challenging period, with rapid economic development, so resolving the contradictions between economic development and environmental protection remains a challenge.

In this article we compare the environmental policies and practices in Denmark and China. The main interest is to describe the different water policies in the two countries and how they have developed since the 1970s, especially influencing two particular water ecosystems. Special emphasis is put on developments at the planning level. Our main interest is thus to analyse how the two different sets of developing political frameworks contribute to the restoration of the environment.

Theoretical background for the comparisons
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