

Treading Water

The Dutch Reliance on Water Management

Approximately 26% of The Netherlands sits below sea level¹ and roughly 1/3 of its population resides within a flood-prone area. The flood-prone areas are based upon risks of sea and river flooding if dikes, dunes, or dams were to give way. This knowledge is obtained from currents and flood simulation models using recent data². Areas particularly vulnerable are areas below sea level and between zero and one meter above sea level. To protect its citizens the Dutch government built the Delta Works in the 20th century and has become a model in flood preparation. This huge public works project relies on damming river mouths and sea inlets in order to shorten the coast. However, due to flooding in 1993 and 1995, vulnerabilities in the system have been exposed. In response The Netherlands is further strengthening defenses with sand replenishment and the new Room for the River project (scheduled for completion 2015), which aims to give rivers more room in order to better manage high water levels³. Despite this new strategy global warming could bring catastrophes and the country remains vulnerable. Therefore, it is important to understand the depths at which the Dutch society could be affected by a failure in their water management system.

