

Popular summary

Title

Climate change adaptation and urban development: a genealogy of flood risk management in Glasgow

Introduction

By focusing on how floods have been managed in Glasgow for the past 300 years, our thesis brings insightful perspectives to modern urban climate change adaptation.

Main text

Our climate is changing and we need to adapt. Actors around the globe are increasingly implementing measures to cope with this new reality. Historically perceived as large polluters, cities are seen as potential solutions to the climate crisis. Among other measures, they are implementing projects to protect their population against climate-related risks. But as most of these projects have just existed for a couple years at most, assessing their long-term impacts proves challenging. Here is where historical studies can provide us with valuable insights.

By studying how floods have been managed in Glasgow for the past 300 years, this master's thesis brings perspective to modern urban climate change adaptation (CCA). Flood risk management (FRM) played only a marginal role in the development of Glasgow even though floods happened frequently. But it is impossible to fully understand modern CCA in the city without understanding its past.

In the early formations of Glasgow, as the city started to develop along the river Clyde, floods were part of people's everyday life. Alterations to the river took place in the 18th and 19th century, primarily for economic development purposes as the possibility to have larger boats navigating the river benefited trade. River flooding was a prominent feature during this time, but our study found few attempts to purposefully manage flood risk before the 19th century. At the same time, alterations of the river eventually came to provide protection against coastal and river floods.

As the city grew, however, urban development replaced floodable land and green space with less drainable surfaces, thereby increasing the risk of surface water- and river flooding. Only at this point flooding started to be seen as a problem to be dealt with at a societal level, but frameworks to manage flood risk were not developed until the 20th century.

In the 20th and early 21st centuries, FRM was largely shaped by the city's struggling economy and a rising awareness of climate change. De-industrialization has left large parts of the Clyde waterfront in decay, and infrastructures that previously provided protection against floods have seen little maintenance.

Today, modern FRM and CCA is often described as consisting of apolitical measures that (1) rely on sustainable solutions, (2) encourage cooperation, (3) foster individual responsabilisation and (4) contribute to urban regeneration. By studying the past, our thesis instead showed that these measures emerge from deeply rooted inequalities, which they tended to silence and sometimes reproduce.

Overall, our study shows that a historical perspective can go a long way in questioning taken-for-granted narratives of present CCA in Glasgow. It also highlights the influence of power struggles on climate protection measures. Finally, it encourages the participation of a large range of people in designing and implementing climate change adaptation policies and measures.