

01 HOW TO PAY FOR AN UNKNOWN FUTURE

HOW IT IS DONE

Adapting to climate change is a financial burden which cities must bear. This means that they need to identify financing options, often requiring a new mindset and knowledge:

- Analyse potential risks and map the costs of not acting on these risks - from damage to infrastructure and property loss, social inequality, environmental degradation, insecurity and even lives lost.
- Encourage interdisciplinary, multi-stakeholder representation to maximise investments.
- Identify all stakeholders, and estimate each stakeholder's costs, benefits and return on investment (ROIs) to create leverage, buy-in and co-ownership.

Looking for the power to finance

Cities are the nexus of human life, welfare and economic growth. In other words, cities represent the backbone of society. But the backbone risks breaking as extreme flooding, heat waves and storms threaten billions of lives, natural capital and physical infrastructure.

Most cities are ready to act on climate change, and there are solutions available that can build resilience. However, a lack of legislative power and authority to mobilise finances within a national framework can be counterproductive.

We know that climate change affects and will continue to affect city budgets in decades to come. The uncertainty lies in the exact impact of climate changes. When looking 50-100 years ahead, forecasts become less clear, and it is important to approach the topic in a stringent and transparent manner. Otherwise the process will be lost in arguments over who has the best climate model.

Knowing the cost of doing nothing

Mapping the costs of action and inaction and gaining an understanding of the full consequences in a financial perspective is beneficial because: 1. An analysis is instrumental in achieving overview and scope, and 2. An analysis will pinpoint areas that can be used as business cases and for demonstration purposes.

The cost of doing nothing is not only measured in material damages, but also in lost investments, loss of working hours, insecurity, and in the worst instance - lives. Increased ecological degradation causes irreversible damage to the natural ecosystem with derived impacts on biodiversity, tourism, local industries and food supply, and a financial cost should be put on this as well.

Decision makers should apply a holistic approach to analyse economic, social and environmental consequences for all stakeholders involved. Making investments for climate adaptation and mitigation do not always require a unique business case. It is key to:

- Understand the wider socioeconomic potential of urban planning and design projects.
- Identify winners and losers and their expected ROIs to form a common language.
- Bring different professions and competences such as public utilities and private companies together in co-creation.

Guiding elements in attracting climate investments

Finding financing requires a different approach and bold moves to form new partnerships, e.g. in Public-Private Partnerships, via city networks, large infrastructure and/or public funds and more classical financial instruments, such as green bonds.

To attract investments in climate policy, the focus must be directed towards solutions that enhance overall liveability and strategy of the city. These are solutions with multi-purposes, where infrastructure does not lie dormant when not in use for its intended climate purpose. These are solutions that lift a neighbourhood in need of an upgrade, or help connect city areas where sustainable mobility is limited, and areas where parks and recreational spots are scarce.

Understanding what adds value to your city, your neighbourhood, and your stakeholders can guide climate investments to ensure that they support long-term, sustainable urban development.

Reaping the benefits of action

The payoff from knowing the costs of inaction is knowing the benefits of action. Climate adaptation and mitigation solutions must take into account worst case scenarios. However, the optimal climate solutions also have a purpose and function in a best-case reality – so that they are not only used for resilience purposes.

Therefore, solutions should be created as interdisciplinary and integrated projects designed in order to help enhance the overall liveability, attractiveness and competitiveness of a city – with resilience as a key component in each of these success factors. Such projects will contribute to growth and development to an extent that exceeds otherwise inevitable investments in maintenance and repair. If a city is worth living in and visiting, people will stay longer and spend more money.

Building a more resilient city will bring added benefits, including:

- Better, healthier and more democratic transportation systems
- Energy security and flexibility
- Access to better, smarter technology
- Business opportunities and green growth
- Social coherence and cultural stimulation

By grasping the full cost-benefit picture, cities first and foremost gain security – a risk-free environment that puts the price on an unknown future. Decision makers gain a more structured focus on the development of the city. Infrastructure investments must be incorporated from a multi-purpose point of view.

THE IDEA BROUGHT TO LIFE

Copenhagen Cloudburst Plan

Within one year, the city of Copenhagen got hit by three devastating cloudbursts in 2010-11, the most destructive one costing the city more than \$1.18 billion. An economic analysis indicated that the cost of inaction would triple in a century. To protect the city against future damage, Copenhagen has developed an ambitious cloudburst master plan that intends to improve the liveability of the city by using water on the surface as a resource in the city space.

The benefits include increased recreational value from the upgrading of parks and meeting places, improved microclimate, and important synergies with infrastructural transport planning.

Jeddah Masterplan

Rapid population growth since the 1970s has resulted in water scarcity and severe pollution issues in modern Arab cities. An environmental degradation study shows that Jeddah will lose 2-4% of its GDP, equaling 1-2 billion Euros annually, if nothing is done.

To tackle this issue and improve public life, Jeddah has developed a master plan, involving a Ramboll team of 40 specialists within e.g. environment, urban water and socioeconomics to conduct in-depth baseline studies and cost-benefit analyses that provide information on corrective actions in terms of prevention and mitigation of adverse impacts. The master plan will serve as a decision makers' manual and will pave the way for Jeddah to become a model for environmental and social improvement for the entire Kingdom of Saudi Arabia.

**6 BILLION
- THE NUMBER OF
PEOPLE LIVING IN
CITIES IN 2050**