



Ministerie van Infrastructuur en Milieu

Accelerating Urban Resilience

Position Paper Water and Cities

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HELP- New York

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Building Resilience in urban areas increasingly important

- In 2040: nearly 60% of world's population will be living in cities
- Many cities are built at a river, a sea or at the interface (delta's)
 - 21 of the world's 33 megacities are built on the coast
 - In Asia, more than a billion people live within 100 km of the sea
 - Urban Delta's account for only 5% of world's land but a tenfold in population
- Water-related disasters have a large impact on cities due to the concentration of people and economic activity

→ **Resiliency of urban areas avoids losses of life and investments; and results in a wealthier and more resilient population that can contribute to sustainable economic development**





Urban areas and their hinterland

- Cities should not be seen in isolation: they are inextricably linked to their catchment area and rural surroundings, Basin approach, IWRM
- Water links cities with their hinterland as well as with various sectors like energy, food and transport
- Water, energy and food demand are interdependent (Nexus) and indispensable for cities; demand is rising, competition may lead to conflict
- Rural areas in turn rely on urban centres for access to markets, goods and services



Water in Cities: challenges and opportunities

Challenges:

- *Floods*: deaths, spread of diseases, contamination of water supply by destruction of pipes, loss of economic activity
- *Water scarcity*: competition on water resources for drinking water & industrial water; heat stress, etc.
- *Access to safe drinking water and sanitation*: bad sanitation leads to human waste disposal in surface and groundwater
- *Inefficient water management*: good governance to serve the city level
- *Climate Change in relation to rapid urbanisation*: unplanned land use, urban sprawl leads to more vulnerable urban communities that are located in areas at high risk for extreme weather and climate events

Opportunities:

- Resilience, socio-economic development, liveability, transport, recreation, culture, water-food-energy nexus

Investing in city resilience to water-related disasters diminishes the impact of the challenges and increases the benefits of water in cities



Water in cities has crucial importance for reaching sustainable development

- Sendai Framework for DRR
- SDG framework for sustainable development
- SDG 11: central importance of cities and urban development
prevention of water-related disasters
- SDG 6 need to linking water to decisions for sustainable development
sanitation, drinking water
pollution prevention, waste water treatment

Urban water management is a key component for sustainable development



How to achieve urban resilience to water-related disasters?

- 1) All cities and nations need to integrate an inclusive, adaptive and preventive approach in their overall development strategies
- 2) Cities should better capitalize on existing ecosystem characteristics and services within the city boundaries
- 3) Cities should develop innovative approaches and solutions aimed at building resilience
- 4) City-to-city learning





1) All cities and nations need to integrate an inclusive, adaptive and preventive approach in their overall development strategies

- **Multi-stakeholder approach** to reach a strategy that reflects all stakes, including those of the poor households that are most vulnerable to water-related disasters
- Resilience is not only technical: the urban population needs to be involved to create awareness, ownership and **social resilience**
- **Integrated approach** needed to reflect and connect all water-related sectors in the urban area
- **Adaptive planning** to ensure the right measures can be taken when the moment is there; and that they are taken in a resiliency-improving manner.
 - e.g. replacement / rebuilding of old infrastructure in existing cities: **different cities face different (replacement) issues** and should plan according to these varieties
 - Mainstream urban renewal of existing infrastructure within regular planning programmes
 - **Multifunctional use of space** and technical interventions can improve resiliency: e.g. water squares, green roofs, protection of vital functions
- **Long term strategy (with room for adaptive planning) needed** including a financial strategy; focus on preventive action and accompanied by emergency response plans



2) Cities should better capitalize on existing ecosystem characteristics and services within the city boundaries

- Compact cities generally operate more efficiently due to greater walkability; efficient transport systems; etc.
- However, the increased density should leave room for green infrastructure:
 - Green spaces in the urban area leads to less heat stress, better drainage of excess (rain)water, storage of water; and add to the liveability and recreational opportunities
 - E.g. green roofs; parks; household gardens; mangrove coastal protection
- **Multifunctionality! Optimal combination leads to a compact city with open spaces, allowing for flood risk mitigation, recreation and increased biodiversity at the same time**



3) Cities should develop innovative approaches and solutions aimed at building resilience

- Technological solutions
- Smart investment
- Integration with other functions
- Design competitions (New York)



4) City-to-city learning

- Instead of reinventing the wheel, let's learn from each other
- Considering that many cities face similar environmental and spatial challenges during their development trajectory, studying different cities is almost like proverbial 'time-travel': Cities get to observe some aspects of their futures by studying other cities.
- Liaison between cities is therefore important because of the possibility of learning from each other: learning from success stories as well as mistakes.
- **crucial for accelerating progress in achieving urban resiliency to water-related disasters and sustainable development**





Discussion: what can HELP do?

Momentum due to HABITAT-III conference (oct 2016, Quito)!

- How can we add experiences from other countries?
- How to improve exchange of basic information on policies, strategies?
- How to arrange clever coalitions, also in light of HABITAT-iii?