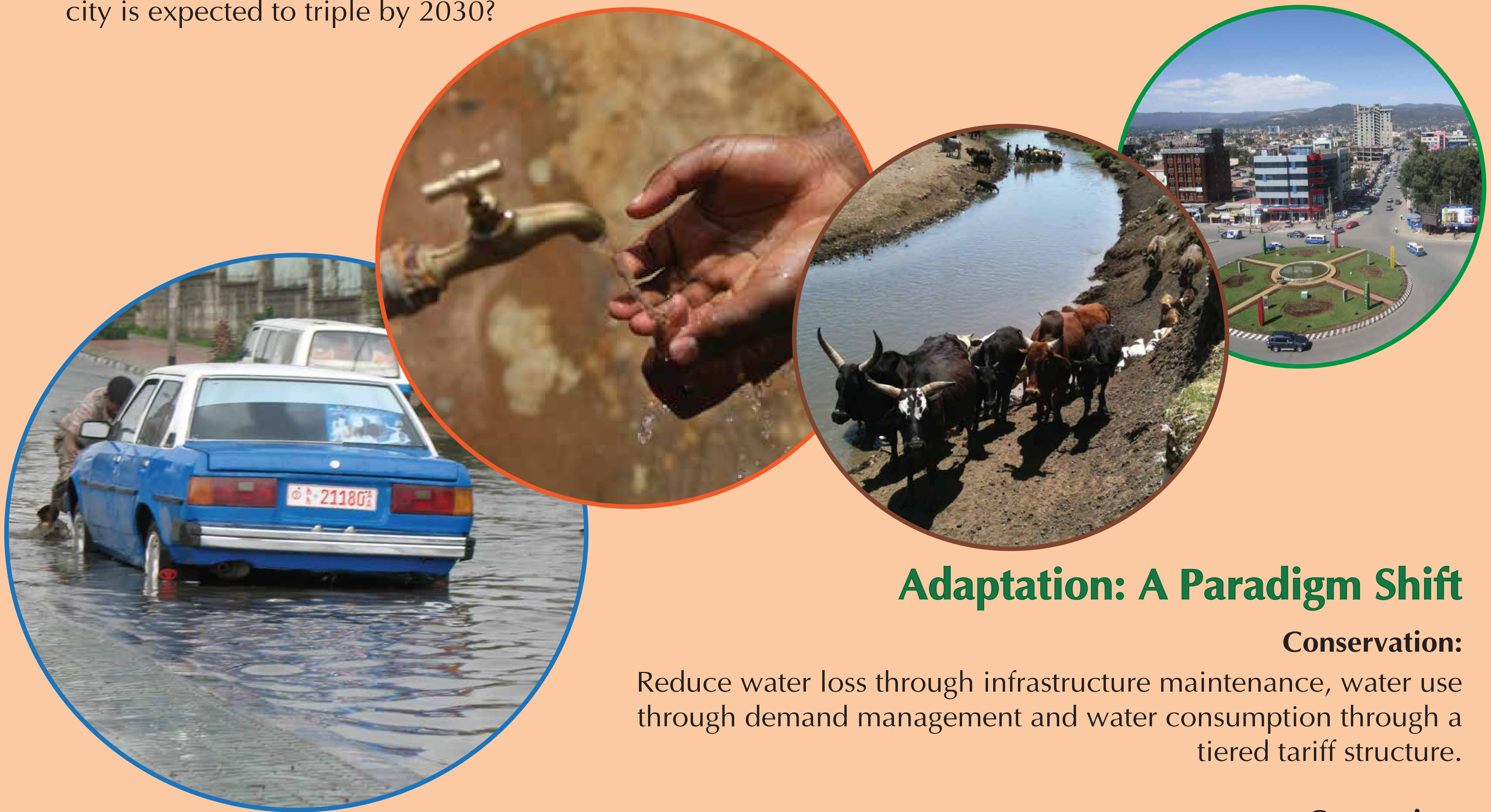


# Managing Water for Climate Change Adaptation in Addis Ababa, Ethiopia

## The Challenge

- How can we meet the water demands of Addis Ababa's population when forecasted patterns of urban growth and rise in temperature suggest that the supply-demand gap will increase further?
- The city already generates more than 100 million cubic meters (Mm<sup>3</sup>) of runoff annually. What can we do to reduce the risk of flooding, more so in areas with poor quality housing, and inadequate sanitation and drainage infrastructure?
- How can we reduce pollution in the Akaki River system, when wastewater generation in the city is expected to triple by 2030?



## Adaptation: A Paradigm Shift

### Conservation:

Reduce water loss through infrastructure maintenance, water use through demand management and water consumption through a tiered tariff structure.

### Conversion:

Recycle floodwater and wastewater for beneficial use.

## Policy Implications

### Water supply:

- Plan for water supply from more distant sources, implement water conservation measures and capture urban runoff through distributed water harvesting structures.
- The above will complement ongoing efforts to source water from the Gerbi Dam and to exploit groundwater.

### Flooding:

- Put in place integrated urban flood management. This combines best practices in city planning, drainage design and flood retention.
- Upgrade drainage design practices of the past by taking into account the effects of climate change and built environment.

### Wastewater:

- Implement demand management to reduce wastewater generation.
- Reduce pollution entering the Akaki River system by applying industrial wastewater monitoring and control, enhancing sewer coverage and introducing decentralized treatment systems.

URAdapt was a three-year project which aimed to reduce the vulnerabilities of Addis Ababa, Ethiopia, and Accra, Ghana, to climate change through improved and integrated urban water management. The project placed the city within its broader basin context, thereby focusing the research on urban-rural connectivity. URAdapt brought together climate change and water management experts, decision-makers and representatives of vulnerable communities to collectively design adaptation strategies for the water-use sectors in Addis Ababa.

This project, which was implemented under the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), was facilitated by the International Water Management Institute (IWMI), Addis Ababa University, Ethiopia, and the Council for Scientific and Industrial Research (CSIR), Ghana.

Funds for the project were provided by the International Development Research Centre (IDRC), Canada, and the Department for International Development (DFID), UK.

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