

On behalf of:



Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

IWA
the international
water association

of the Federal Republic of Germany

Water & Wastewater Companies for Climate Mitigation (WaCCliM)

The WaCCliM project shows how the water sector can reduce its greenhouse gas emissions and contribute to climate change mitigation.

The Energy/Carbon Opportunity

Greenhouse gas emissions from combustion of fossil fuels are causing an increase in the earth's temperature. Effects of this global warming include rising sea levels and shifting rainfall patterns. As a consequence, water scarcity, flooding and erosion occur more frequently and intensively. These impacts of climate change are a threat to human life, housing, drinking water supplies, harvests and production. In order to ensure adequate water management in the future, the water sector has to adapt to climate change.

At the same time, the provision of drinking water and the treatment of wastewater also contribute to greenhouse gas emissions. Water and wastewater companies are typically energy intensive (10%-35% of their total operational costs). Water losses lead to even higher energy consumption, and emissions of methane or nitrous oxide from wastewater treatment plants can further increase the carbon footprint of the water sector.

By updating technologies and management processes in water and wastewater companies into more energy-efficient systems, as well as recovering energy, nutrients and other materials from wastewater, there are excellent opportunities for improving the carbon balance of water and wastewater companies and thus contributing to climate change mitigation.

Investments in energy efficiency and energy production in urban water systems can also be extremely cost effective. If well planned, these investments have pay-back times of only a few years. Meeting the carbon challenge generates a double benefit: reducing operating costs while reducing the companies' and overall country's carbon footprint.



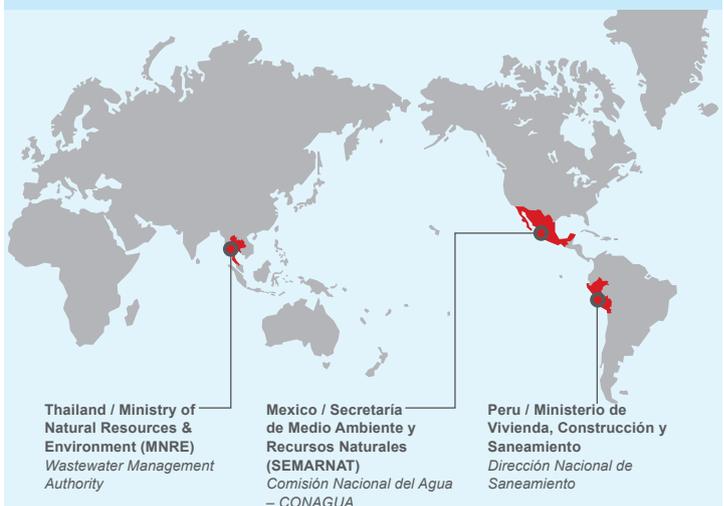
The WaCCliM Project

On behalf of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the International Water Association (IWA) are working together on the project "Water and Wastewater Companies for Climate Mitigation (WaCCliM)" as part of the International Climate Initiative (ICI).

WaCCliM engages with the international water and climate community, with national governments and water and wastewater utility associations around three pilot companies in Mexico, Peru and Thailand.

Together with their partners, the Secretaría de Medio Ambiente y Recursos Naturales in Mexico, the Ministerio de Vivienda, Construcción y Saneamiento in Peru and the Ministry of Natural Resources and Environment in Thailand, GIZ and IWA aim to improve the carbon balance of water and wastewater utilities in the three countries and beyond. At the same time WaCCliM's objective is to ensure that these companies reduce their operational costs and maintain or improve their services. The project is implemented from December 2013 to January 2019.

Project Partners at National Level



Designing Solutions for Climate Mitigation

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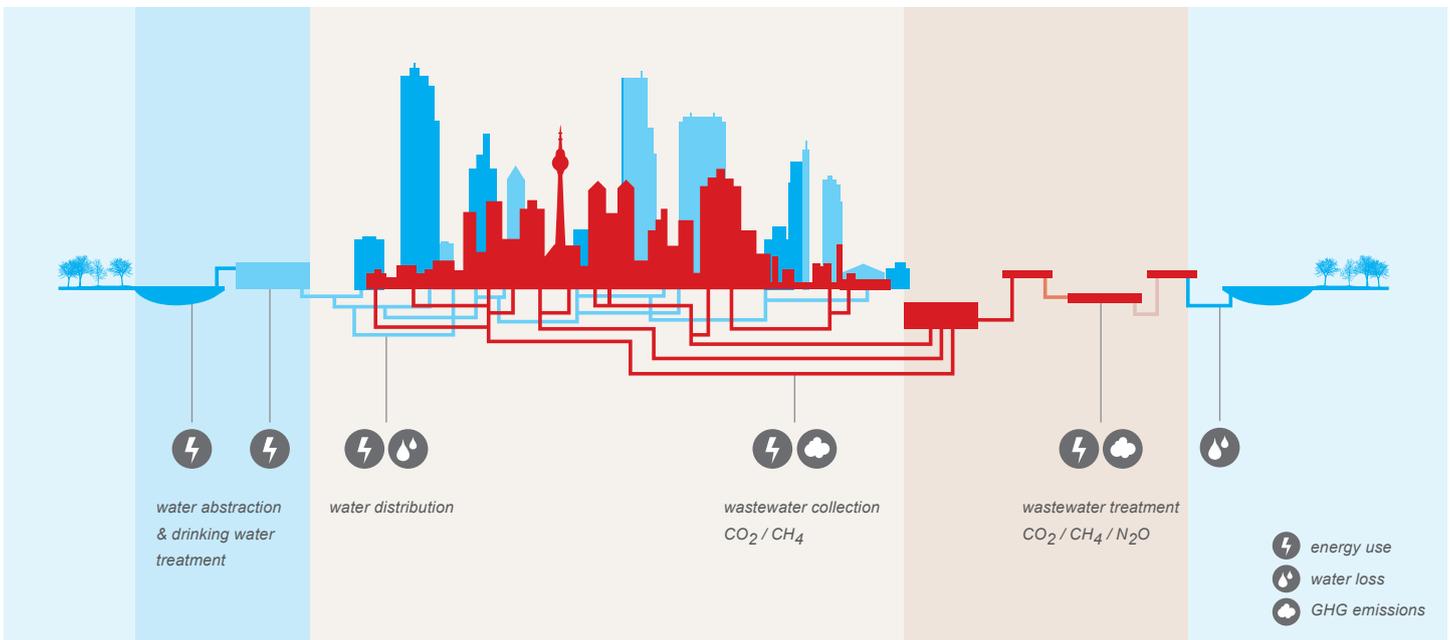
At the local level, WaCCliM supports pilot utilities in identifying a series of appropriate processes and technologies to reduce the companies' energy consumption and carbon footprint. Such operational improvements aim to generate spin-off benefits such as direct savings in energy bills as well as other operational improvements and cost savings around labour, chemicals, maintenance, and disposal costs. To achieve this, the pilot companies are supported by project experts who will conduct baseline studies, options studies and trainings.

At the national level, the project works with its political counterparts and national associations in the partner countries

to improve the framework conditions for the financing and implementation of mitigation measures in the water sector.

At the international level, WaCCliM will further develop and scale-up knowledge on water and climate mitigation through conferences, expert groups, technical guidelines and online resources. Effective implementation will help advocate for improved financing mechanisms and political incentives to replicate the success of demonstration projects in the partner countries and elsewhere.

In addition to the results achieved in the partner countries, the project will facilitate the broader development of climate change mitigation approaches for water and wastewater companies.



The WaCCliM project is a joint initiative between the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the International Water Association (IWA), acting on behalf of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB).



Contacts:

Dr. Lisa Oberkircher
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
lisa.oberkircher@giz.de

Corinne Trommsdorff
International Water Association (IWA)
corinne.trommsdorff@iwahq.org