Presentation from

2016 World Water Week in Stockholm

www.worldwaterweek.org

On behalf of:

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

of the Federal Republic of Germany

Water and wastewater Companies for Climate Mitigation (WaCCliM)

Ricardo Sandoval Minero

On behalf of:

Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

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

the international
water association

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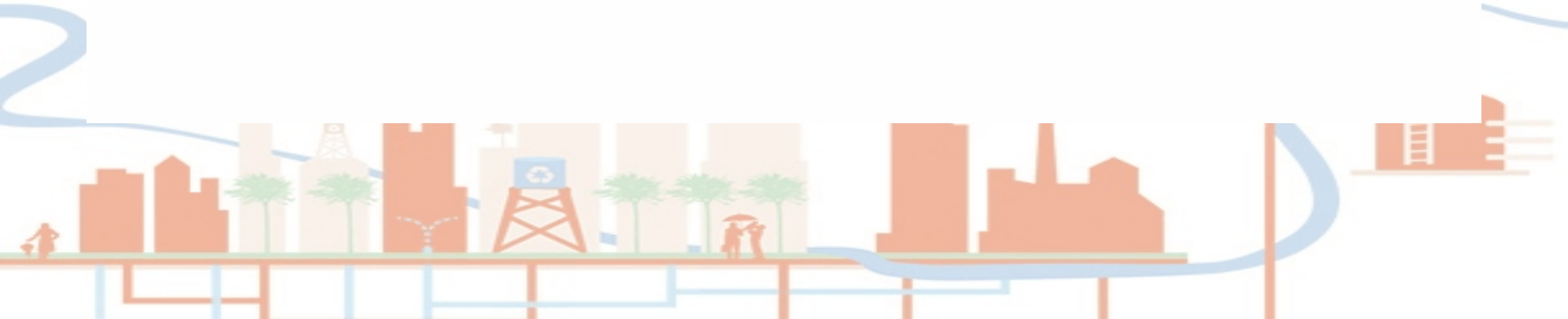
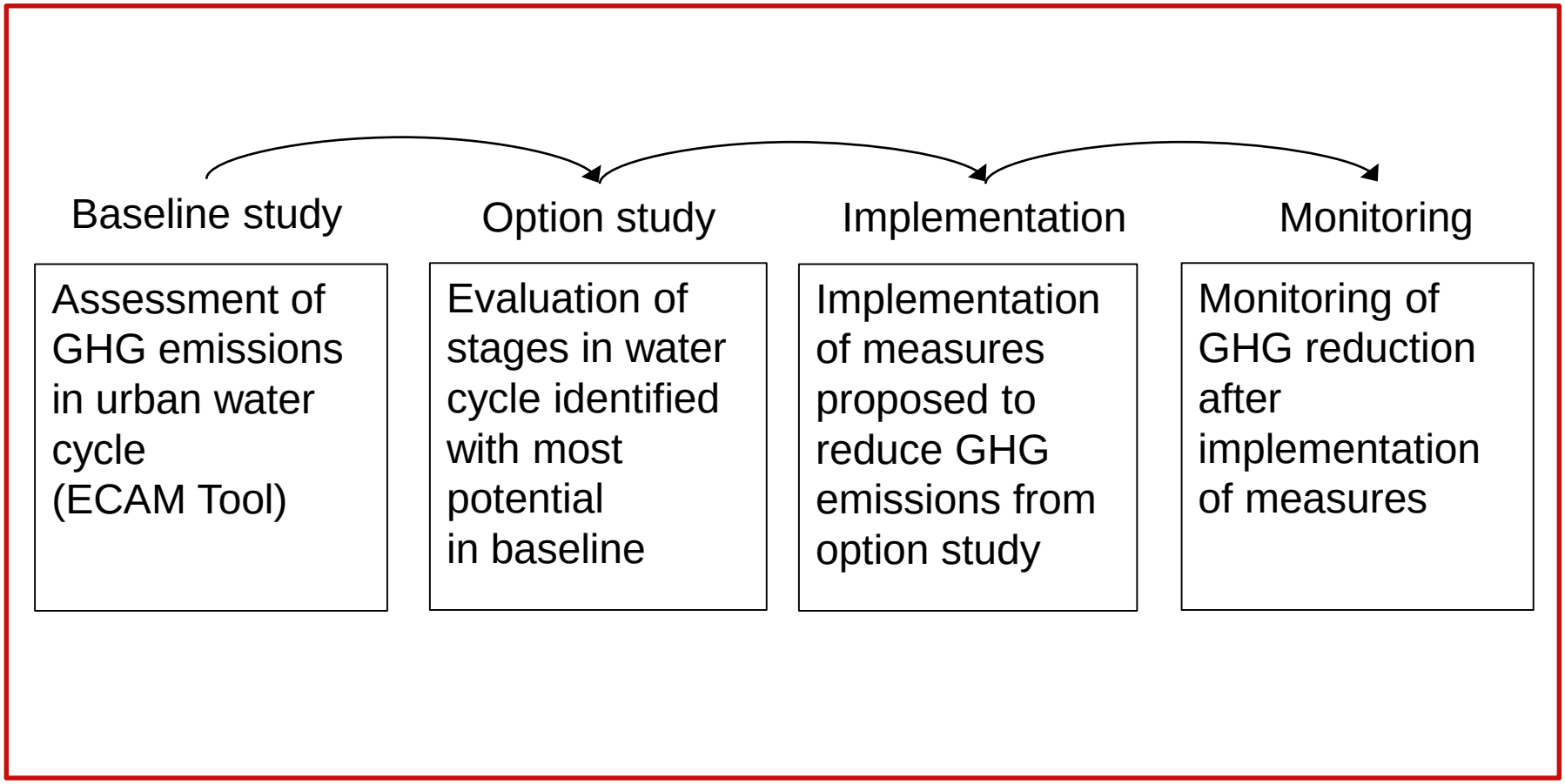


WaCCliM Approach



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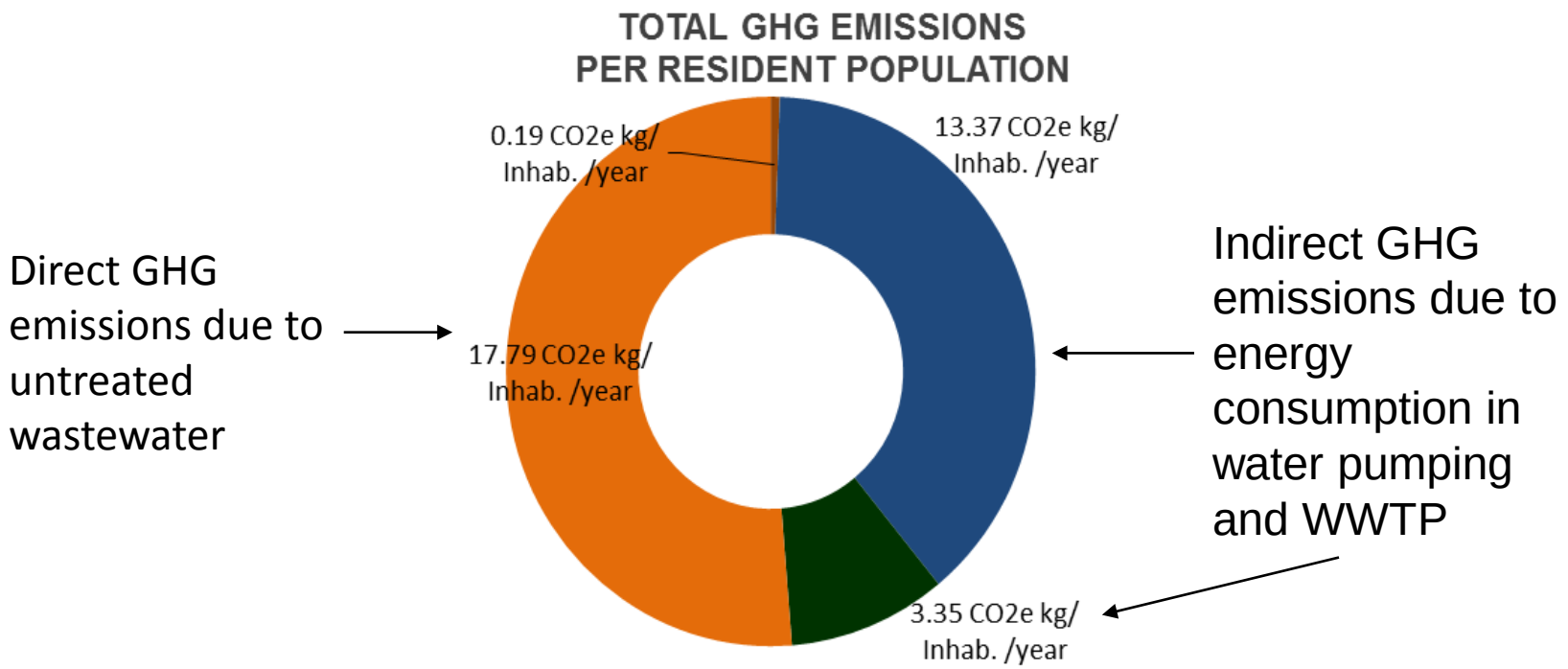
Pilot Utility – WaCCliM Mexico

Pilot baseline results for pilot urban water cycle



Option study

Studies in areas identified with the largest emissions sources:

- **WWTP treatment**: Analysis of WWTP to increase biogas and energy production
- **Pumping:** Energy efficiency assessment in 40% of pumping stations identified with lower efficiency
- **Non revenue water:** Analysis of losses/undermetering

Elevated tank -SAPAF

“San Jeronimo” WWTP

Implementation

Infrastructure program:

- Collector to increase almost 50% the treated wastewater (Compl
- Water conduction for reuse of treated wastewater for irrig

Pumping efficiency:

- Change of pumps in 25% of pumpin 10% of PS; and one well column (programed for end of 20
- Change to a more effici of pumping stations (Implemented)

WWTP eff

- Ru lectively (Implemented for peak hour energy tariff)
- Incr e (To be analyzed end 2016)
- Imple digestion in WWTP anaerobic digested to increase biogas production(to be analyzed in 2017)

If all measures are implemented there will be a reduction in up to 40% of GHG emissions compared to the baseline

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GHG emissions in water & WW sector in Mexico

High electricity requirements for water supply

The electricity consumption for water pumping is a very high percentage of overall electricity consumption in certain States

Example
In State of Querétaro 10% of the total electricity consumption is for water pumping.

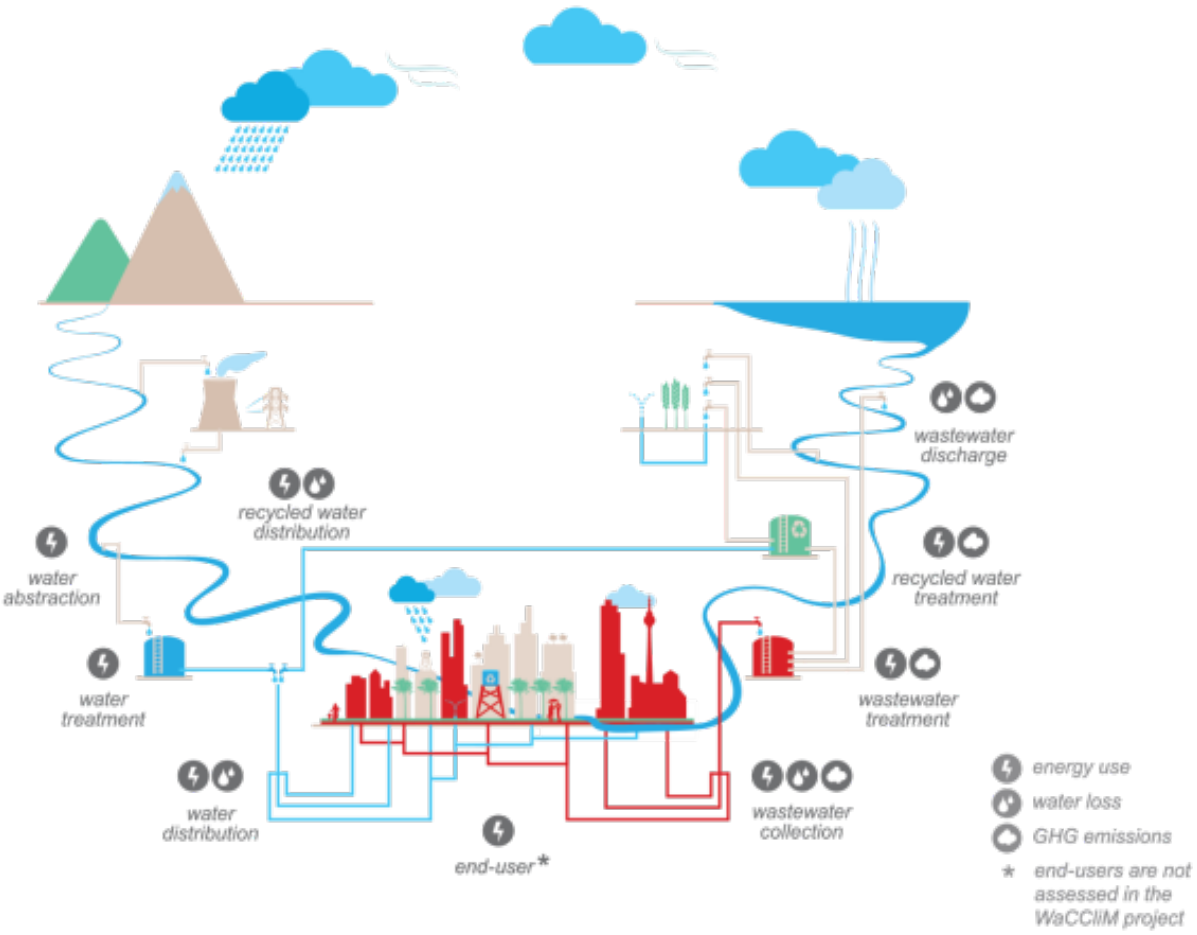
Promoted projects in México:
Energy efficiency projects supported by CONAGUA encourage utilities to identify opportunities with own indicators, and to develop local energy management capacity.

High direct GHG emissions wastewater

Untreated wastewater has a significant contribution to GHG emissions

Example
WW treatment is a high expense for municipalities, in some cases municipalities stop operating the WWT to save money in detriment to population health and leading to GHG emissions.

Measures in México:
CONAGUA has a committed significant funds to increase WW treatment coverage. In some regions, promotion of anaerobic treatment can reduce energy requirements and improve sludge management.


wastewater discharge
recycled water distribution
water abstraction
recycled water treatment
water treatment
wastewater treatment
water distribution
wastewater collection
end-user*
energy use
water loss
GHG emissions
* end-users are not assessed in the WaCCliM project