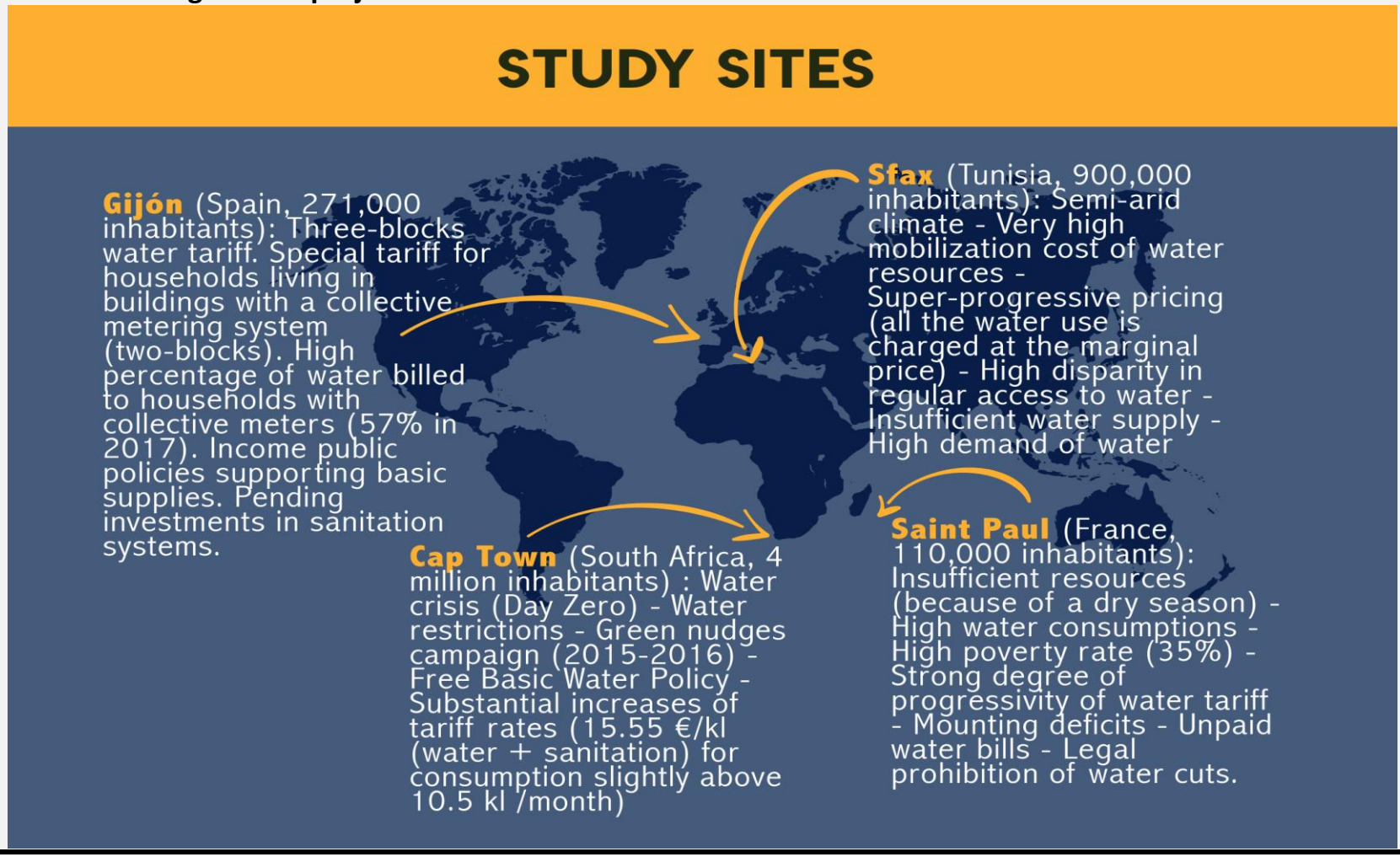
WATERWORKS 2017 RDI FUNDED PROJECTS BOOKLET

Project: Nudges for Economics of Water Tariffs

Acronym: NEWTS

Representative image of the project:



Outcomes and expected impact:

Outcomes:

1 - Basic knowledge - linking behavioural interventions and water demand functions of the households

2 - Basic knowledge - development of "new" socio-economic performance indicators for water management

3 - Basic knowledge - making progress with behavioural interventions (in the field of water)

4 - Micro-simulation models and DSTs tailored for studies site (4)

5 - Simplified version of DSTs

6 - Multi-agent model for design of nudging campaigns

7 - Smart mobile application to provide real-time information on consumption and marginal price of water

Expected impacts:

Responding to the decision-making gaps on water management Newts aims to inform local decision-making process with dedicated DSTs, based on econometric estimates of water demand functions of the households, to be used by stakeholders involved in water management for diagnostic, simulation and projection purposes. Besides, Newts contributes to the development of "new" indicators that can be used (i) for the development of impact investments; (ii) to monitor progress towards WDF and SDGs at various levels of public interventions (information provided by local dashboards can be consolidated into aggregated dashboards). Last, the project targets an improvement in stakeholder skills regarding the socio-economic dimension of Water Utility DSM policy, with specific actions based on simplified version of the DSTs.

Towards efficient water uses and responsible co-management Better management of their water uses by households with significant reductions in over-consumptions and water bills. Less pressure on the resource and environmental improvement with reduction of water wastage. Raising public awareness on high water consumption issues through nudges. Improved information in the context of the relationship between public authorities, private water companies and civil society organizations.

List of deliverables expected:	
4 reports on nudging campaigns	
2 reports on multi-agent model	
1 report on lab experiments	
Econometric analysis of water demand	
3 reports on socio-economic evaluation of DSM Policy	
Micro-simulation models	
Other technical reports	
Expected research results to communicate and disseminate (in very general terms)	**Target groups for communication and dissemination activities**:
1. Econometrics of household water demand - results	Academics & stakeholders (public administration and water utilities in particular)
2. Socio-economic evaluation of Water Utility DSM policy (targeted case studies)	Local stakeholders
3. Simplified version of DSTs	Stakeholders
4. Post-nudging campaign public consultation	Local stakeholders and general public
Experiments / Case studies: 5. Lab experiments on perception of water tariff system (2; France)	Academics & stakeholders (public administration and water utilities in particular)
6. Decontextualized lab experiments on nudges dissemination through social networks and neighbours (France)	Academics & stakeholders (public administration and water utilities in particular)
7. Field-in-the-lab experiments on persistence and dynamic nudges management (France)	Academics & stakeholders (public administration and water utilities in particular)

8. Field experiments in France (Saint Paul), Spain (Gjion) and Tunisia (Spain)	Academics & stakeholders

Water Policy context / project contribution to policies (National, European, International – UN SDGs):

The project rely on econometrics of water demand to assess the socio-economic performance of DSM policy for residential water use through a dashboard of appropriate indicators. Simulation and optimization exercises allow to identify improvements and worsenings associated to more flexible pricing mechanisms and BIs in every dimension of the WDF. The selection of a precise solution has to be based on the trade-offs of the decision-maker and, as well, on management costs. The variety of fields covered by the dashboard provides information that can be used for the development of impact investments..

In view of these elements related to social and incentive effectiveness of water demand management policies, the project contributes to implementations of SDG 6 (Targets 1, 3 and 4) and WDF (Article 9). Besides, the project contributes also to the implementation of SDG 13 (Targets 1 and 3). Indeed, the impact of climate change suggests water price will continue to increase sharply in coming years, due notably to the financing of investments in infrastructures in order to address changes in rainfall and streamflow variability. Beyond the issue of social acceptability (that matters), financial sustainability of the water management system requires that these price increases do not impact the poor disproportionately, otherwise developing unpaid debts risks.