



In partnership with  
**GOAL**

Watch the  
TokenTap in  
action



In partnership with  
**Dorcas**  
Mozambique

## Pre-paid water fit for rural settings

# TokenTap

Prepaid water technologies are essential tools for fair, transparent and reliable revenue collection. They contribute to the sustainable management of water supply assets.

For prepaid water systems to work in rural settings, the hardware must be reliable, robust, and easy to install and maintain for anyone with a basic technical skillset. Additionally, it should come at low operational costs.

Practica developed a mechanical prepaid device called the TokenTap to meet these conditions.

The TokenTap is particularly user-friendly, easy to install, and operate. Additionally, it offers critical functionalities including a tracking device and a web dashboard to monitor water sales.



## Our innovation



The TokenTap facilitates a system whereby consumers pay for water, which covers **operation and maintenance costs** and supports **transparent and equitable transactions**. However, this is not a novel concept, as several pre-paid water solutions are available on the market.

While similar systems exist, electronic devices are expensive and complex to maintain and, therefore, less suitable for rural or poor peri-urban settings. Supply chains for spare parts are often lengthy and costly. Regular site visits by specialised technicians and software engineers complicate installation and maintenance, especially in rural settings.

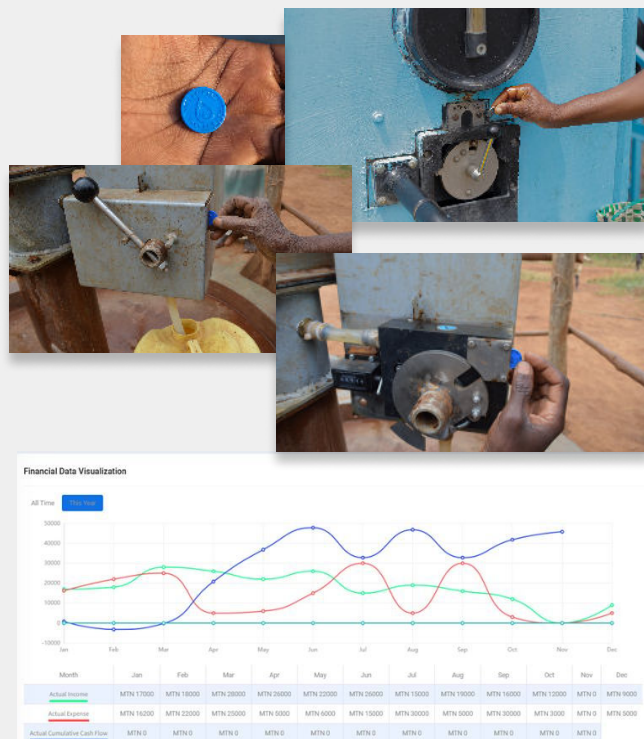
To support a **business case in a rural setting**, a dedicated prepaid device with **minimal capital investment, low operational and maintenance costs, and simple maintenance requirements** that can be executed locally is needed - the TokenTap provides just that. This device can be used by commercial entities, public utilities-mandated NGO operators, and water user committees to optimise and validate their income from water sales and create greater transparency and equity..

## Our design

The TokenTap can be installed on a **handpump** or as **tap stand on a piped water system** (up to 2 bars). The TokenTap is not operated with coins of money but by using a dedicated token: a simple plastic or RVS coin. One can open the tap by inserting it and turning the handle down. This empties a vessel that is located at the back of the device. By rotating the handlebar up, the vessel will fill again.

The vessel contains one compartment with a predefined volume of water (generally one 22L jerrycan). A simple gauge in the front allows you to track the tank's water level. Different types of tokens can be used to enable a **pro-poor water tariff for vulnerable community members**.

The TokenTap can be purchased, which includes a **small digital tracking device** that registers when the tap is opened. This data is automatically transmitted to the cloud via a SIM card. An online web dashboard provides insights into the **consumption and revenue data** of each TokenTap. The web dashboard will be **compatible with mWater** and provide **free access to Practica's digital tools for Water Systems Asset Management**. The tracker contains an interchangeable battery with a lifespan of up to two years, and its functionality is completely separated from the mechanical operation. This ensures that TokenTap can continue to provide water even if the tracker fails.



## Our ambitions



Our ambitions with the TokenTap is to contribute to SDG 6 (safe water and sanitation for all) and reduce the number of broken, unsustainable managed water systems in the rural Global South.

The TokenTap for handpumps is being pilot-tested in Uganda in partnership with GOAL, and the TokenTap for piped water systems is starting to scale under the **WaterTime** project with Dorcas in Mozambique. Early-stage prototypes have been placed in Mali, Ghana and Liberia. The pilots' insights contribute to product iterations and steps towards commercialisation and potential production. Currently, serial production in India is being prepared, and a possible network of retailers in East Africa is being set up.

*Are you interested in pilot testing, supporting scaling or becoming one of our future producers, retailers, or after-sales support partners? Please reach out!*



**Practica** - Innovative technologies managed by local entrepreneurs

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