

Water licensing and permits

Challenge: Too little water

Adaptation response: Water efficiency and demand management

Description

Water licensing is a water demand management tool requiring private landowners, or at times specific potential water users, to apply for (or purchase) a license or permit for water-use or water affecting activities (e.g. construction, diversion, artificial recharge) in the watershed. Water licensing allows authorities and watershed managers to keep track of how much water is used, where and by whom, imposing timely restrictions where needed. Examples include mining operations in watersheds requiring water use permits, or applying for a permit to drill a borehole on private property, as well as permits to extract water for storage or irrigation.

Water licenses/permits are typically granted for a limited time and are subject to a number of regulatory obligations to ensure that water abstraction or other activity impacts are controlled and documented. If the obligations are not followed, the consequence may be a penalty (usually in the form of a fine), or permit retraction.

Implementation

Typically, national or local water laws list pre-requisites that must be met to be granted a water license, for example only national citizens may apply, etc. The pre-requisites usually include an overview of activities requiring a license or permit, allowed water extraction amounts (with or without a permit) and specific locations in the watershed that would require an application for a license or a permit.

Water affecting activities such as abstraction, waste water discharge, forestry and agricultural activities must meet the license's legal requirements and are therefore usually subject to regular monitoring and reporting (by meter) after the license has been granted.

Environmental Benefits

- Supports coordinated water development in the watershed and protects against over-abstraction, pollution and groundwater depletion.

Socioeconomic Benefits

- Generates money that can be used for sustainable water management projects in the watershed, such as restoration projects.
- Helps raise citizen awareness in regards to sustainable water use and environmental conservation.
- Ensures benefits of water development activities are shared with the broader group of stakeholders in the watershed.

Opportunities and Barriers

Opportunities:

- Water licensing and permit schemes help protect the environment and generate income from resource development activities simultaneously

Barriers:

- The application process can potentially delay some development activities, creating financial loss for authorities or businesses
- Resources are needed to monitor licensing and permits compliance on a continuous basis

Implementation considerations*

Technological maturity: 4-5

Initial investment: 2-3

Operational costs: 2-3

Implementation timeframe: 2-4

* This adaptation technology brief includes a general assessment of four dimensions relating to implementation of the technology. It represents an indicative assessment scale of 1-5 as follows:

Technological maturity: 1 - in early stages of research and development, to 5 – fully mature and widely used

Initial investment: 1 – very low cost, to 5 – very high cost investment needed to implement technology

Operational costs: 1 – very low/no cost, to 5 – very high costs of operation and maintenance

Implementation timeframe: 1 – very quick to implement and reach desired capacity, to 5 – significant time investments needed to establish and/or reach full capacity

This assessment is to be used as an indication only and is to be seen as relative to the other technologies included in this guide. More specific costs and timelines are to be identified as relevant for the specific technology and geography.

Climate Change Adaptation Technologies for Water

A practitioner's guide to adaptation technologies for increased water sector resilience

WATER ADAPTATION TECHNOLOGY BRIEF

UN Environment-DHI Centre
on Water and Environment



CTCN
CLIMATE TECHNOLOGY
CENTRE & NETWORK

UNEP DTU
PARTNERSHIP

Sources and further information

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