

GOOD PRACTICE SHEET N° 8

WATER-SAVING INCENTIVES

What are water-saving incentives ?

An agricultural incentive is a payment to agricultural organizations and farms to supplement their income and manage the supply of agricultural commodities. In a context of climate change, many incentives support the transition to agricultural systems that have less impact on water resources in terms of quantity and quality.



Which **impactful changes** can water-saving incentives bring to your business model transformation?



Production model

Not applicable



Competitiveness

Not applicable



Revenue model

Requires low commitment

Why should you subscribe water-saving incentives ?

In the Mediterranean context, challenges of adapting agricultural systems to climate change are very high. Taking advantage of water-saving incentives makes it possible to invest in anticipation of future changes (new irrigation systems, low water consumption crops), while limiting the financial risk that a change in production model can represent for a farm. These incentives also compensate for the potential short-term losses that could be generated by the implementation of new practices.

What are the environmental and agronomic needs addressed by water-saving incentives ?



Reduce water consumption



Reduce water and environmental pollution

What are the economic needs addressed by water-saving incentives ?



Provide a direct income supplement



Low capital investment

What are the key figures for water-saving incentives?

AGRO-ENVIRONMENTAL IMPACTS

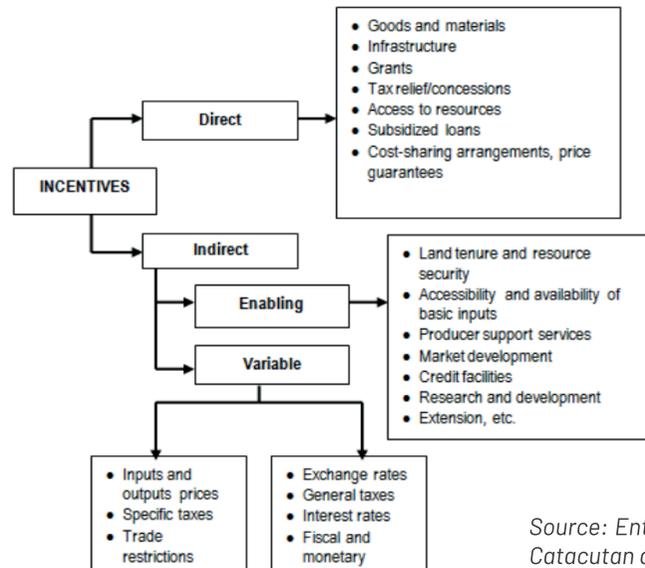
Water-saving incentives allow direct water savings from 20 to 40%. These water savings are made possible by diversifying crops, following agricultural areas, reducing irrigated areas and by directly limiting the total water consumption for targeted crops.

Incentives that support the improvement of irrigation systems, lead to improvements in **water use efficiency from 60%** (for poorly maintained sprinkler irrigation systems) **to over 90%** (for optimal drip irrigation).

In Cyprus, the minimum water savings expected from incentives are in the order of **4,000 to 5,000 m³/ha/year**, depending on the implemented crop.

SOCIAL IMPACTS

In Greece, water-saving incentives are facilitated by independent consultants who carry out all the administrative tasks. **Consultants receive part of the incentive amount (€8-10/ha out of a total of €350/ha in Thessaly).** These interventions greatly facilitate the understanding and acceptance of such incentives in large territories, and represent an important time saving for farmers.



Source: Enters et al., 2004; Catacutan and Piñon, 2009

ECONOMIC IMPACTS

For all water-saving incentives at the Mediterranean scale, the average remuneration varies from €125/ha to €700/ha. It includes both incentives for the direct reduction of water consumption as well as incentives for crop diversification.

Water-saving incentives may also concern the allocation of annual quotas. In Cyprus, for example, if the farmer exceeds his quota, he has to pay the excess at a price higher than the initial price of the water in quota. **The price of dam water thus goes from €0.17/m³ in quota to €0.56 /m³ without quota.**

(Source: Arcadis; European Commission, 2012)

POTENTIAL DEVELOPMENT

Incentives for more water-efficient agricultural practices are developing throughout the Mediterranean basin, from private or public funds. However, farmers, are still not sufficiently involved in the creation of measures and schemes': 56% of the farmers not involved in the incentives consider that the proposed specifications are insufficiently adapted to the constraints of their farms. Thus, the main challenges for the development of future incentives is to **promote integrated projects that can be adapted to local agricultural conditions and to change the support mechanisms.**

(Source : Kuhfuss, 2013, Oréade-Brèche, 2016)

How to implement water-saving incentives ?



ON-FARM ISSUES

- 1 Need to quickly and economically value water-related good practices
- 2 Need for financial support to initiate an agro-ecological transition at the farm level
- 3 Limited access to water resources
- 4 Decrease in water use efficiency in crops
- 5 Degradation of water quality



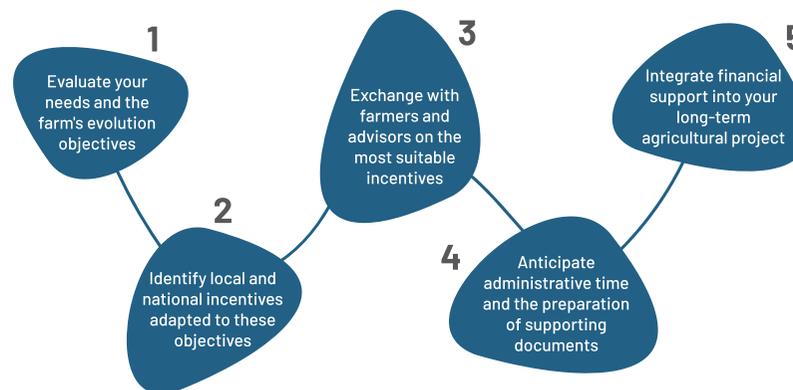
FIELD ADVICE

"In 2010, I benefited from financial aid to launch an agri-environmental measure "desirrigation". It aimed to reduce the volume of water to 60,000 m³, with the objective of securing this volume by winter storage. I chose to abandon a water well located 12 km from the farm that allowed the irrigation of 35 hectares of corn. In 2017, when my partner left the farm, I stopped dairy farming and started to think more deeply about changing my production system. 18 months later, I converted 60 ha to organic farming around the farm's headquarters. With other farmers, I have set up grass strips, intercrop cover and hedges, in addition to converting to organic farming. Voluntarily, I no longer irrigate between 9 a.m. and 7 p.m., which limits water loss through evaporation. Thanks to the collective reflection undertaken, this is now the case for 95% of the farmers in the area." Denis Mousseau, French cereal farmer

"With the transition to agro-ecology, I have acquired knowledge on soil life, on varieties, on no-till techniques and on water management. I have developed more observative skills. I had to present my work and the specificities of my system in public. In the future, I will need more information to be able to sell environmental services. For example, I discovered too late that the tree planting could have been financed by the Yves Rocher Foundation." Raphaël Gardot, French cereal farmer



KEY STEPS TO A SUCCESSFUL IMPLEMENTATION



IMPACTS AND BENEFITS

- 1 Ensure a complementary source of income in the short term
- 2 Compensate for loss of income related to agro-ecological transition
- 3 Reduce water consumption
- 4 Increase water use efficiency
- 5 Limit water pollution and quality degradation



KEY CHALLENGES

Strong dependence on political decisions

Including the European subsidies of the CAP, most of the **incentives are decided at a national and international level and thus strongly depend on political trends.**

Specific conditions of attribution

The conditions for subscribing to incentives are very precise and specific. It may limit opportunities for agricultural transition, which must meet these conditions.

An additional administrative burden

Subscribing to incentives may represent an **additional administrative burden and requires specific time** for this purpose.

How to go further?



MORE INFORMATION DOCUMENTS AND DATA

Arcadis; European Commission. (2012). The role of water pricing and water allocation in agriculture in delivering sustainable water use in Europe - Final report.

Blinda M. (2011). Efficience d'utilisation de l'eau et approche économique - étude nationale Maroc, Plan Bleu.

European parliament. (2013). Sustainable management of natural resources with a focus on water and agriculture. Study - final report.

Global Water Partnership (2012). Water Demand Management: The Mediterranean Experience.

IPEMED (2014). Financing access to water and sanitation in the Mediterranean. Is innovative funding a solution or an illusion?

Loubier S. et Polge M. (2016). Etude sur les règlements intérieurs des Organismes Uniques de Gestion Collective et sur les critères d'allocation de la ressource en eau. Rapport final. ONEMA et IRSTEA, 2013-2015, thème 7, action 9.

Oréade-Brèche. (2016). Paiements pour services environnementaux et méthodes d'évaluation économique. Enseignements pour les mesures agroenvironnementales de la politique agricole commune. Centre d'Analyse et Prospective.



DISCUSS AND TEST PROJECTS, TOOLS AND NETWORKS

Farm Advisory System (FAS). All countries in the European Union have a farm advisory system (FAS). The FAS helps farmers to better understand and meet EU rules for the environment, public and animal health, animal welfare and good agricultural and environmental condition (GAEC). The FAS provides information about:

- measures provided for in rural development programs for farm modernization, competitiveness building, innovation and market orientation;
- requirements for efficient and sustainable water use, along with water protection;
- the promotion of farm conversion and diversification of their economic activity;
- minimum requirements for agri-environment-climate payments beyond mandatory standards and minimum requirements for fertilizers and plant production products, also regarding organic farming;
- information relating to climate change mitigation and adaptation, biodiversity and protection of water.

NEFERTITI - Networking European Farms to Enhance Cross Fertilisation and Innovation Uptake through Demonstration (2018-2022). The overall objective of NEFERTITI is to establish an EU-wide highly connected network of pilot farms designed to enhance knowledge exchanges and efficient innovation uptake in the farming sector. The project NEFERTITI focuses on creating added value from the exchange of knowledge, actors, farmers and technical content between networks.



TAKE ACTION FUNDING SOURCES

CAP aid and EAFRD: Through the European Agricultural Fund for Rural Development (EAFRD), CAP allows each country to set up aid for adaptation to climate change and better water management. This concerns in particular the agri-environment-climate measures (AECM), but also measures to support investment, training and advice to farmers. Today, most of the countries of the Euro-Mediterranean Basin propose AECMs that promote better water management in agriculture. These measures support reduction of water consumption, changes and diversification of crops and changes in irrigation practices etc. However, the majority of water-related measures still focus on improving water quality and changing practices that can impact it.

The Partnership on Research and Innovation in the Mediterranean Area (PRIMA) offers various grants for consortia consisting of public and private actors in the Euro-Mediterranean region who are dealing with farming, agro-food systems and value chains, as well as water resources. It is a ten-year initiative (2018-2028), partly funded by EU's research and innovation program Horizon 2020. Its main objective is to devise new research and innovation approaches to improve water availability and sustainable agriculture production in a region heavily distressed by climate change, urbanization and population growth. It supports sustainable farming systems under Mediterranean environmental constraints.