Farmers as Custodian of a Territory

The contract is designed to compensate farmers for monitoring and for interventions to control flood risks and to improve the management of river basins. The contract represents a case of the outsourcing of environmental and public goods services to the farmer. In other words the public agency outsources the control and maintenance of the river basin, the prevention from flood risks and other environmental goods directly to the farmers.



Summary

This type of contract compensates farmers for external activities to their farm production. The contract type has changed over time. However, the structure remained constant, and it includes two main parts: a) a fixed amount (payment) per farm for monitoring a water basin, b) a variable amount to reduce flood risk (and other risks like for example, erosion). The payment is incrementally based on the risk and the action taken to prevent it.

The investigated contract solution is the second one, which was redesigned in accordance with farmers involved and the University of Pisa. The second contract solution reduced drastically the fixed components (previously 6000€) due to the shortage in the budget to compensate direct interventions in case of urgent actions required. The main novelties were the requirement of a monthly report containing the results of monitoring and indicating the most problematic area. In addition, after a weather alert, the farmers could signal the threat to water bodies using a dedicated Web App (IDRAMAP).



Objectives

- 1. Preservation of the good status of water bodies.
- 2. Maintenance of agricultural and forestry activities with the preservation of existing hydraulic structures.
- 3. Support execution of preventing investments to reduce pressure on water bodies.
- 4. Supporting farmer's viability.
- 5. Improve the cost-effectiveness of water bodies management.
- 6. Increase the capability to observe the territory and increase positive attitude towards non-productive investments.

Result-oriented: The second component might belong to the result-oriented category (theoretically). Practically the payment rewards the number of actions. Each action is paid based on the expected cost. In this case, it cannot be different because the public administration cannot pay farmers or other providers based on result, because they need some real documentation (invoice etc.) to justify the public expenditure. Besides, a public authority does not know ex-ante the source of threats (i.e. number of weather alerts and severity of rain). So they need a flexible system to ensure the management of river basinss.

Indirect effects:

- An incentive to increase farmer's investments and farmers modernization.
- An incentive to better know the territory as well as to increase the cooperation with the public agency.

RESULT-ORIENTED



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PUBLIC GOODS



Resilience to natural hazards
Reduce the territory
exposure to flood and
extreme events



Water quantity keep functioning existing hydraulic infrastructure



Rural viability and vitality support farmers activities by paying for additional services



Landscape and scenery keeping farmers active on mountain area will improve the landscape quality of the forestry

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LOCATION

ITALY



The area enrolled is included into the mountain area of two Tuscany provinces: Lucca ITI12 and Pistoia IT12.

Problem description

The mountain area of the Tuscany region is exposed to floods and landslides. This situation has worsened due to the effects of climate change and land abandonment. The Mountain community was in charge of monitoring and avoid water management risks over a territory of 115,000 ha, which includes 1,500 km of water bodies.

One of the three Authorities in charge to manage water risks in mountain areas (the formers Mountain community of Serchio Valley, now converted in Union of Municipalities of Serchio Valley (UMC) took the initiative to face:

- a) institutional change, due to enlarging of the operated area due to acquisition and merging of the previous institution in charge of water basins management (RIbs) with devolution of competences to UMC;
- b) needs to improve the efficiency in the management of water bodies, to avoid flood and other damages;
- c) needs to reduce pressure on the environment by trying to keep farmers on the farm in the marginal area of the Apennine, while putting emphasize on ecosystem services provided by agricultural activities (reduction of soil erosion in the mountain by continuing grazing or correct forest management; maintenance of existing hydraulic structures in the forestry and agricultural areas).





Data and Facts - Contract

Contract features combination: The contract is an agreement between the UC of Serchio Valley and 27 farmers selected on the basis of two criteria: a) proximity to the water bodies and the capability to undertake necessary actions. Formally, there is a public call asking farmers the willingness to be involved in the project. The agreement includes a description of actions to be taken in their area managed as well as the first refusal for further activities when needed. The deal includes a fixed amount for monitoring activities and a variable amount based on agreed actions and new actions (based on the right of first refusal or fiduciary piecework).

The fixed payment is calculated on the basis of 250 € per years = 5 weather alerts per year with a cost of 50€ per each monitoring activity. The beneficiaries must prepare and submit to UM a monthly report containing the outcome of monitoring activities on their management of water bodies. The variable component is based on direct commitment due to a previous agreement. The farmers must respect the foreseen timing. An additional payment for a large intervention can be paid by measure 226 or RDP of Regione Toscana (RT).

Participation: 27 farmers were involved. They cover about 40% of the hydrological bodies area. Currently, there are no reasons to try to extend to another subject (i.e. NGOs, citizens due to lacks in types of equipment to perform the required actions).

Involved parties: Farmers received the payments and in turn, had to ensure both monitoring activities, prevention actions and required additional actions.

Citizens and other farmers are less exposed to flood risks, and benefit from effective water management. An additional problem about keeping minimum water level for Massaciuccoli Lake arose in recent years.

The benefits for participating in the contract solution: Farmers have broadened their farm activities and received payments in turn for ecosystem services. In addition, they were able to increase investment and keep farm active. The UM outsourced an activity to actors with higher knowledge of forestry and agricultural condition on the territory.

CONTRACT

The contract was between the UC of Serchio Valley and 27 farmers selected by criteria.

public – private

note* RIB is the paying agency and farmers receive the payment.

Contract conclusion: Written agreement



Payment mechanism:

Incentive payments. The financing came from Government (with EU-funding)



Funding/Payments:

The paying agency is the Union of Municipalities. The money came from government and from the RDP of RT using measure 226, which allocate to the UM the possibility to pay farmers. The fixed part is 250 € per year, while the variable part depends on the expected activities that have been agreed between the farmers and UM plus some extra payment in case of higher needs. The maximum amount of payment cannot exceed the 50,000 € per single farm and 200,000 € for the other (due to constraints of national regulation of direct commitments).

Length of the contract: 2-3 years



Start of the program: 2011

End: 2014 Continuing with

different contractual arrangements due to dismissing of agreement with ICT tools and changes in administrative norms about direct payment to the farmers (procurement code)

PRODUCT

Contract decoupled by production. Some indirect effects on supporting forestry production by keeping farmers activities.

Management requirements for farmers: In addition, each contract is differentiated on the basis of preventing activities which are required and are paid with the variable components. These activities include indications for cutting strategies, use of specific sustainable products, grazing management, cleaning of water bodies.

Controls/monitoring:

- Use of ICT and a formal delegation of activities by local technical office.
- Numbers of weather alerts.
- Preparation of a monthly report containing information on the main risk observed.
- Respect the time of the work described in the contractual agreement for the actions.

Conditions of participation: The UM opened a public call for interest in the outsourcing activities. The call allowed to identify interested farms in supporting the public administration on these services. Then after having signed an agreement (convenzione) the UM are allocated them based on proximity to the water bodies and on the effective capability to implement required action. Due to the few farmers interested the UM decided to not apply additional preference criteria. In case of non-compliance, the UM refuses to renew the agreement. Actually, the UM said that all farmers were in compliance with the commitments.

Legal status of the contracting parties: UM is a public association with tasks also on land reclamation and irrigation. The other contracting party are farmers, with no specific legal status requirements.

The contracting area: The contracting area covers water bodies plus specific activities performed on each farm. Hence, in several cases, the farms are in charge to monitor an area outside they operated area. In the previous contract, the fixed payment was proportional to the area monitored, but this linkage was removed in the investigated contract.

Renewal / termination: The UM requires a monthly report containing the results of monitoring activities and one additional report after each weather alert. The additional report contains emerging concerns, not directly observed in the previous report. This report constitutes the basis for asking for direct interventions. The UM was flexible in judging the quality of the monthly report, especially during the earlier phases, but requires a rigid timing for both small and large activities directly committed.

Risk/uncertainties of participants: Payments decoupled by markets, the source of uncertainties are the amount of investment required and the number of weather alerts per year.

Links to other contractual relationships: The only requirement was to respect the law about security of working conditions (i.e. use of specific equipment etc.).

Context features

Landscape and climate: The area investigated is very rainy, mainly in the spring and autumn. The winter is often rainy with snow often above 1500 meters. These conditions combined with the abandonment of grazing activities along the internal area can create spontaneous vegetation and a continuous growing of the unmanaged forest. These conditions, besides quite a steep slope, can create a lot of pressure on water management.

Farm structure: No specific requirement, but enrolled farmers with equipment enable to support action on water bodies.





SUCCESS OR FAILURE?



The custodian was a successful contract solution.

Reasons for success:

Bottom-up programming with involving of farmers.

SWOT analysis

Main Strengths

- 1. Knowledge exchange and continuous learning between farmers and RIB (paying agency).
- 2. Effectiveness in ensuring monitoring, by people who live on the site.
- 3. Reduction of administrative and operative costs for specific actions and confidence on the public

Main Weaknesses

- 1. Lack in specific law and regulations in managing water bodies.
- 2. Differences in quality among the farmers who is consequences of different expertise, dig literacy.
- 3. Seasonality of farms' activities. congestion in specific periods.

Main Opportunities

- 1. Multifunctionality of the farmers. Involve farmers for different services and can increases the number of the services.
- 2. Involve them in more structured ways.
- 3. Use for different irrigation shortage or fire alert.

Main Threats

- 1. To create high expectation within the farmers.
- 2. Timing of payments initial payout but payment too late.