

South East Europe Transnational Programme

Project Idea Form

Project idea's title

Transnational integrated management of water resources in agriculture for the EUropean WATER emergency control (EU.WATER)

Priority

(choose priority and indicate the relative area of intervention)

☐ Priority
Axis 1

AoI

☒ Priority
Axis 2

AoI Improve integrated water management and transnational flood risk prevention

☐ Priority
Axis 3

AoI _____

☐ Priority
Axis 4

AoI _____

Project Idea Promoter

(name of the institution)

- Province of Ferrara (IT)

Contact Person

Claudia Ziosi – Provincia di Ferrara

Tel +39 0532 29 9275

E-mail claudia.ziosi@provincia.fe.it

Is the applicant the project's potential Lead Partner?

☒ Yes

☐ No

If not, is the potential Lead Partner already being chosen?

☐ Yes

☐ No

Background (main problems or challenges to be addressed)

The whole EU territory, with particular regard to the Eastern and Southern European areas, has been interested by a long-standing and chronic water supply lack, which has reached alarming levels in the last years. This situation is given by not-efficient water use (for civil, industrial and agricultural use) bringing to massive waste and pollution of the hydric resources.

Furthermore, this scenarios get worse due to the climate change factors which, beyond the others, is determining a basic change of the rainfall intensity and distribution, especially in Southern Europe.

The agriculture and the primary sector, represents one of the main cases of this crisis because of:

- the massive use of the water resources for the irrigation and intensive tilling as well
- its role in the water pollution, since agriculture represents an outstanding pollution source due to the chemistry and organic nitrate fertilizers

The latter aspect is particularly important if referred to most of the South-East EU Countries that have not fully applied the EU Directive about nitrate (Dir. 91/676/CEE).

This project arises from the acknowledge that only by running a common hydraulic-emergency approach at wide scale it will be possible to positive impact in the long-term water resources protection and in the rationalization of its use, recognizing the role of the agriculture both in the water management and in water sources pollution.

Objectives (main and specific objectives to be achieved)

The general object of the project is to spread, at transnational level, the integrated management of water in agriculture, based both on the reduction / optimization of the water use in agriculture and on the reduction of the nitrate pollution in the water basin and ground water table.

The run methodology to achieve this general objective relies in the “bottom-up” involvement of all public and private stakeholders, and in particular the farmers, by sharing common aims and carrying out common actions to reduce the water use as well as stewardship measures to control the nitrates release.

Main foreseen activities

The following activities will be implemented in each project area according to a transnational method

WP1 Analysis and database

The first WP relays on the acknowledge that, on one hand, several data concerning the use and impacts of the agricultural activities on the water are already available and, on the other hand, several deliverables and guidelines about water management coming from experimentations and surveys carried out at national / regional level (Environmental Action Plans, Water Management Plans) and international level (cooperation projects within 4th to 6th FP, LIFE, Interreg III etc..) have not been fully applied yet.

The present WP plans to collect the already available data available all over the project area: these information, that will be further processed within a public database to support public and private stakeholders involved in the water management and day-by-day updated, represent the knowledge asset to run the forthcoming project activities.

WP2 Transnational strategy for the integrated water management in agriculture

According to the data collected in WP1, this WP aims at focusing the proposal for a “transnational strategy for the integrated water management in agriculture”: thanks to its application, the realization of coordinated and integrated actions will be possible. In specific, the present WP proposes one programming instrument allowing to capitalize the existing knowledge asset through concrete initiatives shooting the objectives foreseen by the EU legislation on water management currently in force.

The transnational programming will follow 3 main priorities: water resource saving; prevention of pollution and the bio-remediation.

- **Water resource saving.** The theme of water saving is based on the application of the results coming from the new technologies and the monitoring / removal of the losses along the water supply pipelines. The line of interventions take into account the different climatic conditions, different cultivations and practices existing in the project territories
- **Prevention of the nitrate-pollution.** The theme of the nitrate-pollution on the basin is faced by using the several studies and researches focusing on the optimization of fertilizers in cultivation according to different climatic conditions
- **Bio-remediation.** The theme of nitrogen shooting down is faced taking into consideration the effects of the fito-depuration along the water streams that receive nitrogen loads. In particular, it will be considered the studies carried out in small channels, which receive the waste water from farmer field and depurators, where the use of water plant species (*Phragmites australis* e *Typha latifolia*) brought meaningful reductions of the nitrogen load.

The application at local level of the transnational strategy for the integrated water management in agriculture will be run through the setting of local intervention plans (coherent with the transnational issues) and according to the environmental pedologic and socio-economic features of the concerned project territories

WP3 Criticism areas mapping

According to the data collected in WP1 (and, in particular, hydraulic availability, rainfall index, pollution benchmarks etc..) the mapping of the project areas by GIS will be done. The maps allow to highlight the critical issues related to the water management. The parameters also provide information to select target areas in which to apply interventions for integrated management of waters, as defined in WP2, through the realization of pilot actions. The outcomes will be uploaded in the database, which covers broad study areas in order to compare the results

WP 4 Pilot actions

The present WP plans the application of the transnational and regional strategies defined in WP2 across the selected target areas as highlight be the mapping carried out in WP3. The Pilot Actions tackle the process and interventions towards the effective and measurable reduction of the water use in agriculture and the reduction of the nitrate release in the water basin. The interventions will apply the models and sustainable procedures addressing to low-nitrogen agriculture and the realization of demonstrative interventions to save and re-use water.

The possible sectors of interventions to improve the water management are:

- adoption of eco-friendly agriculture production (es. minimum tillage);
- improve of the efficiency of water use (e.g. most efficient irrigation systems)
- reduction of the hydraulic losses (improvement of the infrastructures and pipeline networks)
- reduction of the consumptions (new cultivations and/or cultivation system with low-water need)
- improvement of the fito-depuration of the hydraulic network
- Reduction of fertilizers load
- Creation of water catchments basin through the re-conversion of marginal plot
- forestation in marginal / abandoned areas for the agricultural management.

Through the realization of the pilot action, it will be possible to develop the opinion-sharing with the local productive system in order to share the strategy and define possible lines of interventions (selection of the farmers interested to participate in the pilot project)

WP 5 Governance and incentive mechanisms

The inter-institutional cooperation activated in the previous WP allows to address the application of the agricultural grants towards concrete actions able to increase the methodologies for the water management in rural areas, as tested into within the project. In particular, the realization of this WP allows the institutional partners to determine a real strength of the sustainability of the rural policies, planning specific incentives for the farmers who joint the integrated water management system. Thus, the WP5 identifies financial / fiscal supporting mechanisms to boost the use of models a efficient water management for the farmers located in the project territories. The mechanism is based on scientific evaluations and follows the sectorial policies. Among the possible solutions, there are:

- Identification of normative solutions to boost the development of action to improve the water management system
- Creation of ad-hoc financial packages
- Coordination of specific actions foreseen by the EU, national and regional programming to maximize the results of such policies on the territory
- Individuation of new certification systems (es. Ecolabel) to valorize and stress the enterprenurship effort towards the application of water management system in compliance with the law in force.

WP6 Awareness raising and informative campaign

Realization of initiatives to inform the target groups and stakeholders about the opportunities coming from an integrated water management. This action allow to mainstream these approaches to other EU regions

WP 7 Project Management

Technical, financial and administrative project managment, monitoring and reporting.

Expected outputs and results

Main outputs of the project will consist in:

- a public database accessible through the web from which it will be possible to support and address public and private stakeholders involved in the integrated management of water in agriculture;
- a common transnational strategy for the integrated water management in agriculture, to be applied at local level through local intervention plans which will keep into account the local pedo-climatic characteristics of the involved territories;
- a GIS based map of water criticisms of the south-east space and a set of selected target areas in which to apply integrated management of water through the realization of pilot actions;
- practical pilot actions thanks to which it will be possible to implement a long-lasting integrated management of water according to the characteristics of each involved territory and according to a common transnational approach, ensuring the ownership of project results by target groups;
- a set of mechanisms and tools able to encourage the implementation of integrated management of water by private actors (and especially farmers) in the whole project area

Accordingly, main result of the project will consist in the establishment of an effective and “bottom-up” integrated management of water in agriculture leading to a protection of the resource in terms of increased efficiency in water use and a control of water contamination related to nitrogen.

Innovative character of the project idea

The main innovative character of the project will consist in the definition and realization of common goals of both public and private stakeholders involved in the management of water. Project realization will allow to strongly increase the direct application of research results in the field of water management by agriculture, which represents one of the main economic sectors affecting water availability and quality.

Partnership**Partners involved at this stage**

ERDF Partners	- Province of Rovigo (IT) - AZRRI (HR)
IPA Partners	
ENPI Partners*	

Partners requested

ERDF Partners	Institutional partners in Romania, Slovak Republic, Hungary, Bulgaria, Greece
IPA Partners	
ENPI Partners	

Estimated Total Budget**2.500.000,00****Does your project idea foresee the application for the 10% rule***☐ Yes. Please, explain in detail what will it be used for and the relevance for the project☐ No**Estimated duration**

(in months)

30

☒ I would like my project's idea to be published on the Southeast Europe Transnational Programme's website and presented during the SEE kick off event.

* ENPI Funds won't be available for the 1st Call. Partners from Ukraine and Republic of Moldova can be involved by applying for the 10% rule.

* The 20% rule is not applicable for the 1st Call.