

AG-WaMED | Advancing non conventional water management for innovative climate-resilient water governance in the Mediterranean Area

Grant Agreement Number: UNIFI 391 del 20/10/2022, AGRERI ΓΓΡ21-0474657

Deliverable 1.4.2

POPD (Processing of Personal Data) Report

Partnership for Research and Innovation in the Mediterranean Area Programme (PRIMA) The AG-WaMED project has received funding from the PRIMA Programme, an Art.185 initiative supported and funded under Horizon 2020, the European Union's Framework Programme for Research and Innovation























Deliverable Identification

Deliverable No and Title	D1.4.2 - POPD (Processing of Personal Data) Report					
Grant Agreement No	UNIFI: 391 del 20/10	/2022	Acronym		A C 14/-14FD	
	AGRERI: ΓΓΡ21-047	4657		AG-WaMED		
Project Full title	Advancing non conventional water management for innovative climate-resilient water governance in the Mediterranean Area					
Funding Instrument	Partnership for Research and Innovation in the Mediterranean Area Programme (PRIMA)					
Call	PRIMA CALL SECTION 2 2021 – MULTI-TOPIC					
Work-Package No and Title	Work Package 1: Project Coordination and Management					
WP- Main Beneficiary	UNIFI					
WP-Leader	Elena Bresci, elena.bresci@unifi.it					
Task No and Title	Task 1.4 – Ethics issues					
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Status	Draft ⊠ Final □					
Dissemination Level	Internal □ Public ⊠					
Reviewed by	Lorenzo Villani lorenzo.villani@unifi.it, Eleonora Forzini eleonora.forzini@unifi.it					
Abstract	The POPD explains in detail how data will be gathered and processed during AG-WaMED project					
Key words	NONE					
DOCUMENT HISTORY						
Planned Release Date	30 November 2022	Actual Releas	e Date	28 Fe	bruary 2023	
Version	V1	Released Ver	sion No		1	





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Glossary

Anonymized data: Anonymized data are no longer considered personal data. Items of information that do not allow the identification of individuals in the data material, neither directly through names or personal ID numbers, nor indirectly through background variables, a list of names, connection keys, encryption formula, or codes. However, a combination of background variables such as gender, age, location, etc. increases the risk of identifying individuals in the data material.

GDPR: General Data Protection Regulation EU regulation (regulation (EU) 2016/679) on the protection of natural persons with regard to the processing of personal data and on the free movement of such data.

Informed consent: Principle according to which human participants can enter research freely (voluntarily) with full information about what it means for them to take part, and that they give consent before they enter the research.

Personal data: Personal data include 'any information relating to an identified or identifiable natural person'. Different pieces of information, which collected together can lead to the identification of a particular person, also constitute personal data. Personal data include data such as internet protocol (IP) addresses (unique identifiers that can be used to identify the owner of devices connected to the internet) and data from 'smart meters' monitoring energy usage by addresses linked to identifiable persons. Personal data that has been de-identified, encrypted or pseudonymized but can be used to re-identify a person remains personal data and falls within the scope of the law. Personal data that has been rendered anonymous in such a way that the individual is not or no longer identifiable is no longer considered personal data. For data to be truly anonymized, the anonymization must be irreversible.

Processing personal data: Processing personal data entails 'any operation or set of operations which is performed on personal data or on sets of personal data, whether or not by automated means, such as collection, recording, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction' (Article 4(2) GDPR).





Introduction

Studies available at Mediterranean level show the evidence on the applicability of technologies to use Non Conventional Water (NCW) for multiple purposes. What is still missing is a "good governance" for the equitable use of such water resources and this needs an advancement of current management practices to be fostered by integrating innovative approaches and evidence-based, co-produced decision making. In this framework, a multi-actor approach that can guarantee the representation of multiple stakeholders in the decision-making process will be promoted to improve water governance schemes.

The aim of the project "Advancing non conventional water management for innovative climate-resilient water governance in the Mediterranean Area (AG-WaMED)" is to provide innovative, evidence-based participatory management solutions to water scarcity governance that can be scaled at the Mediterranean level. The project will propose a transdisciplinary approach, integrating the state of the art on land, water and agronomic modeling to support evidence-based water management in four Living Labs (LLs) located in Mediterranean watersheds, Italy, Tunisia-Algeria, Spain, Egypt.

A participatory modeling suite will allow the co-definition and co-evaluation of different water allocation scenarios for improving water governance in each LL, taking into account the decisive impact of NCW use to ensure climate-resilient strategies under a climate change perspective. A flexible yet comprehensive socio-economic approach procedure will enable the evaluation of such scenarios and will trigger a feedback mechanism to generate an adaptive learning environment in the AG-WaMED LLs. The full process will inform new water allocation models and will produce an innovative framework for improving water governance and for reducing conflicts in water-stressed contexts of the Mediterranean.

The digital technologies that will be used for the data analysis coming from the participatory session for the co-design activities represent a challenge when dealing with fundamental rights of privacy and protection of personal data. It is important then to provide users with a secure digital environment that they can trust, including effective control and protection of their personal data. For this reason, the EU Regulation n. 679/2016, entered into force from May 25, 2018, will be applied both for personal data collection in EU and non-EU countries project partners.

The present report is produced as deliverable for the task 1.4 of AG-WaMED project, **Ethics issues**. The task provides ethical oversight, analysis, and guidance on all aspects of the project. The task is defining: i) the procedures and criteria that will be used to identify/recruit research participants; ii) the informed consent procedures that will be implemented for the participation of humans; iii) how all of the data involved in the process is relevant and limited to the purposes of the research project.

In particular, the present document is defining detailed information about the collection, storage and protection of personal data.

Copies of opinion or confirmation by the competent Institutional Data Protection Officer and/or authorization or notification by the National Data Protection Authority (whichever





applies according to the Data Protection Directive (EU Regulation n. 679/2016 (GDPR), into force from May 25, 2018, and the national law), will be provided

The Protection of Personal Data (POPD) report is not a fixed document, but will evolve during the lifespan of the project, particularly whenever significant changes arise, such as dataset updates or changes in Consortium policies. This document is the first version of the POPD, delivered in Month 3 of the project. If further changes will be required a new version of this document will be delivered.

Information not available in the present file are available in the Deliverable 1.4.1, namely the **Ethical Standards Report,** including:

- a) Detailed information on the informed consent procedures that will be implemented for the participation of humans
- b) Templates of the Informed Consent Form (ICF) and AG-WaMED Information Sheet (IS).





Personal data collection, processing, storing and exchange

Based on the personal data definition, during the AG-WAMED project development, personal data, such as name, address, e-mail, CV, medical records, type of employment, age, sex, type and level of education, work qualification, length of service etc. will be collected. In AG-WaMED no sensitive personal data - e.g. health, sexual lifestyle, ethnicity, political opinion, religious conviction - requiring a specific authorization by the national data protection authority, will be collected.

1.2 Data collection and storage

AG-WaMED will collect personal information related to stakeholders (Ministers, farmers, experts, water authority people, etc.) taking part in the participatory sessions.

The following procedures will be applied:

- Informed consent form for the use of their personal data will be obtained from all the participants in the study (see the Informed Consent Form in D1.4.1).
- A code will be assigned to all materials produced in the framework of the AG-WaMED project (questionnaires, for example). The name and/or other personal data that could allow the identification of the participant will never be shown. This unique identifier will link all basic data required for the study. The master key file linking the project codes with the personal identifiers will be maintained in a password protected file on a server with limited access.
- All files containing personal data will be stored in encrypted and password-locked files. Access to these files will be limited to authorized project personnel.
- Only researchers linked to the project will have access to personal data.
- Participants are informed on who has access to the data, the name of the responsible and the personnel in relation to their positions from informed consents.
- Reported project results will relate to analyses of aggregated data. No individual's name will be associated with any published or unpublished report of this study.
- All project personnel will be trained in the importance of confidentiality of individual records and required to sign a confidentiality agreement.
- In all EU countries, the General Data Protection Regulation (GDPR) Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data will apply.
- For non EU countries the GDPR standards will be applied, enforcing more restrictive rules if requested by national laws.
- Personal data of individuals involved in the AG-WaMED project Consortium such as name, business telephone, address, and email ("Business Contact Information") can be shared. Each Party may store and otherwise process data such as Business Contact Information. They will only be processed for administrative purposes to the limited extent as required for the performance of AG-WaMED Consortium Agreement.
- More details are included in Deliverable 1.3.1 on Data Management Plan deliverable





1.2 Processing of personal data

Processing personal data entails 'any operation or set of operations which is performed on personal data or on sets of personal data, whether or not by automated means, such as collection, recording, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction' (Article 4(2) GDPR).

Data for the socio-economic and environmental analysis at catchment scale will be collected starting from early project stages through a farm management survey of 5-10 typical representative farms in each Living Labs (LLs) of the project (depending on size of each area) with a questionnaire that will be designed to enable recording relevant and reliable information.

These data will include land use and fixed capital (buildings and machinery); variable capital per crop (agrochemical and fertilizer inputs quantities and values; value of other inputs and other variable costs); labor availability and requirements per crop; yields, product prices and subsidies. Also, one part of the questionnaire interview will be based on open-ended questions to record qualitative assessments of farmers' aspirations and opinions with regards to the use of Non Conventional Waters (NCW).

Using these data, two types of analysis will be undertaken:

- a) A comparative technical and economic analysis, where a set of technical and socio-economic indicators will be delivered, with comparative estimates for each catchment.
- b) A multi-objective programming model (MOP) will be implemented to evaluate the performance of each model of NCW use at catchment scale in terms of its effectiveness to induce benefits such as increased employment, farm income and reduceduse of agrochemicals.

Conflicting objectives that will be considered include the use of noxious agrochemicals for local water reserves (fertilizers and agrochemicals); labor (job creation); economic performance (maximization of gross margin).

A MOP model will derive scenarios of optimal structure of farming at catchment scale, each one of which will achieve the conflicting objectives at various degrees, thus generating an "area" where these objectives are compromised.

1. Data that will be collected from farmers in the four study areas will be recorded by enumerators during the interview on the questionnaires and/or on separate sheets of paper. The questionnaires will be numbered consecutively and no other form of identification will be on the printed version. The correspondence between numbering and the name of the respondent will be recorded on a separate list that will be managed by the enumerator





- 2. The project team (enumerators) will work on the raw data and will input them in MS Excel spreadsheets. In particular, enumerators will follow instructions that will be provided by AGRERI in order to input the data. Printed versions of the questionnaires will be stored safely in locked lockers in the premises of each partner responsible for the collection of data.
- 3. The MS Excel spreadsheets that will be used for inputting the data will be encrypted properly, but will not include any identification of the farmer other than the number of the questionnaire. The list of farmer identifiers will be stored in the premises of each partner. It is underlined that the analysis of these data does not require any identifier other than the number.

Data collection and processing will also involve estimating monetary values for benefits expected to accrue from the use of NCW which are not valued in markets (non-use values) to inform the socio-economic analysis. A Choice Experiment (CE) survey will be launched in selected demonstration sites, where the general public will be surveyed with regards to specific environmental and social attributes that will be affected by the use of different levels and types of NCW. The experimental design will require the choice of attributes of NCW use and the definition of levels for each one, which will be based on (i) literature review on socio-economic implications and perceptions of NCW use; (ii) the results of the MOP model and; (iii) validation from the LLs. Based on this design, a questionnaire will be formulated that will be addressed to the general public in the four catchments with approximately 300-400 respondents per area (depending on size). The analysis will be based on Random Parameters Logit models and latent segmentation approaches in order to reveal how different societal groups perceive NCW use and their preferences on farm production based on them. Another output of this Task will be the Marginal Willingness to Pay (MWTP) for different NCW attributes, based on which scenarios of NCW will be derived and validated by LLs. MWTP estimates will be incorporated in a social cost-benefit analysis (CBA) framework in order to take into account also non-use benefits of NCW that are not adequately accounted for in market prices.

The data of the CE will be collected by a specialized platform, which will take all necessary precautions during the collection of the data. The dataset that will be provided to the project team for analysis will only include an identifier of the person (consecutive numbering) without any other identifier. Therefore, the project team will not have any access to personal data that can lead to the identification of the person. In addition, reporting of results and relevant scientific publications will only present the results of statistical and econometric analysis and no data relating to specific persons. The dataset will be stored safely with adequate encryption according to the guidelines followed by the Organization (ELGO-DIMITRA).

Open dialogue on the state of the art of the water resource system of the LL will be also facilitated in a dedicated meeting with the participatory method of World Café. The following steps will be developed: (i) shedding light on the acceptability of the potential use of NCW resources in for agricultural use and other uses through small-scale questionnaire surveys with open-ended questions in each LL (10-15 questionnaires in total per LL); (ii) analyzing and discussing different water allocation priorities. This approach will highlight priorities and relevant issues for designing the CE previously described.





2. Opinion or confirmation by the competent Institutional Data Protection Officer

The Ethical Issues board of the University of Florence approved the processing of personal data proposed by AG-WaMED project. The approval was given on the 21st of march 2023 with the "Visto di conformità al Parere n. 252" attached as an annex in the following page.





AREA
SERVIZI ALLA RICERCA
E TRASFERIMENTO
TECNOLOGICO

Titolo del progetto: "Promuovere la gestione di acque non convenzionali per politiche idriche innovative e resilienti al cambiamento climatico nell'area mediterranea", (acronimo AGWAMED)"

Responsabile del progetto: Prof.ssa Elena Bresci – Dipartimento di Scienze e Tecnologie Agrarie, Alimentari, Ambientali e Forestali - DAGRI

Il Presidente della Commissione per l'Etica della Ricerca

Considerato l'avvenuto invio entro i termini richiesti dei documenti integrativi ex Parere n. 252 del 21/03/2023.

Preso atto dell'esito positivo della verifica di adeguamento alle raccomandazioni avanzate dalla Commissione con il Parere n. 252 del 21/03/2023,

DICHIARA

per quanto di competenza di questa Commissione, che le attività di ricerca potranno prendere regolarmente avvio dalla data del rilascio del presente Visto.

Firenze, lì

Il Presidente Prof.ssa Michela Baccini