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WATER'S EXPERTS -

TRAINING COURSE GUIDELINES

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WATER'S EXPERTS TRAINING COURSE - GUIDELINES

INTRODUCTION

In the framework of the Water's Experts project, a training course has been developed and implemented in four countries: Italy, North Macedonia, France, and Portugal. The training course programme has been designed by the project coordinator, Paese dell'Acqua, in collaboration with the project partners.

This document aims to collect the main information of the training course for schools, associations and other entities willing to replicate the training course.

1. OBJECTIVES

The course aims at training a new professional figure: the "water expert". This professional figure will have theoretical and technical skills to understand the characteristics and challenges of the water courses, and propose solutions and strategies to face the encountered issues.

This figure could be employed in local administrations, public bodies, private companies and other legal entities as an advisor on the preservation of aquatic ecosystems, in particular fluvial ecosystems. The course will give students the necessary competencies in order to assess and monitor the status of fluvial ecosystems and to provide innovative approaches to the preservation of those resources.

The training course is composed of both theoretical and practical activities, to let the students put into practice what they have learned during the lectures in class.

2. TARGET

The course is mainly targeted for students from the last year of high school, in particular vocational schools. This indication is not binding and it is possible to choose another target for the course, provided that the audience will have the necessary skills to understand the course content and to apply the taught methodology to practical situations.

3. TRAINING COURSE DURATION

The suggested duration of the course is 4 months. It is recommended to carry-out the course activities during the first quarter of the year to be able to have open-air activities during spring/summer.

4. TEACHERS

Teachers must be selected among those who have a strong track record of teaching in the specific subject. A selection may be organized by the project coordinator or by each consortium component for the activity to be carried-on in its own country.

5. STRUCTURE OF THE TRAINING COURSE

The course should be organized at least in four different modules, as follows:

1) Fluvial geomorphology - 2 theoretical and 2 practical hours:

- Geomorphological processes underlying the formation of water basins and watercourses
- General characteristics and types of solid transport
- Shapes and types of watercourses
- Evolution of watercourses
- Practical hours: field recognition of the processes and types studied

2) Cartography and basics of GIS tools - 2 theory and 2 practical hours:

- Different types of map
- Reading topographic maps
- Introduction to GIS
- Practical hours: experimenting with map reading and working on GIS software

3) River ecology - 4 theoretical and 2 practical hours:

- Elements of river ecology: ecological functions and ecosystem services of watercourses
- Aquatic flora and riparian environments
- Aquatic fauna and riparian environments

- Alien species and their management
- Practical hours: field recognition of the processes and types of organisms studied

4) Alteration of river environments and Hints of river rehabilitation - 4 theoretical hours + 2 practical hours:

- Pressures and threats on river environments (hydromorphological, biological and chemical-physical water quality alterations)
- River rehabilitation: principles and examples
- River network management and protection of biodiversity
- Environmental monitoring indexes for the assessment of the Ecological Status of water bodies
- Practical hours: application of some monitoring indexes

Other and more specific modules may be added to this list provided that the activity will be carried-on within the project timeframe.

6. FINAL EXAM

Students will be evaluated based on a final exam. The final exam may be held in writing or orally. In the first case, the teacher has to give a questionnaire (close or open questions are both valid options) to students. The questionnaires and relative results must be submitted to the project coordinator and archived.

In case the final exam is held orally, the teacher has to provide the project coordinator with a detailed report explaining the methodology used to carry out the exam and how the students were evaluated.