Universitatea Ștefan cel Mare Suceava

Co-funded by the Erasmus+ Programme of the European Union

VALOR
QUALITY GUIDELINES

VALORISATION OF ANCIENT FARMING TECHNIQUES IN RESILIENT AND SUSTAINABLE AGRICULTURE

612501-EPP-1-2019-1-IT-EPPKA2-KA

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Summary of VALOR Quality Guidelines

VALORISATION OF ANCIENT FARMING TECHNIQUES IN RESILIENT AND SUSTAINABLE AGRICULTURE

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Report including

- Analysis of the Questionnaires of national Experts
- Analysis of research on Best practices

1. INTRODUCTION

All terrestrial ecosystems, either cultivated or natural, are being disturbed quite often by climatic and biotic threats, such as draught, floods, pest invasions and so forth. In order to address these challenges, VALOR created an alliance of experts coming from different areas (nature conservation, public awareness, organic farming, husbandry, plant breeding and alike) in order to produce a competence framework addressing the farmers whose lands and premises are located near or within Natura 2000 sites. The two keywords of this curricula are resilient and sustainable, meaning that before being **sustainable**, such an endeavor (i.e. farming nearby or within Natura 2000 sites) must be **resilient**, able to come back to its natural structure shortly after being affected by one or several disturbances such the ones aforementioned.

Numerous specialists dedicated to nature conservation i.e. administrations of Natura 2000 sites, have long been involved in promoting good practices with respect to regular or organic farming. Having acknowledged the synergy between the **Common Agriculture Policy** and **Natura 2000** basic requirements and principles, VALOR alliance offers training materials for farmers interested in promoting ancient farming techniques, obviously more capable to induce a natural resilience to any farming system. Hence, one of the first conditions is to find out more about ancient techniques, many of them being incorporated in organic farming. Being so connected to the labor market, the competence framework includes units of learning (qualification modules) based on recent research.

VALOR Quality Guidelines is aimed to guide project partners and inspire field professionals across Europe to design high quality training curriculum aimed to promote and support the valorization of ancient farming techniques in resilient and sustainable agriculture. To this end, the product is made available as a multilingual OER printable pdf on the project website (https://erasmus-valor.eu/) and can be downloaded for free.

2. TRAINING METHODOLOGY

Quality guidelines to ancient farming techniques in resilient and sustainable agriculture aims to describe the framework needed to develop and run dedicated training for resilient and sustainable farming. The beneficiaries of the **Quality Guidelines** are the project partners, EACEA, the HEI educators, trainers and researchers, agricultural experts, representatives of concerned industries/markets and policy makers. Furthermore, the guidelines foster and encourage self-study of experienced and young/new farmers, as well as of anyone who might be interested in starting up a farming business.

The development of the Quality Guidelines was based on the feedback received from 160 European experts who are highly relevant professionals in the field, educators and stakeholders. VALOR Partnership gathered 40 Best practices and studies of the current needs of the agriculture sector that have been collected in each project country. Based on a bottom-up approach, partners from Italy, Germany, Greece, Cyprus, Turkey, Spain

and Romania identified 20 experts in each country and invited them to provide feedback regarding relevance of the training to the needs of the target group. The following quality indicators have been pursued:

1) relevance of specific measures with respect to ecosystem resilience
2) crops sustainability

This balance between resilience and sustainability is very important for convincing the farmers that organic farming is somewhere in between "full resilience" (without any economic consideration), and sustainability, which is a balance between efficiency, social acceptability, and resilience.

2.1. Training Requirements and Quality Criteria

The two VALOR curricula are dedicated to train:

(1) 'Manager of resilient and sustainable farming' - top-quality expert in resilient agricultural system (as education curriculum for trainers) which is high level curriculum for Managerial occupational profile, EQF level 7.

The design of the curriculum will comply with the following:

- Quality assurance, using self-assessment, effective learner tracking systems and feedback loops
- Curricula and qualifications that are learning outcome oriented
- Modularity

This training will equip farmers with the following:

- Highly specialized knowledge, some of which is at the forefront of knowledge in the field of work or study, as the basis for original thinking and/or research;
- Critical awareness of knowledge issues in the field and at the interface between different fields;
- Specialized problem-solving skills required in order to develop new knowledge and procedures and to integrate knowledge from different fields;
- Management of work or study contexts that are complex, unpredictable and require new strategic approaches;
- Responsibility for contributing to professional knowledge and practice, and/or for reviewing the performance of teams.

(2) 'Technician of resilient and sustainable farming' which corresponds to Operational level curriculum: expert occupational profile, EQF 3

This curriculum will include a strong Work-based Learning (WBL) component. It is directly linked to help learners acquire knowledge, skills and competences which are essential in working life and a sustainable high-quality competence in resilient farming techniques. VALOR partnership piloted the testing version in Italy, Greece, Germany, Romania, and Spain, collected the feedback and implemented the recommendations to increase quality and relevance of the training dedicated to farmers and agriculture professionals.

2.2. Training Standards

The development of standards aimed to ensure full compliance with European Qualifications Framework (EQF) and ECVET requirements was coordinated by the **University of Thessaly**. The VALOR curricula will be implemented into the Ecology and Environmental Protection Bachelor, Master, or lifelong learning programmes of HEI institutions across Europe since the curricula have been validated via a framework compliant to the ECHE standards. The VALOR curricula has a significant potential of transferability to other types of organizations in need of training for farmers.

3. INSTRUCTIONAL DESIGN

The Curricula must be accompanied by a training framework defining the objectives, the learning methodology, the evaluation methods, and the learning outcomes that are specific to the contents of the training.

3.1. Objectives

A selection of learning objectives will be carried out by the training provider from the following examples:

1. Create awareness of ancient farming techniques in resilient and sustainable agriculture;
2. Promote the recovery, conservation and enhancement of the ancient local cultivation conditions;
3. Implement a compatible education model to support quality and ancient tradition safeguarding production as core activity leading to resilience and sustainability;
4. Foster socio-economic progress of communities;
5. Provide broader understanding of overall processes and effects deriving from (im)proper actions;
6. Provide new high-level skills, competences, and capacities to safeguard biodiversity and cultural traditions.

3.2. Training Contents

The training contents tackle important topics relevant to **Agroecology**:

- The preservation of traditional knowledge and methods, in relation to agriculture and biodiversity, that not only benefits natural ecosystems and species, but provides new financial and employment opportunities for local communities;
- The achievement of a viable balance between environmental conservation and sustainable socio-economic development that fosters the intergenerational transfer of ancient farming traditions.
- Both curricula will be designed in compliance with the concept of *Agroecology*.

Agroecology is based on applying ecological concepts and principles to optimize interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system.

The following ten guidance concepts of **Agroecology** will be considered:

1. Diversity
2. Co-creation and sharing of knowledge
3. Synergies
4. Efficiency
5. Recycling
6. Resilience
7. Human and social values
8. Culture and food traditions
9. Responsible governance
10. Circular and solidarity economy

VALOR proposes blended learning which is proved to be more effective than face-to-face or online classes resulting in significant levels of learning achievement. The combination of digital instruction and one-on-one face time allow learners to work on their own with new concepts which enable the trainers to dedicate attention selectively in order to meet needs of certain learners who might need special support. Blended learning is also cheaper than traditional classroom learning. Blended learning often includes software that allows collecting learner data automatically and measuring learning progress, thus providing instantaneous feedback.

3.3. Learning Strategies

VALOR training is an OER course and uses traditional, blended learning and VOOC methods which are aimed to consider the profile of the adult trainees and, consequently, avoid any academic or extremely formal approach. Nevertheless, VALOR proposes specific tertiary education methodologies aimed to address adult training needs using a variety of teaching methods and instruments: OER, blended learning, webinars, etc.

3.4. Evaluation

The specific methodology must be target group oriented, engaging, interactive, personalized, and practical. VALOR evaluation methodology focuses on transferability within the adult education sector. The evaluation methodology is based on a mixture of assessment methods, including interactive practice-based testing. Self-assessment provides valuable information on various work-environment related issues of the farmers. The solutions provide training tailored to the farmers' needs that are relevant to the region where they live and work. Furthermore, it aims to build awareness of farmers regarding the requirements of sustainable agriculture and provides improvement requirements to support farmers to overcome their limitations.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1. European Experts on the Profile of the Modern Farmer and their needs

A thorough analysis of the feedback to ***Questionnaire*** (see *Annex 1*) that was delivered by VALOR international group of experts has shown a quite even interest across all the topics, which is a good hint to split the target group into a couple of sub-groups, each one having its own menu of information, skills and knowledge. All in all, 126 questionnaires were answered and analyzed. For the time being, a sample of 50 questionnaires were randomly selected to test an algorithm to better match each expert to one of the four sub-groups. The questions from 7 to 13 did not specifically refer to a specific type of farming (based on crops or husbandry), but the answers given to the open questions (1-2, 14-18) helped us to envisage a sort of empirical typology of the target group.

The socio-economic profile of the average farmer differs from country to country, despite some common motivational features. A common nominator of all farmers is provided by the answers given to the questions about the advantages of being a farmer, and the local synergies. Most respondents have found that a deep sense of ownership, strong connections with the loved ones, and food safety and quality are the most important ties with the homeland.

Given the premises aforementioned, we can conclude that the following four profiles of farmers could be addressed by the training:

1) the "**happy farmer**": quite content with her/his welfare, well-trained in what is happening around Europe, most interested in novelties, not in grassroots knowledge. This professional profile is exquisite in organic farming and alike and wants to improve her/his own farm economic sustainability. Therefore she/he is prone to move a little from the sheer organic farming to precision agriculture, not in the sense of buying state-of-the-art equipment but in processing the available information in a meaningful way: how to make use of climatic info, soil conditions, resistant species, etc. This profile is not quite interested in animal breeding, but mainly in organic agriculture.
2) the "**greedy but un-experimented**" farmer: interested in all novelties occurring in whatever farming (regular, precision or organic). They are the ones who checked most of the boxes, including the ones outwitted by the others. These are newcomers in the business, they have not yet faced the real challenges hampering agriculture and animal breeding, but they are enthusiastic in learning by doing. They have the tendency to overestimate the power of the administration of protected areas.
3) the "**resilient and striving**" farmer: the one who is mostly attached to the family land; well trained and informed, but a little bit skeptical about state-of-the-art technologies. Too often confronted with financial difficulties and disproportionate regulatory demands, this one doesn't want to test new 'recipes' but needs more confidence in what she/he is doing: therefore (s)he is interested more in new regulations, and new economic leverages than technicalities. Not surprisingly, social skills are more useful than technicalities and regular farming. Their ties with parks' administrations shall be strengthened and they must be better informed about the procedures of getting organic certification, where it is the case.
4) the "**lonely shepherd**": strongly attached to whatever livestock, mostly interested in animal husbandry and alike. New species of forage, resistant to draughts, new schemes of crop rotations, water saving and novelties in veterinary medicine are sought after (even though

these questions were missing in the questionnaire, they checked the answered they considered to be close to what they actually wanted, conveyed by the answers given to questions 14-18.

Short term benefits of using the VALOR Curricula:

- ❖ access to novel contents and curricula relating to biodiversity and bio-economy;
- ❖ access to European networks of excellence where cooperation increasingly adds value;
- ❖ innovative learning tools dedicated to adult training;
- ❖ collaboration with national parks and other relevant stakeholders.

Long term benefits of using the VALOR Curricula:

- ❖ create long term synergies with authorities, businesses and stakeholders;
- ❖ increase awareness of preservation of traditional knowledge and methods, and their economic impact on the involved areas;
- ❖ boosting the farming business in protected areas;
- ❖ increase the transfer of resilient and sustainable farming skills and competences;
- ❖ contribute to enhancing the employment opportunities for local communities.

4.2. Agroecology and Current Challenges in Europe

The collection of 40 Best practices shows the success stories that are relevant to resilient and sustainable farming collected by the VALOR partnership from Italy, Greece, Germany, Romania, Turkey, Spain, and Cyprus. The collection is aimed to inspire and guide anyone taking interest in sustainable and resilient farming, in employment opportunities for local communities and in bioeconomy. Furthermore, each real-life case has introduced the local network of supporting organizations, thus providing an overview of the possible ecosystems to be created to solve similar challenges successfully. VALOR Best practices represent success stories that have been tested and worked in the partnership countries. The Quality Guidelines offers an overview of the real-life cases in each country accompanied by the solutions found as well as the challenges encountered during implementation and, finally, the results.

4.3. Lessons Learnt and Recommendations

This subsection is aimed to provide a synthesis of the main lessons learnt that should guide the choice of most relevant topics and the creation of the Curricula for **Managers of resilient and sustainable farming** and for **Technicians of resilient and sustainable farming**.