Development of transferability plans for environmental projects related to resources conservation and waste reuse

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Research or demonstration projects are usually developed at local level, using small areas as pilot cases for developing and demonstrating new methodologies, or already known and tested ones, however conformed and adjusted to other problems or circumstances (e.g. climatic, geomorphological, political and others). A successful pilot project at local level might stimulate a replication of the project in other local settings. However, sustainable expansion and replication at regional, national or even international level requires policy, legislative and methodological changes at higher levels, which should be defined right from the beginning (i.e. the design phase) of an expansion strategy.

The purpose of this study is to provide guidance on how the outcomes of a project can be scaled-up at regional, national and also at international level. For this purpose the Nine-steps scaling-up strategy developed by WHO (2010) was taken as basis and conformed and adjusted to agricultural and environmental research innovations of a LIFE project entitled "Sustainable strategies for intensively cultivated areas in the Mediterranean-AgroStrat", as the WHO strategy concerns a conceptual framework for scaling up health innovations. The proposed Nine Steps for scaling up, are 3 (ExpandNet & WHO, 2008):

- 1. Planning actions to increase the scalability of the innovation;
- 2. Increasing the capacity of the end-user to implement scaling up;
- 3. Assessing the environment and planning actions to increase the potential for scaling-up success;
- 4. Increasing the capacity of the resource team to support scaling up;
- 5. Making strategic choices to support vertical scaling up (institutionalization);
- 6. Making strategic choices to support horizontal scaling up (expansion/replication)
- 7. Determining the role of diversification;
- 8. Planning actions to address spontaneous scaling up; and
- 9. Finalizing the scaling-up strategy and planning the next steps.

Steps 1, 2 and 4 show what actions must be taken to ensure that the innovation, the end-user and the resource team have the attributes with the greatest potential for ensuring successful scaling up. Step 3 demonstrates how opportunities in the environment should be maximized for success.

However, designing a scaling-up strategy also involves making strategic choices about the types of scaling up to be pursued. Steps 5 to 9 address these different types with regard to each of the remaining critical choice areas: dissemination and advocacy; the organizational process; costs/resources; and monitoring and evaluation.

The proposed strategy was developed for scaling up AgroStrat achievements and proposals for pistachio waste management. The project proposed a practice for pistachio waste management at field level which foresees (1) separation of pistachio waste into wastewater and solid part into simple constructed facilities and evaporation of wastewater (Photos 1a and 1b); and (2) composting the remaining solid waste with the addition of natural zeolite to reduce salts content of the composted material (Doula, 2016). Both practices were adopted by local farmers at the pilot area of the project, which was Aegina island.



(1a) (1b)

Photo 1. The small and low cost waste pretreatment systems that were developed and implemented in Aegina island - (1a) Shallow evaporation ponds; (1b) Sequential collection reservoirs

However, considering the environmental benefits of the proposed practice, their contribution to the sustainability of the rural environment, and the potential of management other waste type of similar characteristics, there was a need for developing a strategy for scaling up and adoption at local and/or regional level.

Effective design and planning are the most crucial aspects for a successful scaling up strategy. A successful expansion strategy means that it ensures and boosts wide expansion, by taking into account all aspects that will affect the planning, as well as the definition, right from the beginning, of the stakeholders, the authorities and the individuals, who are in position to affect the expansion by a positive or a negative way.

References

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