Ecological Vineyards Governance Activities for Landscape's Strategies

Output T3.1

Action plan for development of a governance participated in agroecological transition of wine-growing areas

Responsible Partner

AZRRI-Agency for Rural Development of Istria Ltd. Pazin

19h of December 2022 – 1st version

3rd of February 2023 – final version

BASIC PROJECT INFORMATION:

PROGRAMME CALL: INTERREG V-B Adriatic-Ionian ADRION
Project Acronym ECOVINEGOALS
Project Number: 866
Programme Priority Axis: 2
Start – End Date: 01.03.2020 – 31.08.2022
Total budget: EUR 1 939 505.59
ERDF: 1 399 759.25 IPA: 248 820.5
Lead Partner Organisation: LAG Eastern Venice, Italy
Url: www.ecovinegoals.interregadrion.eu

DOCUMENT INFORMATION

Lead Author	AZRRI-Agency for Rural Development of Istria Ltd. Pazin
Contributors	All PPs
Dissemination Level	Public

February, 2023

TABLE OF CONTENT

1. OBJECTIVES

The *Action Plan for the development of governance participated in the agroecological transition of wine-growing areas* was established through the participatory and innovative framework of the ECOVINEGOALS project. The main aim of the ECOVINEGOALS project was to develop strategies, action plans, tools and capacities for the agroecological transition of viticulture areas to low input and low emission management systems and reconciliation of production, social, environmental and landscape needs in fragile wine-growing areas of the ADRION area. This Action Plan is one of the eight project outputs and it describes how through adaptation of participatory governance methodologies involving key actors and stakeholders can be initiated the agroecological transition of wine-growing areas.

The target audience of this Action Plan are the policy and decision-makers from the institutions and government on the national, regional and local levels, stakeholders from project pilot areas, in Cembra Valley and BIOVENEZIA, Venice biodistrict in Italy, Vipava Hills in Slovenia, Istria County in Croatia, Crmnica in Montenegro, Topola Municipality in Serbia and Platanias and Asterousia Municipalities in Greece. Also, other interested parties and actors from the viticulture sector in Europe and wider, facing similar problems, will benefit from this Action Plan.

The main aim of the Action Plan is to present the usage of the participatory governance processes based on the backcasting method in eight pilot areas in defining the agroecological transition of local viticultural systems and serve as a guidance on how to translate the participatory governance model as a way of engaging the key actors for achieving the agroecological transition of wine-growing areas.

The objective of the Action Plan is to define:

- how transnational procedures of participatory backcasting can be implemented in regional strategy,
- to accompany the transition to ecological viticulture systems,
- in fragile areas from a landscape, social and habitat point of view.

The actions presented are voluntary and aren't legally binding.

2. METHODOLOGY

This document consists of the theoretical background of participatory governance and its significance in the upscaling process for the participatory backcasting workshops in the selected pilot areas for the ECOVINEGOALS project. It describes the scaling up of the process of agroecological transition in viticulture in eight pilot areas, in Cembra Valley and BIOVENEZIA, Venice biodistrict in Italy, Vipava Hills in Slovenia, Istria County in Croatia, Crmnica in Montenegro, Topola Municipality in Serbia and Platanias and Asterousia Municipalities in Greece and the actions for implementing the transnational participatory backcasting procedures in regional strategies.

This Action Plan summarises the activities conducted in line with the project ECOVINEGOALS, where have been implemented the participatory governance process in eight pilot areas chosen as case studies in each of the countries involved. These pilot areas are identified as wine-growing areas that are using intensive production systems and are fragile from habitat and landscape points of view, which are suitable for the agroecological transition. The participatory governance process enabled the identification of the challenges in viticulture regarding the agroecological performance of grapevine cultivation, landscape and habitat in wine-growing and viticultural areas and the capacity of political governance for the agroecological transition.

The first step was to define and prepare the transnational methodology for the implementation of participatory backcasting processes in each selected viticultural territory and to select the list of parties that will be involved in the process.

Following a common methodology based on backcasting, project partners conducted the participatory backcasting workshops in their pilot area, where they initiated the process of the agroecological transition of their chosen viticultural landscape. Trained and educated facilitators through several local workshops, based on the "Manual of Participatory Governance for Agroecological Transition", collected the data about the most valuable and vulnerable elements of the pilot area, defined the possible solutions through SWOT analysis and with the relevant stakeholders demarcated the actions needed for the agroecological transition.

The participatory backcasting paths were designed to elaborate main land use conflicts that emerge in pilot areas and to understand the importance of agroecological practices to follow the objectives of conservation and enhancement of the landscape and habitat. The multi-stakeholder workshops lead to a common future vision of an agroecological transition of the pilot area viticultural landscapes and action to realize this vision. For each pilot area, it has been produced Local Action plan that summarizes all the important information collected through participatory workshops and will shape the short- and long-term steps in order the achieve the proposed actions for the agroecological transition in each project pilot area.

As a crucial part of the ECOVINEGOALS project, it has been defined the guidelines for using territorial governance as a tool to support shared transition to agroecological practices in wine-growing areas of ADRION regions. This methodological process enabled to find of joint solutions for the implementation of regional strategies.

3. THE ECOVINEGOALS APPROACH

In the ADRION area, viticulture is generally managed using intensive conventional systems with a large number of chemical products and substantial modifications of the traditional landscape. This type of intensive system leads to negative effects on soil, water and air quality, biodiversity and ecosystem services. On the other hand, in some ADRION areas the viticulture is still managed traditionally, but without a proper connection of the vineyards area with the landscape and ecosystem and building the sustainable and resilient grapevine cultivation and production, the future of viticulture could be threatened.

The reconciliation between habitat and landscape protection and grapevine cultivation is a common challenge for the ADRION area to safeguard the sustainability of economic activities based on territorial capital. These challenges were tackled by an integrated approach pursuing technical, economic, social, cultural, and governance objectives. The corresponding project outputs concern the sharing of tools and strategies to encourage the agroecological transition of wine-growing areas. Overcoming these challenges had enabled the increase of population awareness of the impacts of intensive wine systems on habitat and landscape and the adoption of participatory governance methodologies involving citizens, public authorities and stakeholders.

ECOVINEGOALS promotes sustainability and resilience in the winemaking industry by encouraging the transition of intensive viticulture towards agroecological management systems that protect natural habitats and landscapes while reducing chemical and fossil fuel inputs and harmful emissions. The project's main aim was to enhance stakeholders' skills in participatory local governance, strengthen transnational cooperation and provide specific transnational instruments to promote, support and manage the agroecological transition.

Within the project ECOVINEGOALS, a participatory governance process was foreseen for launching a transformational path of intensive and fragile viticultural landscapes toward agroecological modes of production simultaneously promoting harmonious and balanced relationships between vineyards and accompanying multi-functional landscapes and natural habitats. This process was initiated in eight project pilot areas in Italy, Slovenia, Croatia, Serbia, Montenegro and Greece by engaging the key actors, policy-makers and stakeholders through participatory governance. The agroecological transition could be initiated only through identified solutions to specific challenges of different viticultural landscapes via multi-stakeholder combined actions toward mutually set goals. The ECOVINEGOALS approach enabled the identification of the actions necessary for the transition in viticulture in the ADRION area by using agroecological practices that will increase the economic management of vineyards and safeguard habitat and ecosystem, but also include all the actors through using participatory governance.

4. UNDERSTANDING PARTICIPATORY GOVERNANCE PROCESS FOR ACHIEVING AGROECOLOGICAL TRANSITION

4.1 Background of participatory governance

In the last two decades or so, the concept of governance has found a central place in social science debate, focusing in particular on the shift from government to governance. Here, government refers to the dominance of State power organized through formal and hierarchical public sector agencies and bureaucratic procedures, while governance refers to the emergence of overlapping and complex relationships, involving "new actors" external to the political arena.[1]

The Food and Agriculture Organization of the United Nations (FAO) defines governance as "the processes through which public and private actors articulate their interests; frame and prioritize issues; and make, implement, monitor and enforce decisions." [2] It represents a set of political, social, economic and administrative systems, rules and processes that determine the way decisions are taken and implemented by actors and through which decision-makers are held responsible.

In the context of agroecology, responsible governance is one of FAO's key principles for guiding policy-makers and landscape agents in planning, managing and evaluating agroecological transitions. Agroecology calls for responsible and effective governance to support the transition to sustainable food and agricultural systems. Transparent, accountable and inclusive governance mechanisms are necessary to create an enabling environment that supports producers to transform their systems following agroecological concepts and practices. Successful examples include school feeding and public procurement programmes, market regulations allowing for the branding of differentiated agroecological produce, and subsidies and incentives for ecosystem services.

Land and natural resources governance is a prime example. The majority of the world's rural poor and vulnerable populations heavily rely on terrestrial and aquatic biodiversity and ecosystem services for their livelihoods, yet lack secure access to these resources. Agroecology depends on equitable access to land and natural resources – a key to social justice, but also on providing incentives for the long-term investments that are necessary to protect soil, biodiversity and ecosystem services.

Agroecology is best supported by responsible governance mechanisms at different scales. Many countries have already developed national-level legislation, policies and programmes that reward agricultural management that enhances biodiversity and the provision of ecosystem services. Territorial, landscape and community-level governance, such as traditional and customary governance models, is also extremely important to foster cooperation between stakeholders, maximising synergies while reducing or managing trade-offs.[3]

[1] Davoudi S., Evans N., Governa F., Santangelo M., Territorial governance in the making - Approaches, methodologies, practices

[2] FAO, http://www.fao.org/policy-support/governance/en/

[3] FAO, The 10 Elements of Agroecology

A useful related term is landscape governance, which can be defined as the rules and processes for making a decision that affects the landscape and it is "concerned with the institutional arrangements, decision-making processes, policy instruments and underlying values in the system by which multiple actors pursue their interests in sustainable food production, biodiversity and ecosystem service conservation and livelihood security in multifunctional landscapes. As such, landscape governance refers to the combination of decision-making processes of both state and non-state actors, which together shape the day-to-day practical actions of management. It stresses principles such as dialogue, negotiation, and the need to balance agricultural, conservation, livelihood, and climate objectives.

Also, it is important to highlight the concept of territory, where governance is used to stress the collective actions that need to be undertaken by a set of actors and will be derived to the solution of a collective problem. Territory as a complex content can be considered as a complex set of values and resources, a common good of fixed assets, material and immaterial, an exhaustible resource, a political and economic "fact", or a "social construction" deriving from the collective action of groups, interests and institutions.[4] Territorial governance enables to territories at different levels to act as "collective actors".

In this context, governance is seen both as the capacity to integrate and shape organisations, social groups and different territorial interests in order to represent them to external actors, and to develop more or less unified (and unifying) strategies in relation to the market, the State, other cities and regions, and other levels of government[5]. Governance, then, is the capacity of public and private actors to[6]:

- build an organisational consensus involving different actors in order to define common objectives and tasks;
- agree on the contribution by each partner to attain the objectives previously defined;
- agree on a common vision for the future of their territory.

An inclusive and integrated governance approach encompasses all stakeholder groups present in the landscape by including them in the decision-making processes for planning changes in that landscape. The purpose of participative governance is to actively engage all stakeholders in all discussions and jointly co-create decisions that affect them, seeking to include a diversity of voices and mobilize them towards a common goal, giving equal opportunity for participation to those with less power so that they can meaningfully engage in the process in its entirety.

For this purpose, multi-stakeholder engagement processes are used to ensure participatory equity, transparency and accountability and to develop partnerships and trust between multiple stakeholders, including holders of traditional and local knowledge. They provide a venue for reaching mutually acceptable and win-win solutions. Designing an inclusive and participatory process increases the sense of ownership over its outcomes leading to greater sustainability of the consensus-reached results. By providing mechanisms for consultations and generation of feedback loops, multi-stakeholder processes and partnerships contribute to greater monitoring, evaluation and accountability for policy- and other decision-making in the landscape, in turn leading to better governance of the territory.[7]

[4] Davoudi S., Evans N., Governa F., Santangelo M., Territorial governance in the making - Approaches, methodologies, practices

[5] LE GALÈS, P. European Cities

[6] Davoudi S., Evans N., Governa F., Santangelo M., Territorial governance in the making - Approaches, methodologies, practices

[7] UNDP, Multi-Stakeholder Engagement Processes. A Capacity Development Resource, 2006

4.2 Transition as a guided process of change

The sustainable agroecological transition cannot be limited to a set of individual transitions, even if they are numerous, for two reasons. The first is technical, because landscapes, where agroecological transitions of agroecosystems take place, are continuous. Thus, a single farmer using pesticides can pollute an entire watershed, making agroecological certification impossible. The second reason is organizational and institutional. The territorial and collective footprint of agricultural activities, the externalities and services, the functioning of markets, the management of resources and ecosystems, and the innovation networks all presuppose coordinated collective and institutional action.

The processes of agroecological transition are anchored in territories because they depend, on the one hand, on coordination between local actors and, on the other, on social and institutional changes that support and encourage learning and the co-creation of knowledge and innovations among farmers and in agri-chains.

The participatory governance process needs to be organised in terms of who participates, when and how. The 'who', 'when' and 'how' refers to the scope of interest representation, the opportunities for participation and the degree of influence respectively[8]. These three elements explain how the participatory governance process needs to be designed and how it can influence the agroecological transition through well-defined actions and solutions.

[8] Uittenbroek C.J., Mees H.L. P., Hegger D.L.T. & Peter Driessen P. J. The design of public participation: who participates, when and how? Insights in climate adaptation planning from the Netherlands, Journal of Environmental Planning and Management

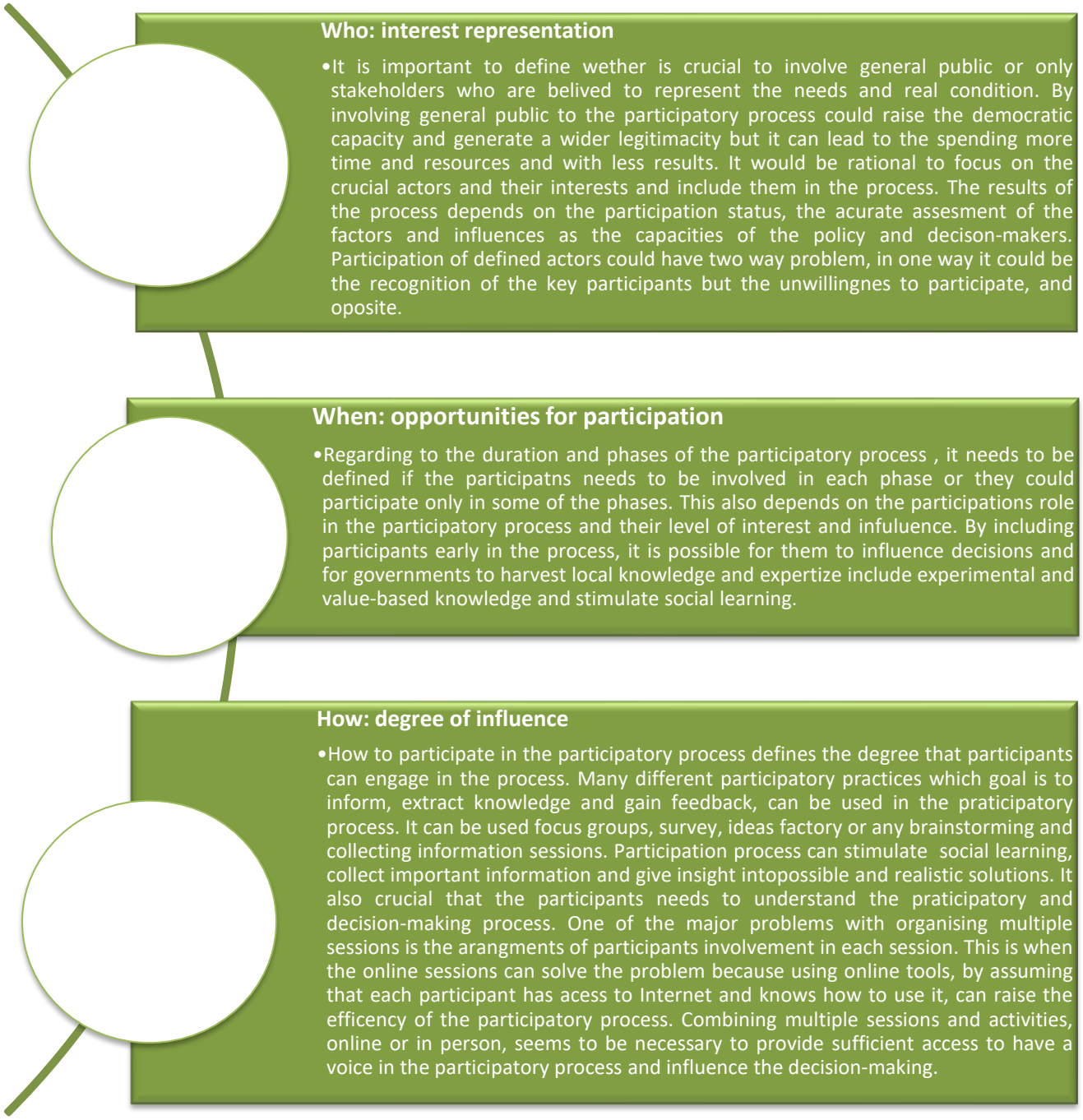


Figure 1: The design of participatory process: who, when and how (prepared by author)

The participatory process which main objective is to achieve the transition, especially in a system as complex as it is the agricultural one, firstly it needs to be identified the participants of the process and their structure and type, then when the process will start and the degree of the influence or which will be the engagement level of participants. To achieve the transition objectives, especially ones connected with influencing the decision and policy change, is important to engage the right participants, by involving them with knowledge, influence and power to implement actions.

The participatory backcasting process aims to increase the capacity for shared agroecological governance of territory by public and private decision-makers. The participatory paths allow the solution of conflicts of use of territory through the identification of shared solutions among interested parties.

5. ECOVINEGOALS PARTICIPATORY BACKCASTING METHODOLOGY

5.1 Participatory backcasting methodology

Within the project ECOVINEGOALS, a participatory governance process was foreseen for launching a transformational path of intensive viticultural landscapes toward agroecological modes of production simultaneously promoting harmonious and balanced relationships between vineyards and accompanying multi-functional landscapes and natural habitats. The **agroecological transition** entails a long-term process of adopting tailored solutions to context-specific challenges of different viticultural landscapes via multi-stakeholder combined actions toward mutually set goals and a common challenge of the respect of the environment, economic and social equilibriums of a given territory and a given culture.

Within the project ECOVINEGOALS, the realisation of participatory backcasting paths in wine-growing areas chosen as case studies are foreseen to increase capacity for shared agroecological governance of territory by public and private decision-makers.

Following a common methodology based on **backcasting**, project partners pilot the participatory governance process for initiating the agroecological transition of their chosen viticultural landscape, resulting in the preparation of seven local action plans.

The following backcasting method was developed by external expert Agenda21 and piloted by project partner Autonomous Province of Trento within T1.2. The methodological approach is inspired by the European Awareness Scenario Workshop (EASW). The European Awareness Scenario Workshops (EASW), an initiative of the EU's INNOVATION programme that was launched in 1994, has the aim of exploring possible new actions and social experiments for promoting an innovation favouring environment in Europe. The EASW initiative focused on two fields of action:

- Assessing the transferability of best practices between different cultural and political contexts, including identification of conditions for success;
- Identification and further development of instruments and tools to support the know-how transfer processes."[9]

The backcasting methodology was chosen for the ECOVINEGOALS project to gather the right and important stakeholders, decision and policy-makers who will have the capacity to support the agroecological transition in the pilot area. The participatory paths allow the solution of conflicts of use of territory through the identification of shared solutions among interested parties

The ECOVINEGOALS participatory backcasting workshops followed a general structure of activities, as represented here after:

- participatory activity n°1: Community Mapping/Photovoice;
- participatory activity n°2: Future Search;
- participatory activity n°3: Ideas Factory;
- participatory activity n°4: World Cafe;
- participatory activity n°5: Invest in your agroecological transition.

[9] EC, European Awareness Scenario Workshops, https://cordis.europa.eu/article/id/8356-european-awareness-scenario-workshops

Each facilitator, in collaboration with the relative ECOVINEGOALS partner, designed the participatory process according to the expected results of their Local Action Plan and the peculiar contexts of their territories.

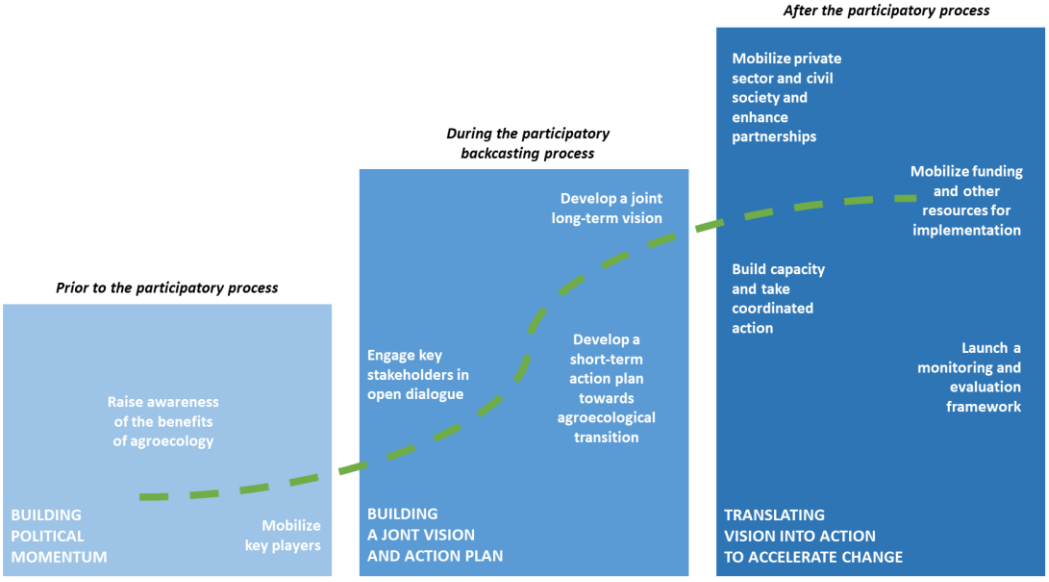


Figure 2: A backcasting process for a participatory agroecological transition (prepared by author)

5.2 Participatory backcasting workshops

The participatory backcasting paths were designed to elaborate main land use conflicts that emerge in pilot areas and to understand the importance of agroecological practices to follow the objectives of conservation and enhancement of the landscape and habitat. This was the main aim of the participatory backcasting workshops held in each pilot area within the ECOVINEGOALS project.

The participatory workshops were held in eight project pilot areas, in Cembra Valley and BIOVENEZIA, Venice biodistrict in Italy, Vipava Hills in Slovenia, Istria County in Croatia, Crmnica in Montenegro, Topola Municipality in Serbia and Platanias and Asterousia Municipalities in Greece.

The trained facilitators for each pilot area had gained the skills and knowledge of how to lead and conduct the participatory backcasting workshops. Following a common methodology based on backcasting, facilitators with project partners conducted the participatory backcasting workshops in their pilot area, where they initiated the process of the agroecological transition of their chosen viticultural landscape. Also, their main task was to involve and encourage the participation of different stakeholders and actors on a local, regional and national level to participate in the process and give their opinion, ideas and proposals and help to identify the steps for the agroecological transition of viticulture.

Table 1: Description of the participatory backcasting workshops

Sessions	Participatory Activities	Main aim
1	Community Mapping	Community Mapping (or Participatory Mapping) methodology combines cartography with participatory methods to represent the territorial knowledge of local communities. Participatory maps are planned around a common goal. The higher the level of participation by all interested stakeholders of the community, the more relevant the information that the map contains.
2	Future Search	The Future Search methodology is an interactive planning activity that focuses on breaking down borders between different and maybe conflicting, interests enlightening alliances and creating understanding about common scenarios for the future. It represents the core of the backcasting process. Once a common issue is defined the participant is asked to imagine the future, starting by analysing the timeline that has brought to the present situation. It brings on the same table – focused on the same goal – different information, expertise, abilities, knowledge and prerogatives.
3	Ideas Factory	The Ideas Factory is a participatory activity to draft different potential answers to react to a common issue/problem or to take advantage of opportunities. The higher the level of participation by all interested stakeholders of the community, the easier is to find alliances and partnerships to overcome obstacles and find incisive solutions. Different ideas coming from stakeholders with different backgrounds and abilities can help to build up more effective and integrated Action Plans, in which actions and projects can take advantage of another complementary one.
4	World Cafe (puzzle game)	World Cafe methodology is designed to create a collaborative environment to develop concrete actions and initiatives from multiple ideas coming from different stakeholders. World Cafe combines interactions between stakeholders and multiple focus groups on different thematic and topics. Scientific, technical and community knowledge are committed to the same goal. The higher the "biodiversity" of the stakeholders (for a walk of life, expertise, interest and culture), the easier is to define concrete actions.
5	Invest in your agroecological transition (optional)	Each participant will give her/his priority to the actions included in the plan. This activity, simple and less time-consuming compared to the others presented, allows the policy maker and/or the partners to understand what are the most relevant action to be taken towards the desirable future that emerged in the first stages of the participatory process. For ECOVINEGOALS, "Invest in your agroecological transition" defined the implementation priority, or suggest a timeline for implementation, of the Local Action Plan.

Facilitators for each pilot area, with the relative project partner, had designed the participatory workshops regarding their topics and regarding the epidemiologic situation in the country. In each pilot, the area had been held several online and offline local workshops and facilitators collected the data about the most valuable and vulnerable elements of the pilot area, defined the possible solutions through SWOT analysis and with the relevant stakeholders demarcated the actions needed for the agroecological transition. It is important to highlight that each facilitator had identified which are the most important and key participants to be involved in the participatory process.

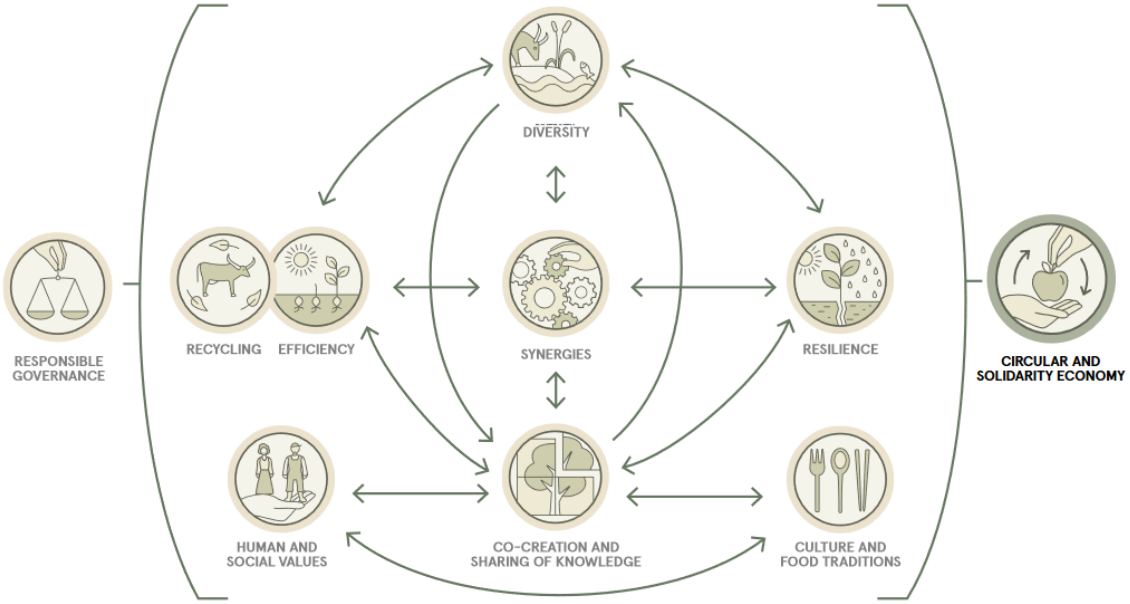
The multi-stakeholder workshops resulted in a common future vision of an agroecological transition of viticultural landscapes and a short-term action plan with activities to realize this vision. After the participatory backcasting workshops have been realized, partners worked on the definition of guidelines and strategies for using territorial governance as a tool to support shared transition to agroecological practices in wine-growing areas of ADRION regions. The participatory backcasting process in each pilot area had shown which could be the paths in the transition to more sustainable and resilient viticulture by using agroecological practices in the ADRION area.

6. SCALING UP THE PROCESS OF AGROECOLOGICAL TRANSITION IN VITICULTURE IN EACH PILOT AREA

6.1 Transition in viticulture through usage of agroecological practices

Multifunctional benefits are offered by agroecology, from improving yield and profitability to enhancing biodiversity, addressing climate mitigation and enhancing the landscape and ecosystem. When the usage of agroecological practices is suitably supported and in the right economic conditions, it can outperform conventional systems of agricultural production in many ways.

Agroecological practices constitute a prime example of nature-based solutions for addressing the climate crisis, through both mitigation and adaptation. Practices such as the use of organic and green manures, intercropping and tree-planting on farms or in hedges boost organic matter in the soil and, in turn, carbon-sequestration capacity. [10] Agroecological strategies, such as crop diversification, the maintenance of local genetic diversity, organic management of soils, water conservation and agroforestry, for example, can also help producers adapt to climate change.



Picture 2. The 10 Elements of Agroecology (source: https://www.fao.org/3/i9037en/i9037en.pdf)

Four key dimensions of change arise as essential components of the agroecological transition: changes in production practices, knowledge generation and dissemination, social and economic relations, and institutional framework. These dimensions are the key to the agroecological transition because each has a significant role in the transition, nevertheless the order in which they occur.

In recognition of agroecology's multifunctional benefits and potential as a paradigm for the future of food, researchers, policy-makers and civil society organizations are converging around the theory and practice of scaling this system. They are looking at how food producers might be encouraged to adopt agroecology and, beyond that, at how agroecology can provide the framework for organizing and transforming entire food systems.

[10] Lin, B, B., Chappell, J., Vandermeer, J., et al. 2011. Effects of industrial agriculture on climate change and the mitigation potential of small-scale agro-ecological farms

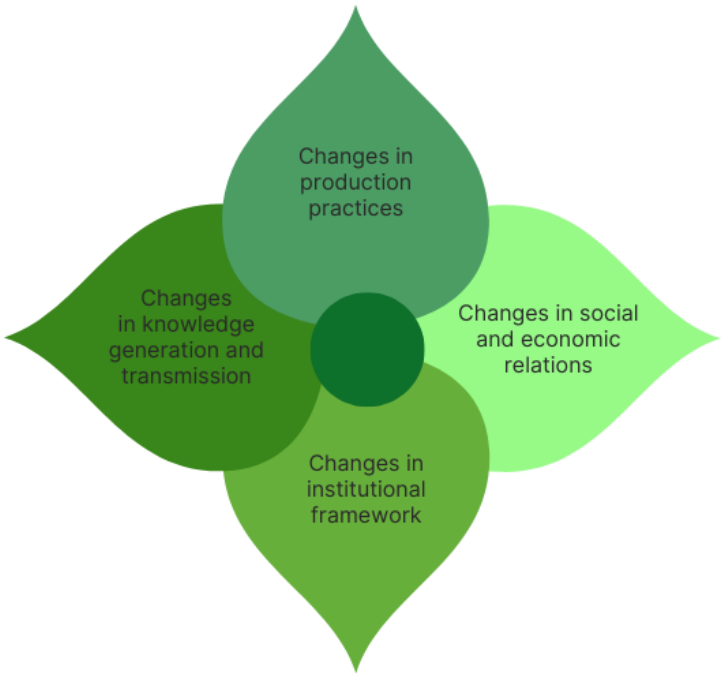


Figure 3. The four dimensions of change: an analytical framework (prepared by author)

Changes in production practices that underpin agroecological transition are based on sustainable and resilient practices regarding diversifying farms and their landscape, minimising loss of resources of biomass, substituting chemical inputs with ecologically-based materials and processes and similar. These changes don't need to follow and unique sequence and are more connected with wider social and economic considerations. Transitions tend to be locally specific, reflecting the importance of territories as fundamental pillars of local food systems, as well as the importance that agroecological and food sovereignty movements place on collective rights, access to the commons, and autonomy in production, trading, and consumption of food items.[11]

The important dimension of the agroecological transition is tackling the ***changes in how knowledge is generated and disseminated***. Crucial and exceedingly valued in the agroecological framework is the traditional knowledge and culture about successful farming practices on the local level, which can be easily combined with science and modern ecology. The engagement and deep connection with farmers can help to build the path for holistic agroecological-managed production systems, which are highly knowledge-intensive and location-specific. Empowering the dialogue between farmers, scientists and policy-makers can help to upscale the process of the transition to local conditions.

Wide-reaching ***shifts in social and economic relations*** also emerge as key components of agroecological transition. The emergence of new norms rooted in direct exchange, proximity, transparency, and ethical production and consumption – a shift from a global "food from nowhere regime" to a "food from somewhere regime" – has been emphasized as central to transition.[12] Including a diversified group of participants like farmers, stakeholders, actors in the food chain and other sectors, consumers and the general public, policymakers, funders, and implementers represents a good and quality ground for the agroecological transition.

Changes in institutional framework are representing the development of alternative governance structures combined with identified measures, actions and resources are the key factors in determining accelerating transition processes.

[11] Gliessman S.R., Jacobs N., Clément C., Grabs J., Breaking away from industrial food and farming systems, Seven case studies of agroecological transition

[12] Gliessman S.R., Jacobs N., Clément C., Grabs J., Breaking away from industrial food and farming systems, Seven case studies of agroecological transition

Public policies with supportive conditions and economic incentives can help in the agroecological transition process. The changes in crucial policies can support the process of agroecological transition. A decisive role in supporting agroecological transitions has the governmental policies so their changes are crucial but also long-lasting ones, so it is important to include all the voices that connect agroecology with fundamental environmental, ethical, political and governance-related issues.

The intensification of agriculture and the simplification of nature is becoming a reality in the vineyard regions of the world. The increased simplification of landscapes and the creation of homogeneous agricultural systems leads to the increased vulnerability for potential yield losses due to plant diseases and insect pests. Also, the ecosystem services such as natural pest control, pollination, and soil fertility, could be lost. The unpredictability in weather patterns associated with climate change is increasing the volatility in the yield and production of crops.

The needed transition in viticulture and agriculture, in general, is to move from these homogeneous monoculture systems that are highly dependent on pesticides, fertilizers, fuel, and other external inputs, to systems that are low input and depend on biodiversity for biological control. A transition from system-degrading high-input agriculture to sustainable low-input agricultural systems.

6.2 Biodistrict of Central-Eastern Venice (Italy)

"Biodistrict of central-eastern Venice" (BIOVENEZIA), covers the area Cavallino-Treporti to San Michele al Tagliamento and the border of Treviso to the Adriatic Sea. With 19 founding members it promotes organic production and supports local identity, research and training. BIOVENEZIA now includes ~50 organic farms while most wineries incorporate naturalistic elements[13].

Main results of the participatory process held in pilot area of Biodistrict of Central-Eastern Venice:

The participatory process in the pilot area of BIOVENEZIA had been organised in three workshops – 25th of January, 8th of Februray and 1st of March 2022.
Faced with problems involving the stakeholders related to fairs scheduled on the same days as some meetings. A lot of stakeholders had been involved in the project activities before, so they didn't have problems understanding the agroecology topic. Participatory workshops participants: 60% local association/organization and academia, 20% private winemakers, 20% municipalities. The workshops had been held all in person. The great benefit of the workshops held was the identification of possible collaborations on new projects regarding agroecology.
Ideas Factory session has been the most interesting to the participants and gave the most important outcomes.

[13] BIOVENEZIA

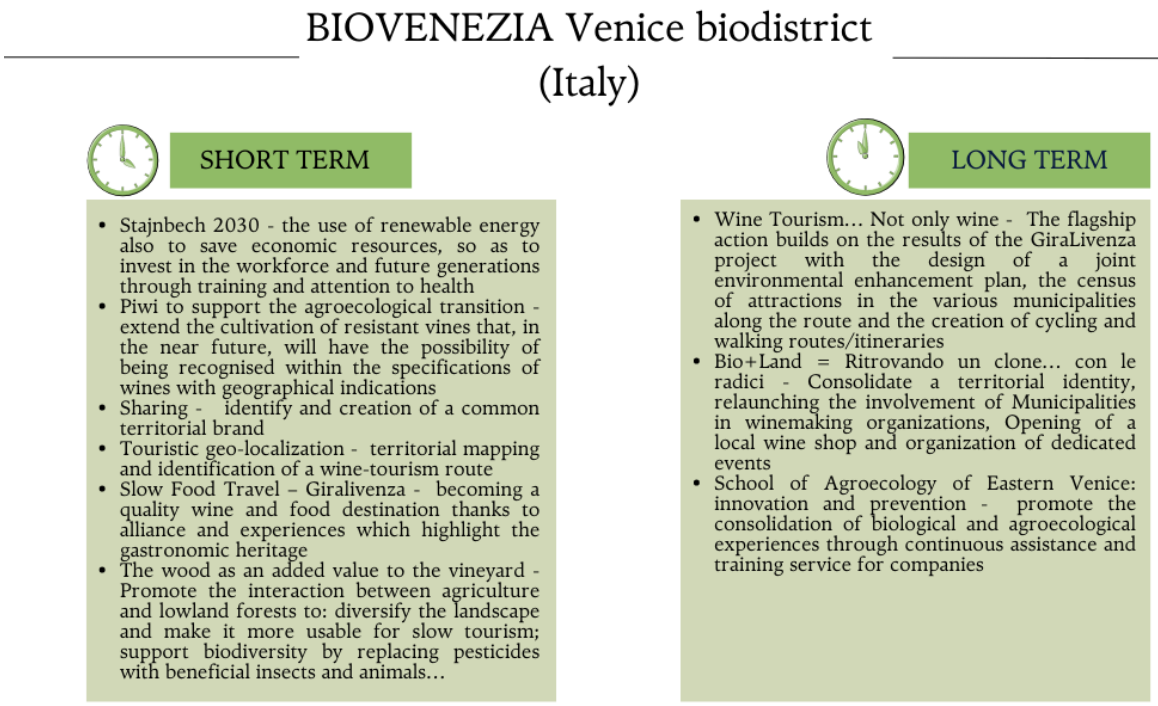


Figure 4. Main actions identified in the pilot area of BIOVENEZIA

6.3 Cembra Valley (Italy)

Located in the north-east part of the Autonomous Province of Trento along the lower part of the Avisio river, the land is characterized by high fragmentation and steep slopes, vine-growing terraces, with dry stone walls, forming a unique agricultural landscape included in the National Register of Rural Historic Landscapes of Italy. Moreover, these difficult growing conditions make mechanization almost impossible; therefore, a large part of the area is cultivated according to the principles of heroic viticulture.[14]

[14] Comunità della Valle di Cembra - Comunità della Val di Cembra

Main results of the participatory process held in pilot area of Cembra Valley:

The participatory process in the pilot area of Cembra Valley had been organised in four workshops – 12th and 15th of December 2021, 13th and 24th of January 2022.
The previous consultations and meetings with the stakeholders had helped a lot because the workshop participants had been familiar with the participatory processes in viticulture. Participatory workshops participants: around 40% were participants from the public sector and others were from the tourism sector, farmers and wine-makers and stakeholders. Two participatory workshops were held in person and two online. Also, parallel sessions were organised through the use of the Zoom platform and were shared in common workspaces thanks to the online tools. The method called "The Cembra valley by images" aroused the most debate, participation and discussion among the participants. The historical and current photos of the territory have prompted the discussion on memories, current situation and perspectives of the valley. The current photos have well represented the landscape context within which the agroecological transition is intended. Images of various types (provoked, provocative, provoking) were used to develop debate, participation and questions about the future, focusing on authenticity, invention, suggestion, and solicitation. The participants' responses regarding viticulture practices they want to find are viticulture with less impact that can foster a better synergy between agriculture and tourism, that promotes greater biodiversity in the landscape and crops, helping the farms with long-lasting training activities dedicated to groups of companies. No chemical weeding, no reclamations and clearings that are disrespectful of the traditional landscape are the things that they don't want in viticulture in the area. Very positive experience in creating a bank of ideas following the previous definition of the priority axes and general principles supporting the actions. Workshop participants demonstrated a clear vision of the current situation (strengths and weaknesses) and the need to engage and collaborate to meet the

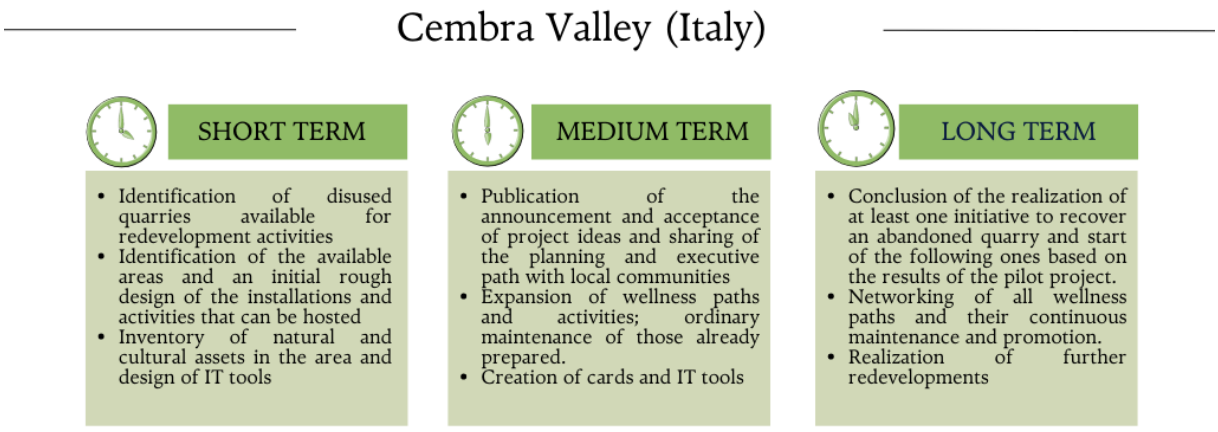


Figure 5. Main actions identified in the pilot area of Cembra Valley

6.4 Vipava Hills (Slovenia)

As part of the Vipava Valley of Primorska, one of the three Slovenian wine-growing regions. Almost half of the region is forested and a significant part is protected by NATURA 2000. Agricultural land is highly fragmented and 61% of the vineyards are steeply sloped and terraced.[15]

Main results of the participatory process held in pilot area of Vipava Hills:

The participatory process in the pilot area of Vipava Hills had been organised in three workshops – 21th of October, 2nd of December 2021 and 21th of April 2022.
Some problems involved the winemakers because they were busy during the period of the backcasting process and some issues related to COVID. Some difficulties in following the methodology defined during the training activities, it was decided to use exclusively focus groups (perceived as more serious than a simulation and less time-consuming for winemakers). Participants: mostly private winemakers and Municipalities. The situation with the vineyard's condition in the pilot area was known to the workshop participants but the concrete figures had surprised them.
The advantages of viticulture in Vipava Hills are that the area has a very natural landscape, the viticulture practices are in harmony with nature and the viticulturalist already uses agroecological practices and the area has a great diversity of grape varieties. The disadvantages of viticulture in Vipava Hills are the abandonment of vineyards, viticulturalist ageing, problems with the ownership of the vineyard, etc.

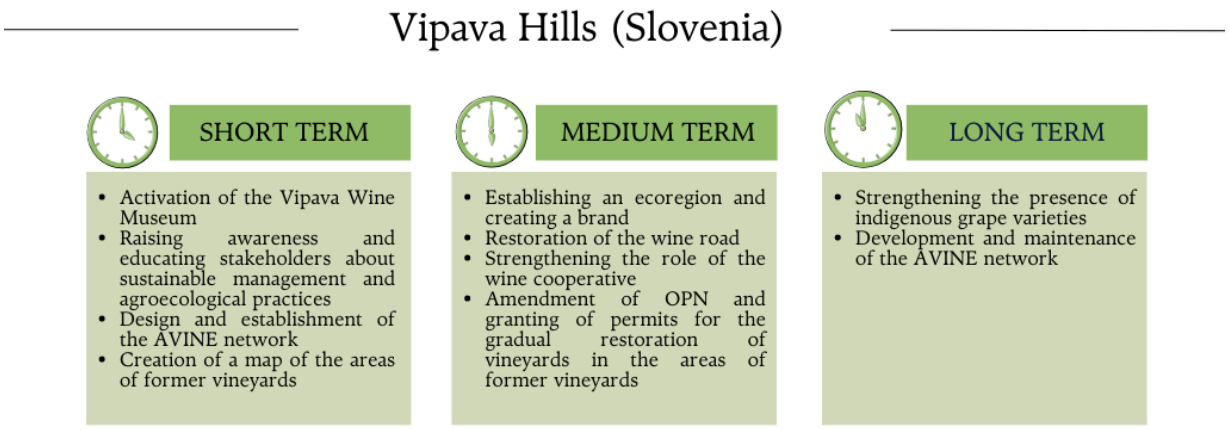


Figure 6. Main actions identified in the pilot area of Vipava Hills

[15] Vipava Valley | Official tourist web portal

6.5 Istria County (Croatia)

Located on the largest peninsula of the Republic of Croatia on the northern Adriatic coast, characterized by rolling hills and vineyards extending down to the sea along the western coastline. Although most viticultural farms are managed conventionally, traditional methods are used with high respect for nature and ecosystem protection.[16]

Main results of the participatory process held in pilot area of Istria County:

The participatory process in the pilot area of Istria County had been organised in three workshops – 1st, 7th and 31st of March 2022.

Regarding the workshop organisation, there were some problems regarding the involvement of the stakeholders related to fairs scheduled on the same days as some meetings. The workshops had been held all in person. The proposed methodology was applied, adding some approaches to facilitate and increase discussions during the process (round table). Equal participation of public and private bodies, on average.

The viticulture that participants don't want in the future highlighted the decrease of the land under vineyards, lack of educated workforce, untapped potential of local and resistant grape varieties and the rural area abandonment. The positive outcomes of the viticulture future in Istria County are the increase of sustainable winegrowers and agroecological practices usage, the creation of new sustainable tourist offer based on local viticulture and resistant grape varieties and better cooperation with the scientific sector.

The world cafe session has been the one with the most impact because the most important inputs had been collected from the participants. The Bank of Ideas was very successful because the Ideas Factory session had been organised in different structures, where were gathered

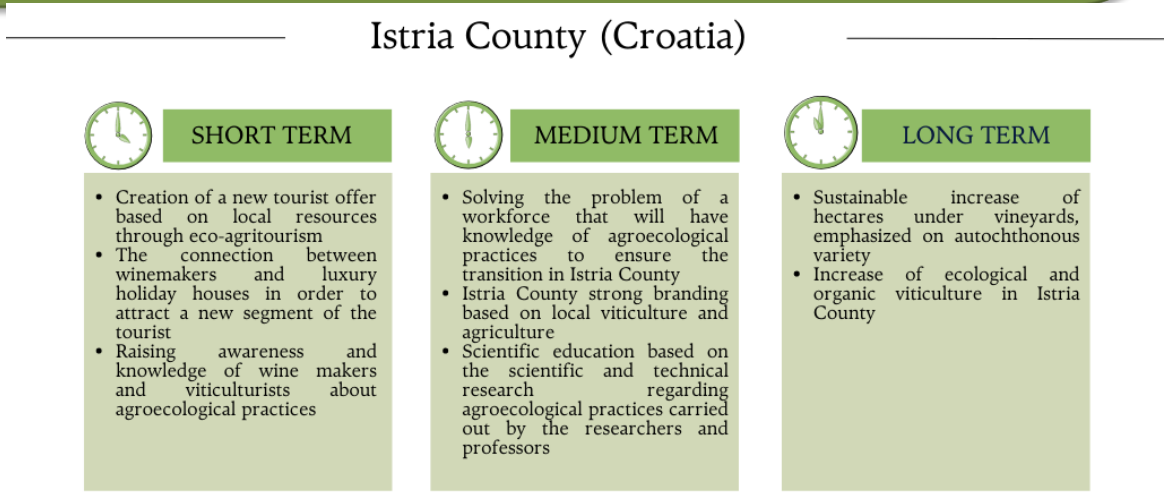


Figure 7. Main actions identified in the pilot area of Istria County

[16] Official tourist website of the Istria Tourist Board

6.6 Crmnica (Montenegro)

A hilly wine-growing region where the proportion of the fields and arable lands is relatively low, except adjacent to the protected natural area Lake Skadar where climatic and soil conditions favour grape growing. About 20% of the vineyards of the area are located in the protected area of "Skadar Lake".[17]

Main results of the participatory process held in pilot area of Crmnica:

The participatory process in the pilot area of Crmnica had been organised in one workshops – 29th of November 2021.

There were no difficulties regarding the participants' engagement, and therefore, it was managed to involve both private and public stakeholders. Participants: the ratio of public and private decision-makers was 65%-35%.

The workshop was very understandable and interesting. It was organized in person. The biggest impact on the participants had Session 2 (The Future Search) and Session 3 (The Ideas Factory).

The most important issues pointed out in the question "What kind of viticulture and viticultural practices do you want to find in future" are: wine with a geographical indication of origin, better development of road infrastructure, better protection of cultural-historical monuments, increase of areas under vineyards, preservation of nature and traditional landscape, etc. The most important issue points in the question "What kind of viticulture and viticultural practices you don't want to find in future in your area" are the devastation of the environment, non-registered wineries, non-hygienic conditions of wine production etc. The Bank of Ideas had a great impact because the facilitator had set up three specific objectives or strategic axis and after that, all of the ideas were distributed according to the strategic axis where they belong.

The overall ambient of the workshop was very positive, since the participants found the program challenging, yet very interesting and innovative for the Montenegrin area.

[17] Crmnica - A Wine Region in Montenegro

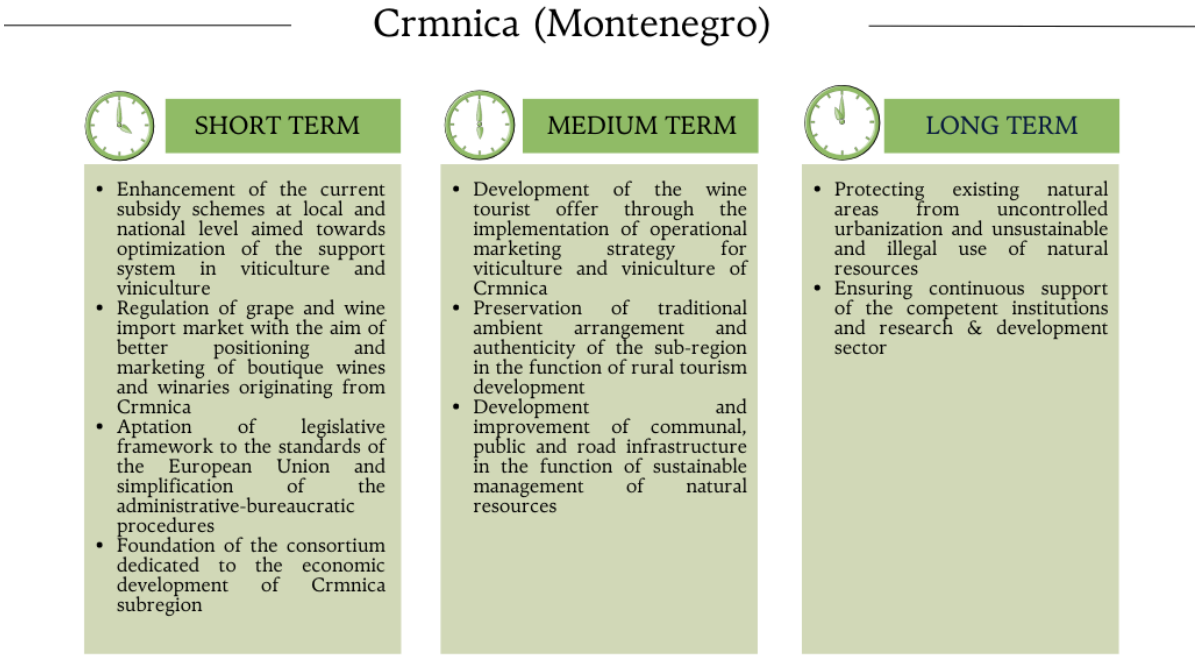


Figure 8. Main actions identified in the pilot area of Crmnica

6.7 Šumadja District – Topola Municipality (Serbia)

Part of the Oplenac area of the Sumadija wine district of Central Serbia, with significant agricultural, cultural-historical heritage. Although all Oplenac vineyards are managed conventionally, and none is registered as organic to date, the implementation of many agroecological practices has been recorded. 55% of the total area of vineyards is from 0.1 to 0.5 ha and almost half of the winemakers have a production capacity of up to 20,000 litres and they are the best category for agroecological transition.[18]

[18] Topola Municipality

Main results of the participatory process held in pilot area of Šumadja District – Topola Municipality:

The participatory process in the pilot area of Šumadja District– Topola Municipality had been organised in three workshops – 2nd and 23rd of December 2021 and 11th of March 2022.

The application of the shared methodology, during the face-to-face meetings, allowed to stimulate discussion and collect interesting ideas from the participants.

A series of bilateral meetings with winemakers have been also held to involve the ones that couldn't participate. One of the workshops was postponed because of the COVID illness.

Participants: 40% private sector/NGO, 60% public sector (municipality, tourist organisation, cultural centres). All of the organised workshops were held in person, with better communication with the participants.

The Bank of Ideas and the actions for achieving the agroecological practices in the pilot area were very easy to define. The most important issues highlighted are regarding participative territorial planning and the insufficient communication among all important actors and decision-makers but also a valuable issue defined is the traditional approach in wine-making and the management of the vineyard.

The workshop participants were extremely surprised when the results showed that the pilot area is a 100% intensively cultivated area and they believed that the practices are more in line with nature.

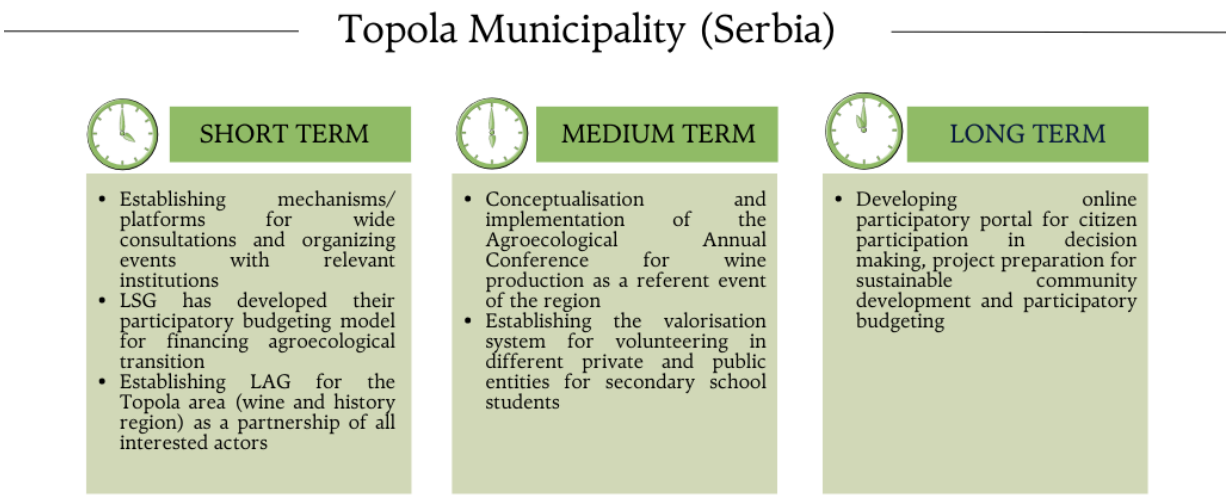


Figure 9. Main actions identified in the pilot area of Šumadja District – Topola Municipality

6.8 Archanes-Asterousia and Platanias Municipality (Greece)

Located in the Regional Unit of Heraklion, Municipality of Archanes – Asterousia extends South to the Libyan Sea. A semi-mountainous area with a fertile plain including NATURA 2000 protected areas (i.e Giouchtas and Asterousia Ori. Local viticulture is characterised by land fragmentation (80% of the vineyards are 0.3ha), water shortage, a long history of wine and a growing interest in wine tourism.[19]

Located in the Regional Unit of Chania, the Municipality of Platanias extends from the Gulf of Chania towards the mainland and the northwesternmost fringes of the Lefka Ori mountain range. Its coastline is one of the most popular touristic destinations in the region. Within its borders, NATURA 2000 protected areas are included, (i.e Fasa valley, Keritis stream, the entrance to the Samarian Gorge), while key issues for viticulture are land fragmentation (93.1% of the vineyards are ~0.3ha) and land use change.[20]

[19] Archanes-Asterousia Municipality

[20] Municipality of Platanias

Main results of the participatory process held in pilot area of Archanes-Asterousia and Platanias Municipality:

The participatory process in the pilot area of Archanes-Asterousia Municipality had been organised in three workshops – 20th if January, 3rd and 17th of February 2022 and in Platanias Municipality had been organized in three workshops: 21st of January, 4tf and 23rd of February.

The backcasting process was carried out exclusively online, following the project methodology, without encountering particular issues. The only problem occurred during the last workshops because it was an ongoing festival, so the last workshop was postponed to another date. Participants: 25% winemakers, 25% municipalities, 35% researchers and certificatory, 15% tourism sector and others.

All the workshops were held online for both pilot areas. The main weakness has been the inability of participants to move between rooms/tables during an online meeting.

In both of the areas, the main positive thing highlighted regarding the wanted viticulture is the support of the local decision-makers, sustainable viticulture, supporting the development of agritourism, the revival of local varieties and etc. The negative side of viticulture in both areas is the overuse of pesticides and chemicals, conventional agriculture, farmers' lack of knowledge and abandonment of local varieties.

The Bank of Ideas identifies the similarities and differences between the participants' concerns and visions in the proposed actions of the two case study areas.

Main conclusion: Taking into account that the workshops are organized online only, the participation was sufficient and the participants remained interested and alert. The gathered material is very useful and a very good starting point for the local action plan.

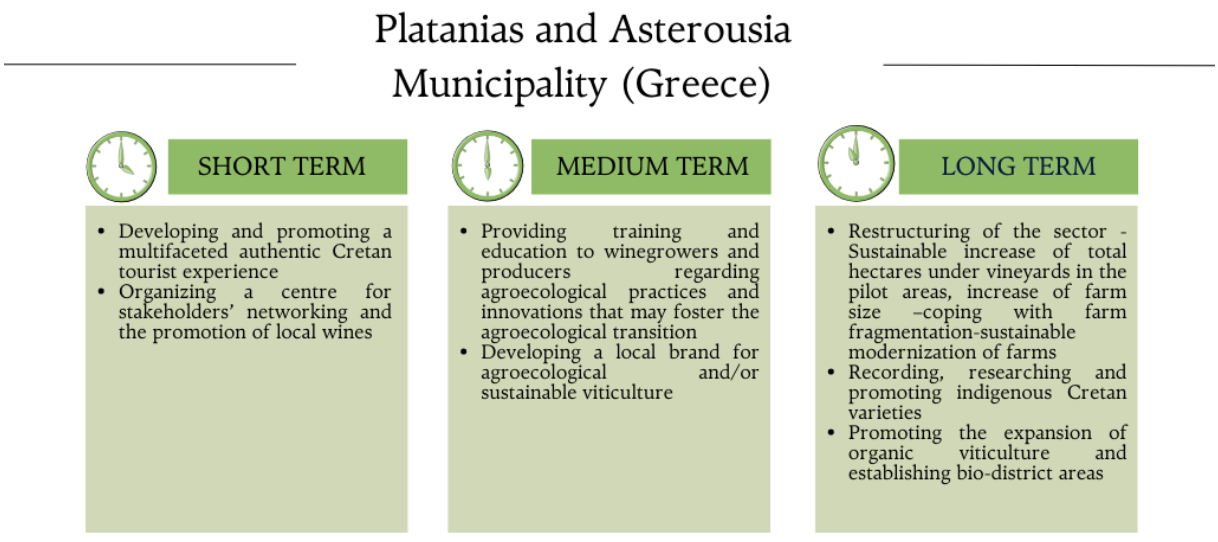


Figure 10. Main actions identified in the pilot area of Archanes-Asterousia and Platanias Municipality

7. INSIGHTS FROM THE CASES: KEY LEVERAGE POINT FOR AGROECOLOGICAL TRANSITION

The participatory workshops held in each of the eight pilot areas have identified the main challenges in each country regarding the situation in the viticulture sector and the principal actions for achieving the agroecological transition in viticulture. The process of using participatory governance procedures had been conducted with the relevant participants, which helped in the identification of actions crucial for the agroecological transition in each country. In each pilot area, the objectives were different because each of them has different status and level for achieving agroecological transition.

Seven case studies provide an in-depth analysis of the situation in each country and how the transition can occur and how the policy framework and mechanisms could be adapted for the required measures. Regarding the crucial question of who needs to participate, when and how to participate in the participatory process, each partner with the facilitator had identified the main actors coming from different sectors and levels and key steps for the identification of the actions. Some of the actions were more concentrated on the changes on the farm level, landscape and ecosystem and some of the tangible changes in the policies and frameworks.

Regarding the before mentioned four dimensions of change, which entail the changes in production practices, knowledge generation and dissemination, social and economic and institutional frameworks, it can be identified which are the key leverages point for agroecological transition in the ADRION area.

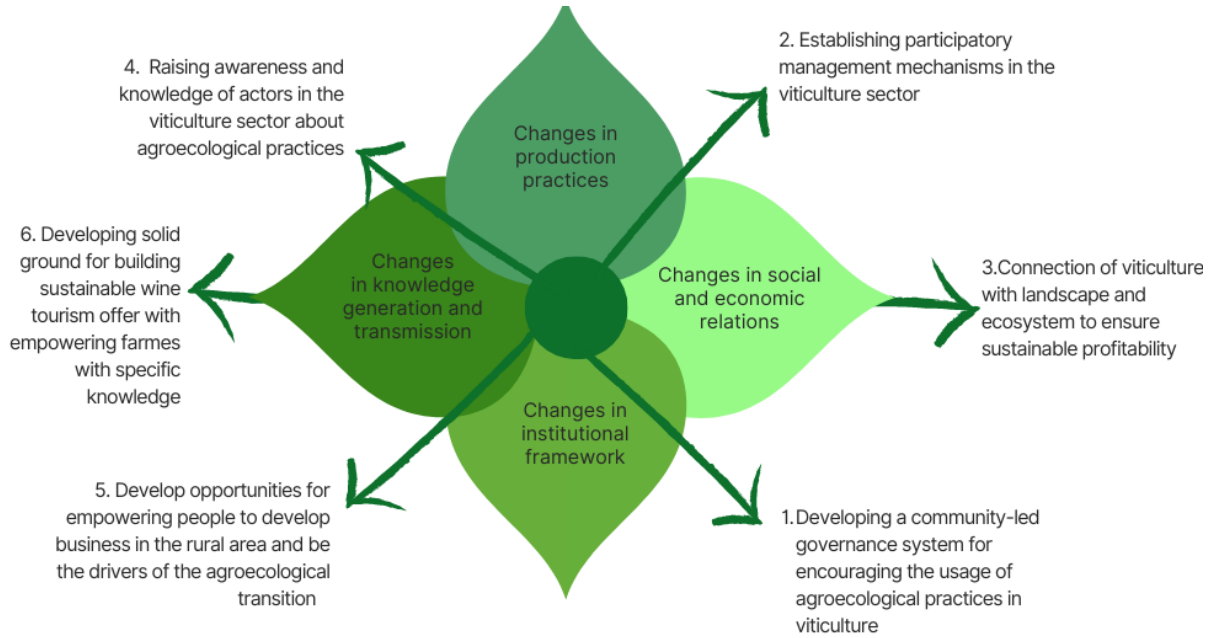


Figure 11. Combining different types of changes to drive transition in ADRION area based on the participatory workshops held in each pilot area and Local Action Plans(prepared by author)

In order to encourage farmers from the viticulture sector on implementing agroecological practices in their vineyard production and business, it is important to **develop a community-led governance system with specific mechanisms and measures**. Institutional and political support on a different levels will accelerate the transition. This combines changes in the institutional framework and in production practices, where the encouragement, either coming in financial, support or knowledge matter, will help farmers with the usage of agroecological practices in vineyards. **It had been identified several agroecological practices in each pilot area as main actions (an increase of ecological and organic viticulture, a sustainable increase of total hectares under vineyards, enhancement of the current subsidy schemes at the local and national level aimed towards optimization of the support system in viticulture and viniculture; etc.), which will pave the path of the agroecological transition of viticulture of ADRION area.**

The agroecological transition will be achievable only if the national and particularly regional and local policy-makers **establish participatory management mechanisms**, which will increase the level of understanding of the actual situation and problems in viticulture. The shift in each country will have diverse levels because of the economic, technical and governance situation and they would need to resolve which actions need to be achieved and in which period. The changes in the institutional framework and social and economic relations will enable this explicit action to be achieved. **In the ADRION area, specifically in the pilot areas has been identified need for using the participatory governance approach in order to start building the solid ground for the agroecological transition in viticulture that corresponds to each specific situation (developing an online participatory portal for citizen participation in decision-making process and participatory budgeting model for financing the agroecological transition).**

One of the most important principles of agroecology is the **connection with nature, ecosystem and landscape** and this was identified as one of the actions in the ADRION area. It has been recognised the value of the landscape connection with viticulture, will increase the connectivity with the ecosystem. The main highlight is that it was identified that the farmers need to cultivate vineyards in the line with nature and preserve the habitat, not only to lean only on the vineyard's functioning. **Achieving changes in production practices and implementing the cultivation of the vineyards in line with the ecosystem, will lead to the raising of sustainable and profitable viticulture** (**extend the cultivation and strengthen the presence of indigenous grape varieties, using agroecological practices in vineyards as the wood as an added value to the vineyard, replacing pesticides with beneficial insects and animals, promoting the expansion of organic viticulture and establishing bio-district areas, protecting existing natural areas from uncontrolled urbanization and illegal use, preservation of traditional ambient arrangement and authenticity)**

Collaboration of the policy-makers through participatory governance mechanisms with the scientists and farmers is extremely important because it will help to **raise the level of knowledge and awareness of the farmers about the importance of agroecological practices usage**. With the right research in the field and developed actions in each vineyard, it will be easier for viticultural farmers to apply agroecological practices. **This requires changes in knowledge generation and transmission and it will lead to shifts in production practices. In pilot areas were identified some specific actions to achieve these changes (provide training and education to winegrowers regarding agroecological practices and innovations that may foster agroecological transition, scientific education based on the scientific and technical research regarding agroecological practices, the establishment of the AVINE network and its maintenance, ensure continuous support from institutions and research sector).**

Engaging young or qualified people to stay in rural communities and their businesses in viticulture can be the key factor in the start and sustained transition. A lot of countries, especially the one in the ADRION area are facing the problems of people leaving their communities and this led to the deterioration and displacement of rural areas. Changing the institutional framework and creating new opportunities for people to raise their businesses using agroecological practices in viticulture, will have the advantages to create agroecological vineyards and enhancing the rural area. This will lead to the raising knowledge of the people involved in viticulture. **It has been identified several actions which would help to achieve the increased number of young and qualified people to stay in rural areas and build their businesses (School of Agroecology of Eastern Venice: innovation and prevention, solving the problem of a workforce that will have knowledge of agroecological practices to ensure the transition, establishing the valorisation system for volunteering in different private and public entities for secondary school students).**

An important step in the agroecological transition in viticulture in the ADRION area is the recognition of the true value of viticulture, increasing the importance of vineyards landscape, producing quality wine based on local resources and at the end by building the story about peculiarities of each area. Merging all of this will be **created a sustainable unique wine tourism offer that will preserve the ecosystem**. **This will require changes in social and economic relations with the knowledge changes and in pilot areas had been identified some key actions (development of the wine tourism offer through the implementation of operational marketing strategy for viticulture and viniculture, identification and creation of a common territorial brand; touristic geo-localization - territorial mapping and identification of a wine-tourism route, establishing an ecoregion and creating a brand, restoration of the wine road, develop a local brand for agroecological and/or sustainable viticulture).**

8. HOW TO IMPLEMENT THE TRANSNATIONAL PARTICIPATORY BACKCASTING PROCEDURES IN ORDER TO ACHIVE THE TRANSITION

The agroecological transition must be articulated as a part of a broader transformation of society.[21] This underlines the importance of the usage of a participatory governance process that involves all the crucial actors, with a highlight on the involvement of the local people and the general public.

Within the ECOVINEGOALS project has been identified two main challenges and the actions that need to be done to achieve the agroecological transition in the viticulture of the ADRION area. The first challenge identified through the process of governance is the level of connection with agroecology and this was identified through the SWOT analyses of each pilot area (included in the Summary report of the participatory governance approach). The main result of the SWOT analyses had shown the opportunities in each area that could be achieved in the future to upgrade the viticulture and viniculture sectors. The second challenge identified is the involvement of the crucial actors, policy and decision-makers and their possibility to influence the policies, strategies and key documents to achieve the agroecological transition in viticulture.

It has been identified through the ECOVINEGOALS project that the change is not only the transition, it is a much wider and more complex process. The table below represents the 3 main objectives with 10 related actions that can achieve the transition through the implementation of transnational participatory backcasting procedures. The participatory governance process implemented in the ECOVINEGOALS project enabled the identification of the main actions that could initiate the agroecological transition in viticulture in the ADRION area and help to build sustainable and resilient viticulture in line with the ecosystem.

Table 2. Actions needed to be applied in order to achieve the agroecological transition of viticulture through the participatory backcasting procedures

Objective of the Action Plan	Actions to be taken	Term of achievement
1. Establish agroecological transition process in viticulture The agroecological transition in general entails a process of change in different aspects, firstly starting with the identification of problems which would be solved with the process of agroecological transition. Each project pilot area that was identified as a territory for the agroecological transition has different needs to start the agroecological transition in viticulture, for example, the pilot areas in Italy are identified as intensive wine-growing areas that need specific solutions while pilot areas like Istria County or Crmnica are	**1.1. Define the vision of the agroecological transition** In the process of defining how the agroecological transition will be achieved, it is necessary to define the vision of the agroecological transition. The vision needs to entail the solution regarding the strengths and opportunities of the territory and the challenges with which is facing (environmental, social, economic and institutional). Once the vision is defined and the goals are set, it will be easier to define the main steps to be incorporated. Also, the vision should be aligned with the regional, national and European strategies and policies to be more encouraged the process of transition. *This action will be implemented by the policy and decision-makers on the local and regional level and in cooperation with all the actors from the viticulture sector, especially, wine-growers and wine-makers, viticulturalists, and farmers and with support of administrative and sectoral departments for agriculture (special regard to the viticulture), sectoral and development agencies, stakeholders.*	1. Short term (1-2 years)

[21] Gliessman S.R., Jacobs N., Clément C., Grabs J., Breaking away from industrial food and farming systems, Seven case studies of agroecological transition

identified as fragile and low-resilient areas in need for different solutions. This is why the territory needs to be investigated and defined main steps of the process. The three actions under this objective are important because they summarize what the process of agroecological transition needs to look like.	Financial resources could come from authorities on the local, regional and national level.	
	1.2. Identification of the agroecological practices In all pilot areas have been identified agroecological practices where are connected with the productive, landscape and social side or with tourism. In order to start the process of the agroecological transition it is important to identify the main agroecological practices that could be used by the wine growers and farmers, but before its identification is important to study the area from productive, landscape and habitat and legislative side. When this process is finished and with a defined transition vision, it will be able to identify the practices that are suitable for the agroecological transition. *This action will be implemented by the national and regional administrative and sectoral departments for agriculture (special regard to viticulture), sectoral and development agencies in collaboration with the research and scientific sector which will help to identify the most suitable agroecological practices for the area and will be supported by the policy and decision-makers on the local and regional level.* Financial resources could come from authorities on the local, regional and national levels and from European Union funds (European agricultural fund for rural development, European Regional Development Fund and other similar Programs to apply projects in this theme). Also, here can be included the associations operating in the viticulture sector and private stakeholders.	2. Mid term (3-5 years)
	1.3. Create opportunities for young generations to stay in rural areas and build their business in viticulture One of the main problems in rural areas is the abandonment of the local communities, especially by young people and the deterioration of arable land. This is the case for the ADRION area where the pilot countries are facing this problem. The crucial part of the agroecological transition in viticulture is the wider benefits for the community so this is why is important to create opportunities for younger generations to stay in rural areas and start their own business in viticulture. The integration of a larger number of young people into the use of agroecological practices in viticulture can have a favourable effect on increasing labour productivity and the level of competitiveness because young people are more ready to acquire knowledge and apply technologies required by sustainable viticulture systems, which will be more resistant to future diseases and climate changes. *This action will be implemented by the policy and decision-makers on the local and regional levels in collaboration with the government on the national level.* Financial resources could come from authorities on the local, regional and national level.	3. Long term (6-10 years)
2. Raise awareness about the agroecological practices in viticulture After the process of agroecological transition is defined, really important is to encourage the target group (winemakers, winegrowers, viticulturalist, viticultural managers, farmers, stakeholders and other actors from the viticultural and vinicultural sector) to be a part of the agroecological transition. The main problem is that the winegrowers can	**2.1. Raise public awareness of the importance of using the agroecological practices** This action implies raising awareness of the general public about the advantages of agroecological systems and what would they mean for the viticulture sector and preserving the landscape and ecosystem. Today's citizens and consumers are shaping the demand on the market, so if they are more educated and aware of the products that they buy or consume then they will want to know more about them. This is not the main reason why the agroecological transition in viticulture is a necessity, but it is a very good reason to start to think about future well-being and healthy food and life. It has been identified a great interest in raising public	1. Short term (1-2 years)

realise the benefits of agroecology, but still not be interested to be a part. This is why raising public awareness is the key because also the consumers, buyers and the local community would understand the benefits of agroecological transition and this could be one of the reasons why the wine-growers and viticultural sector would want to use the agroecological practices. Also, engaging the local farmers in raising their awareness about the conditions regarding climate change, soil, water and similar will help them understand the power of knowledge and understanding why the agroecology transition is good for them. This is why is important the dissemination of the research results with the farmers to raise their awareness about the possibilities of agroecology transition.	awareness to build a wider understanding of agroecology in the ADRION area. *This action will be implemented by the policy and decision-makers on local, regional and national levels and sectoral agencies in collaboration with the schools, universities and associations for education. The educational experts will help to form interesting guidelines, brochures, data and similar to raise awareness of the wider general public.* Financial resources could come from authorities on the local, regional and national level and from European Union funds (European agricultural fund for rural development, European Regional Development Fund and other similar Programs to apply projects in this theme).	
	2.2. Creating digital tools in order to upgrade the knowledge of wine-makers and usage of agroecological practices Digital tools regarding this specific action imply online applications to better understand the agroecology in viticulture from one side and another which means better usage of the agroecological practices. Online tools such as maps, instructions or management tools could ease the work of farmers, viticulturalist and viticultural stakeholders in the field and also prevent unexpected situations. The second reason why digital tools are very helpful to farmers is that they help to raise awareness about crucial topics in agroecology and viticulture. Creating comprehensive and understandable digital tools will encourage viticulturalist to be more interested in the usage of the practices. *This action will be implemented by the policy and decision-makers on the local, regional and national level and sectoral agencies in collaboration with scientific universities like agricultural or agronomy faculties.* Financial resources could come from authorities on the local, regional and national level and from European Union funds (European agricultural fund for rural development, European Regional Development Fund and other similar Programs to apply projects in this theme).	2. Mid term (3-5 years)
	2.3. Transfer knowledge to farmers through the collaboration with scientific sector It is important to establish a connection between scientific and real (productive) sectors e.g. wine-growers and wine-makers, owners of the wine farms, viticulturalist and others from the viticulture sector, because this will enable raising awareness among them about the benefits of using the agroecological practices in vineyards. Establishing better cooperation and partnership with sectoral agencies and departments with the universities, research institutions and the general scientific sector will create the basis for transferring knowledge but also conducting scientific research. The workshops, congresses, conferences and similar will enable the dissemination of the research results and investigations to the wine growers who could apply these activities in their vineyards. This issue was identified in pilot areas (Istria County and Archanes-Asterousia and Platanias Municipalities) where was recognised also by the local wine growers and viticulturalist the need for research data dissemination. *This action will be implemented by the policy and decision-makers on local, regional and national level and sectoral agencies in collaboration with the research and scientific sector.* Financial resources could come from authorities on the local, regional and national level and from European Union funds (European agricultural fund for rural development, European	3. Long term (6-10 years)

	Regional Development Fund and other similar Programs to apply projects in this thematic).	
3. Change policy framework for agroecological transition The participatory governance process in the viticulture sector will be visible in the new or improved policies, which could encourage wine-makers to be a part of the agroecological transition and help them in creating a quality ground for the future. Specific measures which will design the grape production and vineyard cultivation in line with the habitat and ecosystem will help to preserve and enhance the landscape, increase the vineyard's resilience and create a sustainable tourism viticulture offer. The following actions are implying drastic measures, where some of which would be hard to change and implement, but they will lead to the quality agroecological transition in ADRION and any other area.	**3.1. Develop subsidy systems for encouraging the wine-growers on the usage of agroecological practices** The quality subsidy system entailing the specific subsidies for using agroecological practices in vineyards will encourage wine growers and viticulturalists on their usage. For the farmers that are already operating and cultivating the vineyards, it won't be an easy step to convert their production and start implementing agroecological practices. The specific incentives would also encourage other wine growers who are already using some of them, to implement new practices in the field. Subsidies with specific outputs regarding the usage of agroecological practices could be easily measured and managed by the controllers. This could have a massive impact on the agroecological transition and could help to shape the cultivation of the vineyards in line with the ecosystem and will raise the biodiversity of the area. This demands an understanding of the policy and decision-makers regarding the agroecological practices and if the subsidy system is built on territorial analysis and the need for specific practices, its success is guaranteed. This was identified as a short-term action but to be applied in the long term if the subsidies are giving a positive result. This action is considered in project pilot areas as an important action to be implemented. *This action will be implemented by the national and regional administrative and sectoral departments for agriculture (special regard to viticulture), sectoral and development agencies in collaboration which will help to identify the most suitable agroecological practices for the area to be included in the subsidy system, and will be supported by the policy and decision-makers on the local and regional level.* Financial resources could come from authorities on the local, regional and national level and from European Union funds (European agricultural fund for rural development, European Regional Development Fund and other similar Programs to apply projects in this thematic).	1. Short term (1-2 years)
	3.2.Develop marketing guidelines for the creation of sustainable tourism offer based on local viticulture and viniculture The guidelines containing actions on how to design tourism offers to highlight the vineyards and their landscape connectivity will create a quality ground for new packages and experiences. Today's visitors are seeking different experiences and visiting vineyards and tasting wine is one of them. If the local and regional communities develop brands of sustainable tourist destinations based on viticulture, it could create a new trend in forming unique, creative and educative experiences. These packages and experiences need to have an educational character because they will raise awareness among tourists and visitors. *This action will be implemented by the national and regional administrative and sectoral departments for agriculture (special regard to viticulture) and tourism, sectoral and development agencies in collaboration to identify the key guidelines for the development of the sustainable viticulture tourism offer. It will be supported by the policy and decision-makers on the local and regional level.* Financial resources could come from authorities on local, regional and national level and from European Union funds (European agricultural fund for rural development, European Regional Development Fund and other similar Programs to apply projects in this theme).	2. Mid term (3-5 years)

	3.3. Develop common protocols to monitor the usage of agroecological practices in viticulture The protocol for monitoring the usage of agroecological practices in vineyards will easily control the subsidy implementation. The protocol will not only be applied for monitoring the proper subsidy usage but will be very helpful in defining the state of the agroecological transition in each area. *This action will be implemented by the policy and decision-makers on the local, regional and national level and sectoral agencies in collaboration with scientific universities like agricultural or agronomy faculties.* Financial resources could come from authorities on the local, regional and national level and from European Union funds (European agricultural fund for rural development, European Regional Development Fund and other similar Programs to apply projects in this theme).	3. Mid term (3-5 years)
	3.4. Upgrade the legislation in order to increase the land area for viticulture One of the main difficulties in vineyard cultivation and general in the viticulture sector is the trend of using the land area for building and construction works and this is leading to the negative trend of using this area. The vineyard's land is not only important for economic growth and for doing business, but it's also important for safeguarding the traditional landscape and ecosystem. By changing the legislation and the framework for the usage of arable land for agriculture and especially viticulture it will lead to the increase of the land under vineyards, usage of agroecological practices, increase the grape cultivation and most importantly better ecosystem and habitat preservation through the used land area. *This action will be implemented by the policy and decision-makers on the local and regional level in collaboration with the government on national level. Also, the actors from the viticulture sector, especially, wine-growers and wine-makers, viticulturists and farmers will be included in this action because they will use this land for cultivation.* Financial resources – budget from authorities on local, regional and national level, including policy and decision makers along with the agricultural departments.	4. Long term (6-10 years)

9.CONCLUSION

Agroecology is best supported by responsible governance mechanisms at different scales, so the agroecological transition entails a process of identifying main challenges and by involving key actors, developing main actions to create a sustainable and resilient system. Territorial, landscape and community-level governance are extremely important to foster cooperation between stakeholders, maximising synergies while reducing or managing trade-offs.

The needed transition in viticulture and agriculture, in general, is to move from these homogeneous monoculture systems that are highly dependent on pesticides, fertilizers, fuel, and other external inputs, to sustainable systems in line with the ecosystem. A new agroecological paradigm is required, rooted in fundamentally different relationships between viticulture, environment and society.

Within the project ECOVINEGOALS, a participatory governance process was foreseen for launching a transformational path of intensive viticultural landscapes toward agroecological modes of production simultaneously promoting harmonious and balanced relationships between vineyards and accompanying multi-functional landscapes and natural habitats. This Action Plan is one of the seven project outputs and it describes how through adaptation of participatory governance methodologies involving key actors and stakeholders can be initiated the agroecological transition of wine-growing areas.

This process was initiated in eight project pilot areas in Italy, Slovenia, Croatia, Serbia, Montenegro and Greece by engaging the key actors, policy-makers, stakeholders and wine-makers through participatory governance. Two main challenges had been identified in the pilot areas based on the findings of the ECOVINEGOALS project. The first is the territory connection with agroecology. It identified the status of the pilot areas and their possibilities of transition to agroecological systems in viticulture. The findings show that viticulture in the pilot areas is mostly conventional, where are used traditional cultivation methods with high respect for nature and the ecosystem, meaning that there are high chances for a quality agroecological transition. The second challenge is about the key actors' involvement and its possibilities to achieve the agroecological transition in viticulture.

This document provided the main inputs about the territorial participatory governance process and which are its benefits in designing the agroecological transition in viticulture in the ADRION area. The main actions had been identified based on the Local Action Plans of each pilot area and the merged data from the Transnational guidelines to support agroecological transition processes through participatory governance. Also, it has been identified the key leverage for the agroecological transition consisted of changes in four key dimensions – in production practices, knowledge generation and dissemination, social and economic relations, and institutional frameworks. This report as an important ECOVINEGOALS output represents a study on how the participatory governance mechanisms can be one of the most important processes to start the agroecological transition in any area.

10. REFERENCES

1. Anderson C.R, Bruil J., Chappell M.J., Kiss C., Pimbert M.P., Agroecology Now! Transformations Towards More Just and Sustainable Food Systems, Palgrawe Macmillan, 2021
2. Davoudi S., Evans N., Governa F., Santangelo M., Territorial governance in the making - Approaches, methodologies, practices, 2008
3. European Committee of the Regions. Opinion of the European Committee of the Regions - Agro-ecology COR 2020/03137 (2021).
4. EC, European Awareness Scenario Workshops, https://cordis.europa.eu/article/id/8356-european-awareness-scenario-workshops
5. Eden C., Ackermann, F., Making strategy: The journey of strategic management, London: SAGE Publications Ltd, 1998
6. FAO, The 10 Elements of Agroecology, http://www.fao.org/agroecology/knowledge/10-elements/en/
7. FAO, Governance for Sustainable Development of Food and Agriculture, http://www.fao.org/policy-support/governance/en/
8. FAO, Scaling up Agroecology Initiative. Transforming food and agricultural systems in support of the SDGs, 2018
9. Gliessman S.R., Agroecology: The Ecology of Sustainable Food Systems, Second Edition, University of California, Santa Cruz, U.S.A., 2007.
10. Gliessman S.R., Jacobs N., Clément C., Grabs J., Breaking away from industrial food and farming systems, Seven case studies of agroecological transition, IPES-FOOD PANEL, 2018.
11. Kluver, et.al., EUROpTA: European Participatory Technology Assessment - Participatory Methods in Technology Assessment and Technology Decision-Making. EUROPTA project, 2000
12. Kusters et al., Inclusive Landscape Governance for Sustainable Development: Assessment Methodology and Lessons for Civil Society Organizations. Land 2020, 9, 128., 2020
13. LE GALÈS, P. European Cities, Oxford University Press, Oxford, 2002
14. Leippert, F., Darmaun, M., Bernoux, M., and Mpheshea, M., The potential of agroecology to build climate-resilient livelihoods and food systems, Rome, FAO and Biovision, 2020
15. Moore M., Creating public value: Strategic management in government, Cambridge, MA: Harvard University Press, 1995
16. Pimbert, M. P. (2015). Agroecology as an Alternative Vision to Conventional Development and Climate-Smart Agriculture. Development, 58(2)
17. Sheely R., Institutions and policy analysis in international development, Manuscript under review, 2018
18. Slocum, N., Participatory Methods Toolkit. A practitioner's manual, UNU-CRIS, 2003
19. UNDP, Multi-Stakeholder Engagement Processes. A Capacity Development Resource, 2006
20. Uittenbroek C.J., Mees H.L. P., Hegger D.L.T. & Peter Driessen P. J. The design of public participation: who participates, when and how? Insights in climate adaptation planning from the Netherlands, Journal of Environmental Planning and Management, 2019
21. How are Agroecological Farmers Challenging the Industrial Way of Farming? https://www.organicwithoutboundaries.bio/2018/08/08/agroecological-farmers-rethink/

List of pictures

List of figures

List of tables