

Gap Organic Agriculture Cluster Project Scalability And Replicability Toolkit

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T.R. Ministry of Industry and Technology Southeast Anatolia Project (GAP) Regional Development Administration, June 2018, Ankara.

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For citation:

Tektaş A., Özertan G., Helvacıoğlu A.D. ve Karapınar B. (2018). GAP Organic Agriculture Cluster Project Scalability and Replicability Toolkit; GAP RDA, Şanlıurfa, Turkey.

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GAP ORGANIC AGRICULTURE CLUSTER PROJECT SCALABILITY AND REPLICABILITY TOOLKIT









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FOREWORD

luster approach is one of the most important tools in regional development and is becoming more widespread. The cluster works supported by international and national public policies, are of great importance today. At the same time, organic agriculture is becoming widespread as a result of increased awareness and consciousness of consumers, about protection of the environment and efficient use of resources and also mitigating the impacts of climate change. GAP Organic Agriculture Cluster Project implemented with the financing of T.R. Ministry of Industry and Technology (abolished Ministry of Development) and in cooperation with the United Nations

Development Program (UNDP) Turkey Office, is a cluster-based local socio-economic development model.

The Scalability and Replicability Toolkit prepared within the scope of GAP Organic Agriculture Cluster Project introduces the roadmap that can be used to identify cluster focuses of the regions and the areas open to improvement for cooperation and discusses contribution of the topics mentioned in this roadmap for the creation of the development agendas. The main objective in preparation of this toolkit is to contribute to designing of clustering models specific to region and country, to differentiation from each other and to be based on concrete data as much as possible.

In this study, analytical tools that can be used to enrich the content of regional development are determined. Such areas have an integrated structure that affects each other. In this context, the scaling roadmap is shown in fifteen steps and the outputs of this roadmap are examined under five components: structural, functional, social, business oriented and supporting outputs. The prioritization and replicability are envisaged to be carried out by public, private sector and non-governmental organizations with the accumulation of knowledge and experience locally.

This toolkit is expected to be a guideline for leading cluster-based local socio-economic development studies and conducting comparable studies. By this means, it is hoped that regional policies will be coordinated at the national level and local development will be ensured.

I would like to thank everyone who contributed to this study which is conducted with the partnership of GAP (South-eastern Anatolia) Project Regional Development Administration (GAP RDA), United Nations Development Program Turkey Office (UNDP Turkey) and Boğaziçi University Centre for Innovation and Competition Based Development Studies. In addition, I would like to thank to Prof. Gökhan Özertan, Prof. Arzu Tektaş, Assoc. Prof. Barış Karapınar and Assoc. Prof. Aslı Deniz Helvacıoğlu who have contributed to preparation of the content of Scalability and Replicability Toolkit; to the project team and all our stakeholders that have contributed to completion of the work.

I wish the Scalability and Replicability Toolkit to be a guide for increasing the number of studies in this field and for determining policies that will contribute to improvement of regional development.

Sadrettin Karahocagil

President of GAP Regional Development Administration



FOREWORD

or more than 50 years, UNDP Turkey has worked with the government institutions, private sector, NGOs, academics and research institutions, regional development institutions and agencies. In Turkey, we work on the areas of Inclusive and Sustainable Growth, Inclusive Democratic Governance and Climate Change and Environment, and we support practical solutions to Turkey's development challenges in cooperation with our partners and place gender equality at the center of each initiative.

In all our work we act upon the priorities stated in Turkey's development plans and strategy documents while at the same time supporting Turkey to achieve Sustainable Development Goals.

UNDP Turkey has long-standing and close cooperation with GAP Regional Development Administration since mid-1990s. Over the past years we implemented projects together with GAP Regional Development Administration on minimizing the impacts of Syrian crisis, enhancing the social stability, strengthening the industrial infrastructure, development of tourism, supporting entrepreneurship, empowerment of women, renewable energy and energy efficiency, organic agriculture to increase competitiveness of the region and to contribute socio-economic development of this region.

Since 2009, we promoted regional, national and international cooperation in the region through our GAP Organic Agriculture Cluster Project which is a cluster-based local development model and encouraged localization of SDGs in the region. With our efforts we attained to achieving our aim for increasing national and international competitiveness of the organic sector in the Southeast Anatolia Region.

I would like to thank to managers and experts of GAP Regional Development Administration for their cooperation and continuous support and to all stakeholders and experts who contributed to the preparation of this "Scalability and Replicability Toolkit", which provides a roadmap for implementation of similar clustering projects and initiatives.

I am convinced that the process and the examples described in this toolkit will be inspirational for many regions for scaling-up cluster-based local development model.

Claudio Tomasi

United Nations Development Program (UNDP) Country Director for Turkey

ABBREVIATIONS

AKİP Anatolian Clusters Cooperation Platform

ENRD European Network for Rural Development

ETO Ecological Agriculture Organization Association

GAP Southeastern Anatolia Project

GAP RDASoutheastern Anatolia Project Regional Development Administration

IFAD International Fund for Agricultural Development

IFOAM International Federation of Organic Agriculture Movement

IIRR International Institute of Rural Reconstruction

ORKÜDER Organic Cluster Association

OTADAM Organic Agriculture Consulting and Dissemination Centre

OAC Organic Agriculture Cluster

UNDP United Nations Development Programme

UNHCR United Nations High Commissioner for Refugees

WHO World Health Organization

INTRODUCTION

AP Regional Competitiveness Agenda has determined the identification of strategy and sectors to increase competitiveness of GAP Region and creation of GAP brand as priority targets. It is recommended that the "Clustering Methodology" should be implemented in the region as a model for local economic development and for the dissemination of organic agricultural activities under the heading of "Realizing Economic Development", which is one of the four strategic development axes defined within the scope of GAP Action Plan (2008-2012).

GAP Organic Agriculture Cluster Project has been carried out by the Southeastern Anatolia Project Regional Development Administration (GAP RDA) in 2009-2018 period with the technical assistance of the United Nations Development Program (UNDP). In this context, GAP Organic Agriculture Cluster Project has been implemented in accordance with GAP Region's main strategies such as sustainable development, entrepreneurship development, internationalization, clustering and networking, in order to increase competitiveness of the organic agriculture sector in the region, to mobilize the organic agriculture cluster regionally and to contribute to improvement of the local business environment. Studies have been carried out under four main components; 1. Clustering Activities; 2. Pilot Projects and Demonstrative Studies; 3. Branding, Promotion and Visibility Activities; 4. Increasing Institutional Capacity. As a result of such studies; 42 Pilot Projects (such as Harran University Ebrulim and Kilis Kilizi Organic Olive Oil Factory) have been realized, GAP Organic Agricultural Portal (http://www.gaporganik.org/tr/project) has been created and GAP Organic Cluster Association (GAP ORKÜDER) has been established. In addition, cooperation in the organic agriculture sector has been strengthened in the GAP Region and capacity building activities have been carried out.

In GAP Organic Agriculture Cluster Roadmap, the common vision was determined as; "By 2023, the GAP Region will be Turkey's leading supplier of organic textiles and food raw materials, and innovative and competitive organic production attraction center with its broad and fertile irrigated agricultural land". Scalable and replicable success stories, strong production and marketing infrastructure and improvement of cooperation among actors have been adopted as key elements in achieving the stated goal.

This toolkit analyzes the GAP Organic Agriculture Cluster Project within the framework of triple helix which is one of the cluster and multi-stakeholder cooperation models, under scalable and replicable success stories factors, and provides a method for scalability and replicability studies for cluster projects. In line with this method and inferences from pilot projects, a roadmap for implementation in similar cluster projects is also included in the report. Scaling enables adapting successful projects to wider and different groups and, getting value-added results by applying the obtained methods according to dynamics of the new target group, and thus it is used as a respected tool for sustainability.



DESIGN AND BUILDING BASIC PROJECT INFRASTRUCTURE

AP Organic Agriculture Cluster Project is designed as a cluster-based local development model. Aim of the project is to increase competitiveness of the GAP Region and to reveal the strategies and sectors that will increase brand value of the region. It is possible to see the "multi-stakeholder cooperation" feature of the cluster approach in designing, detailing and pilot implementation processes of the project. Evaluations of the project indicate the contribution of the synergy among the institutions created as a result of this cooperation.

The project has been carried out by the Southeastern Anatolia Project Regional Development Administration (GAP RDA) with the technical assistance of the United Nations Development Program (UNDP). Three Development Agencies have participated actively particularly in pilot implementation of the project.

In the upper scale, the project aims to contribute to strengthening the organic agriculture value chain in the GAP Region and increasing national and international competitiveness. Specific objectives of the project are;

- Strengthening the organic agriculture value chain in GAP Region and developing sustainable regional, national and international cooperation among the actors of organic agricultural value chain;
- Contributing to increasing competitiveness and effectiveness of the regional organic agriculture value chain and to improving sustainable and market-oriented inter-regional and/ or intra-regional commercial cooperation between the actors (producers' unions, processors, retailers, etc.).

As a result of the multi-stakeholder and participatory process envisaged by the project, a total of 11 working meetings, introduction, information and focus group meetings were organized in 7 provinces with the contribution and participation of relevant institutions and organizations from 9 provinces in the region. In addition, interviews were conducted with more than 100 institutions/ organizations and individuals from the region and with 50 national/international institutions/ organizations and individuals outside the region, which have a direct or indirect relationship with the organic agriculture sector. In addition to South-eastern Anatolia Region, also other regions of Turkey and some countries in Europe have been included in the field works. In the value chain analysis prepared within the scope of the project, 45 products were discussed and it has been reduced to 8 products as a result of a triple "filtering". Current information has been evaluated through the filtration method and it was aimed to determine the most suitable products in terms of organic production under current conditions.

By the implementation of pilot projects, a pilot project pool has been established in the region in terms of both cooperation and clustering.

Role of Clustering in Rural Development

In the European Union Rural Development Programs, "clustering" appears as the grouping of independent enterprises, information-producing institutions, research centres, decision-making authorities and advisory actors. The cluster structure formed by such groups promotes economic and innovative activities, improves information sharing, increases effective communication and interaction among actors, and sets the starting point of programs and projects that promote knowledge and technology based clustering and regional specialization, within the framework of three main policy areas which are regional development, science and technology and industrial policies.¹

In this context, clustering is defined as a practical and functional method which provides employment, facilitates restructuring and adaptation that will increase the competitiveness of sectors, focuses on resources and establishes cooperation between the players.

The traditional cluster approach is based on Porter's (1998) definition² of clustering. According to Porter, clustering is

concentration of inter-correlated enterprises, suppliers, service providers and institutions with special expertise, within a specific geographical area. Cluster-triggered economic development is related with improvement of joint access capabilities to marketing intelligence, supply chain management and information flow, as a result of the synergy created by the players involved in the cluster. According to Porter's (2000)³ statement, clustering provides a competitive and collaborative environment for the players. On the other hand, clustering provides not only economic but also socio-cultural initiatives. In their 2014 study, Delgado, Porter and Stern⁴ have determined that strong clusters create higher employment and increase innovation performance⁵.

In rural areas and small settlements, socio-economic, environmental and cultural development is possible with strengthening of the local players. Fluctuations in the markets, changing consumer expectations, rising quality standards, and the need for sustainable resource use that is increasing with the impact of climate change, lead local governments and producers to develop common effective tools in order to increase the competitiveness and innovation capacity of today's agriculture. The cluster, which brings together farmers, agricultural industry, scientific institutions and governance institutions in rural areas, is considered as an effective model in this respect. The European Rural Development Network (ENRD) seeks to strengthen farmers and the local business environment through smart agricultural and food supply chains and recommends establishment of agricultural and food clusters within this framework.⁶

According to Porter, clustering is concentration of inter-correlated enterprises, suppliers, service providers and institutions with special expertise, within a specific geographical area.

²⁾ Porter, M. (1998) The Competitive Advantage of Nations. London: Macmillan.

 $^{3) \} Porter, M. \ (2000). \\ ``Location, competition and economic development: local clusters in the global economy", Economic Development Quarterly, 14, 15-31.$

⁴⁾ Becattini G. (2002). Industrial Sectors and Industrial Districts: Tools for Industrial Analysis, European Planning Studies, 10:4, 483-493.

⁵⁾ Delgado M., Porter M. E., Stern S. (2014). Clusters, convergence and Economic Performance, Research Policy, Volume 43, Issue 10, December 2014, Pages 1785-1700

 $^{6) \} For \ European \ Rural \ Development \ Network, see \ https://enrd.ec.europa.eu/sites/enrd/fi \ factsheet_supply-chains.pdf$

GAP ORGANIC AGRICULTURE CLUSTER PROJECT SCALABILITY AND REPLICABILITY TOOLKIT

Clustering is improving in the field of agriculture and food along with value chain strategies. For example, in Germany, Italy and Spain, clustering is used together with strategies to improve ability to access value chains, in order to improve fresh vegetable producers' competitiveness. Interaction between all actors in the agricultural value chain and the supporting institutions in the supply chain plays an effective role in dissemination of innovations, increasing competitiveness in the agricultural sector and effectively directing public support.

In the example of USA state of Colorado, The Cluster of Agriculture-Water-Food-Beverage-Bioenergy Innovation set up in the agricultural value chain, creates a new ecosystem and supports the innovation capacity in the agriculture and food system with an innovation-focused industrial cluster.⁸ Similarly, the relationship between agriculture cluster and innovation can also be seen in French agricultural industry cluster "Pôle de compétitivité Industries et Agro-Ressources". A company within this cluster develops patents for plant chemicals.⁹ Similarly, the agricultural business cluster in Almeria, Spain, is one of the largest agricultural concentrations in the world with a 30,000-hectare greenhouse area and generates economic activity of € 1.2 billion per year. In Almeria, with the structuring of clusters, production costs have been reduced and a special environment which provides spread of knowledge, experience and innovation has been created.¹⁰

In recent years, it is observed that agricultural and food clusters are the most significant factor of rural economic activities. Clustering encourages local production and the impacts of the acceleration it creates are felt in different areas of the economy. The rural agricultural and food clusters are observed as new formations where institutional intermediaries are faded from the scene and producers and consumers come together. Moreover, at this point local products gain value.

Allocation of the cluster model supports the economic, innovative, social, environmental and cultural development of rural communities.¹² Agriculture and food-oriented rural clustering ensures economic improvement of the farmers and also contributes to the growth of local enterprises, the emergence of new employment and investment opportunities and the growth of the regional economy both in terms of per capita income and increased trade volume.¹³ A study of the agricultural and food clusters in Savour Stratford and Savour Muskoka regions in Ontario, Canada, deals with the comparison of these two entirely different regions in terms of creative food clusters. Savor Stratford is a small and defined area where agricultural production, tourism and cultural industries are effective, while Muskoka is a region on a wide geographical area which is not suitable for agriculture, but has a high quality service in tourism and culture. In a study conducted on the region, it was concluded that speciality food clusters can be different for each region; in the clusters based on the definition of a small rural region, the competition advantage stipulates the processes of organization, access to finance and branding based on this definition; in large regions, creating synergy among actors working in agriculture and supportive sectors and improving cooperation is important.¹⁴

⁷⁾ Riedel B., Bokelmann W., Canavari M. (2009). Combining cluster and value chain approaches to analyze the competitiveness of fresh vegetables producers: case studies in Germany, Italy and Spain, Paper prepared for presentation at the 113th EAAE Seminar "A resilient European food industry and food chain in a challenging world", Chania, Crete, Greece, dates: September 3 - 6, 2009

⁸⁾ G. Graff, A. Berklund, and K. Rennels. (2014) The Emergence of an Innovation Cluster in the Agricultural Value Chain along Colorado's Front Range, Colorado State University.

⁹⁾ Giner, C. (2009), "New Avenues of Value Creation in the Agro-Food Sector", OECD Food, Agriculture and Fisheries Working Papers, No. 13, OECD Publishing. doi: 10.1787/221300175226

¹⁰⁾ Almeria kümelenmesi için bkz https://geographyfieldwork.com/AgribusinessCluster.htm

II) Woods, M. (2005). Rural geography: Processes, responses and experiences in rural restructuring. London: SAGE

¹²⁾ Bowen S., De Master K. (2011). "New Rural Livelihoods or Museums of Production? Quality Food Initiatives in Practice." Journal of Rural Studies 27(1): 73-82. Bu noktada bir diğer önemli tartışma noktası elbette tarımsal ve gıda kümelenmelerinin oluşturulduğu kırsal bölgenin ekonomik performansıdır. Literatürde az gelişmiş ülkelere yönelik örnekler, küçük tarım işletmelerini, çoğunlukla aile işletmelerinin üzerinden kümelenmeyi incelemekte, bu çalışmalarda tarım sistemi tipolojileri daha kısıtlı bir büyümeyi öngörmektedir.

¹³⁾ Lee A. H. J., Wall G., Kovacs J. F. (2015). Creative food clusters and rural development through place branding: Culinary tourism initiatives in Stratford and Muskoka, Ontario, Canada, Journal of Rural Studies, Volume 39, June 2015, Pages 133-144.

Rural agriculture and food clusters are geographically defined agricultural production areas with unique cultural and natural resources.¹⁵ Accordingly, the EU Rural Development Policy envisages the development of food chain organizations to cover the processing and marketing of agricultural products. In rural development, projects that create added value for agricultural products and local markets are included.¹⁶ Local agriculture and food production and local cuisine are the focus of local culture clusters. France and Italy are defined as traditional gourmet countries.¹⁷ In this context, the "Slow Food Movement" experienced in Italy, can be seen as a rural development movement which combines local production with cuisine culture.¹⁸ In Italy and France, rural food clusters are combined with regional geographic and cultural characteristics and are presenting agricultural production as a historical and cultural value. Food clusters provide new customers to local markets, as well as raise awareness for local identities and raise national and international recognition for local agricultural products. ¹⁹



Benefits of Clustering

- Increases productivity in rural areas by facilitating access by farmers and other actors in the value chain to basic and specific inputs, to information and public services.
- Increases and accelerates innovation in rural areas and agricultural sectors by collaborative research, strengthened access to information and increased competitiveness.
- As a result of competitiveness in clusters, new businesses emerge, and by increasing demand for services produced and attracting new investors, dynamic business areas emerge and employment is generated.
- Facilitates have better and more efficient access to infrastructure, capital, financial products, technology, human resources and other important inputs in rural areas.
- Significantly reduces the costs of input and procurement services by the benefits of scale economy such as geographically closness, joint marketing and mass purchase. It is very important in terms of reducing the costs arising from dispersed activities in large-scale areas such as agricultural sector.
- Being in a cluster provides its members with access to advanced information about new technologies, emerging markets and developments in input and supply chain.
- When clusters become competitive and effective in their field of production, they form an area of attraction for domestic and foreign investors. Such a case increases the value of cluster and contributes to the growth of the cluster by also increasing the investment capacity.
- Agricultural enterprises in an active cluster gain rapid success in terms of recognition and brand awareness in the markets.

¹⁵⁾ Chiffoleau , Y., Touzard, J. M. (2014). Understanding local agri-food systems through advice network analysis. Agriculture and Human Values, 31, 19-32. 16) European Network for Rural Development (2016). Smart and Competitive Food and Drink Supply Chains. Luxembourg: Publications Office of the European Union.

¹⁷⁾ Ibid 39.

¹⁸⁾ Tregear A., Arfini F., Belletti G., Marescotti (2007). Regional foods and rural development: the role of product qualification. Journal of Rural Studies, 23:1, 12-22. 19) Lee A. H. J., 2015, op.cit

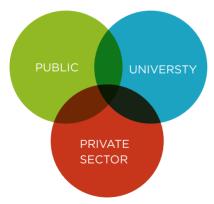
Clustering Model Based on Triple Helix Cooperation Model

The Triple Helix clustering model is a theoretical model that is in the axis of university, industry and public and is based on the advanced cooperation of this triple structure. In this model, clustering defines the development of activities in a complex regional system through innovation.

The Triple Helix clustering model is a theoretical model that is in the axis of university, industry and public and is based on the advanced cooperation of this triple structure.²⁰ In this model, clustering defines the development of activities in a complex regional system through innovation.21 The prediction is that; national, regional, sectoral and technological innovative systems should be designed to trigger innovation within a conceptual model based on industry, public and university cooperation (see Figure 1). In the Triple helix model, a co-operation emerges in all dimensions where players interact with each other. Triple helix is essentially a model of systemic convergence and cooperation. Each player exists with its own system and the cooperation between such systems constitutes the dimensions mentioned. Players support collaborative production by creating an innovative, entrepreneurial and dynamic new ecosystem with their own talents, skills and capacities. The basic principle of this dynamic structure is ensuring sustainable interaction between public, industry, university or civil society systems and enabling different systems to establish a value-added partnership. In terms of rural development, establishment of such multidimensional

innovation systems and implementation of innovative cooperation model are of great importance.²²

Etzkowitz and Ranga (2015) present the Triple helix system as a valuable model for transition to a knowledge-based economy in cooperation with universities, industry and public, and create a new corporate playground. This new institutional system is called "Triple Helix Institutional Area." This area reveals three benefits: economic improvement, innovation and a new ecosystem that will make these two outputs sustainable



Contributions of the Triple Helix Ecosystem

İnovasyon Girişimcilik Ekonomik İyileşme Yenilikçi İşbirlikleri

Figure 1: Triple Helix Institutional Area

²⁰⁾ Etzkowitz, H., Leydesdorff, L. (2000) The Endless Transition: A "Triple Helix" of University-Industry-Government Relations, Minerva 36(3) (1998) 203-208. Etzkowitz, H., Ranga, M. (2010) The Dynamics of Innovation: From National Systems and 'Mode2' to a Triple Helix University – Industry – 20) Government Relations. Research Policy, 29(2), 109-123;. Triple Helix System for Knowledge-Based Regional Development: From 'Spheres' to 'Spaces'. IN: Proceedings of the VIII Conference Triple Helix Conference, Madrid.

²¹⁾ Etzkowitz, H., Ranga, M. (2015) Mitra, J., Edmondson, J. (Ed.). Entrepreneurship and Knowledge Exchange. New York: Routledge.107-148 22) İbid.

Considering all processes from farm to table, by its nature, agriculture is a sector with many actors and requires responds to many different problems. Triple helix implementations for the agricultural sector are valuable in this respect. For sustainable development in agriculture, stakeholders in the sector should follow-up and adopt market-oriented new information and innovative developments. It is, of course, a more accessible goal in the cooperation ecosystem. By implementation of the Triple helix model, different stakeholders can reach a feeling of unity towards the same goal.²³ In a triple helix survey conducted in the horticulture region in Netherlands, it was observed that different partners should develop a well-established co-operation relationship and a common project language to trigger innovation in cooperation based on the triple helix model.²⁴ In the development of this common language, it is recommended to prioritize realization of less detailed projects and to gain common experience.²⁵

Implementation of the triple helix cooperation model within the cluster constitutes a different relationships network over the players within the cluster such as industry, region, enterprise, stakeholder, innovation actors and intermediary institutions.²⁶ In the competitiveness research on wine clusters in Brazil and Chile, it was observed that the triple helix cooperation model supports establishment of new enterprises in the cluster, facilitates cooperation within the cluster and promotes introduction of the new technologies. ²⁷

²³⁾ Sol J. Beers, P. J. Ve Wals, A. (2013). Social learning in regional innovation networks: trust, commitment and reframing as emergent properties on interaction. Journal of Cleaner Production, 49, 35-43.

²⁴⁾ Geerling-Eiff F. A., Hoes A.C. ve Dijkshoon-Dekker. (2017). Triple helix networks matching knowledge demand and supply in seven Dutch horticulture Greenport regions. Studies in Agricultural economics, 119, 34-40.

²⁵⁾ İbid 38.

²⁶⁾ Todeva E. (2014). Network Management and Governance, in R. Alhajj ve J. Rokne (Eds), Encyclopedia of Social Network Analysis and Mining, 1092-1101, New York, NY:Springer.

²⁷⁾ Armando E., Boaventura J. M. G., Todeva E. Ve Pereira C. E. C (2017). Triple helix influence on competitiveness factors: comparison between wine clusters in Brazil and Chile. Review of International Business, 12:3, 43-60.

METHOD AND APPROACH OF THE PROJECT

he method set in the Organic Agriculture Cluster Project in the GAP Region is the triple helix cluster model and has been carried out within the framework of a rural cluster-oriented approach. The project's cooperation model is based on the triple cooperation model established between the public, UNDP and development agencies (see Figure 22).

Figure 2. GAP Organic Cluster Project Triple Helix Institutional Area



The project has been carried out by South-eastern Anatolia Project Regional Development Administration (GAP RDA) with the technical assistance of United Nations Development Program (UNDP) and active participation of three Development Agencies. At this point, the project has brought together international, national and regional systems in three main axes and implemented pilot projects in accordance with the cluster targets to increase competitiveness in line with the priorities of the region. It is observed that the synergy created by the project has revealed an innovative and dynamic, multi-stakeholder and efficient ecosystem that takes into account the institutions working and producing together.

The contributions of GAP Organic Agriculture Cluster Project can be evaluated under two components: (i) The clustering approach has initiated a significant desire and initiative in the region, on new cooperation, high interaction among stakeholders and sustainable communication. (ii) As a result of clustering being supported by a legal personality, institutionalization has been achieved.

GAP Organic Cluster Association (GAP ORKÜDER) has been established on June 3, 2016. 28



Founding Purpose of GAP ORKÜDER

GAP Organic Cluster Association (GAP ORKÜDER) has been founded with the aim of; protecting the common interests of the members by gathering under a single roof the real and legal persons operating in organic agriculture and organic textile; developing cooperation and solidarity between them; organizing studies on cluster formation and strengthening by assisting studies such as needs for raw materials, input, machinery-equipment supply, logistics, marketing, promotion, training, research and development, using financial funds, cooperation with local and national networks etc.; contributing to the protection of public health and environment and to sustainable development by studies promoting and disseminating the production, consumption and use of organic products."

Clustering Structure

Considering the stakeholders in cooperation with GAP ORKÜDER by the acceleration created by Triple helix cooperation model, it is observed that an inclusive and dynamic cooperation environment is provided covering all stakeholders in the region in full compliance with the model.

Institutions in cooperation can be listed as follows: GAP Regional Development Administration, United Nations Development Program (UNDP), Ministry of Food, Agriculture and Livestock, Adıyaman Provincial Directorate of Food, Agriculture and Livestock, Diyarbakır Provincial Directorate of Food, Agriculture and Livestock, Şanlıurfa Provincial Directorate of Food, Agriculture and Livestock, Gaziantep Provincial Directorate of Food, Agriculture and Livestock, Karacadağ Development Agency, İpekyolu Development Agency, Dicle Development Agency, Dicle University Rectorate, Harran University Rectorate, Tut Chamber of Agriculture, Eğil Organic Agricultural Producers Union, Pistachio Research Institute, Şırnak Beekeepers Union, Kilis Province Organic Olive Producers Union, Besni Organic Fruit Producers Union, Şanlıurfa Eyyubiye Municipality, Yusufcan Tarım Ürunleri San. Tic. Ltd. Şti., Kilis Chamber of Agriculture, GAP Ecological Agricultural Development and Social Solidarity Association, Adıyaman Chamber of Agriculture, Adıyaman Besni District Directorate of Food, Agriculture and Livestock, Adıyaman Beekeepers Union, Dicle Organic Fruit Producers Union, Şanlıurfa GAP Agricultural Research Institute, Diyarbakır Metropolitan Municipality, Eğil District Directorate of Food, Agriculture and Livestock, Yeditepe University Rectorate, Derik Olive Producers Union, Adıyaman Commodity Exchange, Gaziantep Commodity Exchange, Kilis Municipality, Şanlıurfa Chamber of Agriculture, Diyarbakır GAP International Agricultural Research and Training Centre.

On the other hand, the experience gained through the project, the cooperation adopted and contribution of the culture of being a project stakeholder improved the ability of the region to realize new projects with different financing opportunities. In this process, the increase in size and depth of the cooperation between GAP RDA and UNDP within the scope of GAP Organic Agriculture Cluster Project has resulted in contribution to both local economic development and regional restructuring. An example can be that; in order to develop the pilot project in Diyarbakır Eğil District Ilgın Village, a new project has been conducted to develop irrigation infrastructure within the scope of "New World: Sustainable Human Development Initiatives" carried out in cooperation with Coca-Cola and UNDP (110,000 USD). Similarly, another example is the support given by United Nations High Commissioner for Refugees (UNHCR) to the Kilis Organic Olive Oil Plant within the scope of Organic Agriculture Cluster Project (1,200,000 USD). These examples have emerged as project applications with the goal of access to different national and/or international funds.

SCALING, LITERATURE AND IMPLEMENTATIONS

The World Bank defines scaling as "expanding, adapting and sustaining successful policies, programs or projects in different locations and over time to reach a greater number of people". Definition of International Institute of Rural Reconstruction (IIRR) is; "To provide more quality, equitable, accessible and longterm benefits to more people over a wider geographical area (IIRR, 2000). Consistent with the definition made by Hartmann and Linn (2008) International Fund of Agricultural Development (IFAD) has also developed its own definition; "To reach more rural poor by expanding successful policies and projects, by replicating and sustaining in different times and geographies."

The starting point of all these definitions forms the multidimensional nature of scaling. Because scaling is not only about taking small projects to large scale, it is also about creating initiatives that will create multiplier effects on a larger scale, such as institutional reforms. In summary, scaling includes parts such as quality, scale and sustainability of the impact of a program or pilot project/s.

World Health Organization (WHO) defines scaling as the expansion and replication of innovative pilot or small-scale projects in order to extend access to more people and to enhance the impact of intervention, and technically assesses the factors that make scaling successful within the frame of scaling strategy.³² In this respect, the scaling strategy should include activities that can affect the variable factors or that can change in accordance with the new region or target group, but should also take into account the factors that cannot be changed.

In the Report on Scalability and Replicability of Innovation in Smart Cities, published by the European Commission, the issues to be considered for replicability are grouped under the headings of technical, financial and economic, legal and administrative and social (stakeholder-oriented) (EC, 2016).³³

Research and experience for scaling in rural development is limited. There are few initiatives to develop a basic framework for scaling projects in the areas of poverty, agriculture, health and local finance.

²⁹⁾ Holcombe S. (2012). Lessons from Practice: Assessing Scalability. Washington: World Bank.

³⁰⁾ International Institute of Rural Reconstruction (2000). Going to Scale: Can We Bring More Benefits to More People More Quickly? Conference highlights April 10-14. Philippines.

³¹⁾ Hartmann A., and J. Linn. 2008. Scaling Up: A Framework and Lessons for Development Effectiveness from Literature and Practice. Wolfensohn Center for Development, Working Paper 5. Washington, D.C.: Brookings Institution.

³²⁾ WHO (2016). Scaling up projects and initiatives for better health: from concepts to practice. Eds. N. Gravesen, Denmark.

³³⁾ EC (2016). Regional Ecosystem Scoreboard Methodology Report, European Cluster Observatory.

The scaling defined for the first time by Uvin (1995) may include one or more of the following scaling types. 34

- Increasing the number of customers/stakeholders given services / provided benefit within the same geographical region as numerical scaling
- Replicating/implementing the program in other geographic region(s) by horizontal scaling
- Including different areas/functions into the model by functional scaling; for example, adding environmental dimensions to the rural development project
- Enlarging the institution responsible for the program by institutional scaling; creating new vertical and horizontal institutions
- Expanding to country level from local level by vertical or political scaling

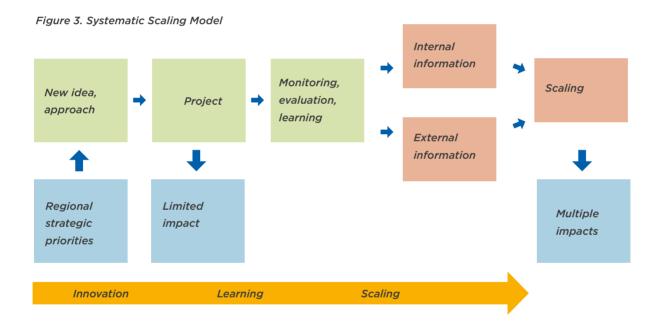
In scaling studies, it is important to determine the targeted scale, to be realistic in doing this and to consider the model presented. As the scale gets larger, it may take longer time to perform. Hartmann and Linn (2008) have determined that it may take 5-10 years for programs to be successfully raised to the country scale.

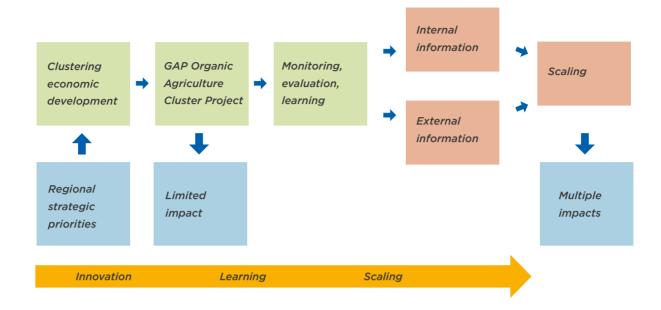
It is expected that the most important points to be considered in scaling are the following:

- To be conducted within the framework of a specific vision and strategy
- Economic sustainability
- Social sustainability
- Environmental sustainability
- Continuous improvement
- Measurable improvement, impact, etc
- To be multi-faceted, multidimensional and to cover the value chain

SYSTEMATIC SCALING MODEL

he Systematic Scaling Model developed by Linn et al. (2010) is a model that reflects the scaling process and is often used in the literature. Based on this model, the following model for GAP Organic Agriculture Cluster Project has been developed (see Figure 3). 35





The model defines the process phases as innovation, learning and scaling. A development program is being developed in order to improve the competitiveness and welfare level of the stakeholders determined by specific target(s). The program developed is usually for a specific region and may include one or more innovations. Such innovations aim to differentiate the existing functioning in that region in a way to achieve primary objectives of the program. In the innovation phase, the current implementation is used as a base in the new initiative or pilot project and a new idea, model or approach is added to it. The definition of innovation here should be considered as a comprehensive one.

In the scaling studies, the definition of innovation is accepted as given in OSLO Guidelines of OECD. In this context, innovation in the agricultural sector includes; developing and implementing new products, ideas, samples and technologies (such as seed growth techniques); and process innovations (developing new methods to train farmers, providing access to technology, developing new storage or logistics methods) and innovative policies (such as basin-based production, land consolidation). Innovation can occur in various ways. Different types of innovation in scaling studies should be evaluated within the framework of dimensions they affect and dynamics they create. For example, many different dimensions of innovation should be considered as; training of the producer is innovation in human capital; use of new technologies in production is technological innovation; manufacturing of products that have not been previously produced with innovative processes is product innovation; improving the harvesting process is process innovation; a minimum quota for women's employment is social innovation etc.

When the program is implemented with various pilot projects, the scaling method should include monitoring and evaluation of the project within the scope of supporting factors, areas and dimensions. Monitoring and evaluation enable new ideas for designing of scaling model design and more successful implementation.

This monitoring and evaluation phase is a learning process for scaling and replication. During the learning phase, implementation of the pilot project or model is monitored and evaluated, and as a result, the information management process is developed and the lessons learned are determined. In the scaling and replicability phase, the model and approach developed during the pilot project phase are scaled. Successful pilot projects and successful areas constitute important inputs of

the scaling model. On the other hand, the failing pilot projects or the pilot projects which are completed without fully achieving the objectives contain the important lessons to be taken.

Another important aspect of the systematic approach is that this model contains several cycles. The triple process in this approach is actually non-linear but circular. The model is a dynamic process that allows continuous improvement with various sub-feedback stages within itself.

On the other hand, it is not necessary to scale or replicate each innovation, or each scaling model may not contain innovation. Pilot projects that are not successful or that did not fully reach the target will create important feedback, if they are considered as part of the learning process.

Scaling and replicability may include two types of errors (IFAD):39

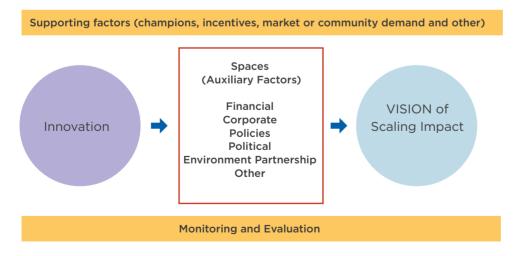
Error Type 1 - Very few scaling or underutilized potential due to disregarding scaling.

Error Type 2 - Incorrect scaling. It usually involves scaling more than it should be. For example, country-wide scaling a model/approach without testing a sufficient number of pilot projects or tests, even without modelling regional differences or developing adequate learning processes can create a Type 2 Error.

Two main factors that need to be considered in the scaling process are highlighted (see Figure 4):

- **1- Key drivers -** Powers/factors supporting the scaling process
- 2- Spaces Factors affecting the success of scaling model

Figure 4. Main factors of Systematic Scaling Model



Drivers

Idea(s) and model(s): There must be at least one idea or model working on a small scale.

Vision and leadership: A vision/visionary leader who sees that scaling up a new idea/model is necessary and useful will make scaling better and more successful.

External factors: Political or economic crises or pressures/expectations from external actors (such as international actors that provide funding) can take scaling forward.

Incentives and accountability: Incentives such as awards, pressure from political processes and various assessments are important factors that drive actors and institutions to scaling. Monitoring and evaluation are important parts constituting performance criteria, incentives and accountability.

Spaces

For scaling to be successful, the spaces that might be an opportunity, pose a threat or needs to be strengthened for the expanding of the initiative must be defined. Once such spaces are defined, experiences gained in the current program and pilot projects included in such areas will be analyzed and used as a guide in scaling the results.

Spaces within the Framework of Systematic Scaling Model

Based on the Systematic Scaling Model, the spaces that can be used in scaling of the development programs are summarized below.

- **Institutionalization:** The institutional and organizational capacity to implement the scaling process should be established.
- **Governance:** The basic values, norms and methods that will manage the scaling process should be determined within the framework of the roles and responsibilities of relevant institutions.
- **Financial:** Financial resources should be mobilized for scaled initiatives and on the other hand, the level of scaling should also be consistent with the source level.
- **Political:** Scaling should be implemented in accordance with the policy and legal framework for scaling activities. Political support should be provided for scaling by initiatives with key stakeholders.
- Cooperation: Creating and encouraging partnerships can strengthen scaling.
- **Cultural/Social:** Possible cultural/social barriers or support mechanisms should be identified and the scaling should be aligned with such factors. Locally important social stakeholders, such as various groups, social communities and local opinion leaders are the critical dimensions of scaling. Such stakeholders can produce innovative ideas, direct the local people positively, motivate them and play an active role in creating the required demand and environment.
- **Learning:** Information should be created on all activities such as practices, processes, successful and unsuccessful projects in scaling studies. Monitoring and evaluation, information sharing and training methods should be used during the learning process.
- **Environment:** Environmental impacts of pilot projects subject to scaling should be considered. Within this framework, it should be ensured that the projects with useful results are scaled and the stakeholders model the successful pilot project outputs.

It may not be necessary to examine all the drivers and spaces for each program/model in the same detail. Even, identifying and focusing on priority factors will make scaling more effective.

In addition to the fields outlined in this section, dimensions can be defined specifically for each program, region or culture. Identifying and analyzing specific areas will make a significant contribution to the success and effectiveness of the scaling.

For rural development projects, addition of the following innovative dimensions to the existing dimensions will make the assessment more comprehensive.

- **Sustainability:** The determinant for ensuring sustainability of the activities done and impacts created during the project is to ensure that the impact and benefit by the project continues after completion of the project. Financial, political (ensuring that local or central government maintains effects of the project) and corporate sustainability (dissemination of outputs, development of certain capacities by the institution, maintaining the utilization by the institution of such outputs) may be the sustainability outputs targeted in this direction. However, development of the culture of cooperation is of great importance for sustainability.
- Business Intelligence: Taking advantage of business intelligence dimension in scaling of the project will bring advantage of measuribility to scaling studies. In general, business intelligence can be defined as collecting, storing, analyzing the data, assigning the necessary access authorization and using the data and processing the results in strategic decision-making processes. On the project basis, the measurable results after creation of quantitative decision support systems on issues such as, determining the dimensions that affect the project effectiveness primarily by collecting and evaluating data on pilot projects; determination of the dimensions that pilot projects are usually strong and weak and comparative efficiency and effectiveness analysis of projects, will ensure that successful dimensions and applications are included in the scaling model.
- Value Chain/Business Development: The business development dimension, in other words
 value chain development, will make the model more integrated by ensuring integration
 of different processes in the value chain into the scaling model. This dimension evaluates
 activities towards mass promotion, marketing, market research, geographical indication,
 branding, production, processing, logistics; innovation research, information or technology
 transfer, adaptation of innovations.



SPACES SPECIFIC TO GAP ORGANIC AGRICULTURE CLUSTER PROJECT

Institutionalization

he technical assistance provided by GAP Organic Agriculture Cluster Project and GAP RDA for functioning of the cluster governance structure should be more intense and should last more as long as possible, in order to ensure sustainability of the said governance structure and institutionalization studies.

When the practices that benchmarks the clusters and cluster managements regarding the institutionalization of the clusters are reviewed, two results are obtained:

- It is observed that obtaining legal status is a prerequisite for the institutionalization and success of clusters.
- It is observed that institutionalization and financial sustainability of the clusters go hand in hand and are the elements that support each other.

In this context, in accordance with the decision taken in the Executive Committee Meeting of GAP Organic Agriculture Cluster Initiative (June 15, 2015), legal entity of the cluster has been structured as an association by the name "GAP Organic Cluster Association". The association has been established in 2016. The Board of Directors of the Association has been elected and started its duties. Strategic plan study of the association is about to be completed.

Considering the pilot projects, it is observed that the activities towards organization are mostly related to production. Pilot projects with institutionalization activities for R&D are below 10%. Projects that include institutionalization activities for the value chain other than production remained similarly low.

In scalibility, in addition to such activities, it is also important to integrate innovative and smart technologies during institutionalization processes of the projects.

Governance

The governance structure for planning, implementing and co-ordinating the activities specified in the Cluster Roadmap include representatives of the public sector, private sector, academies and non-governmental organizations. In this context, the Steering Committee, Executive Committee and Working Groups have been established for GAP Organic Agriculture Cluster. Strong institutions such as GAP Regional Development Administration and Development Agencies have an active role in the project. Also desks for project preparation and management are available. The cluster roadmap has been prepared and the governance structure has been defined (see Figure 5).

Figure 5. Cluster governance structure



By the Steering Committee carried out in 2015, the number of working groups was reduced to two in the framework of Thematic Specialization.

- Organic Food Working Group
- Organic Textile Working Group

Following were decided in the Executive Committee meeting held on June 15, 2015;

- Establishment of a legal entity for the institutionalization and sustainability of GAP OAC Project,
- Such legal entity would have an association status under the name of "GAP Organic Cluster Association".

In accordance with this decision, GAP Organic Cluster Association (GAP ORKÜDER) has been established on 3 June 2016 in order to ensure institutionalization and sustainability in organic agriculture cluster works. The Association currently has 49 members consisting of representatives from public institutions, unions, cooperatives, universities and private sector. The activities of Organic Agriculture Consulting and Dissemination Centre (OTADAM), organized within the scope of the project, are planned to be continued within GAP ORKÜDER.

Advocacy

Within the scope of the project, advocacy and lobbying activities were carried out to promote organic production and consumption. In this context, the most concrete example is the Organic Cotton Report prepared as a result of the workshops and meetings held with the members of cluster. The report was shared with relevant Ministries and has played an important role in the creation of supports for organic cotton.

The aim of Organic **Textile Working Group** is; increasing the quality and production of organic cotton, processing of cotton and putting in the market with added value, raising awareness of the consumer, in accordance with the cluster vision, making South-eastern Anatolia Region an attraction centre of Turkey with leading, innovative, competitive, organic production. Working group consists of representatives of organizations from Şanlıurfa, Gaziantep and Diyarbakır provinces dealing with organic cotton production, ginning and textile production and representatives of academia and institutions and organizations providing technical and financial support. An Organic Cotton Report was prepared in line with the purpose of **Working Group and shared** with the relevant Ministry.

Financial

A series of meetings were held with the Dicle, Karacadağ and İpekyolu Development Agencies in the region, to prepare the Financial Support Program for GAP Organic Agriculture Value Chain Pilot Practices. As a result of the meetings, draft guidelines were prepared to be implemented firstly in Karacadağ and İpekyolu Development Agencies and shared with the abolished Ministry of Development in November 2014.

The first phase of Financial Support Program was implemented in 2015 in cooperation and coordination with the İpekyolu Development Agency and the Karacadağ Development Agency under the coordination of GAP Regional Development Administration. The second phase continued with Dicle Development Agency and the third phase with İpekyolu Development Agency.

The total amount allocated for Financial Support Program for GAP Organic Agriculture Value Chain Pilot Practices for 2015 and 2016 was 9 million TL.

In order to develop qualified project proposals within the framework of the program objectives, sector priorities, needs and regional potentials, it has been foreseen that GAP OTADAM provides free technical guidance and information services for all applicants. The issue was included in the guidelines and has been put into practice. In addition to this support, Help Desk services in project preparation and project management were provided by both agencies.

In accordance with regional and sectoral objectives, Financial Support Program for GAP Organic Agriculture Value Chain Pilot Practices is being carried out within the framework of a multi-year program, by İpekyolu Development Agency, Karacadağ Development Agency and Dicle Development Agency in coordination with GAP Regional Development Administration. Financial Support Program covers provinces of the region such as Adıyaman, Gaziantep, Kilis, Diyarbakır, Şanlıurfa, Mardin, Batman, Siirt and Şırnak. A total of 33 pilot projects were implemented within the scope of the programs. (Pilot projects are detailed in Annex 1.)

The inclusion of strong institutions such as GAP Regional Development Administration, Development Agencies, United Nations Development Program (UNDP) is a solid guarantee for the project.

The inclusion of profit and non-profit pilot projects in the program is a plus for increasing the diversity and distributing the financial risks.

In addition to these strengths, there are some problems on pilot projects level. For example, the Organic Karacadağ Rice Packaging Project has some problems in meeting the co-financing for rice packaging.

Political

Organizing working meetings in 7 provinces in the Region during the analysis phase with an approach of including different stakeholders; conducting interviews with more than 100 national and international institutions and individuals in the region and with 50 national and international institutions and individuals out of the region; including other regions of Turkey and some countries in Europe into the field

Organic Karacadağ Rice Packaging Project

The project prepared by Siverek District Governorship was found successful and supported under the Financial Support Program. Project covers establishment of a cooperative, participation to fairs and technical visits and the purchase of packaging machinery and equipment. However, during the implementation phase of the project, due to the change of local authority and the inability to find co-financing source, only the participation to fairs and technical visits part of the project were completed and activities for packaging could not be realized.

work are important positive aspects to provide political support and minimize oppositions.

On micro basis, more detailed studies may be required for pilot projects and the importance of sustainability of projects may be emphasized more. In this context, Eyyübiye Organic District Market Project (Pilot Project 1) and Organic Karacadağ Rice Packaging Project (Pilot Project 3) are examples of restrictive experiences in some pilot projects. In the first project, after the planning, the municipality stated that it will use the area allocated for the market for a different purpose, and in the second project, with the change of district governor, the project was revised and limited capacity development visits could be realized.

Cooperation

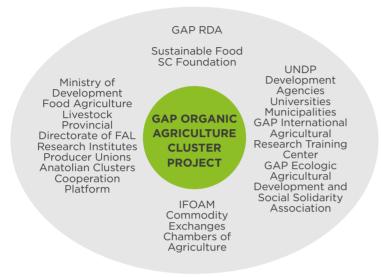
Design and implementation of the project is based on cooperation, and a wide-ranging cooperation has been provided with public institutions, universities, research organizations, non-governmental organizations, private companies, unions and cooperatives and individual producers in the region.

Following are the institutions and organizations which are cooperated and being tried to establish bilateral relations in the implementation of capacity building activities of GAP OAC Project.

- Cooperation with IFOAM: "18th IFOAM World Organic Agriculture Congress" was attended by Bronze Partnership Sponsorship. IFOAM participated to the GAP Organic Agriculture Forum for Sustainable Development organized by GAP OAC Project and GAP ORKÜDER on 16-17 November 2017 in Şanlıurfa via video to support the activities.
- Cooperation with ipekyolu, Karacadağ and Dicle Development Agencies: Regional Development Agencies have been involved in and contributed to the working groups since the beginning of the project. By a protocol signed in 2015, the implementation of Financial Support Program for GAP Organic Agriculture Value Chain Pilot Practices has been initiated by development agencies under the coordination of GAP RDA. In addition, a separate protocol was signed for the participation to the fairs.
- Cooperation with ETO and the Turkish-German Cooperation Project: Within the framework
 of bilateral cooperation protocol signed by ETO and GAP RDA, training was planned for the
 agricultural consultants in GAP Region. However, such studies could not be concluded due to
 the financial obligations ETO requested from GAP RDA.
- GAP Organic Agriculture Cluster Association: Cooperation was made with GAP Organic Cluster Association (GAP ORKÜDER) within the scope of Strategic Planning Trainings held in Diyarbakır on 17-18 July 2017 and in Gaziantep on 22-23 January 2018 and within the scope of Organic Agriculture Forum for Sustainable Development held in Şanlıurfa on 16-17 November 2017. The GAP organic web-portal and logo usage rights were transferred to GAP ORKÜDER by GAP RDA through signed protocols.
- Anatolian Clusters Cooperation Platform: The project is a member of the Executive Committee
 of Anatolian Clusters Cooperation Platform (AKIP) and participates in and contributes to the
 activities carried out.
- Sustainable Food Supply Foundation: In 2018, an application was made to the Civil Society Dialogue 5th Term Call Program in partnership with the Sustainable Food Supply Foundation, a non-governmental organization operating in the Netherlands.
- **Pilot Projects and Cooperation between Members:** Within the scope of implemented Financial Support Programs, project applications were made and implemented jointly. At the same time, with the cooperation between members, information sharing is provided, consultations are carried out and the consciousness of acting jointly develops. As the project is geared

towards cluster development, cooperation is intensely observed also in pilot projects. In 30% of the pilot projects, significant cooperation has been established that can play an active role in the success of the project (see Figure 6)

Figure 6. Cooperation developed under the project



In many projects, it is observed that cooperation has been developed among different players, but such cooperation is still in the early stages of the cluster. Clustering processes may require a process of up to 10 years to complete.

In terms of international cooperation, it is of great importance that the project is basically constructed in cooperation with UNDP. Access to international funding support seen generally in rural development projects is a valuable contribution to effectiveness and sustainability of the project.

Cultural/Social

Realization of a project of this size will increase competitiveness of the region and will contribute positively to both welfare and social development.

When evaluated in terms of poverty, the project's dimension of contribution to welfare can be discussed in more detail. Data can be generated for scaling, by analyzing the economic impacts and evaluating the results after the project.

Directing the young population to agriculture and raising awareness on organic farming are also important issues. The average age of the farmers is above mid-age and there is a need to increase the interest of young people in agriculture. There is no pilot project for young people within the framework of the project. Only one pilot project includes young people as a beneficiary. Similarly, women who are important to be among the primary beneficiaries are involved in four pilot projects.

Gender Mainstreaming

While planning all the activities within the scope of the project, prioritization was done in order to include women participants and women entrepreneurs were supported. While planning Competition on Organic Agriculture for Sustainable Development, a method has been adopted to reward also women entrepreneurs in the relevant categories.

In addition, GAP OAC member Assoc. Prof Ebru Sakar was also included in the "Five in Five" campaign with a theme of gender equality, which was organized by UNDP Turkey on March 8, International Women's Day in order to draw attention to global Sustainable Development Goals number 5.

In the campaign, stories of five strong women from Turkey's five different locations were reflected. Personal strengthening journey of Assoc. Prof. Ebru Sakar who produces organic olives and olive oil in Şanlıurfa and brings in the light the almost extinct olive varieties of the region and the inspiration she gives around as a woman were explained within the scope of the campaign.

Capacity Building

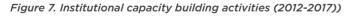
Institutional capacity building activities have been implemented with the aim of supporting cluster actors technically, facilitating their access to information, creating an environment for members of common interest to meet each other and develop cooperation and to maintain the sustainability and development of the cluster after completion of the project.

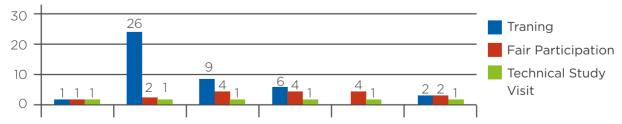
Institutional capacity building activities within the scope of GAP OAC Project were carried out under the following components.

- Trainings
- Participation to Fairs
- Natipnal Technical Study Visits
- International Technical Study Visits
- Cooperation with Current Projects and Networks
- Development of Training Materials
- WhatsApp Group for Members of GAP Organic Agriculture Cluster

The institutional capacity building activities, especially the training activities, were implemented intensively between the years 2013 and 2015. In the projects supported within the scope of Financial Support Program which was implemented in 2015, mostly product-based trainings were started to be implemented by the project owner individuals and organizations and fairs were visited.

Within the scope of the project, a total of 66 activities were organized in total between November 2012 and December 2017, including 44 trainings, 17 fair participations (12 national and 5 international), 6 technical study visits (6 national and 3 international). Figure 6 shows the number of activities performed by years. The trainings included 1,904 participants, fairs had 752 participants, technical study visits hosted 100 participants and capacity building on organic farming was provided for a total of 2,756 people (see Figure 7).





The target group of institutional capacity building activities is mainly composed of stakeholders who are members of the cluster and are in the pilot project areas. All stakeholders (farmers,

consumers, technical staff etc.) from 9 provinces related to the subject were ensured to participate to the general organic agriculture trainings given in cooperation with the GAP Agricultural Training and Dissemination Project (GAP TEYAP) and to Izmir Organic Products Fair organized in 2016-2017.

Through national and international technical studies, it was aimed that all stakeholders, primarily the regional producers, are encouraged by the practices in other regions or countries, gain experience and increase their level of knowledge.

The training notes, related documents and presentations were shared with the participants in each training. The following materials prepared with the support of stakeholders of GAP OAC Project were also used in the trainings:

- Biological Control Methods in Plant Production by Organic Agriculture Method
- Organic Agriculture Legislation and Certification Rules
- Critical Pests and Pest Control Methods in Organic Vineyard, Almond and Cherry Production

Inclusion of training activities in a large part of the pilot projects is an important contribution. The trainings were mainly at the level of technical and vocational education. The result will be directly reflected as increase in productivity and quality in production.

However, considering the subject and extensiveness of the trainings, there are some points that are open to improvement. The trainings should be diversified as much as possible and they should cover important issues such as the value chain and the position of production in the value chain, agricultural management, the use of innovative technologies in agriculture and the development of an innovative perspective in the farmers.

Training methods should also be elaborated and spreading training by using different educational technologies should be included in the objectives of scaling.

In addition, a WhatsApp group has been created among the members of GAP Organic Agriculture

Cluster. This application creates an environment that enables strengthening the communication among the platform group members, announcing the activities, providing cooperation and following the sector.

Business Intelligence

Taking advantage of the business intelligence dimension in scaling of the project will provide the advantage of measurability for effectiveness of the project outputs. On the project basis, measurable results to be achieved by numerical analysis on the subjects such as determination of the dimensions that affect the project effectiveness by collecting and evaluating the data related to the pilot projects, determination of strong and weak dimensions of the pilot projects, the analysis of comparative efficiency and productivity of the projects will justify the inclusion of applications of successful dimensions in the scaling model. Although the project includes basic data on the activities of pilot projects, more detailed data collection and more comprehensive data analysis are needed.

GAP OAC Comparison and Performance **Evaluation Table was** prepared annually between 2012-2017. In this table, the overall data on the cluster was evaluated annually, and it included data on the cluster members, the amount of organic products in the region produced by the members, the product pattern, export data and market capabilities by years.

Value Chain / Business Development

Not limiting the scope of GAP OAC Project and pilot projects by production and including the areas such as processing, marketing, geographic indication, branding, logistics, export, information or technology transfer etc. are the factors that will significantly increase overall impact of the project. Evaluating the pilot projects in terms of the activities they contain, it is observed that a significant number of projects contain one of the main activities in the supply chain. For most projects, the main activity is production, followed by marketing activities. Projects involving activities related to the logistics process of the chain (such as storage, transportation to wholesale market hall or market) are limited.

In addition, in some pilot projects (e.g. development of organic agriculture in Lice as a project of Diyarbakır Metropolitan Municipality (Pilot Projects 6 and 31), organic olive cultivation in Kilis as a project of Kilis Organic Olive Producers Union (Pilot Project 20 and 30)) an integrated agricultural value chain approach has been implemented. In addition to emphasizing the value chain creation and cluster development approach, these projects have successfully incorporated production, marketing and related training activities into the project. Moreover, the projects in both Kilis and Lice complement each other within themselves. As in the case of these projects, it is expected that the potential of creating an extensive impact of the projects that are not restricted to a single activity of the chain is higher than others. These projects approach the issue from different perspectives and facilitate multidimensional analysis of problems, establishing communication and creating an innovative perspective between different actors in the chain, developing innovative processes and increasing efficiency.

Promotion, Marketing and Branding

The project introduction brochure and promotional film were prepared. Within the scope of the project, GO brand was obtained and trademark registration procedures were carried out. Moreover; Kilizi, Eğil Organic and Ekorez brands were created and supported in the context of pilot projects.

Videos of success stories were produced for the promotion of project, these videos were ensured to

Project for Development of Organic Agriculture in Lice District of Diyarbakir Province

The project is being carried out by Diyarbakir Metropolitan Municipality. It includes activities such as creating an organization model, training, panel, fair participation and technical study visits and set up of organic market. In the project, training, awareness raising and organization model activities related to organic agriculture were carried out especially in one of the most disadvantaged districts of the Region. Farmers in rural areas have been provided with market opportunities by developing market infrastructure in the district centre and consumers' access to organic products has been supported. Through the cooperative, organic crop cultivation and sales have been promoted and the organic product pattern has been diversified. In addition, by the inclusion of women in the process, the role of women in the organic agriculture value chain has been highlighted. One of the most important multiplier effects of the project is that the activities related to the subject have been planned in the Municipality budget for 2017-2018 due to increased awareness of Diyarbakir Metropolitan Municipality in organic agriculture.

Pilot Project for Increasing the Competitiveness of Organic Olive Oil in Kilis Province

Within the scope of the project, Kilizi Integrated Organic Olive Oil Plant was constructed, related machinery and equipment were provided, the installation was completed and it has entered into service. Kilizi brand was established, certification and quality certificates of the facility were completed.

Today, the organic olive oil brand Kilizi from the GAP region is being sold on the shelves of national market chains such as Carrefoursa and Çetinkaya. In addition, the product is being exported to Qatar.

be broadcasted on social media and the news about the project was covered in newspapers, magazines and televisions. In addition, project presentations were performed at various conferences and symposiums.

The cluster has received the ESCA Cluster Bronze Excellence Label.

GAP Organic web portal was designed and all content uploads were completed. The portal is currently in use.

Forum on Organic Agriculture for Sustainable Development was held on 16-17 November 2017 in Sanljurfa in cooperation with GAP Regional Development Administration, United Nations Development Program (UNDP) and GAP Organic Cluster Association (GAP ORKÜDER). The forum, organized within the scope of the Organic Agriculture Cluster Project in GAP Region, brought together the parties interested in the organic agriculture sector. With the Forum on Organic Agriculture for Sustainable Development, a platform was established where knowledge and experience are shared, cooperation is established and a roadmap was prepared for the future of organic agriculture in the GAP Region. Members of GAP Organic Agriculture Cluster, the relevant public institutions and organizations, universities and nongovernmental organizations, as well as representatives of regional, national and international sector participated in the forum.

The Forum was composed of five different sessions, where national and international speakers took part. The session topics were as follows: Cooperation Networks for the Organic Agriculture Sector and Sustainable Development in Turkey, The Future of Organic Agriculture and Towards Sustainability with Organic Agriculture, Organic Promotion and Marketing, Organization and Institutionalization in the Organic Sector, Organic Agriculture Success Stories from GAP Region.

Also, as part of the Forum, the award ceremony for the Competition on Organic Agriculture for Sustainable Development was organized. With this competition, having the feature of being a first, it was aimed to emphasize the individual/organized farmers' and agricultural enterprises' contributions in the organic agriculture sector and to increase the future production capacity of organic agriculture, the marketing opportunities and the awareness.

Also, the booth space where GAP Region Organic Agriculture Cluster Members exhibit their organic products such as mulberries, grape syrup, almonds, honey, pomegranate syrup, grapes, olive oil, lentil, and chickpeas, was visited by participants throughout the forum.

At the end of the forum, Şanlıurfa Declaration was published with the consensus of all parties to determine a common vision and roadmap for the future of organic agriculture. Having no bindingness legally, the Declaration acts as a recommendation document in the sight of

Approximately
15% of the pilot
projects are general
projects for the
development and
dissemination of
organic agriculture
and approximately
18% are projects
involving
technique, R&D
or technological
innovation.

regional and national policies.

Participation in the fairs generally targeted increasing and professionalizing marketing activities, following-up the developments in sector such as technology, packaging, marketing and so on, creating bilateral cooperation among actors in and out of the region, making producers more self-confident by increasing marketing capabilities and promoting the GAP OAC Project.

Between November 2012 and December 2017; a total of 17 fairs were attended, including one in 2012, two in 2013, four in 2014, four in 2015, four in 2016 and two in 2017.

12 of them werenational and 5 were international fairs. A total of 752 people attended the fairs, including 24 people in 2012, 45 in 2013, 40 in 2014, 43 in 2015 and 346 in 2016. Also, fair participations and study visits were carried out within the scope of pilot projects.

In addition, a catalogue with the information of the producer members was prepared to be used in fair participation. This catalogue is accessible through the web site and was distributed in the related fairs.

Innovation

A development program is developed with specific objectives to improve the competitiveness of identified stakeholders and basically to improve the level of welfare. This program is developed usually for a specific region and contains one or more innovations. Such innovations are for differentiating the existing functioning in that region in order to realize the primary objectives of the program.

In the innovation phase, the current practice in the new initiative or pilot project is used as a base and a new idea, model or approach is added to it. Here, the definition of innovation should be reviewed extensively.

Approximately 15% of the pilot projects are general projects for the development and dissemination of organic agriculture and approximately 18% are projects involving technique, R&D or technological innovation.

In a regional development project, should the pilot projects within R&D and innovation have a minimum percentage in the total projects? Are the current percentages sufficient? Although there is no clear answer to these and similar questions, in developed countries, the main objectives of rural development-

Project for Development of Infrastructure for Biological Control in Pistachio

A Biological Control Laboratory has been established by the project carried out by the Directorate of Pistachio Research Station and various panels were organized on the subject.

Within the scope of the project, the laboratory was established on an area of 140 m2 to produce the Anthocoris minki which is a useful insect against the pistachio pisillidis, a vital pest for Pistachio. Climate rooms, insect production area and laboratory equipment were purchased.

A permanent and a temporary worker have been employed.

By the insects produced in this laboratory, a biological control method is provided in harmony with nature and environment, without using chemicals. In order to adopt and disseminate the biological control method to farmers, garden days were arranged in trial gardens and a panel on biological control for pistachio was organized with a participation of 250 people.

ESCA Cluster Bronze Excellence Label

The experts accredited by European Union who examined the activities, structures and administrations of more than 350 clusters in Europe. have analyzed the cluster for different indicators such as its structure, management and governance, strategy, financing, services, connections, interactions within the cluster, achievements and recognition. Through the analyzes, success of the cluster as a result of the activities so far has been confirmed by European Commission's European Secretariat for Cluster Analysis (ESCA) with a Bronze Label. GAP Organic Agriculture Cluster is one of the four clusters that have been registered in Turkey.

oriented cluster projects are to increase the innovation capacity and to support innovative entrepreneurship.

R&D and innovation are defined to include only the technical and/or technological dimension both through the project and in pilot projects. Innovation in projects should also be addressed with various dimensions such as the product, process, technology, marketing, production, organization, within the framework of Oslo Frascati Guide.

Innovation in pilot projects can be radical in such a way to redefine all trends and create a different expansion in the market, or it may be incremental to follow a certain innovation.

Internationalization

In this context, especially in relation to capacity building activities, international technical study visits were organized, participation to international fairs were ensured and promotional materials were designed. While designing Joint Financial Support Programs, inter-regionalization internationalization dimensions were also prioritized. Thus, in this context, especially in some pilot projects, international study visits have been made and foreign connections have been established. A pre-application was prepared jointly with a non-governmental organization operating in the Netherlands for a Civil Society Dialogue 5th Term Call Program conducted by EU and submitted in February 2018. Activities related to approval of the application will be carried out in the Netherlands and the Region. Cooperation

protocol will be signed between the organizations.

Achievement of receiving ESCA Cluster Bronze Excellence Label by GAP OAC is a step towards internationalization.

International projects are limited in pilot projects. Some projects include getting into and exporting to international markets, but do not include international cooperation and know-how transfer.

However, considering the clustering processes, if sustainability of the projects is ensured, they may be expected to move to the internationalization stage in the near future.

Pilot projects with significant steps towards internationalization are approximately 20%

Project for Dissemination of Organic Agriculture

The Project was carried out by Adıyaman Chamber of Agriculture. Within the scope of the project, the activities for establishment of a soil analysis centre were supported. By implementation of the project, 126 organic soil analyzes have been carried out so far, as 40 kg of fertilizer was used on one decare, after the analyses made, now the amount of fertilizer has been reduced to 15 kg.

of all projects. It is recommended that this dimension should be addressed in more detail in the scaling.

Environment

By definition, organic agriculture is an agricultural production model that protects the environment and is based on the efficient and wise use of inputs and resources. In this context, the project was implemented within the framework of plans based on conservation of natural resources and mitigation the impacts of climate change by supporting the organic production. For example; in the pilot project in Ilgın, in the region where chemicals are prohibited because of being close to the source of drinking water, it has been ensured that the agricultural production is made by organic production and product range is diversified within the scope of organic agriculture.

In the project, it is important to emphasize the protection of ecological potential in environmentally sensitive sectors such as the agricultural sector mentioned in the 10th Development Plan. In this framework, ecological aspects are included in the project activities, in some pilot projects. In the Project for Dissemination of Organic Agriculture in Adıyaman (Pilot Project 28) contributing to protection of the environment by decreasing the amount of fertilizer used as input, and in the Karacadağ Organic Rice Packaging Project (Pilot Project 3), reduction of the damage to the environment by chemicals can be shown as examples.

Sustainability

During set up of strategic planning framework of the project, sustainability of the project was taken as the basis. In this context, organic agriculture philosophy has been adopted for environmental sustainability and GAP ORKÜDER has been established for institutional sustainability and thus institutionalization process has been supported. In addition, project applications have been initiated for financial sustainability to different funding sources and will be continued.

In the same context, all the implemented pilot projects were also taken into consideration in sustainability context and the sustainability component played an important role in the selection of projects. Currently, some pilot project implementers such as Diyarbakır Metropolitan Municipality allocate budgets to the organic agriculture sector from their institutional budgets, for the purpose of developing and expanding application areas of the projects.

One of the most important outputs of the project is its multiplier effect. In this regard, it is foreseen that sustainability will continue with the multiplier effect

Pilot Project for Improving Efficiency and Increasing Added Value in Organic **Production in Ilgin** Village, Diyarbakir Organic production is supported for conservation of natural resources and elimination of the threats to human health, in some regions in Turkey. For example; organic production is encouraged to limit the use of chemicals in fields close to drinking water sources. Ilgin Village, in Eğil district of Diyarbakir next to Dicle Dam, is one of such special areas in the GAP Region. Ilgın Village with a rough geography, is surrounded by dam water, but has limited access to water. For this reason. the project is special for evaluation of marginal areas and ensuring environmental sustainability.

in the context of environment, finance, institutionalization, business development, R&D and innovation.

As both the main project and the pilot projects prioritize the sustainability dimension, it will have a positive effect on success of the scaling. Sustainability solutions have been produced in some of the pilot projects.

Interaction with Other Policy Areas

As the project is carried out on the axis of rural development and mainly organic agriculture, the main policy axis is developed on agriculture and rural development. However, today this type of projects has effect on different fields by interaction and regulation opportunities between the politics and creates potential cooperation opportunities. The policy interaction of the project can be examined in three components: main policy, environmental policies and interactive policies.

Main policy areas are agriculture, rural development and environmental policies. Policies on environment are industry, energy and natural resources. Interactive policy areas are social policies, education, innovation and technology.

In this respect, the future impact and sustainability of the project point to new expansions, project partners, financing opportunities and cooperation ecosystems within these three policy areas.

Monitoring, Assessment and Learning

The program should be monitored and evaluated within the scope of supporting factors and areas, during implementation with various pilot projects. Monitoring and evaluation enable creation of new ideas for improvement of design and implementation of the scaling model.

These monitoring and evaluation studies are in fact a learning process for scaling and replicability. During the learning phase, implementation of the pilot project or model is monitored and evaluated; the knowledge management process is improved and lessons learned are determined.

Monitoring and evaluation of all activities in the context of the project were carried out by the project team. Pilot projects were followed up by the project team in the field and, monitoring and evaluation reports were prepared for all project processes. The Financial Support Programs realized with the Development Agencies were monitored within the framework of legal regulations of the agency and the project team participated in the activities such as launch events, trainings, etc. and video shootings were made during monitoring visits to disseminate the results of the projects.



SCALABIL

SCALABILITY ROADMAP

A

fter basic decisions are taken and the model is determined, the scaling roadmap should be developed. The literature defines the roadmap in 15 main steps.

- 1. Evaluation of current pilot projects according to the following sub-headings:
 - Promising statements and documents,
 - Model giving positive results in a few cases,
 - Good example obvious results from many assessments and environment,
 - Best practices positive impacts based on various environments, analyzes and expert opinions,
 - Policy principle successful in many different regulations and suitable for wide-ranging implementation.
- 2. Identification of the targeted final scale and the time required, and assessment of its feasibility.
- 3. Identification of social and economic target and analysis of geographic, environmental and social/cultural boundaries for scaling.
- 4. Identification of appropriate supporting factors and areas to be used in scaling.
- 5. Evaluation of the scaling process in terms of relevance of the roadmap and the expected impact on rural development.
- 6. Analysis/determination of the appropriate options to reach the scale economy.
- 7. Establishment of evidences for the value and feasibility of the scaling model; summary of data showing factors such as impact of the model and cost advantage; analysis and demonstration of applicability of the model outside the pilot region and the demand it will create.
- 8. Identification and development of the institutional, organizational and political context appropriate for scaling.
- 9. Determination of the distribution of tasks within the organization and the persons to undertake the main functions of scaling.
- 10. Identification of stakeholders and partners who can provide support in various parts of the scaling process.
- 11. Studies to establish cooperation with potential stakeholders and establishment of cooperation. Inclusion of different groups such as business and non-governmental organizations in cooperation.

- 12. Adopting Scaling: Development of awareness-raising tools such as informative campaigns, training programs, to address the need and benefits of scaling.
- 13. Identification of tools (such as allocation, loan, technical assistance, policy communication) appropriate for supporting scaling.
- 14. Management of innovation process for scaling and undertaking information management.
- 15. Evaluation of scaling process and performance by making comparisons, with standards and stakeholder views. Establishment of a monitoring group to monitor performance.

Within the framework of the aforementioned issues and in the context of GAP OAC Project, it is possible to derive a scaling roadmap in the light of achievements and experiences acquired in pilot projects (see Figure 8).

First of all, the projects which are taken as examples in scaling studies should be examined and adapted according to the dynamics of the region. Because direct adaptation of the pilot projects may not lead to successful results.

In order for the project objectives to be clear and accessible during the scaling phase:

- The project should be reconstructed in accordance with the strategic development priorities of the region to which it will be adapted;
- The contributions of pilot projects to rural development should be structured in accordance with the expectations and needs of the new region;
- The project focus (such as priority product, strategic region, province-based approach) could be reshaped at the scaling stage.

It is important to implement the pilot projects to be selected based on the main project outputs and experiences in a holistic approach and to design with the processes and outputs in such a way as to contribute to the region as much as possible.

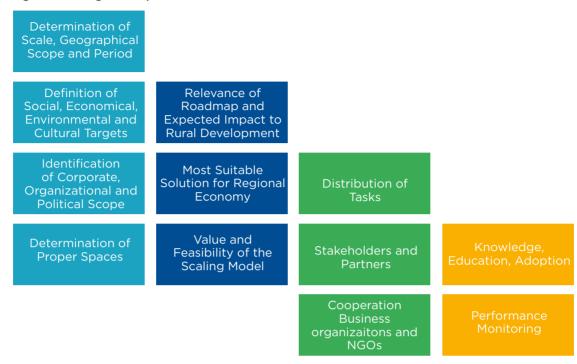
At this point, as a result of reviewing and evaluating the pilot projects, it is important to determine which priority the project serves in terms of replicability and scalibility. The new project will be designed as a result of this evaluation. As stated in the literature, the project is grouped under five headings according to its contribution and impact. It is recommended that the pilot project to be selected should be preferred in accordance with the following components. This is a guiding grouping and one or more types may be applied together according to their suitability.

- Promising projects Projects that have high potential for creating added value considering the outputs and have significant and sustainable impacts on the region.
- Model Projects that give positive results in some cases and can be implemented with necessary adaptations as a model.
- Good example Projects that meet the best outcomes and sustainability principles with the obvious results obtained from many assessments and environments.
- Best practices Projects that have positive impacts based on various environments, analyzes and expert opinions and are possible to be replicated with necessary adaptations.
- Policy principle Projects that have been successful in many different regulations and are available for a wide range of implementation and have made positive contributions to other policy areas.

Based on all these aspects and the literature, it is recommended that a replicable scaling roadmap should follow the following steps (see Figure 8):

- 1. Definition of the targeted final scale, the type/types of scale to be used and the time required and evaluation of its feasibility. Here, determination of the geographical location is among the important issues. It is also clarified whether the scaling will base on the main project or only on some pilot projects and the pilot project/projects it will involve.
- 2. Definition of social and economic target and analysis of geographical, environmental and social/cultural boundaries for the scaling. At this stage, it is expected that the pilot project preference is done.
- 3. Identification and development of the institutional, organizational and political context appropriate for scaling.
- 4. Determination of suitable areas/dimensions to be used in scaling (this issue is discussed in detail in the roadmap outputs section).
- 5. Evaluation of the scaling process in terms of relevance of the roadmap and the expected impact on rural development.
- 6. Analysis/determination of the appropriate options to reach the most appropriate solution for economy of the region.
- 7. Establishment of evidences for the value and feasibility of the scaling model; summary of data showing factors such as effect of the model and cost advantage; analysis and demonstration of applicability of the model outside the pilot region and the demand it will create.
- 8. Determination of the distribution of tasks within the organization and the persons to undertake the main functions of scaling.
- 9. Identification of stakeholders and partners who can provide support in various parts of the scaling process.
- 10. Studies to establish cooperation with potential stakeholders and establishment of cooperation. Inclusion of different groups such as business and non-governmental organizations in cooperation.
- 11. Management of the innovation process for scaling and promoting the integration of innovative approaches and cooperation into projects.
- 12. To make scaling adopted by developing awareness-raising tools such as training program and information campaign for the needs and benefits of scaling.
- 13. Evaluation of scaling process and performance by making comparisons, with standards and stakeholder views. Establishment of a monitoring group to monitor performance.

Figure 8. Scaling roadmap



Roadmap Outputs - In the framework of Spaces

This roadmap is expected to produce outputs under 5 main headings. If these outputs are obtained as a checklist, a clustering project with a rural development objective and formed by triple helix model can achieve successful solutions. These outputs are classified as; structural outputs, functional outputs, social outputs, work-oriented outputs and supporting outputs (see Figure 9).

Figure 9. Scaling roadmap outputs - In the framework of spaces

Creating Partnership Structure Institutionalization Governance Advocacy Monitoring, Evaluating, Learning	Structural Outputs
Financial Support Mechanisms Policy Mechanisms Cooperation Capacity Building	Outputs
Cultural and Social Areas Gender	Social Outputs
Business Intelligence Value Chain/Business Development Promotion, Marketing and Branding Innovation Internationalization	Work-Oriented Outputs
Environment Sustainability Interaction with Other Policy Areas	Supporting Outputs

1. Structural Outputs

Creating Partnership Structure

The project being mainly established in cooperation with UNDP is of great importance for its partnership structure. In general, access to international funding support in rural development projects is considered to be a valuable contribution to effectiveness and sustainability of the project. On the other hand, limiting international cooperation only to financing will be a very limited approach. Because this type of projects makes contribution over three main components in rural areas: development of international cooperation culture, improvement of ability of creating partnerships by the experience and self-confidence gained, the possibility of access to new projects and financing resources by the acceleration in transfer of information and technology in the cooperation processes. The general case observed is that rural development projects can be implemented in a wide range of areas and therefore, it is possible to implement the projects that are different from each other but supportive for each other in terms of sustainability, in the ongoing processes with international project partners. In particular, the increase in fund absorption capacity, i.e., increase in a region's ability and need of using funds by new projects, will increase the motivation for accessing to international project finance, which is at different scales, but also predicts the international partnership structure. However, since the experience, knowledge and qualified employment capacity, which will nurture projects to be formed with different national and international stakeholders, increases as a result of such international large-scale and relatively long-term projects, the region's capacity to access projects and finance will also be improved.

At this point, the main factors of the proposed roadmap for partnership structure, in line with the experiences gained, can be summarized as follows:

- To design a project with international partnership structure,
- To identify appropriate partners, to provide the most appropriate fund such as appropriate international/national/co-financing and to implement partnerships appropriate for the project,
- To establish different partnerships which are different from each other but will create high added value with their partnerships.

Institutionalization

The prerequisite for the projects to achieve successful results is to be constructed with an accurate structure. It is important for sustainability of the project that the project partners provide an effective institutionalization appropriate for cluster governance model. The institutionalization model is related to the size and internal dynamics of the region. The synergy obtained by institutionalization will be shaped by the communication between the actors, the norms and values that make effective governance possible, and the contributions of the project partners towards each other.

At this point, the main factors of the proposed roadmap for institutionalization, in line with the experiences gained, can be summarized as follows:

- To create a project partnership aimed at public-university-industry-NGO cooperation, based on the triple helix and even quadruple helix model,
- To determine the core values and norms of project governance (such as cooperation culture, accountability, transparency, sharing of benefit) and to configure institutionalization accordingly,
- To identify the institutional development, roles, authorities and responsibilities among stakeholders during institutionalization of the cluster,

- To determine economic, social and legal structure of the cluster,
- To create horizontal and multi-dimensional communication channels, to ensure effective use and development of such channels for sustainable information sharing, generation and distribution,
- To design institutionalization together with digitalization and to integrate innovative and intelligent technologies in the process.

Governance

In projects, governance can be evaluated under three main components: Project partners and stakeholders, project activities and sustainable and reconstructable project management fed by feedback. At this point, it is envisaged that the partners and stakeholders of the project as the institutions with different ecosystems and governance models in conjunction with the predicted triple helix model, should be together in accordance with a project objective and create an innovative project culture in cooperation. Since the governance process involves planning, implementation and coordination of the project activities, all meetings, workshops and site feedback organized with the participation of project partners and stakeholders in governance produce the flow of information supporting governance. For the Organic Agriculture Cluster, creating the Steering Committee, the Executive Board and the Working Groups are important for the quality of governance. Such committees and groups, which are different from each other but undertake complementary tasks, ensure that governance is participatory, equitable and open.

However, especially in formation of rural development-oriented agriculture clusters, the local administrations taking an active role in the project and the development agencies to be included in the project in line with the priority development strategies are important for the success and sustainability of the project. The roles and supports of such institutions can be maintained in connection with legal identity of the project.

Project activities can be examined under two components in terms of governance activities. The first is that the project activities should be carried out in a timely and complete manner as stated in the project application documents and that the actions to be taken should be defined in order to prevent project activities from being hindered. The second is to make the necessary arrangements for the project activities to create the impact and benefit mentioned in the project and to actualize the needs and improvement activities of the project within the framework of governance in accordance with the feedback received.

It is possible to establish a legal entity in order to continue the project management and to realize new projects in line with the experiences obtained. The representation of all stakeholders within the structure of an association to be established (public institutions, associations-cooperatives, university, private sector representatives, NGOs) is necessary for the sustainability and will also enable new projects to be implemented.

At this point, the main factors of the proposed roadmap for governance, in line with the experiences gained, can be summarized as follows:

 Creation by the partners and stakeholders of the project of a culture of living together, cooperation and an innovative project culture, as the institutions with different ecosystems and governance models, in conjunction with the predicted triple helix model,

- To collect feedbacks from the field by actions for planning, implementing and coordinating the project activities and to ensure information flow supporting governance,
- To create the Steering Committee, Executive Committee and Working Groups for clustering and to ensure that the governance is participatory, equitable and open,
- The local governments and development agencies to take an active role in formation of rural development-focused agricultural clusters,
- To make the necessary arrangements for the project activities to create the effect and benefit stated in the project and to actualize the needs and improvement activities of the project within the framework of governance in accordance with the feedback received,
- To establish a legal entity in order to establish a legal entity in order to continue the project management and to realize new projects in line with the experiences obtained.

Advocacy

Advocacy and lobbying are also important in realization of the projects efficiently and in a way to create common benefit. First of all, it should be noted that such activities are a valuable feedback tool for policy-makers and law-makers. Formation of local influence groups will encourage rural development and facilitate sharing of the experience-based knowledge with decision-makers. On the other hand, such structuring also contributes to expressing needs of the region, increasing capacity of use of funds that will enable realization of new projects and ensuring flow of funds. Transfer of project experiences may create the flow of information through formal reports and project outputs in the region.

The stakeholders with whom the decision-makers and policy-makers need to be in communication within the framework of project and in a manner to contribute to sustainability of the project are the regional representatives, associations and similar organizations established during or as a result of the project process as a legal entity, as well as the project partners. A clear, multi-level and interactive communication model will undoubtedly be effective on policy, promoting and restructuring decisions for the region and relevant sectors.

At this point, the main factors of the proposed roadmap for advocacy, in line with the experiences gained, can be summarized as follows:

- To identify feedback tools for decision-makers and policy-makers,
- To ensure an effective and sustainable communication and information flow with decision-makers and policy-makers,
- To improve advocacy and lobbying skills in accordance with rural development objectives by identifying the methods such as strategic reports, meetings providing feedback, committee and workshops,
- For the associations and similar organizations established during or as a result of the project process, to act as a representative in advocacy activities, to ensure sustainability of such activities.

Monitoring, Evaluation and Learning

Evaluation of the success of projects and pilot projects will only be possible by measuring the benefits created, the target group reached and the impact and capacity of the sustainability achieved, during the project management process from the initial phase of project to the final point where all outputs are presented. A preliminary evaluation at the initial phase of the project and determination of expectations and predictions of the project for the regional dynamics are of great importance in terms of monitoring, evaluation and learning process that will be realized at the end of the project. A comparative study will be carried out at the end of the project through the evaluation, and the relationship between the benefit obtained at the end of this study and the expectation at the starting point will be observed. The relationship between the benefit here and the cost and time is a valuable indicator. On the other hand, monitoring and evaluation for sustainability of the project will be carried out within the framework of access to new sources of financing, realization of new cooperation opportunities and high value-added project design. Learning is one of the natural outcomes of the project culture. The project also provides a learning practice to all stakeholders through successful and unsuccessful examples. In this respect, it can be said that monitoring, evaluation and learning play a key role in terms of scaling and replicability. These activities can be diversified by increasing the feedback, reporting, information generation and sharing recorded experiences. In order to increase social contribution of the learning process, meetings can be organized in different environments for all stakeholders to benefit from this process and project experience. This is also necessary for sustainability of the project.

At this point, the main factors of the proposed roadmap for monitoring, evaluation and learning, in line with the experiences gained, can be summarized as follows:

- To analyze and report targets and expected impacts through preliminary evaluation work,
- To realize monitoring tools such as information generation, information sharing, reporting, recording, meeting and feedback mechanisms throughout the project,
- To conduct an evaluation study on the project results, to make analysis on topics such as comparative expectation, actual outputs, cost, targets, etc,
- To realize information generation tools and platforms for the evaluation (reporting, meeting, web page, etc.),
- To submit tools to provide feedback during monitoring and evaluation processes,
- To design open and effective communication, learning and sharing channels for all stakeholders in the learning process,
- To ensure that learning tools, training packages, best experience sharing are open to all stakeholders and presented in a sustainable way.

2. Functional Outputs

Financial Support Mechanisms

The most vital part of project management is undoubtedly financing. There are two starting points for sensitivity on financial issues. First is the need to use the funds obtained in the most efficient way and to project them in a way to create the biggest benefit. Second is the expansion of limited funding opportunities and diversification of the flow of funds towards the region with the right projects, especially in rural development and agriculture areas. In this framework, it is necessary to be in cooperation with local institutions and development agencies, to ensure sustainability of information reports and activities to the decision-makers and policy-makers, to communicate with the relevant national and international NGOs and to follow the national and international funds. Co-financing in rural development projects is an issue to be solved. Co-financing refers to complementary financial support from different institutions for the same project financing, and in the case of achieving co-financing, full use of financing resources is possible.

On the other hand, for use of relevant finance sources for the project, the program objectives in line with the needs and development strategy of the region should be determined and qualified project proposals in line with these objectives should be developed. Funding can be carried out by local development agencies, and the expansion of funds can be expanded to cover both profit and non-profit institutions and businesses. This will provide benefit in two issues; diversity of the projects benefiting from the financing, thus the diversity of the beneficiaries; and promotion of economic development through projects for the private sector and SMEs. During the project application process, providing free technical guidance and information services for all applicants and providing Help Desk services in project preparation and project management by local institutions is important for the quality of applications to be made from the region.

At this point, the main factors of the proposed roadmap for financing, in line with the experiences gained, can be summarized as follows:

- To cooperate with all stakeholders, national and international funds and institutions, local institutions and development agencies, for the funding resources,
- To set up an information-based infrastructure for financing by information reports and activities for decision-makers and policy-makers,
- To create inter-institutions information sharing, motivation and cooperation environment for co-financing,
- To use of finance and to design a project fund in accordance with the regional priorities and dynamics,
- To ensure that funding can be carried out by local development agencies and local institutions,
- To include both profit-making and non-profit institutions and enterprises in funds expansion,
- To provide the necessary technical support in project applications and writing.

Policy Mechanisms

A participatory and sharing project environment can only be achieved through an approach inclusive to all stakeholders in the region. This approach has a significant impact on the effectiveness, sustainability and structural institutionalization of the project. Within this framework, it is necessary to conduct communication activities with all the different stakeholders in the region, to carry out opinion- and information-oriented meetings and to receive continuous feedback from the field, for the project. In the same way, it is valuable to share the project's objectives and contributions at national and international levels and to explain the synergy and benefit gained by the institutions and players involved in the project. At the local level, the political environment is important for sustainability of the project. In this context, it is necessary to establish communication and to share information with local political actors; thus, the project priorities and contribution should be adopted by local authorities.

At this point, the main factors of the proposed roadmap for policy, in line with the experiences gained, can be summarized as follows:

- To create a participatory, inclusive and sharing project environment,
- To ensure that information and communication channels with the local authorities and the political actors in the region are clear and that by the regular feedback, the project is adopted by all authorities,
- To share the project description, contribution of the cluster stakeholders and partners to the project and the general and specific benefits of the project, with the political authorities and actors at regional, national and international levels.

Cooperation

Cooperation culture and project culture complement each other, and these are the most important topics in terms of both implementation and sustainability of projects. Constructing the project with triple helix or quadruple helix model and creating an effective cooperation model will provide positive results in the implementation of the project. In case of such a cooperation between local authorities, administrations, institutions and enterprises, international financing institutions and universities, the impact area of the project expands and a new ecosystem with the cooperation culture emerges. Such projects, of which the design and implementation are based on cooperation, also allow for the creation of a comprehensive joint project culture including public institutions, universities, research institutions, non-governmental organizations, private firms, unions, cooperatives and individual producers in the region.

On the other hand, another issue that needs to be emphasized is to establish sustainable communication and information channels with regional, national and international institutions and organizations, and to improve the clustering by diversifying cooperation models.

Especially in cluster-focused projects, cooperation is observed at three levels, and these three levels are necessary for the development of cooperation culture and opportunities and sustainability of the cluster. The first level is the clustering level; here, a structure supporting the trust and cooperation between the institutions, organizations and all stakeholders within the cluster should be established. The second level should ensure cooperation with different clusters within the region, realization of integrative horizontal projects between different sectors and stakeholders, and contribution of success stories inspired by each other to a common project accumulation. The third level is the management of relations between national and international stakeholders

and cluster, and research and development of models, projects and financing opportunities for cooperation.

Limiting international cooperation only to financing will be a very limited approach. Because such type of projects makes contribution in three main components in rural areas: development of international cooperation culture, improvement in internationalization skills by the experience and self-confidence gained, and the opportunity to access to new projects and financial resources by accelerating the transfer of knowledge and technology in the work processes. In general, rural development projects can be implemented in a wide range of areas, and therefore, projects that are different from each other but supporting each other for sustainability can be realized in the ongoing processes. In particular, increase in the fund absorption capacity, that is the ability and need of a region to use funds, with new projects, will also increase the motivation for accessing to project finance which provides international financing at different scales. However, since the capacity of experience, knowledge and qualified employment that will support projects to be formed with different national and international stakeholders, increases as a result of such international large-scale and relatively long-term projects, the capacity of the region to access projects and finance will also be improved..

At this point, the main factors of the proposed roadmap for cooperation, in line with the experiences gained, can be summarized as follows:

- · To develop cooperation and joint project culture among different stakeholders,
- To study and develop cooperation models,
- To keep communication and information channels open with all stakeholders and to create platforms for cooperation opportunities,
- To support cluster-focused cooperation with regional, national and international institutions and organizations,
- To develop horizontal and complementary cooperation opportunities between clusters and sectors,
- To create a cooperation background in the region and cluster, by sharing project experiences and achievements.

Capacity Building

UUNDP (2009) defines capacity building as the process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time. UNDP explains capacity building within the framework of a more effective and sustainable performance, stability and change and ability to adapt to innovations. In addition, it summarizes the responses of the institutions for capacity building processes, under the components of institutional adaptations and the development of management skills and roles in the organization, leadership, information management and accountability. Essentially, capacity building is a development process with high interaction, and at the end of this process, it is focused on the institutions' performance to take necessary decisions in their ecosystem and to be able to implement the projects and programs in line with such decisions.

Institutional capacity building is one of the natural results of cluster projects. In the first period of the project, capacity building, which is one of the primary outcomes of the project structure and cooperation model, can be defined in general as an interactive learning process shaped by the

experience and capacity utilization skills of the institutions taking part in the project. In the last period of the project, capacity building is one of the project outputs and is considered as one of

the most important factors for sustainability in relation to the legal personality of the cluster. Effects of institutional capacity building can be observed in cluster process management of the project partners, in developing effective vision and project activities, in implementation, final inspection and evaluation of the project. Improvement of institutional capacity is necessary for cluster governance and project management. On the other hand, it supports the establishment of a cooperation environment based on mutual trust for all stakeholders who constitute the ecosystem of the project. Capacity building activities cover; supportive and educational documents and reports, technical equipment and trainings for institutional capacity building; participation in fairs that allow sectoral interactions; participation in domestic and overseas technical trips; improvement of the capabilities of existing and potential cooperation network; and use of horizontal and multi-level open communication channels by stakeholders.

In this context, the issues that should be included in the projects under the title of institutional capacity development can be summarized as follows:

- To make definition of institutional capacity building for the project, to determine the process and objectives,
- To make definition of roles and responsibilities of institutions within the framework of the project and to identify the necessary capacity building topics such as leadership and information management,
- To prepare capacity building materials, trainings and technical support content,
- To budget participation to fairs and domestic/overseas technical trips, which allows sectoral interactions, within the scope of project finance,
- · To provide information sharing and information management for capacity building,
- To provide training within the capacity building needs of stakeholders and institutions, to promote effective communication for capacity building for sustainable impact,
- To increase the capacity building capabilities for the project partners and the legal persons of the cluster for the topics of accountability and trust.

3. Social Outputs

Cultural and Social Areas

Cultural and social development is one of the added values of rural development-oriented cluster projects. The clustering projects, which are generally described and analyzed by economical and sectoral approaches, can be evaluated within the framework of inclusive growth. The economic model created by clustering is expected to contribute to social and cultural development in the region. As a result, the economic value created and shared by the cluster is inevitable to have social and cultural consequences..

However, it may be advisable to consider some issues in order to improve the outcomes of the projects in cultural and social areas:

- The focus of social improvement and development in clustering projects (such as increasing regional prosperity, fighting with poverty),
- Response of the region to the social development needs (such as employment, education),
- · Creating communication and sharing areas that enable social and cultural sharing,
- Establishing a participatory and inclusive social approach by considering all stakeholders,
- Adopting and implementing social values and ethical concepts by cluster governance,
- Supporting the employment of women and young people, including the budget items including education and social development tools into the project,
- Budgeting the programs supporting the vocational retraining and personal development of the beneficiaries, considering the responsible employment,
- Development of sustainable, innovative and socially beneficial activities through social innovation projects,
- Adopting the innovative, inclusive, transparent and sharing culture created with the
 project as a business culture not only in the framework of the project's cooperation
 but also throughout the region,
- Implementing the sub-project outputs supporting the cultural development of the region as added value in the projects.

Gender Mainstreaming

Economic empowerment of women in rural development is of great importance. The adoption of a gender-oriented approach within the scope of the project is a sensitive issue in terms of both social development and the added value created by the cluster. The women's labour force should be considered in this context as part of the agricultural culture in rural areas. Expanding the economic benefits created in accordance with the values and norms of women's empowerment and gender equality should be implemented at various stages such as the use of project resources, the design of project activities and the determination of environmental impact and improvement targets of the project. At this point, it is also important to support and encourage the women

entrepreneurs within the triple helix business model of the project and in the cluster model created. Increasing women's participation in the project, developing vocational and personal development trainings for women's labour force, improving their role in agriculture cluster and supporting women representatives in the legal structure of the cluster are important steps in this respect

In this context, the following points should be taken into account under the heading of social gender in the projects:

- Considering gender equality in project design, evaluation and initial phase, mainstreaming in the projects and implementing in this framework,
- Supporting women's participation in the project cooperation structure and cluster model, and involving women stakeholders in legal structures within the framework of sharing, participatory and equitable project governance,
- Budgeting trainings to improve women's labour force and activities to increase women's economic participation,
- Budgeting project activities supporting women entrepreneurship,
- Presenting the project by its outputs, publications and activities supporting gender equality, as one of the leading targets of cultural and social development of the issue within the dynamics of the region, producing information in this field and sharing with the decision-makers and policy-makers,
- Determining gender equality within strategic priorities, in the future projects and during distribution of financial resources, at the stage of sustainability of the project and cluster.

4. Business Focused Outputs

Business Intelligence

Business intelligence includes data-driven work during scaling process. In this framework, collection, storage, analysis of data, identification of required access rights and processing of data are business intelligence activities. The effectiveness of business intelligence activities can be increased by pilot applications. Business intelligence is of strategic importance for efficiency and productivity analysis in terms of quantitative decision support systems for clustering.

The use of data in agriculture constitutes the heart of business models developed with the use of agricultural technologies called smart agriculture or precision-digital agriculture. The use of data in rural development and agriculture clusters often requires technological and knowledge-based infrastructure and hardware on issues such as data technologies, large data analysis and integration of data into decision-making processes. It should be noted that today the data has economical value. With the expansion of mobile networks, data-based services have started to be included in farmer packages of operators. Data-driven business intelligence activities in agriculture can be applied in various fields such as production, production inputs, production and process innovation, marketing, value chain management, use of consumer data for marketing. The economic potential and competitiveness of the cluster will increase by the use of business intelligence in agriculture clusters. In particular, by the use of business intelligence, data-focused and/or data-sourced strategic decisions, data-based economic growth among stakeholders and sharing of knowledge and experience on business models will enable the development of a clear innovation system in the cluster over the long term.

In this context, the issues to be included in the projects under the title of business intelligence can be summarized as follows:

- Adding the business intelligence infrastructure into the project design,
- Adding the cost of technological infrastructure for business intelligence activities into the project budget,
- Developing information sharing and trainings in order for the business intelligence applications to be adopted as a priority in the cluster and to be realized,
- Including the employment budget for the business intelligence applications in the project,
- Sharing the business intelligence and data-based business models and the success stories with stakeholders,
- Including the business intelligence and data-focused methods into governance and strategic decision-making mechanisms,
- Adoption of the culture and dynamics of data-focused economic growth through by the cluster.

Value Chain/Business Development

The value chain approach in rural development and cluster-oriented studies and the business development strategies developed within the framework of this approach are determinative for the impact of the cluster on the region. The value chain approach supports inclusive growth, strengthens cooperation among different stakeholders in the medium term and facilitates access of small family businesses to the market. In the agriculture clusters that adopt the value chain

approach, public, private sector, NGO and/or university cooperation models are also supported within the framework of the triple helix model. Apart from the developed and extended commercial relations within the region, value chain also triggers cooperation and innovation. The innovative business models that emerged with the value chain approach also make it possible to complete the missing players within the cluster.

In this context, the issues to be included in the projects under the title of value chain can be summarized as follows:

- Adding the value chain approach into the project design,
- Creating the value chain map of the region and identifying all relevant stakeholders,
- Improving the competitiveness of micro and small-scale agricultural enterprises with innovative business models and inclusive value chain approach and developing their market access capabilities,
- Establishing channels to support cooperation and communication within the value chain.

Promotion, Marketing and Branding

In scaling studies, promotion, marketing and branding are important for adapting successful methods in pilot projects and contributing to the branding process of the new region. Especially in clustering projects for rural development, it is emphasized that local production and cultural backgrounds have brand value and thus, marketing, promotion and branding strategies should be developed over local values

In this context, the issues to be included in the projects under the title of promotion, marketing and branding can be summarized as follows:

- Preparing promotion, marketing and branding strategies by taking into account the local dynamics, based on pilot project experiences and practices,
- Identifying the roles, responsibilities, contributions and expectations of all stakeholders in the promotion, marketing and branding, including the corporate representative of the cluster.
- Developing an approach, intellectual infrastructure and discourse for the region's production and brands, in relation to the cultural background of the region and ensuring that such concepts are sustainable and applicable during the whole promotion, marketing and branding process,
- Preparing promotional materials (hardcopy and softcopy) (such as brochures, promotional films, visuals, website),
- Organizing activities such as documentary film shootings, symposiums, meetings for success stories to be used in the promotion,
- By forums, ensuring the contribution and participation of all stakeholders (local, regional, national and international) for promotion, marketing and branding,
- Establishment of regional brands, identification and registration of brands,
- Application of geographical signs for regional products,

- Preparation and realization of promotion, marketing and branding platforms (hardcopy and softcopy),
- Carrying out market research for opening to new markets, including the e-commerce and m-commerce strategies and tools within the project budget,
- · Conducting competitive intelligence studies for new markets and competitors,
- Budgeting training and consultancy services for promotion, marketing and branding in the project, improving the skills and abilities of cluster stakeholders at the local level,
- Developing local, regional, national and international marketing strategies and arranging events, fairs, exhibition, etc. within the framework of cultural identity of the local market,
- Ensuring participation in regional, national and international fairs and meetings,
- Designing catalogues for products, companies and activities.

Innovation

In the scaling model, at least one innovation dimension should be sought for each pilot project. In clustering models in rural development and especially in the agriculture and food value chain axis, the players in the cluster are expected to increase their innovation capacities within the new ecosystem created, with reference to the triple helix model. Although innovation is fundamentally associated with product-based improvement and development efforts, it is observed that innovation capabilities also increase in various fields such as process innovation, managerial, marketing, finance, opening to international markets and use of new technology, especially in agriculture and food clusters. Of course, at this point, the project's impact area, target group and the wave of cumulative innovation it will create will be related to the scale of the project. On the other hand, another remarkable issue is social innovation. The implementation of innovative practices, technologies and processes will bring not only economic but also social and cultural development in rural areas. A new social innovation ecosystem will emerge especially in tourism, agriculture, food axis. Social innovation is primarily driven by reconstruction of innovative implementations and projects in order to create social benefits and contributions. The most important feature of the social innovation ecosystem is to support individual development and to support sustainability of social benefits and contributions in project processes developed in cooperation with the main players representing different systems such as triple helix.

In this context, the issues to be included in the projects under the title of innovation can be summarized as follows:

- · Adding the innovation approach into the project design,
- Determining the innovation strategy of the project, identifying activities and outputs that are appropriate to the target innovation (product, process, marketing etc.),
- Based on pilot project experience, financing the learning activities such as training and consultancy which will increase innovation capacities of the companies and local stakeholders in the cluster within the project budget,
- Implementing business models for innovation in projects and sharing best experiences within this framework.

- Supporting entrepreneurship and innovative business ideas,
- Supporting the use of innovative technology,
- Adaptation and implementation of social innovation practices according to regional priorities and needs,
- Monitoring and reporting the innovation processes and including innovation title in sustainability activities.

Internationalization

The transfer of internationalization skills of pilot projects into new projects with scaling studies can be examined under three components: capacity building, marketing and identification of new international trade opportunities, technology and know-how transfer. Within the framework of capacity building, technical overseas trips, participation to overseas fairs, relations with international stakeholders and management of promotional activities can be discussed. The determination of new international trade opportunities and marketing includes opening to new markets. Technology and know-how transfer include technology and information from international partners and transfer of production method.

In general, the biggest problem in rural development projects is the limited access of projects outside the region. Especially in production, trade and technology, the added value created by such internationalization skills across the region and on cluster stakeholders is considered to be one of the significant outputs of the project.

In this context, the issues to be included in the projects under the title of internationalization can be summarized as follows:

- Determining internationalization strategies of the project under three headings: Capacity building, trade and marketing, technology and know-how transfer,
- Identifying international events fair, meeting etc. for capacity building and planning of participation,
- Identifying the expansion strategies for international markets, conducting market research in accordance with these strategies and implementing necessary activities,
- Establishing an international action plan for technology transfer in line with the objectives of development of the region, competitiveness of the cluster and increasing the innovation capacities of the stakeholders, and contacting international suppliers,
- Establishing international action plan for know-how transfer, and contacting international suppliers,
- Organizing necessary trainings in order to share outputs and methods of the skills, experiences and best project examples of internationalization, preparing the materials, preparing the reports,
- Organizing forums covering stakeholder views, suggestions and needs for internationalization activities.

5. Supporting Outputs

Environment

There are two issues to be taken into account in the adaptation of environmental activities from pilot project to the projects to be implemented. The first is whether the focus of the project is the environment. If the main subject of the pilot project is not the environment, the environment is considered among the supporting factors in scaling and is definitely included among the success criteria of each project. All rural development-oriented agriculture clustering projects are expected to include an agricultural production model that protects the environment and is based on effective and efficient use of resources. The environmental impacts of the project should be determined and evaluated with short, medium and long term projections. The implementation of innovative technologies can be examined in this context in order to conduct the project by eliminating or maximizing the environmental impacts. In this context, measures for climate change are also considered within the scaling studies.

The second issue to be taken into consideration under the title of environment in scaling studies is to raise awareness on environment, to transfer education, knowledge and experience and produce knowledge poducts on them, to establish communication channels and multi-stakeholder platforms, to ensure cooperation between stakeholders, and to ensure sustainability of measures and methods for the environment, as project output.

In this context, the issues that should be included in the projects under the title of environment can be summarized as follows:

- Conducting environmental impact analysis of the project,
- Including an agricultural production model that protects the environment and is based on effective and efficient use of resources, in all rural development-oriented agricultural cluster projects,
- Preparing short, medium and long term projections for ecological effects of the project on the environment.
- Including projections for climate change,
- Adding innovative technologies and methods into the project in the environmental focus,
- To raise awareness on environmental issues, to produce knowledge about education, to transfer knowledge and experience,
- Structuring environment-oriented communication channels and multi-stakeholder platforms, ensuring cooperation between stakeholders and ensuring sustainability of the measures and methods applied for the environment.

Sustainability

TThe most important factor that enables scalability of projects is to be sustainable and to be designed with a strategy based on sustainability principle. While sustainability is generally associated with environmental impacts, the sustainability in rural development-oriented cluster projects is also related to corporate identity of the cluster. On the other hand, the biggest obstacle to sustainability of the projects is that sustainability of the financing resources for the projects that are sufficient and continuous is very difficult. Sustainability can be evaluated in the context

of environment, financing, institutionalization, business development, R&D and innovation. If sustainability solutions can be produced within the framework of the problems encountered in the pilot projects and the feedbacks obtained during the project; it is possible to implement the methods, processes and results for these solutions in the scaling projects by adapting them to the dynamics of the new region.

In this context, the issues that should be included in the projects under the title of sustainability can be summarized as follows:

- Determining the sustainability strategy for the project,
- Carrying out sustainability analyzes under the titles of environment, finance, institutionalization, business development, R&D and innovation,
- Adapting the sustainability solutions and methods in the framework of problems encountered and feedback received during the project.

Interaction with Other Policy Areas

The study of the project's policy interaction in three axes (main policies, environmental policies and interactive policies) is important in terms of sustainability in the scaling process. Each project will have an impact on different policy areas outside its own policy area. The analysis of such impacts will mean the improvement of project outputs and the monitoring of positive waves in different areas. Main policy areas are agriculture, rural development and environmental policies. Policies on environment are industry, energy and natural resources. Interactive policy areas are social policies, training, innovation and technology. Identifying the interactions of the project on these three axes will enable co-financing, new cooperation, joint project opportunities and awareness and recognition on different platforms.

In this context, the issues that should be included in the projects under the title of interaction with other policy areas can be summarized as follows:

- · Making analysis of policy areas in which the project interacts,
- Conducting the impact analysis of the project on a policy basis,
- In the scaling stage, identifying the co-financing, new cooperation and joint project opportunities to be obtained from the interacted policy areas in line with the pilot project,
- Ensuring awareness and recognition on different platforms in other policy axes.

CONCLUSION

he GAP Organic Agriculture Cluster Project was carried out by GAP Regional Development Administration (GAP RDA) with the technical assistance of United Nations Development Program (UNDP) during the period of 2009-2018. The exemplary structure of this project, its contribution to the region and its stakeholders ensure scalibility and replicability of both the structural model of the main project and the acceleration and contribution captured by the pilot projects.

Scaling is based on the main project, which is a model built upon replication of the successful outputs obtained in the previous projects in the selected geographic region, in line with the targets set in the pilot projects to be realized. In this context, it is important that the projects to be adapted should be compatible with the internal dynamics of the targeted region and that the cooperation models and adaptation processes to be created should be developed in a way to get the highest benefit.

This toolkit presents a Scaling Roadmap based on the relevant literature review and on the analysis of outcomes obtained in the GAP Organic Agriculture Cluster Project. This roadmap can be used as a guide in scaling projects. With this roadmap, it will be possible to adapt the successful projects in different geographies to wider and different groups and to get value added results by applying the acquired methods according to the dynamics of new target group. By the roadmap outputs, it will be possible to proceed through a checklist in scaling.

Scalibility and replicability ensure the sustainability of main projects and restructuring of pilot projects. In this respect, the projects such as GAP Organic Agriculture Cluster Project, which are based on international cooperation and present a multidimensional structure in terms of stakeholders, benefits and contributions, have importance on two issues. Primarily, replication of the projects by scaling will help to achieve sustainability in rural development, and secondly, it will be a valuable example for the development of agriculture-oriented regional projects.

In the light of all these evaluations, through "Scalability and Replicability Toolkit" it is aimed to increase the number of studies in this field and to guide the determination of policies that will contribute to the improvement of regional development.

ANNEX 1: FINANCIAL SUPPORT PROGRAM FOR GAP ORGANIC AGRICULTURE VALUE CHAIN PILOT APPLICATIONS

	Pilot Project Name	Implementing Institution/ Organization	Project Activities
1	Organic Product District Market	Eyyubiye Municipality	 Establishing the project team and preparation studies Establishing organic markets Buying organic food buffets Organic product marketing training for approximately 50 tradesmen Visiting sample organic markets Hygienic food trainings Promotion activities
2	I'm Producing Organic Olives in Şanlıurfa, I'm Hopeful for the Future	University of Harran	 Establishment of project office Meeting with farmers who produce organic olives (introduction of the project, identification of farmers who have 1-year certificate to be included in the project and identification of farmers in the phase transition to organic agriculture) Training activities (Modern olive cultivation techniques; organic olive cultivation techniques; control of diseases and pests in organic agriculture; plant nutrition and soil fertility practices in organic agriculture; branding in organic products, especially in organic olive oil; marketing opportunities for organic olives as brine and olive oil) Obtaining organic olive oil by processing organic products in the olive oil plant established within Harran University by transforming it into an organic plant. Improvement activities for efficiency and quality in organic olive cultivation Branding activities for organic olive and olive oil Marketing activities for organic olive and olive oil Having inspection and certification procedures done (signing of contracts) Seeing on-site activities (Taking the farmers to domestic and overseas organic agriculture fairs, to domestic and overseas organic product processing and marketing companies, and to domestic and overseas modern olive breeding, olive and olive oil production sites) Visibility activities Reporting and evaluation activities

Project Activities	İlçesi
 Organic product markets were established. Organic product buffets were created. Increase in market share of organic products was ensured. Trainings on organic product sales were provided. Hygienic food trainigs were provided. 	Eyyübiye, Şanlıurfa
 Branding of produced olive and olive oil will be supported. Students who study organic agriculture will be supported through on the ground implementations and creating employment opportunities. Transformation of olive production capacity of the region to profitable production, modern organic olive growing methods and olive oil production techniques will be shown to farmers through applied trainings. The importance of organic agriculture for the region and production techniques of other organic products will be explained to farmers and awareness on organic agriculture will be raised in all segments of the society from producer to consumer. Model cooperation project among universities, governmental agencies, research institutes and producers will be designed. Countries that demand organic products will be provided to see the potential of the region for investing in the region for future. Agricultural Engineers who work in provincial directorates of the ministry will have an opportunity to renew their knowledge about organic olive and olive oil production. Modern olive oil facility in Agricultre Faculty will provide courses, trainings and seminers to those who want to deal with this job. Organic olive gardens and producers in project sites (Haliliye, Hilvan, Viranşehir), particularly in Suruç will be certified as reference producers. Through the study visits producers of the region will have an opportunity to meet other organic producers in other regions and increase the opportunity to cooperate wit them. The project will ensure to gain experience and knowledge about organic agriculture. 	Haliliye, Hilvan, Suruç (Ana İlçe),

3	Organic Karacadağ Rice Packaging Project	Siverek District Governorate	 Determination of the project team Supply and installation of machine and equipment Establishment of the cooperative and rental of cooperative office Certification of Product Obtaining Brand Registration for the Product Training Activities (Training and requirement analysis; identification of experts to give training; giving the training) Introduction and Visibility Participation in the fairs and technical trips (Ensuring participation in the domestic and overseas organic agriculture fairs and organic agriculture business visits) Reporting and evaluation activities
4	Özakkaya Food; From Farm to Table Again with Organic Bulgur Production	Özakkaya İnşaat Nakliyat Taşımacılık Petrol Turizm Gıda Sanayi ve Ticaret Ltd. Şti.	 Preparatory activities for project implementation Preliminary preparation for the installation of machinery and equipment Installation of machinery and equipment Establishment of human resources infrastructure for Özakkaya food company Starting the necessary infrastructure works for process management (having consultancy services for total quality management and institutionalization) Planning activities for the renewal of marketing infrastructure Visibility activities Starting the certification work (starting the organic food certification processes) Reporting and evaluation activities
5	Dissemination of Organic Meat Poultry Breeding Project	University of Dicle, Faculty of Agriculture, Department of Animal Science	 Establishment of the project team and distribution of tasks Project introduction meeting Installation of project demonstrative area Employment of new staff Supply of machinery, equipment and material Realization of organic production Control and certification procedures Realization of practical training Visiting good practice areas Reporting and evaluation activities

- A project team consisting of project coordinator and project assistant was created.
- Purchase of one packaging machine, 10 weighing scales, front band, date-writer with rivon and elevator for the legumes, and packaging of the rice in the transition process are planned.
- A cooperative was established and the office (business) was leased for the cooperative. A
 vehicle was hired to provide farmer participation and field work in the project.
- A contract was signed with KSK to produce organic rice, rice was certified.
- It was planned to get brand registration to increase the competitiveness of rice.
- 5 instructors for trainings and an accountant for the accounting work in the project and cooperative were employed.
- Training activities were carried out with sufficient content and effectiveness in accordance with the purpose of the project. Organic rice farmers' knowledge level on organic agriculture, organic rice cultivation, etc. was increased.
- Awareness has increased in farmers and local communities.
- 2 domestic and overseas exhibitions were participated; a technical trip was organized to an organic agriculture business abroad.
- A system was established, with which the organic certified durum wheat will be produced in the region.
- In addition to the line used for the current wheat production, a new line was installed, with which fully organic certified durum wheat will be processed.
- Organic certified bulgur production was started for the first time in the region, and activities to increase brand and sales value have been started.
- The organic agriculture certificate for the product was completed.
- Total production value was TL 3,500,000. Domestic sales for the first year amounted to TL 9,719,984 from TL 7,719,984 with an increase of TL 2,000,000.
- 10 people were employed to meet the growing labour force requirement due to production capacity and quality. 6 people started to work in production, 2 people in marketing and 2 as technical staff.
- Production capacity of new products was increased by starting the production of organic bulgur which was not produced in the region.
- New products started to be packaged in completely eco-friendly recyclable packaging from 1 kg up to 15 kg.
- The number of customers increased from 25 to 35 companies.
- The company, which started production in small packages, added retail companies to its domestic sales and increased the number of its customers by 45%.
- By adding new production technologies and modern packaging systems to the production line, organic durum wheat processing has begun and in addition to the export to Middle East market with Nicem and Akyusuf brands, exports have started to European countries with high import and demand for organic products.
- 70% of sales were realized abroad.
- A project team was created in order to continue the project in later periods and to obtain sustainability.
- 350 people were informed about organic broiler poultry and awareness was provided in society.
- In the project demonstrative area, an integrated organic poultry farm consisting of 1 cultivation coop, 1 feed production unit and 1 slaughterhouse were established.
- Two people were employed, one as poultry house keeper and the other as agricultural technician.
- Poultry equipment such as feed box and water box, lighting, ventilation, heating-cooling
 machinery and equipment, generator, slaughterhouse machinery and equipment, one feed
 crushing and mixing machine, spare parts and insulation materials were purchased.
- 2,500 organic certified broiler chickens were grown. The grown chickens were carved and presented to the market.
- Control and certification processes were carried out for the integrated facility and 2,500 broiler chickens.
- Training was given to 30 people for 56 hours on organic poultry breeding.
- Organic animal husbandry integrated facilities in Spain were visited and examined.

Viranşehir

Siverek

Yenisehir

		Development of Organic Agriculture in Lice District of Diyarbakır Province - 2	Diyarbakır Metropolitan Municipality	 Ensuring dissemination of the organization network of the cooperative in the target basin Providing trainings for strengthening the knowledge and skills capacities of the members of the cooperative Strengthening the institutional capacity of cooperative management Supply of organic products Arrangement of production contracts between cooperative management and farmers/producers Development of Organic Agricultural Market Administrative Management and Web Based Market
				 7. Visibility activities for the Diyarbakır organic agriculture market which was built under the first organic agriculture project 8. Carrying out activities to gain brand value for the products produced within the cooperative body 9. Performing experience sharing visits 10. Making certification applications 11. Transformation of conventional production areas into organic production areas
	7	We Produce Organic Olive Oil for a Healthy Future	University of Harran	 Creating project team, conducting opening meeting, Visibility activities, Information seminar to the target audience, on the importance of organic agriculture, olive and olive oil production Trainings to the target audience, to support the vocational trainings, personal development and initiatives Activities related to raising awareness of consumers on organic products Purchase of materials and equipment to increase the production capacity of organic olive oil plant Promotion of products in regional, national and international markets and development of market network Project closing meeting, public presentation and project closing operations

- The farmers were provided with the insight of value chain creation and cluster development for organic agriculture and awareness was raised.
- Contribution was made for strengthening the organizational capacity of the "Agricultural Development Cooperative" operating in Lice.
- Contribution was made for expansion of the organization network of the cooperative in the target basin (Duru, Çeper, Daralan, Ergin, Tuzla, Kıralan, Birlik, Abalı, Şenlik and Dernek neighbourhoods and farmers in 17 hamlets).
- The number of farmers making organic production in the district increased by 10%.
- Contribution was made for transition to organic production in lentil, barley, wheat, chickpeas, vegetables and so on.
- Natural and local product varieties were determined in the region to make organic production.
- By transition to organic agriculture, contribution was made for increase of employment and incomes and strengthening the local economy especially in Lice district and in Diyarbakır.
- Transition to organic agriculture was achieved in 100 decare area in Lice district.
- The capacity of knowledge and skills of the cooperative members was strengthened.
- Contribution was made for improvement of market value chain quality by market research
 to provide organic products to the organic agricultural market.
- In order to promote the production of organic products, cooperation agreements were signed between Agricultural Development Cooperative and the producers.
- The Organic Agricultural Market Administrative Management System was developed in the Medya neighbourhood of Kayapınar district in Diyarbakır.
- Contribution was made for gaining brand value, developing the product quality, establishing the market network for the products produced within the cooperative, and for the cooperative to gain the corporate identity.
- The "Organic Agriculture Initiatives" at the local level were supported and contribution was made for expansion.
- Contribution was made for certified production, by input support.
- By experience sharing visits, cooperative and the farmers were provided to create a market network throughout Turkey
- Project team will be created
- Visibility of the project will be provided
- The farmers will be informed about the importance of organic agriculture and olive cultivation.
- By providing vocational training to farmers, their personal development and entrepreneurship will be supported. In addition, they will be provided with knowledge and experience in the fields of organic olives and olive oil.
- The production quality and capacity of an organic facility will be improved.
- Organic products will be supplied to the market.
- The organic products of farmers will be ensured to gain their value.
- Olive oil prices will be increased to meet the labour of the farmer.
- Contribution will be made for branding of olive and olive oil to be produced.
- The students who will study in the organic agriculture program will be ensured to see the
 applications on-site and employment opportunities will be created in the future.
- The project will demonstrate that the organic olive cultivation potential of the region can
 be transformed into a profitable production form, by implementation in farmer conditions
 using modern organic olive cultivation and olive oil obtaining techniques.
- The organic agriculture will be ensured to be better understood by all sectors from producer to consumer and it will be explained that it is an important production method for the region and that it can be realized in other products,
- An exemplary cooperation project will be done between associations and producers.
- Those who want to do this work in Şanlıurfa will be provided with the opportunity to attend
 courses, trainings and seminars in the modern olive oil facility.
- Technical trips will enable producers to meet and cooperate with producers in other regions,
- Knowledge and experience will be provided for the organic agriculture projects in the region.

Sur

Haliliye, Bozova, Ceylanpınar, Harran, Suruç

8	Establishment of Organic Seed Production Centre	GAP International Agricultural Research and Training Centre	 Project coordination Establishment of seed production centre Training and dissemination activities Visibility activities
9	Olive is rearing up in its homelandr	Derik Development Association	 Establishment of project office Meeting with farmers who produce organic olives (introduction of the project, identification of farmers who have 1-year organic certificate entrepreneur certificate under the project and identification of farmers in the phase of transition to organic agriculture) Training activities (Modern olive cultivation techniques; organic olive cultivation techniques; control of diseases and pests in organic agriculture; plant nutrition and soil fertility practices in organic agriculture; branding in organic products, especially in organic olive oil; marketing opportunities for organic olives as brine and olive oil) Improvement activities for efficiency and quality in organic olive cultivation Branding activities for organic olive and olive oil Marketing activities for organic olive and olive oil Having inspection and certification procedures done (signing of contracts) Seeing on-site activities (Taking the farmers to domestic and overseas organic agriculture fairs, to domestic and overseas organic product processing and marketing companies, and to domestic and overseas modern olive businesses) Visibility activities Reporting and evaluation activities
10	Organic Bee Farm	Şırnak Province Beekeepers Union	 Creating project team and office Realizing visibility activities Obtaining necessary equipment Employment of the necessary personnel Introduction activities Reporting and evaluation activities

GAP ORGANIC AGRICULTURE CLUSTER PROJECT SCALABILITY AND REPLICABILITY TOOLKIT

 High efficiency in organic production in unit area with the use of high yield seeds in organic production Opportunity for organic product producers to use certified seed and to obtain certified seed support that they could not benefit before Making the region a centre for organic seed both in Turkey and closer markets In addition to these, spreading the organic seed production in the region and the establishment of related processing and sales networks. 	Sur
 Contributing to the branding of olive and olive oil to be produced Ensuring the students who will study in the organic agriculture program, to see the applications on-site and creating employment opportunities in the future. Demonstrating the farmers that the organic olive cultivation potential of the region can be transformed into a profitable production form, by using modern organic olive cultivation and olive oil obtaining techniques. Ensuring that the organic agriculture is better understood by all sectors from producer to consumer and explaining that it is an important production method and can be realized in other products, Establishment of an exemplary cooperation between associations and producers. Renewing the knowledge of agricultural engineers and technical staff working in relevant public institutions Providing the opportunity to attend courses, trainings and seminars for those who want to do this work, in the modern olive oil facility to be established in Derik where oil is cultivated intensely. Certificating the organic olive groves and producers as a reference producer, in especially Derik, Kızıltepe, Dargecit and Nusaybin districts. Enabling producers to meet and cooperate with producers in other regions, by technical trips. Providing knowledge and experience for organic agriculture projects in the region. 	Derik, Kızıltepe, Yeşilli, Dargeçit, Nusaybin
 Start of organic honey production by the Union and supplying raw materials for honey processing plants in the region Institutionalization of activities of the Union Purchasing new equipment Increasing economic benefits of union members and farmers producing organic honey in the region Increasing commercial activities and employment opportunities in the province and region Increasing recognition and competitiveness of the region through economic gain from a region-specific product 	Centrum

11	Painless Head with Organic Food	Şehri Nuh Arıcılık Tar. Hayv. Gıda Petrol İth. İhr. San. Ve Dış Tic. Ltd. Şti.	 Creating project team and office Realizing visibility activities Obtaining necessary equipment Employment of the necessary personnel Introduction activities Reporting and evaluation activities
12	Efe Beekeeping Organic Honey Project	Efe Arıcılık Tarım Ürünleri Hayvancılık Nak. San. Tic. Ltd. Şti.	 Creating the project team and organization chart Tender preparation and making tenders Purchase, assembly and shipping of machinery and equipment Personnel recruitment Visibility activities Staff training Starting the trial production Starting mass production Promotion and marketing activities Reporting and evaluation activities
13	Aksoy Organic Almond Processing, Packaging and Organic Grape Packaging Project	Centrum Pharmacy	 Finalizing the establishment phase of the facility in Besni District of Adiyaman Province Creating the project implementation team Preparing the tender files and technical specifications for procurement activities Making the tender, signing the contracts and placing the order Delivery, installation and test production of the machines New personnel recruitment and on-the-job training Promotion activities Reporting activities
14	Project for Increasing the Value of Organic Bee Products with Innovative Methods	Adiyaman Provincial Directorate of Food, Agriculture and Livestock	 Creating the project team Ensuring that the project is announced at the provincial and district level Preparation of the training and training materials by trainers Theoretical farmer training at provincial and district levels Supplying solar powered sheds (Beekeeper's house) to farmers engaged in organic bee products Supplying queen bee production material Providing practical farmer training Participation in fairs Overseas technical trips for examination and research purposes within the scope of abroad beekeeping activities Announcing the project results

 Starting organic honey production in the company, thus the company supplies its own raw materials for the honey processing plant. Starting to sell organic honey to more customers Purchasing new equipment Increasing commercial activities and economic gains of the company Entering new markets Increasing the number of personnel in the company Increasing economic earnings of farmers producing organic honey in the region Increasing commercial activities and decreasing unemployment rate in the region Increasing recognition and competitiveness of the region 	Centrum
 Monetary value of the company's annual production amount over the sale price increased from TL 862,632 to TL 1,336,150. The monetary value of the company's annual domestic sales increased from TL 862,632 to TL 1,336,150. The total number of people employed for more than one year increased from 6 to 9, out of the project team. The company's annual production capacity increased from 75 tons to 83 tons. The company has made a trademark registration application. The annual organic honey production of the company increased from 2 tons to 10 tons with the project. The company has started to sell organic products out of the region. The number of organic products, which are started to be exported and/or sold outside the region, have become 4 with the project. 8 units of new machinery, equipment was purchased for the company. 	Centrum
 In the facility, at the end of the first year, crushing, screening, packaging and delivering to the producers of 480 tons of almonds In the facility, at the end of the first year, packaging of 100 tons of dried grape and delivering them to the producers In the facility, employment of one personnel permanently and 2 personnel during the product harvesting season which is close to 6 months. Getting 480,000TL of gross income per year from 480 tons of almonds by processing and packaging one ton for 1TL. Getting 100,000TL of gross income per year from 100 tons of dried grape by packaging one ton for 1000 TL. After the expenses and taxes are deducted, an increase of 30% in the expected annual turnover of 314,000TL, with 94,200 TL profit 	Besni
 Organizing various theoretical and demonstrative trainings for producers and farmers Reducing costs in agricultural enterprises through trainings Providing Ministry approved certificates to 100 people including volunteers, participants, stakeholders and young farmers at the end of the trainings. Creating individual capacity for environmental awareness and organic production in farmers Providing Beekeeper House with solar energy panel to 19 breeders who are successful in the trainings and ensuring them to become travelling beekeepers. Transforming the plant vegetation period which is short in the region into advantage by the mobile beekeeper houses Increasing farmer income and strengthening the socio-economic structure Increasing the yield per hive of 10 kg, by 20% each year Ensuring production in above-average quality and yield, without disturbing the natural structure of human-environment-production activity, in the long term Placing emphasis on market-oriented production efficiency in agricultural production enterprises Providing qualified staff for agricultural enterprises 	All Districts

15	Analysis Laboratory for Organic and Inorganic Matter Content Analysis of Herbal and Animal Products Produced in the Region	Adiyaman Commodity Exchange	 Creating and assigning the project team Purchasing the machinery and equipment Establishing the laboratory Promotion activities Preparing activity reports
16	Adiyaman is Becoming a Base for Organic Honey Production	Adiyaman Bee Breeders Union	 Signing the contract Project preparation, creating project team and activating project office Establishing the procurement commission Preparing the tender documents, specifications and tender Procuring machinery and equipment for hive production and making pilot production Employment of new employees Participation and promotion activities Visibility studies, Preparing the interim and final reports
17	Production of Bacterial Fight Product Against Viral Diseases and Pests in Organic Agriculture: Bacterial Preparations	Gaziantep Commodity Exchange	 Facility building activity Overseas and domestic introduction and visibility activities Land practices and demonstration studies Farmer awareness training and seminar activities Academic publishing activities
18	Improving Quality in Organic Agricultural Production	Kilis Municipality	 Creating the project team Creating the project office Promotion and visibility activities Establishing 3 greenhouses on 3 acres of land Growing organic pistachio and olive trees Forestation in the city centre Giving information about organic agriculture to 3,000 farmers in Farmer Registration System Research on organic agriculture in Bari, Italy Giving organic certification

 The laboratory is activated with machinery and equipment purchased. New employment in the laboratory, the quality of the laboratory was improved. The knowledge and skills of the personnel increased with the trainings given to the laboratory personnel. The number of beneficiaries increased for organic and inorganic matter content analyzes in the laboratory. The rate of taking service from the laboratory increased. The project took coverage in the local and national media. Contribution was made for expansion of reliable and organic food production through the laboratory 	Centrum
 Increasing 2 tons of organic honey production capacity up to 50 tons Increasing the number of employed persons from 3 to 10, employing 3 female and 2 disabled Giving technical and thematic trainings to 110 people, thus increasing institutional capacity of the company staff and increasing the knowledge of beekeepers on organic honey production. Conducting direct overseas export for the first time and getting at least 2 overseas customers Increasing the number of farmers making organic production from 100 to 200 Increasing customer satisfaction of the institutionalized and specialized union Ensuring visibility of the works done Producing organic hives for the first time in the region Contributing to the increase of organic beekeeping and reducing the unit costs of organic honey production in the region. 	Centrum
 Establishing an organic agriculture association covering all producers in TRC1 in Gaziantep Establishing E-commodity bazaar commercial web site for organic products in TRC1 region and sale of products from there Starting the sale of organic products in TRC1 to international markets Increasing knowledge, consciousness and awareness of producers producing organic products, by trainings to be given to producers in TRC1 region Contributing to increase the brand values of the products by the logo and packaging works Providing the producers with easy access to the information they need, with the handbooks and information notes to be printed for the producers Enabling the manufacturers to gain experience and develop their markets, with fair visits. Enabling the conference on importance of geographical signing and the registration process to activate the relevant people or institutions for the issue. As a result of the geographical sign registration applications to be made, contributing to the products (7 units) to be registered as geographical signs and thus to the increase of the brand and commercial sales values of the products. Providing an increase of 3% to 5% per annum in the total sales of the organic product market in TRC1 region (in monetary terms) 	Centrum
 Increasing green field in Kilis city centre Enabling higher yield from pistachio and olive trees Establishment of greenhouses by Kilis Municipality Directorate of Parks and Gardens and producing more seedlings. Creating awareness on the use of organic fertilizers Raising farmers' awareness about organic agriculture Research on organic farming practices in European Union countries and implementation of good practices in the province Providing organic certification to pistachio and olive trees 	Centrum

19	Healthy Flavour with Organic Olives Project 2	Kilis Province Central District Organic Olive Producers Union	 Creating the project team Visibility activities Awareness workshops to the target group in the field of organic agriculture, personal development and entrepreneurship Tender preparation and application of waste pool construction work in production facility Procurement and installation of machinery equipment in the capacity increasing phase of the production facility Introducing the products in regional, national and international markets and developing the market network Closing the project
20	Expansion of Organic Honey Production in Adıyaman Province	Adiyaman Provincial Directorate of Food, Agriculture and Livestock	 Creating the project team Ensuring that the project is announced at the provincial and district level Preparation of the training and training materials by trainers Giving theoretical and practical farmer training at the provincial and district levels, giving organic farming certificate Participation in fairs Announcing the project results.
21	Ecofile Application in White Mulberry	Adıyaman Tut Chamber of Agriculture	 Establishing the organic agriculture association, supplying office supplies for the association Applying ecofile to white mulberry trees of the farmers engaged in organic farming in the district Making application for Ecofile patent and brand studies on behalf of the Chamber of Agriculture Employment of staff Purchase of 500 nets and rent out to organic farming farmers Participation in the fairs and business trips Training activities Payment of the KSK fees of organic producers Marketing organic dried white mulberry and molasses

 Project team was created. The project was announced in local and national platforms. An organic production facility was established. Farmers were informed about the importance of organic agriculture and olive cultivation. Farmers were given vocational trainings and their personal development and entrepreneurship were supported. Knowledge and experience in organic olives and olive oil were obtained. Production quality and capacity of an organic production facility were improved. Organic products were supplied to the market. Contribution was made for reducing unemployment rate in Kilis. Farmers were able to find the value of their organic products. Women had the opportunity to work. The importance of olive oil increased in Kilis. Olive oil prices increased to meet the labour of the farmer. New employment areas were created. Production and export capacity was improved. Good practice examples were created. Sectoral diversification and specialization were supported. 	Centrum
	Centrum
 The organic agriculture association was established; thus the organizational structure was encouraged and the demands of those who are engaged or will engage in organic agriculture have increased. Organic certification body control, registration and document fees for 82 organic white mulberry and molasses producers were supplied by the project. A total of 500 Ecofiles were purchased by the chamber and rented to 82 farmers during the harvest period. (To be applied for 200 farmers in the following period) Dried white mulberry and molasses were purchased for 20% more price from the farmers who rented Ecofile, or for the farmers who wanted to market their products, the products were purchased for 20% more price, processed and exported Ecofile was registered on behalf of Tut district and Tut Chamber of Agriculture by brand and patent studies. 82 farmers were provided to participate in 3 fairs and 3 business trips. A total of 6 organic agriculture trainings were organized including 2 before harvest, 2 at harvest and 2 after harvest. Producers of organic agriculture were trained and their awareness was raised through fair trips, business trips and farmer trips. 35 tons of organic dried white mulberry and 25 tons of organic molasses were introduced to the market. 3 people were employed 	Tut

22	Organic Pepper Seedling Breeding Project	University of Gaziantep, Nurdağı Vocational School	 Creating the Project Team Building heating, cooling and ventilation system to make the existing greenhouse suitable for organic seedling production Organizing training and seminars on organic agriculture for regional farmers Preparing the seedbed for planting seedlings Receiving orders for organic red pepper seedlings, sowing seeds in viols and cultivation Distributing organic red pepper seedlings Preparing the seedbed for the next season
23	Sweet Life	Adiyaman Bee Breeders Union	 Creating the project team Giving trainings Making procurement tenders Distributing organic bee hives to specified beekeepers Making certificates and analyzes
24	Branding of Organic Dried Besni Grape	Besni District Directorate of Food, Agriculture and Livestock	 Giving information about the establishment of the Association Establishing Geographical Marking System Obtaining patent and creating logo Performing additional certification procedure Giving training on organic agriculture Organizing technical trips to organic agriculture fairs Obtaining information about vineyard cultivation, pruning, disease and pests by visiting viticulture research institutes
25	Development of Biological Control Substructure for Pistachios: Anthocoris minki Dohrn Cultivation Plant Installation	Directorate of Pistachio Research Station	 Establishing biological control laboratories Training technical staff and farmers on biological fight and use of beneficial insect Explaining and adopting the importance of biological fight to pistachio producers
26	Development and Extension of Olive Varieties Suitable for Organic Agriculture with Biotechnological Methods	Kilis 7 Aralık University	 Determination of yield, periodicity and organic agriculture availability in current genotypes Selecting suitable genotypes for organic agriculture Determining invitro propagation techniques of the selected genotypes

 Increased organic red pepper cultivation in the region Increased added value of the value chain of the product by organic red pepper seedlings Clustered organic red pepper cultivation in the region Contribution to the preservation of the region's unique red pepper genetics Contribution to increase the competitiveness of regional farmers Contribution to the preservation of the natural balance in the region by organic agriculture Increase in regional farmers' awareness on organic production 	Nurdağı
 Training farmers on beekeeping Development of beekeeping by organic beekeeping and marketing the bee products on the true price through association, thus ensuring the sustainability of beekeeping enterprises and increase in farmers' tendency towards organic production. Providing 30 hives to 50 members of the association, increasing the production of organic bee products and strengthening institutional structure of the beekeepers' association. Creating employment for 150 people Ensuring beekeeping enterprises to provide qualified personnel through trainings Establishing an infrastructure for participation of women in labour force Ensuring producers to learn using machinery in modern agriculture and beekeeping Increasing the importance of honey production and productivity in the province 	Centrum
 Establishing organic grape growers association in Besni district Providing geographical indications and patents for Besni grapes Ensuring organic grape cultivation using modern techniques Increasing organic agriculture in Besni Increasing competitiveness by gathering producers in the association Increasing the market share of Besni organic dried grapes and ensuring branding Ensuring employment, income growth and prosperity for the people of the region 	Besni
 Promoting environmentally friendly biological fight method Protecting human health and environment Contributing to farmers and national economy Ensuring production without pesticide residue Reducing the use of pesticides Reducing the currency loss Reducing the production costs 	Karkamış, Nizip, Şahinbey
 Producers' gardens were visited in cooperation with Kilis Organic Olive Producers Association and the most efficient olive clones were determined. Within the scope of the project, laboratory infrastructure was improved, 2,000 olive saplings were produced by tissue culture and distributed to the producers. This study has been an example for other investors in the region who want to produce olive trees. 	Musabeyli, Polateli, Nizip, Centrum

27	Dissemination of Organic Agriculture	Adiyaman Chamber of Agriculture	 Creating the project team and project office Project introduction activities Organizing trainings, publication, conferences and field visits Meeting activities Preparing the physical location of soil and plant analysis laboratory and purchasing machinery
28	he Most Natural Nizip Organic Olives Project	Nizip Chamber of Commerce	 Providing collective consultancy services to the primary producers within the scope of the project, starting the certification process and making applications Awareness raising activities on organic agriculture for the organic olive producers and the primary producers who have not yet made organic production Establishing National Organic Olive Producers Platform in order to organize organic olives producers on a national basis, organizing sector workshops within this scope. Carrying out branding, integrated marketing activities and creating communication tools to facilitate the access of organic olives to national and international markets Establishing a marketing information system Ensuring participation in national and international fairs Promotion and visibility activities (Nizip organic olives introduction booklet and various visual documents)
29	Healthy Flavour with Organic Olives Project	Kilis Province Central District Organic Olive Producers Union	 Creating the project team, opening meeting Visibility activities Information seminar on the importance of organic agriculture, olive and olive oil production Giving vocational trainings to support personal development and initiatives Organizing activities to raise awareness of consumers on organic products Purchasing materials and equipment to increase the production capacity of the organic olive oil plant Promoting the products in regional, national and international markets and developing the market network Project closing meeting

 Training farmers on beekeeping Development of beekeeping by organic beekeeping and marketing the bee products on the true price through association, thus ensuring the sustainability of beekeeping enterprises and increase in farmers' tendency towards organic production. Providing 30 hives to 50 members of the association, increasing the production of organic bee products and strengthening institutional structure of the beekeepers' association. Creating employment for 150 people Ensuring beekeeping enterprises to provide qualified personnel through trainings Establishing an infrastructure for participation of women in labour force Ensuring producers to learn using machinery in modern agriculture and beekeeping Increasing the importance of honey production and productivity in the province 	Centrum
 20 primary producers were provided with consultancy services on organic olive production. The certification process was initiated at the Ministry and the opportunities for producers to enter national and international markets were increased. Integrated marketing communication tools were created in order to provide organic olives to access national and international markets. National Organic Olive Producers Platform was created. 500 copies of Nizip organic olive promotion booklet were published. Participation in 2 national fairs. 40 primary producers were trained on the main title of organic agriculture under 5 subtitles. 2 Organic Agricultural Information Seminars for 50 people, each held for Nizip people. Advertisements were placed on three national magazines. Racket advertisements were placed on 50 mega-boards and 50 bus stops in Gaziantep. Organic and Food Safety seminars were organized for 200 students. 	Nizip
 Project team was created. The project was introduced with visibility activities. Farmers were informed about the importance of organic agriculture and olive cultivation. Farmers were provided with vocational trainings and their personal development and entrepreneurship were supported. Knowledge and experience in organic olives and olive oil were obtained. Production quality and capacity of an organic production facility were improved. Organic products were supplied to the market. Contribution was made for reducing unemployment rate in Kilis. Farmers were enabled to find the true value of their organic products. Women had the opportunity to work. The importance of olive oil increased in Kilis. Olive oil exports increased. Olive oil prices increased to meet the labour of the farmers. Contribution was made for the family economy and the country's economy. 	Centrum

30	Development of Organic Agriculture in Lice District of Diyarbakır Province	Diyarbakır Metropolitan Municipality	 Project Preparation Activities (establishing the project office and creating project team) Training activities (Giving trainings on organic agriculture and cooperatives, technical trips to relevant cooperatives in Turkey, preparing training brochures) Taking R&D work and consultancy service from academicians Establishing a cooperative (determining the founding committee of the cooperative initiative and starting the formal application process, training the cooperative management) Demonstration activities (short term consultancy service, soil analysis, soil plough and ground preparation, organic seed supply, garden care, harvesting, putting the products on market) Establishing a fixed district bazaar for the organic agricultural products in Lice district (site preparation work, making tenders, construction of fixed district bazaar of organic agricultural products, carrying out controls and commissioning) Visiting the local products fair Project promotion activities Organizing a conference Preparing the final project report
31	Improving Organic Grain Production and Competitiveness in the GAP Region	Yusuf Can Tarım Ürünleri Gübre, İnşaat Nakliyat, Zirai İlaç San. Tic. Ltd. Şti	 Signing the contract Project preparation, establishing the project team and activating project office Establishing the procurement commission Preparing the tender documents and making tender Supply, installation and testing of silos, machinery and equipment Employing new employees Giving employees institutionalization, quality and on-the-job training Studies to create R&D department, supply and value chain Promotional activities and participation in fairs Visibility and recognition studies Preparing the interim and final reports

- Producers' awareness was raised through the development of value chain creation and cluster development in organic producers.
- The number of villages and farmers making organic production in the district increased by 10%.
- An increase in new products was achieved in addition to the current organic products such as lentil, barley, wheat, chickpea, vegetables and so on.
- The natural and local product varieties in the region for organic production were determined.
- An understanding of value creation and cluster development in organic production was developed for the producers.
- In terms of organic agriculture, awareness-raising, value chain approach and productbased income were increased.
- The number of villages making organic production in the district has increased by 10%.
- Organic agriculture was made on a total of 100 decares area in Lice district.
- An organic products market was established in Lice centre.
- Soil analyzes were carried out in 280 parcels in Lice district and the potential of the areas for organic agriculture was revealed.

Lice

- Storage capacity of grain (corn, wheat, barley, red lentils and chickpeas) reached 7,124 tons
 due to the silos obtained.
- Organic grain production increased by 20%.
- The number of farmers contracted increased from 147 to 160
- Exports to two countries in different regions, including Europe and the USA, have been achieved
- 5 new recruitments were provided, including 1 disabled and 3 women.
- The turnover increased by 20% by evaluating the market opportunities/conjuncture.
- Unit product costs decreased by 12%.
- Profitability increased by 20%.
- Overseas marketing department was established.
- Market share increased by 5%.
- Seasonal fluctuations in production were eliminated by the increase in production capacity and storage opportunities and production was spread throughout the year.
- A stand was opened at the international fair, and 1000 units of multilingual brochures were printed out.
- 24 hours of training was provided for the entrepreneur managers and employees and the
 institutional capacity and satisfaction of the employees were increased.
- The enterprise exported at an amount of \$1 million.
- Customer satisfaction of the institutionalized and specialized company was increased.
- R&D department was established. R&D department employees were given 24-hour training for design.

Siverek

ANNEX 2: PILOT APPLICATIONS FOR GAP ORGANIC AGRICULTURE CLUSTER PROJECT

Province	Implementing Institution/ Organization	Project Name	Project Activities		
Kilis	Kilis Province Organic Olive Producers Association	Pilot Project for Increasing Competitiveness of the Organic Olive Oil in Kilis Province	 Business establishment and supporting tools Marketing and promotion Capacity building Governance, monitoring and evaluation 		
Diyarbakır	Eğil Organic Cereal Producers Union	Pilot Project for Increasing Efficiency and Increasing Added Value in Organic Production in Ilgin Village, Diyarbakır	 Developing the physical infrastructure Contract manufacturing planning Marketing and promotion Capacity building Governance, monitoring and evaluation 		
GAP İlleri	GAP RDA, MFAL Directorate of Agriculture Provincial and District, Adana Directorate of Biological Fight Research Station, Diyarbakır Directorate of Agricultural Fight Research Station, Pistachio Research Station Directorate, Şanlıurfa GAP Agricultural Research Institute, University of Dicle Faculty of Agriculture, Department of Plant Protection, University of Harran Faculty of Agriculture- Department of Soil and Plant Protection, GAP Diyarbakır Institute Directorate of International Agricultural Research, Development Agencies, Turkey Biological Fight Society and relevant NGOs	Use of input for Organic Plant Nutrition and Biological Fight in Crop Production in South-eastern Anatolia and Pilot Project for Organic Plant Protection and Biological Control	 Creating coordination and governance structure Institutional capacity building and networking activities Capacity building and extension activities for farmers and dealers Investment and financing models Governance, monitoring and evaluation 		

Expected Activity Outputs

- Construction of a modern building for fason olive oil production, storage and packaging
- Construction of a medium-sized plant for the storage and packaging of current and future certified organic olive oil
- Purchasing a truck that the association needs
- Assigning a marketing expert, setting a strategy for branding and promotion,
- Increasing the registration and visibility of the Kilizi brand, creating a network (participation in fairs), shooting a promotion film, uploading these works into the portal
- Developing corporate/commercial partnerships
- Identifying future visions of Kilis Province Organic Olive Producers Association, and preparing a strategic roadmap to guide the current and future governments
- Training and information activities for the association members and technical personnel in the enterprise, cooperation with the Agricultural Training and Extension Project (TEYAP) in training activities
- Organic certification and ISO certification
- Establishing the necessary structures in the processes of management, monitoring and evaluation of the activities (Board of Directors, Monitoring Unit, Technical Advisory Unit) and making such structures functional
- Development of irrigation infrastructures (well, drip irrigation systems etc.)
- · Providing the necessary organic input for soil analysis and improvement of soil quality
- Activities for establishing a corporate identity, branding, promotion, networking (participation in fairs)
- Cleaning and packaging of organically produced lentil and chickpea and sub-contracted processing, production and packaging of home-produced dried fruit roll-up and molasses as organic products
- Developing commercial cooperation for all production and packaging activities
- Ensuring that the sub-contracted enterprises receive certificates for organic production
- Processing and packaging of legumes, dried fruit roll-up and molasses in enterprises that have organic production certificate
- Strengthening institutional capacity of the Ilgın Organic Cereal Producers Association
- Establishing the necessary structures in management, monitoring and evaluation of activities (Management Board, Monitoring Unit, Technical Advisory Unit) and making such structures functional.
- Establishing GAP Organic Plant Nutrition and Biological Fight Coordination Council and establishing the necessary structure
- Capacity building requirements analysis for board member institutions and organizations
- Developing and implementing the capacity building programs specific to the coordination board
- National and international networking activities

Diyarbakır	GAP RDA, GTHB Agriculture Provincial and District Directorates and GAP TEYAP Project	Education, Extension and Dissemination Project for Organic Cotton Production in Diyarbakır Province	1. Capacity building activities
Diyarbakır	University of Dicle	Dissemination of Organic Goat Breeding Project	 Business establishment and support tools Institutional capacity building and networking activities
Mardin	University of Artuklu	Improving the Quality of South- eastern Anatolia Honey and Marketing Support Project	1. Analysis studies and development of result reports
Şanlıurfa	University of Harran	Organic Fruit Processing Pilot Project for Innovation Transfer to Organic Fruit Growers	 Business establishment and support tools Marketing and promotion Capacity building
Adıyaman	Centrum	Pilot Project for Organic Quinoa Breeding and Gluten-Free Food Production	 Developing the physical infrastructure Institutional capacity building and networking activities
Siirt	University of Siirt	Strengthening Infrastructure of the Organic Honey Analysis Laboratory and Investigating and Developing Sectoral Capacity of Organic Honey Producers Network	Development of physical infrastructure Institutional capacity building

- Showing practically all the stages of organic production to cotton producers in Diyarbakır province from seeding to harvesting and bale tracking system, in Diyarbakır province
- Informing the producers about correct applications, giving trainings to the producers and the relevant technical personnel
- Ensuring expansion of organic cotton farming and proper practices in the region
- Establishing the facility and providing necessary machinery and equipment
- Completing the certification process
- Completing supply of live organic goats
- Conducting relevant capacity building trainings and technical visits
- Performing analysis studies to determine the quality of regional honey
- Preparing the final report and sharing such results with the relevant institutions

- Provision of machinery and equipment for establishment of the relevant facility
- Completing the certification process
- Completing selection of the relevant farmer
- Establishing demonstration areas
- Training and visiting program

- Completing the accreditation process
- Supplying the relevant laboratory devices

NOTES







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