

AM Partners Consulting Company
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STUDY FOR IDENTIFICATION OF ACTUAL CAPACITIES AND DEVELOPMENT OPPORTUNITIES OF ENTREPRENEURSHIP AND AGRICULTURAL FOOD PRODUCTION, PROCESSING AND EXPORT PROMOTION IN TAVUSH MARZ



MINISTRY FOR FOREIGN
AFFAIRS OF FINLAND

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EXECUTIVE SUMMARY

Foreword

The United Nations Development Program (UNDP) Armenia implements “Wider Europe: Aid for Trade for Central Asia, South Caucasus, and Western CIS – Armenia” Project. The Project is co-financed by the Government of Finland and UNDP. The overall goal of the project is to support the economic development of the Tavush region, through the promotion of trade.

Main objectives of the Project are the following:

- Capacity building for trade mainstreaming and export promotion for public sector authorities, SME's, business support institutions, etc.;
- Strengthening capacities of the Market Information Center for the provision of adequate customer services;
- Enhancing capacities of local businesses through implementation of innovative export oriented projects/business ideas.

By initiating the mentioned study UNDP expects to obtain state of the art data on entrepreneurship and actual capacities and enhancement potential of production, processing and exports of agricultural products in Tavush Marz and its sub-regions. Also, the study addresses the analysis of business environment in Tavush Marz and its sub-regions.

Tavush Marz is defined as strictly agricultural region; 61% of the population is rural residents, 83% of total production volumes are agricultural or related products and goods. The next leading sphere of the Marz economy is the food processing with prevailing share of the agricultural products processing. In order to enhance development opportunities of the Marz via promotion of exports the efforts should be concentrated first of all on development of primary agriculture and processing.

The study identified that development trends of Tavush Marz primary agriculture and food processing notably slowed down recently. Gross agricultural production reduced notably, livestock number decreased. There are many problems related to insufficiency of infrastructure, organization of sales and marketing, availability of modern technologies, production of higher value and better quality goods, accessibility to funds, etc. Number of processing entities (especially dairy companies) ceased their operations.

For some products Tavush Marz has leading positions in Armenia. In particular, this refers to corn, cornelian cherry, persimmon, and fig. This is conditioned by sub-tropic climatic zone that is not available in other Marzes of Armenia, except Meghri sub-region of Syunik Marz. Thus, in production of these four products Tavush Marz has special role.

In the field of plant-growing of Tavush Marz there are various problems, conditioned by objective and subjective circumstances. Among the main problems are the situation of lands and absence of infrastructure. In Tavush Marz the lands are scattered and are located mostly on splays. These make harder the agricultural activities and have negative influence on efficiency of land cultivation. Irrigation system is not well developed. Only 20% of arable lands and perennial plots are supplied with irrigation water.

Animal husbandry has been traditionally developed and leading agricultural sector in Tavush Marz. Until 2007-2008, gross production of animal husbandry comprised 20 million AMD, which was about double more than gross production of plant-growing. Particularly, Tavush Marz had leading role in pig livestock which was 28,987 as of 2007. With this figure the Marz was the first in Armenia. But the livestock has decreased about 4 times during a year caused by African plague in 2007.

In parallel, there are serious development opportunities and pre-conditions in the Marz. In particular, significant qualitative and quantitative advancement took place in the sectors of fruit-growing (especially peach and tropics' cultivation), viniculture, tobacco cultivation, meat production, greenhouse activities, food processing (manufacturing of wine and brandy, production of dry fruits), etc. The conducted study resulted in identification of certain products that have notable potential for production and exports, such as:

▪ Primary agricultural products	→ Grapes, beef, persimmon, peach, sub-tropic fruits, milk, tobacco, berries, cornelian cherry, honey
▪ Processed products	→ Homemade fruit vodkas, cheese, dry fruits, wine and brandy, cans, preserves

The awareness of respondents about sales markets of primary agricultural and processed products is mostly based on their own experience and of their colleagues, information got from different development projects and mass media. This study tries to identify all the actual information and to find out the most possible markets for different potential products.

The influence of legislative and regulatory framework on the economic development tendencies of Tavush Marz is twofold. The existing framework is not bad in general. Such measures as high threshold for VAT due turnover, exemption of agriculture from almost all major taxes, export promotion measure (exemption of exports from VAT and custom fees) and other support the development significantly. The situation is completely different when it comes to the application of this legislative and regulatory framework. Tax and customs authorities usually adopt too tough and unfair behavior towards the private sector which impedes of the Marz economy. In addition, there are no privileges for start-up businesses and those who operate in remote and bordering areas.

The monopolized nature of Armenian economy does not affect the Marz economy significantly resulting in negative trends. Among hindering factors, though, the monopolization of the fuel market was mentioned. During the peak agricultural season fuel prices go higher, which is seriously hindering the development of primary agriculture.

The producers have extremely negative attitude towards the intermediaries that have some monopol position and operate in their products' value-chains and sales channels generating even more profits than producers do. Meantime, monopolized markets of fertilizers and medicine are even more worth to be mentioned. Their neglect by respondents can be conditioned by low intensity of their use (mainly due to expensiveness).

Tavush Marz was the most active region in Armenia concerning the cooperation with international development programs and projects. Almost all institutions that implement development initiatives have operated here. The major reasons for this are remote dislocation and bordering to Azerbaijan of the majority of rural communities, etc. *Inter alia* the most known implementers of development projects are: UNDP, WB, MCA-Armenia, World Vision and IFAD. Almost all development programs and NGOs involved in the study expressed their readiness to cooperate with UNDP.

The study also identified that the lack of market information significantly hinders proper marketing and sales of potential products. Almost all producers need to receive state of the art and accurate information on potential markets and partners, prices and sales opportunities of their products. Establishment of market information center (MIC) is very important for the majority of respondents.

It was concluded that the major way of information provision and distribution is the use of newspapers and other printed materials. They are comparatively easy accessible for the overwhelming majority of respondents and they use that opportunity quite intensively. Seminars, trainings and meetings have been also mentioned quite often. This is important since only during such events it is possible to organize real discussions and identify beneficiaries' needs. This is of special importance from the viewpoint of the establishment of new MIC, at the stage of definition of its objectives and functions. Among the other ways of information provision respondents also mentioned (although rarer) phone calls, text messages (in case of weather forecasts), visits of professionals and discussions, electronic correspondence, etc.

The study also uncovered the knowledge and training needs of large farmers and processors of Tavush Marz. The following needs were highlighted by respondents: knowledge and skills on new agricultural techniques and technologies, entrepreneurship and business planning, as well as product marketing.

The most requested general training topics are agricultural technologies, entrepreneurship, marketing, and planning. Trainings on Agricultural techniques were considered the most important by the respondents. This means that our farmers appreciate the importance of using modern technologies and having more efficient activities. At the same time, providing such information, implementation of corresponding trainings and practical events has been one of prior objectives for Tavush Marz ASC for more than one decade.

Thus, it can be concluded that in the framework of this study the most important training needs refer to business and marketing issues. At the same time it is notable that the respondents prefer mixed (both theoretical and practical) trainings.

1 FOREWORD

“Study for identification of actual capacities and development opportunities of entrepreneurship and agricultural food production, processing and export promotion in Tavush Marz” was initiated by the UNDP-Armenia. It was successfully conducted by AM Partners Consulting Company¹ in the period of July-September 2011.

1.1 OBJECTIVES OF THE STUDY

The United Nations Development Program (UNDP) Armenia implements “Wider Europe: Aid for Trade for Central Asia, South Caucasus, and Western CIS – Armenia” Project. The Project is co-financed by the Government of Finland and UNDP. The overall goal of the project is to support the economic development of the Tavush region, through the promotion of trade.

Main objectives of the Project are the following:

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- Strengthening capacities of the Market Information Center for the provision of adequate customer services;
- Enhancing capacities of local businesses through implementation of innovative export oriented projects/business ideas.

By initiating the mentioned study UNDP-Armenia expects to obtain state of the art data on entrepreneurship and actual capacities and enhancement potential of production, processing and exports of agricultural products in Tavush Marz and its sub-regions. Also, the study addresses the analysis of business environment in Tavush Marz and its sub-regions.

Tavush Marz operates as the main cargo corridor linking Armenia with Georgia (as a hub) and further with Russia and other post Soviet countries, as well as with Europe and Turkey. The major part of ground (road and railway) cargo transportation passes through the Bagratashen customs house in the North of Tavush Marz. Meantime, the bordering and transit location do not have significant influence on the Marz economy trends. Several years ago a border-trade market was operating on the border area of Bagratashen-Sadakhlo (Georgia), but it was closed and trade opportunities were substantially restricted and became more difficult. Currently, the sales channels of Tavush Marz producers are intermediated with different players in the market. Thus, regardless some theoretical advantages that physical location of the Marz might provide the general business environment for SMEs and trade development level does not significantly differ from the situation available in other Marzes of Armenia.

On the other hand, identification and application of additional and new development opportunities for Tavush Marz is of exceptional importance for Armenia. The Marz has 352 km common border with Azerbaijan, which already sources a lot of problems for the Marz. Significant part of bordering territories is not cultivated, 71% of all communities of the Marz are considered to be bordering. This heavily impedes the development of those communities and creates various social problems for local inhabitants.

¹ www.ampartners.am

By initiating the mentioned study UNDP expects to obtain state of the art data on entrepreneurship and actual capacities and enhancement potential of production, processing and exports of agricultural products in Tavush Marz and its sub-regions. Also, the study addresses the analysis of business environment in Tavush Marz and its sub-regions, including the following two specific aspects:

- ▶ Estimation of the number of SMEs and large farms by types of activities, identification of actual production and export volumes, as well as the potential, appraisal of the importance of local and foreign markets, legislative problems, accessibility of business and market information, etc.;
- ▶ Assessment of skills and knowledge of start-up and ongoing businesses, cooperatives, state entities, NGOs, information centers, as well as training needs and priority training topics.

The scope of work includes the following specific topics:

- ▶ Assessment of competitiveness of Tavush Marz primary agricultural and processed products in the Marz, Armenia and abroad. Assessment of legislative framework.
- ▶ Dynamics of SMEs establishment and closure, reasons of ceasing the operations by types of activities;
- ▶ Assessment of prospective products with production and export potential;
- ▶ Assessment of the influence of the Armenian economy monopolization on the Marz market development;
- ▶ Assessment of the implemented and ongoing projects in the Marz, evaluation of the effectiveness and efficiency, lessons learnt;
- ▶ Assessment of knowledge and training needs necessary to improve production and export capacities of Tavush Marz SMEs and large farmers, as well as availability and accessibility of the information, proposed ways of its collection and transfer;
- ▶ Identification of potential markets and sales channels (within the country and outside) and possibilities of product diversification;
- ▶ Identification of the opportunities for the promotion of start-up businesses;
- ▶ Proposition of an operable model for the MIC.

1.2 METHODOLOGY OF THE STUDY

1.2.1 Sources of information

Two major sources have been addressed with the purpose of information collection during the study. The first source of information includes all stakeholders of Tavush Marz business sector, i.e. start-up and ongoing businesses, cooperatives, state entities, NGOs, market and business information centers, financial institutions, international organizations, and large farmers. The second source of information includes large volume of secondary materials, such as statistics, previously conducted studies and drafted reports, official documents, etc.

The number of respondents involved in the first information source was sufficient (170 respondents in total) enough to collect necessary volume of information to conduct the study (analyze the data, make estimations, identify major trends, etc.). Respondent groups involved in the study are presented below.

Table 1 - List of groups of respondents (first source of information)

Groups of respondents (first source of information)	Number of respondents
---	-----------------------

State entities	24
Development programs	7
NGOs	13
Financial institutions	5
Processors	36
Large farmers	85
Total	170

Some groups of respondents have been further divided into sub-groups. In particular, within the group of state entities representatives of regional and local self-governing authorities have been interviewed.

The conditional group of processors consists of any type of intermediaries involved in value-chains of specific products, starting

from really processing enterprises and finishing with cooperatives and wholesale procurers.

The group of large farmers includes farmers engaged in cattle, sheep, pig breeding, bee-keeping, fruit and grapes growing. The following approach has been adopted for the selection of large farmers. From the very beginning, lists of large farmers and features of their activities (also sizes of farms) have been obtained from the Tavush Marz Governorate, ASC, and municipalities of rural communities. Then, selection of respondents (the larger farmers) has been done on the basis of specificities of each sub-region of the Marz. Distribution of surveyed large farmers by the types of their activities is presented below.

Table 2 - Distribution of large farmers by types of activities

Farmers by types of activities	Size of the farm	Number
Cattle breeding farms	> 50 heads	15
Sheep breeding farms	> 30 heads	10
Pig breeding farms	> 25 heads	5
Bee-keeping farms	> 40 beehives	13
Grapes growing farms	> 1 ha of cultivated area	15
Fruits growing farms	> 1 ha of cultivated area	10
Tobacco growing farms	> 1 ha of cultivated area	5
Greenhouse farms	-	6
Non-traditional activity farms *		6
Total		85

* - cultivation of olives, ostrich breeding, etc.

Besides the mentioned groups of respondents 2 additional interviews have been conducted with representatives of entities that have experience of MIC establishment in Armenia. Thus, the total sample consisted of 172 respondents, and their list is attached at the end of the current report (see Appendices):

☞ **Comment:** Although the surveyed respondents provided sufficient volume of information on important aspects of business environment and entrepreneurship in Tavush Marz, the conducted study is not a statistically accurate assessment. The main reason is that the sample of respondents is not representative. This is rather **stakeholder opinion review**, and respondents were addressed as experts of their fields. Thus, the study is considered to be an **expert opinion review**.

The second source of information includes statistical agencies of Tavush Marz and Armenia, state agencies on national and regional levels, as well as white papers available on Tavush Marz development

opportunities. List of secondary materials used is again presented at the end of the current report (see Appendices):

1.2.2 Information collection tools

Collection of primary data has been conducted via qualitative face-to-face interviews by using initially prepared semi-standard questionnaires. Prior to development of the questionnaires special list of topics to be addressed has been prepared on the basis of the ToR. Then specific questions from that list have been distributed between questionnaires for separate groups of respondents. This approach resulted in a development of 6 separate questionnaires - one for each group of respondents. All questionnaires were provided with identical system of coding.

The survey has been conducted via face-to-face interviews. The average duration of each interview was recorded to be 1.5-2 hours.

The digitalization of collected data has been conducted on MS Excel platform, and can be easily exported to other software, such as SPSS. General electronic database has been developed for all groups of respondents. Pivot tables have been developed for each correlation needed for the analysis. Data analysis has been conducted mainly by groups of respondents via providing 2, 3, and 4-scale tabulations. During the analysis of database information additional analytical tools, such as classification and grouping by certain features, have been applied. Results of the analysis have been presented in the report mainly in a format of tables.

1.2.3 Deliverables

The study resulted in two deliverables that were submitted to the INDP-Armenia task team: the current report and electronic database of the survey results.

2 CURRENT SITUATION AND DEVELOPMENT OPPORTUNITIES OF AGRICULTURE AND PROCECCING INDUSTRY

2.1 TAVUSH MARZ. GENERAL SNAPSHOT

- ▶ Area 2,704 sq. km.
- ▶ Marz share in the RA territory 9.1%
- ▶ Number of urban communities 5 (5 towns), including:
 - ↳ Bordering communities² 2
- ▶ Number of rural communities 57 (60 villages), including:
 - ↳ Bordering communities 44
- ▶ Permanent population of the Marz as of 01.07.2011 134,700 people, including:
 - ↳ Urban population 52,700 people (39.1%)
 - ↳ Rural population 82,000 people (60.9%)
- ▶ Towns of the Marz
 - ↳ Ijevan (Marz center) 20,600 people (132 km from Yerevan)
 - ↳ Dilijan 15,700 people (96 km from Yerevan)
 - ↳ Noyemberyan 5,500 people (185 km from Yerevan)
 - ↳ Ayrum 2,400 people (205 km from Yerevan)
 - ↳ Berd 8,500 people (186 km from Yerevan)
- ▶ Marz population share in the RA population 4.1%
- ▶ Permanent population of the Marz by sub-regions

Table 3 - Permanent population of Tavush Marz as of 01.07.2011 by places of residence and sub-regions

Places of residence	TAVUSH Marz	IJEVAN sub-region	DILIJAN sub-region	NOYEMBERIAN sub-region	BERD sub-region
Towns	52,700 (39.1%)	20,600 (41.7%)	15,700 (70.7%)	7,900 (24.6%)	8,500 (27.4%)
Villages	82,000 (60.9%)	28,800 (58.3%)	6,500 (29.3%)	24,200 (75.4%)	22,500 (72.6%)
Total	134,700 (100.0%)	49,400 (100.0%)	22,200 (100.0%)	32,100 (100.0%)	31,000 (100.0%)
Total in the Marz	100.0%	36.7%	16.5%	23.8%	23.0%

Source: "Number of the permanent population of Republic of Armenia as of 01.07.2011", NSC, 2011

- ▶ Number of population in bordering communities 76,000 people (56.4%)
- ▶ Lands of the Marz

² Here and hereinafter the term bordering means bordering to Azerbaijan and Georgia. The list of bordering communities is confirmed by the RA Government Decree

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// Current situation and development opportunities of agriculture and processing

Table 4 - Lands of Tavush Marz as of 01.07.2010

Lands by purpose and types of use	Area, ha
Total lands, including:	270,399
Agricultural, including:	111,909
Arable lands	25,533
Perennial plots, including:	2,000
<i>Orchard</i>	759
<i>Vineyard</i>	1,241
<i>Other perennial plots</i>	-
Grasslands	12,257
Pastures	60,278
Other lands	11,842
Residential, including:	9,942
Residential construction, including:	6,395
<i>Homestead lands</i>	6,273
<i>Gardening (summerhouse)</i>	20
Social construction	367
Various constructions	30
General use	1,144
Other lands	2,005
Lands of industrial and mining purposes , including:	1,198
Industrial structures	166
Agricultural production	677
Storages	10
Mining	346
Lands of energy, transport, communication, and communal purposes, including:	523
Energy	37
Communication	6
Transport	440
Utilities	40
Lands of special protection status, including:	25,203
Environmental, including:	24,295
<i>State reserves</i>	-
<i>State sanctuaries</i>	-
<i>National parks</i>	24,295
Recreation	20
Resorts	176

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// Current situation and development opportunities of agriculture and processing

Historical and cultural	712
Lands of specific importance	241
Forests, including:	120,183
Forests	113,684
Bushes	1,527
Arable lands	105
Grasslands	3,165
Pastures	316
Other lands	1,384
Waters, including:	1,200
Rivers	637
Ponds	404
Lakes	35
Canals	81
Hydraulic and other water-supply objects	44
Storing lands, including:	0.4
Salt marshes	-
Marshes	-
Other useless lands	0.4

Source: "Report (Form 22): existence and distribution of lands in the RA (by purpose, types of use, functional importance and proprietors) as for 01.07.2010, Tavush Marz", Tavush Marz Governorate

- ▶ The bordering part of the Marz to the RA state borders 400 km, including^a
 - ↳ Bordering to Azerbaijan 352 km
 - ↳ Bordering to Georgia 48 km

- ▶ Production of the Marz

Table 5 - Production in Tavush Marz in period of 2009-2010

Economy branches	Current prices of products, mil. AMD	
	2009	2010
Industrial products, including:	5,188.5	5,610.0
Mining industry and operation of open mines	534.1	568.7
Food production	2,576.0	2,551.6
Beverage production	233.9	342.1
Wood processing, products of wood, hay (except furniture)	55.4	83.7
Furniture production	16.5	17.5
Production of rubber and plastic products	49.9	25.9
Production of other non mineral products	48.5	229.6
Electricity, gas, steam and air supply	1,396.7	1,484.6
Water supply, drainage, waste management and processing	277.4	306.2

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// Current situation and development opportunities of agriculture and processing

Agricultural products, including:	24,300.0	28,300.0
Land cultivation products	11,700.0	13,500.0
Animal husbandry products	12,600.0	14,800.0

Sources: "Marzes of the Republic of Armenia and Yerevan city in numbers", NSC, 2010
 "Main indexes of industrial companies by two-digit classification of economical activities, by Marzes and Yerevan city for January-February 2010", NSS, 2011

► **Number of retail trade outlets in the Marz**

Table 6 - Number of retail trade outlets in Tavush Marz in the period of 2006-2010

Types of retail trade outlets	2006	2007	2008	2009	2010
Shops	447	446	560	652	651
Stalls	361	372	393	380	379
Markets of consumer products	2	2	2	1	1
Markets of agricultural produces	2	2	2	2	2
Other trade outlets	50	42	36	36	34
Total	862	864	993	1,071	1,067

Sources: "Marzes of the Republic of Armenia and Yerevan city in numbers", NSS, 2010
 "Social-economical situation of the Republic of Armenia in January-February 2010", NSS, 2011

The given data indicates that Tavush Marz is a specialized agricultural region. 61% of its population lives in rural communities, 83% (as of 2010) of production belongs to agriculture. The next major sphere of economy is food production, and the majority in it is backed by processing of agricultural products.

Obviously, development of the Marz via export promotion can be achieved first of all by concentrating efforts on agriculture and its related areas, such as primary agriculture and processing of agricultural products. This will give the opportunity to have real activation of the economy in the Marz, and the outcomes will be tangible for the major part of population. Besides, the main obstacles of social-economical development of Tavush Marz in some way relate to agriculture, starting from problems of irrigation to intercommunity roads.

2.2 GENERAL DESCRIPTION OF AGRICULTURE AND PROCESSING

2.2.1 Historical Data

Agriculture in Tavush Marz, as all over the Armenia, is not in its best period. The volumes of gross agricultural production in the last 5 years in Tavush Marz and in Armenia are presented below:

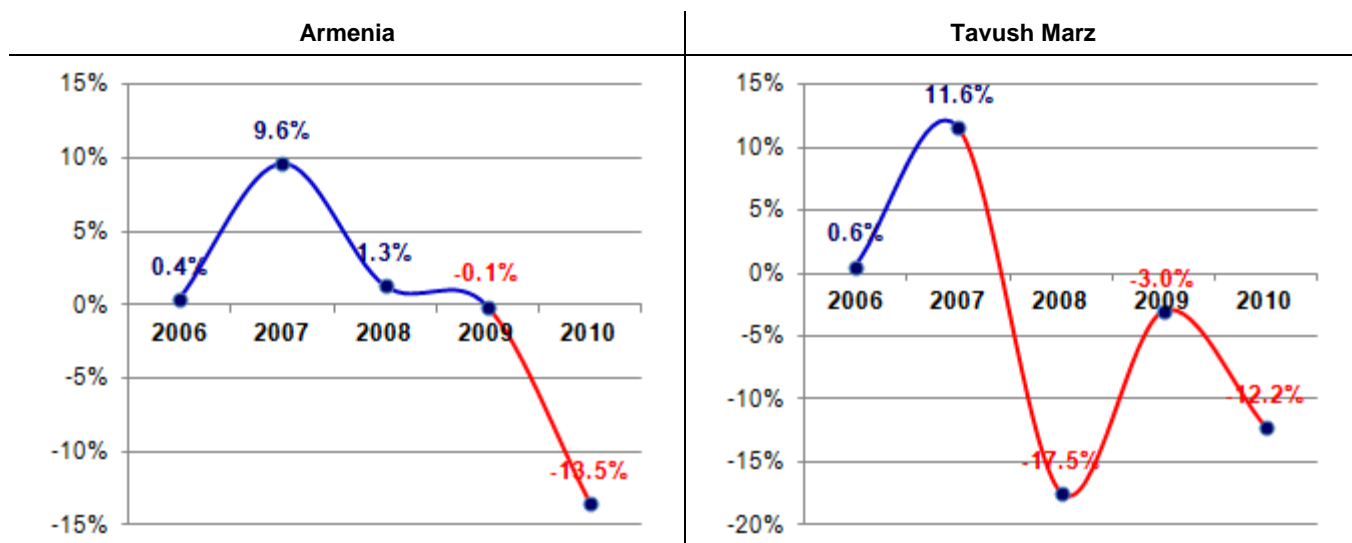
Table 7 - Gross agricultural production at current prices 2006-2010 periods, billion AMD

	2006	2007	2008	2009	2010
Armenia	555.9	633.9	628.1	555.7	637.6
Tavush Marz	30.6	35.5	28.5	24.3	28.3

Sources: "Marzes of the RA and Yerevan city in numbers", NSS, 2010
 "Marzes of the RA and Yerevan city in numbers", NSS, 2008
 "Social-economical situation of Republic of Armenia in 2010", NSS, 2011

The index of gross agricultural production at current prices does not give any idea about the development of the sector. The fact is that in recent 3-4 years the growth of agriculture was not only slowed down, but also a decrease is noticed. It is evident when we compare indexes of gross agricultural production in comparable prices (see Picture 1). The situation is the same in case of Tavush Marz.

Picture 1 - Index of gross production of agriculture in Armenia and Tavush Marz in comparable prices 2006-2010



Decrease of agricultural indexes is caused by fall of number of pigs' livestock in 2007-2008³ and by unfavorable climatic conditions in 2010. The world financial-economical crisis in 2008 had a hard impact for the Marz (as well as for whole Armenia). As a result, the poverty increased. This resulted decrease in consumption of consumer goods. Thus, in 2009 the poverty in Tavush Marz was increased for 8.1% compared to 2008, reaching to 31.3%. And this is when the poverty line was 30.920 AMD. As of the first quarter of 2011 the dimensions of poverty have grown even more. The poverty line was already announced to be 62.600 AMD, which was first of all caused by increase in prices of agricultural products, which in its turn was caused by unfavorable agricultural year in 2010. Definitely, the poverty in Armenia and in Tavush Marz has again reached to worrying dimensions.

The processing of agricultural products in Tavush Marz, which mostly depends on supply of primary agricultural products, is influenced by anything happening in the area of agriculture of the Marz. It is not strange that for the recent years the amount of processed products is waving, there is no stability. Thus, the activities of processing enterprises are weak and unstable. These and other similar problems are described below in more details.

2.2.2 Development opportunities

In this chapter opinions of respondents involved in the study of identification of development opportunities of agriculture in Tavush Marz have mostly been analyzed. In some cases these opinions are confirmed with the statistical data given above, in other cases the situation is not so definite. Answers of respondents of different groups strongly differ in quality. That is why; the analysis was done by groups of respondents.

³ See the dynamics of pigs' livestock at Table 13

The representatives of development programs have relatively negative opinion about the latest development opportunities of agriculture in Tavush Marz. According to them, development opportunities are very weak or even there are not any, and the population is disappointed. Among the general problems they mention bad conditions of irrigation infrastructure and insufficiency of irrigation water, lack of pastures and their inefficient use, frequent diseases in pig breeding, lack of knowledge and dominant role of intermediaries, distance from capital Yerevan and other sales markets, etc. At the same time, it is mentioned that some reforms have already been undertaken and others are in process. By this the respondents mean especially projects funded by international organizations. Particularly, there are good development opportunities in spheres of animal husbandry (meat production), fruits, tobacco cultivation, viticulture and growing of tropic fruits.

19 of 85 *large farmers* involved in the study agreed with the statement of bad situation of agriculture in the Marz. Among the main problems they mentioned:

- Impassability of roads leading to long-distant pastures,
- Lack of workforce,
- Lack and obsolete condition of agricultural machinery (especially harvesters),
- Lack of state support, high prices of forage, fuel, seeds, medicine and fertilizers,
- Animal diseases and loss of yield caused by bad climatic conditions (hail, drought), absence of means of compensation,
- Absence of available and accessible financing,
- Lack of professional consultancy,
- Special attention was driven to the problem of bad conditions of irrigation system and the lack of irrigation water.

14 of 85 large farmers involved in the study mentioned that good development opportunities are noted particularly in the field of fruit-growing, especially in peach-growing and tropic fruit-growing. These sectors have always been developed in the Marz, especially in the sub-region of Noyemberyan. Certainly, the problems, such as irrigation, lack of professional consultancy, difficulties in sales, etc., are also mentioned. In addition to gardening, 10 respondents have motioned viticulture as a developing sector considering the traditions of the Marz, existence of processing and procurement, etc. Problems of growing, scarcity of orchards, diseases and, the most important, low prices of sales and procurement, have been mentioned as well. 32 of 85 large farmers involved in the study mentioned that they see good development tendencies in animal husbandry. They justified their opinion by existence and availability of pastures and natural feed (although these factors do exist in the past, too), product (meat) demand in the market. Special attention is driven to the tendency of apiculture development. The main obstacles are diseases and lack of preventive medical treatment means. Among the new tendencies of development the greenhouse industry was mentioned, that has already quite successful activity in a number of communities of the Marz.

4 of 13 *NGOs* involved in the study do not see any development tendencies and tend to address rather problems than achievements. Among the main problems for development they mention:

- Bad climatic conditions;
- Absence of anti-hail stations;
- Emigration of population from rural communities;
- Lack of agricultural machinery, low level of automated cultivation means;
- Notable decrease of number of livestock in recent years;
- Distance from sales markets (particularly for Noyemberyan sub-region);

- Large numbers of abandoned and non-cultivated lands;
- Absence of policy and strategy for systematic agricultural development of the Marz.

For other representatives of NGOs development opportunities are more notable. The sectors are the same: viniculture and animal husbandry for meat production. Special attention was driven to processing of tobacco. Fishery has also some tendencies of development.

11 of 19 *representatives of state entities* do not see any tendencies of development. Among the problems for development they mention:

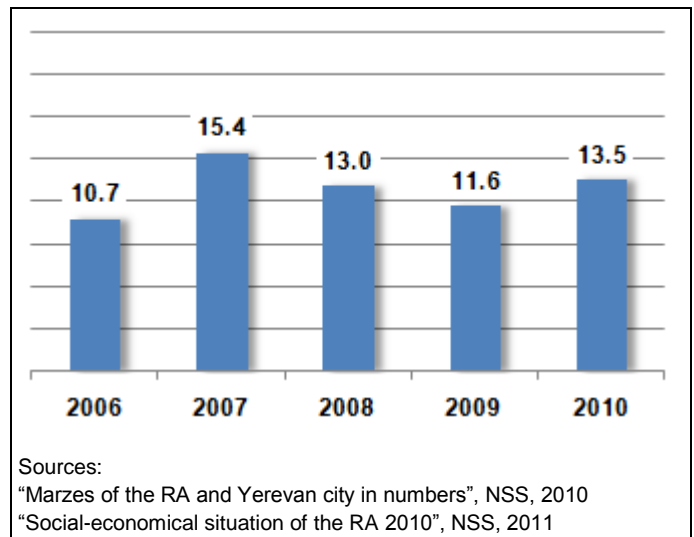
- Bad climatic conditions;
- Absence of anti-hail stations;
- High prices of fuel and qualitative inputs, lack of seeds;
- Bad conditions of roads leading to pastures;
- Lack of irrigated lands and irrigation problems in general;
- Lack of means for preventing diseases and for treatment of animals;
- Lack and obsolete conditions of agricultural machinery;
- Distance from sales markets, intermediated sales of products;
- Large numbers of abandoned and unprocessed lands;
- Impossibility of processing of bordering lands.

According to other respondents of this group, tendencies of development are noted in the sectors of animal husbandry for meat production, apiculture, tobacco processing, partially viniculture, and especially fruit-growing. Especially, they mentioned the development potential of growing of tropic fruits and berries.

10 representatives of 36 *processors* involved in the study do not see any tendencies of development. The problems are the same as mentioned for the previous groups. According to 15 *processors*, there are some opportunities of development of animal husbandry though there are many problems concerning product sales (milk, especially). Fishery is mentioned as having good potential for development. Fruit-growing (partially also viniculture) is mentioned as developing sectors by 8 processing enterprises, especially in Noyemberyan (Ijevan) sub-region. New orchards have been founded and modern techniques of processing have been implemented.

3 of 5 *financial institutions* involved in the study do not see development tendencies. According to the other 2 respondents, there are perspectives of development in greenhouse industry and in growing tropic fruits.

Picture 2 - Gross production of crops in Tavush Marz at current prices⁴ 2006-2010, billion AMD



⁴ According to the specialists of Armenian NSS Agricultural Statistics division the gross agricultural production in compatible prices is not calculated for Marzes

2.2.3 Land cultivation

2.2.3.1 Status-quo and problems

Land cultivation figures in Tavush Marz are conditioned by the existence of lands and climatic conditions. Table 4 shows that agricultural lands of the Marz are 111,909 ha; including 25,533 ha arable lands as of 01.07.2010.

Every year Tavush Marz produces crops of 10-15 billion AMD, depending on climate specificities that influence the productivity of plant-growing (see Picture 2). Traditionally, animal husbandry production volumes exceed land-cultivation results. Meantime, in the last 2-3 years the products of land cultivation and animal breeding were balanced, which is conditioned by the fall of animal breeding in 2007-2008.

Farmers of Tavush Marz grow all the crops that are typical for other regions of Armenia, too. But the Marz has its peculiarities. Tavush Marz has leading position in Armenia in growing of some crops, while for some others it is less proficient. But before going to exact figures, indexes of gross production of agricultural crops for the last 5 years in Tavush Marz will be presented. In the meantime, to understand the role of Tavush Marz in land cultivation of Armenia, the same figures are given in parallel with Armenia.

Table 8 - Land cultivation figures in Armenia and Tavush Marz, 2006-2010

Agricultural crops, ha

Crops	Armenia					Tavush Marz				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Grain crops	180,432	174,224	170,630	169,548	157,382	7,900	7,936	6,753	6,289	7,390
Legume crops	1,974	1,989	2,208	2,085	1,925	651	678	685	748	653
Industrial crops, including:	773	1,616	2,386	2,418	2,407	301	903	1,198	1,091	942
<i>Tobacco</i>	80	118	170	297	418	43	56	101	153	190
Potato	33,045	31,674	34,298	31,998	28,362	2,336	1,816	1,852	1,888	1,948
Vegetables	24,364	25,607	24,219	23,914	23,506	978	919	899	961	943
Melon crops	4,025	5,884	5,446	6,163	4,476	110	57	90	121	83
Fodder	65,550	64,989	65,272	63,888	65,533	1,605	1,923	2,399	2,354	2,188
Fruits and berries	35,403	38,020	36,748	36,959	37,710	2,107	2,342	2,339	2,348	2,350
Grapes	15,746	15,888	16,796	16,480	17,373	1,319	1,347	1,345	1,312	1,313

Gross production of agricultural crops, tones

Crops	Armenia					Tavush Marz				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Grain crops	208,587	447,375	409,182	369,076	321,954	8,996	20,560	19,024	18,876	13,568
Legume crops	3,956	5,163	6,171	5,783	4,469	885	1,196	1,589	1,791	1,009
Industrial crops, including:	no data	no data	no data	no data	no data	no data	no data	no data	no data	no data
<i>Tobacco</i>	171	268	538	1,055	1,376	76	114	258	356	576
Potato	539,477	579,571	647,215	593,551	481,956	10,795	19,822	25,470	25,485	14,533
Vegetables	753,518	828,624	778,402	819,804	707,593	5,388	7,983	8,306	8,366	7,258

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Melon crops	134,935	206,295	182,159	216,101	132,506	1,186	1,219	1,552	1,705	1,589
Fruits and berries	286,038	260,239	317,835	332,152	128,497	3,450	10,149	10,712	10,822	5,938
Grapes	201,371	218,883	185,832	208,649	222,905	10,260	13,711	6,297	10,282	11,612

Source: "Areas and gross production of agricultural crops 2006-2010", NSS, 2007-2011

The presented information does not give clear comprehension of the main advantages and leading role of Tavush Marz in plant-growing of Armenia. For that purpose the figures on plot sizes and products need to be given by types of crops. At the same time, to understand the real potential of the Marz, figures of 2009 year should be considered as the year of 2010 was very unfavorable in agricultural production.

Table 9 - Land plots and gross agricultural production in Tavush Marz by types of crops, 2009

Crops	Plots, ha			Gross production, ton.		
	Armenia	Tavush	%	Armenia	Tavush	%
Grain crops	169,548	6,289	3.7%	369,076	18,876	5.1%
Winter wheat	85,041	3,183	3.7%	182,625	5,876	3.2%
Winter rye	120	0	0.0%	318	0	0.0%
Winter barley	2,666	970	36.4%	4,588	1,997	43.5%
Spring wheat	6,843	6	0.1%	15,456	13	0.1%
Spring rye	95	0	0.0%	225	0	0.0%
Spring barley	65,907	370	0.6%	140,553	620	0.4%
Oat	947	0	0.0%	1,655	0	0.0%
Spelt wheat	5,290	7	0.1%	8,425	11	0.1%
Corn	2,639	1,753	66.4%	15,232	10,360	68.0%
Legume crops	2,085	748	35.9%	5,783	1,791	31.0%
Pea kernel	71	2	2.8%	124	2	1.6%
Been kernel	1,952	746	38.2%	5,549	1,789	32.2%
Lentil	5	0	0.0%	5	0	0.0%
Peas	32	0	0.0%	52	0	0.0%
Other	25	0	0.0%	53	0	0.0%
Industrial crops	2,418	1,091	45.1%	1,251	356	28.5%
Tobacco	297	153	51.5%	1,055	356	33.8%
Flax	126	0	0.0%	196	0	0.0%
Other (cumin, sorghum, sunflower)	1,995	938	47.0%	no data	no data	-
Potato	31,998	1,888	5.9%	593,551	25,485	4.3%
Vegetable crops	23,914	961	4.0%	782,287	8,366	1.1%
Cabbage	3,376	112	3.3%	124,377	2,002	1.6%
Cucumber	2,549	155	6.1%	71,060	1,456	2.0%
Tomato	6,231	185	3.0%	273,275	1,392	0.5%
Sugar beat	693	56	8.1%	15,163	496	3.3%
Carrot	913	42	4.6%	23,405	285	1.2%
Onion	2,085	126	6.0%	50,416	1,108	2.2%

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Garlic	866	57	6.6%	9,262	287	3.1%
Green peas	72	6	8.3%	335	16	4.7%
Other (verdure, eggplant)	7,056	222	3.1%	214,680	1,323	0.6%
Seeding plots	73	0	0.0%	314	0	0.0%
Melon crops	6,163	121	2.0%	216,101	1,705	0.8%
Fodder crops	63,888	2,354	3.7%	no data	no data	-
Fetus and berries	36,959	2,348	6.3%	332,167	10,865	3.3%
Apple	9,627	569	5.9%	120,844	2,009	1.7%
Pear	2,936	211	7.2%	28,247	794	2.8%
Quince	22	0	0.0%	1,432	72	5.0%
Apricot	9,983	19	0.2%	80,686	48	0.1%
Plum	1,976	342	17.3%	10,344	372	3.6%
Peach	5,385	393	7.3%	57,883	4,290	7.4%
Black cherry	1,126	47	4.2%	7,682	67	0.9%
Cherry	no data	no data	-	3,698	79	2.1%
Cornelian cherry	no data	no data	-	825	544	65.9%
Walnut	no data	no data	-	3,789	442	11.7%
Nut	no data	no data	-	544	80	14.8%
Pomegranate	no data	no data	-	428	62	14.4%
Persimmon	no data	no data	-	1,104	617	55.9%
Fig	no data	no data	-	520	295	56.7%
Berry	2,118	153	7.2%	14,140	1,095	7.7%
Grape	16,480	1,312	8.0%	208,649	10,282	4.9%

Source: "Study of available export volumes of fruits and vegetables", World Bank / Armenian Development Agency / AM Partners Consulting company, 2010

Notably, as of 2009 in plant-growing production Tavush Marz has leading role in growing the following crops:

- Winter barley 43% of total production of Armenia was produced in the Marz
- Corn 68% of total production of Armenia was produced in the Marz
- Bean kernel 32% of total production of Armenia was produced in the Marz
- Tobacco 34% of total production of Armenia was produced in the Marz
- Cornelian cherry 66% of total production of Armenia was produced in the Marz
- Persimmon 56% of total production of Armenia was produced in the Marz
- Fig 57% of total production of Armenia was produced in the Marz

Tavush Marz, undoubtedly, has leading role in Armenia for the corn and the last three types of fruits. This is conditioned by sub-tropic climatic zone that is not available in other Marzes of Armenia, except Meghri sub-region of Syunik Marz. Thus, in production of these four products Tavush Marz has special role.

Among other agricultural products grapes are of special importance for Tavush Marz. The Marz is the fourth in Armenia for growing grapes. The most part of grapes here are of industrial sorts. There are a number of other products in which Tavush region is not so notable, but they are of great importance for the Marz

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economy. These are: peach, berries, walnut, pomegranate, and nuts. At the same time, peach is one of those rare leading agricultural products in Tavush Marz that is being exported out of Armenia.

4 sub-regions of Tavush Marz have different “specializations” in producing agricultural products.

Table 10- Plots and gross agricultural production in Tavush Marz by sub-regions, 2010

Plots of agricultural crops by sub-regions

Crops	TAVUSH Marz	IJEVAN sub-region		DILIJAN sub-region		NOYEMBERIAN sub-region		BERD sub-region	
		ha	%	ha	%	ha	%	ha	%
Grain and legume crops	8,043	1,699	21.1%	64	0.8%	3,181	39.5%	3,099	38.5%
Industrial crops	942	39	4.1%	0	0.0%	868	92.1%	35	3.7%
Potato	1,948	683	35.1%	388	19.9%	294	15.1%	583	29.9%
Vegetables *	910	347	38.1%	15	1.6%	225	24.7%	323	35.5%
Melon crops	83	7	8.4%	0	0.0%	75	90.4%	1	1.2%
Fodder	2,188	500	22.9%	173	7.9%	290	13.3%	1,225	56.0%
Fruits and berries*	2,256	446	19.8%	174	7.7%	1,053	46.7%	583	25.8%
Grape*	1,270	330	26.0%	1	0.1%	376	29.6%	563	44.3%

* - There are differences in data concerning vegetables, fetus and berries and grape taken from NSS, Tavush regional government and municipalities (-33 ha, -94 ha and -43 ha, accordingly). It is notable when we compare the data of Table 8 and Table 10. But the given information is quite enough to understand the shares of sub-regions for different crops and plots.

Gross production of agricultural crops in Tavush Marz by sub-regions, tones

Crops	TAVUSH Marz	IJEVAN sub-region		DILIJAN sub-region		NOYEMBERIAN sub-region		BERD sub-region	
		tones	%	tones	%	tones	%	tones	%
Grain and legume crops	14,577	3,956	27.1%	244	1.7%	4,536	31.1%	5,841	40.1%
Industrial crops, including:	no data	no data	-	no data	-	no data	-	no data	-
<i>Tobacco</i>	578	124	21.5%	0	0.0%	335	58.0%	117	20.2%
Potato	14,533	4,697	32.3%	2,445	16.8%	2,493	17.2%	4,898	33.7%
Vegetables	7,258	2,725	37.5%	111	1.5%	2,078	28.6%	2,344	32.3%
Melon crops	1,589	36	2.3%	0	0.0%	1,543	97.1%	10	0.6%
Fodder	no data	no data	-	no data	-	no data	-	no data	-
Fetus and berries	5,938	841	14.2%	54	0.9%	4,232	71.3%	811	13.7%
Grape	11,612	2,079	17.9%	5	0.0%	4,137	35.6%	5,391	46.4%

Source: Tavush regional government and municipalities

The differences of primary agricultural products by sub-regions are conditioned by the area (size) of sub-regions and climatic conditions. In this sense, Dilijan is the “weakest” sub-region, with the smallest area and major part of its territory is covered with forests. It’s **rather touristic than agricultural area**. Considering the level of urbanization of the other sub-regions, as well as amount and structure of the primary agricultural products, it can be said that Noyemberyan and Berd sub-regions are typical **agricultural areas**.

In the field of plant-growing of Tavush Marz there are various problems, conditioned by objective and subjective circumstances. Among the main problems are the situation of lands and absence of infrastructure. In Tavush Marz the lands are scattered and are located mostly on splays. These make harder the agricultural activities and have negative influence on efficiency of land cultivation. **Irrigation system is not well developed.** Only 20% of arable lands and perennial plots are supplied with irrigation water. The extent of irrigation is presented below:

Table 11 - Irrigation level of agricultural lands in Tavush Marz as of 01.07.2010

Lands by purpose and types of use	Area, ha	Including irrigated lands, ha	Irrigation level
Lands of agricultural significance, including:	111,909	5,614	5%
Arable lands	25,533	3,949	15%
Perennial plots, including:	2,000	1,654	83%
Orchards	759	542	71%
Vineyards	1,241	1,112	90%
Other perennial plots	-	-	-
Grassland	12,257	12	0%
Pasture	60,278	-	-
Other lands	11,842	-	-

Sources: "Report (Form 22): existence and distribution of lands in the RA (by purpose, type, use and proprietors) as for 01.07.2010, Tavush Marz", Tavush Marz Governorate
 "Report (Form 22): existence and distribution of irrigated lands in RA (by purpose, type, use and proprietors) 2010, Tavush Marz", Tavush Marz Governorate

The presented data shows that the level of irrigation is relatively high for orchards and vineyards, but they comprise only 2% of agricultural lands. The irrigation level of arable lands is very low (15%). This is the reason that 45% of non irrigated arable lands are not cultivated (as of 2010) and are used as grasslands or pasture.

2.2.3.2 Leading products

List of leading products of plant-growing (as well as animal husbandry and food processing) in Tavush Marz was defined according to the opinions of respondents. *In general, it summarizes the analysis of the fieldwork conducted above, though there are some subjective opinions regarding certain products. This is conditioned mostly by opinions of large farmers who tend to consider the products processed by them as leading ones.* The list of leading products is presented below (see Table 12):

Table 12 - Leading 20 products of plant-growing in Tavush Marz

Leading products	State entities	Development programs	NGOs	Financial institutions	Processors	Large farmers	Total
Grape	14	5	12	5	27	48	111
Persimmon	12	3	5	2	8	49	79
Peach	8	4	10	4	15	26	67
Tobacco	10	3	6	4	13	28	64

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Fig	9	4	3	2	10	30	58
Corn	6	0	3	0	8	35	52
Potato	7	0	2	0	4	27	40
Wheat	9	1	1	0	8	18	37
Bean	2	1	0	1	2	28	34
Berry	6	3	1	2	3	19	34
Cucumber	0	0	0	0	3	18	21
Tomato	0	0	0	0	0	18	18
Onion	0	0	0	0	2	14	16
Tropical fruits ⁵	2	3	0	0	1	6	12
Plum	0	0	2	0	3	6	11
Cornelian cherry	0	0	1	1	2	6	10
Apple	0	0	1	0	0	7	8
Sunflower	0	0	1	1	2	1	5
Walnut/hazel	0	0	0	0	1	4	5
Olive	0	0	0	0	2	3	5

Source: Database of study results

Though the presented data gives quite clear insight, some comments anyway should be done concerning the first leading products. *Grape* growing has traditionally been one of the most developed sectors of plant-growing in Tavush Marz. Recently this field has been facing serious problems caused by low procurement prices defined by processing enterprises. Sometimes prices of procurement do not let the farmers cover even the basic costs. Anyway, there are many plots in the Marz, the processing enterprises operate and express reasonable demand, and many farmers still tend to continue viticulture.

Persimmon growing is one of the most potential developing sectors of plant-growing in Tavush Marz. There is big unmet internal demand, the processing and storing are relatively easy, sales prices are quite high, climatic conditions are favorable (particularly in Noyemberyan sub-region).

Peach growing is traditionally developed particularly in Noyemberyan sub-region. In recent years massive activities have been conducted (and are still in process) in recovery of orchards and in establishment of new ones, particularly in terms of projects carried out by IFAD that have had obvious positive results. Peach of Noyemberyan is very famous and demanded not only in local market, but also in markets of neighboring Georgia and Russia, and there is also good export potential to other countries, too.

Traditions of *tobacco* growing are also very old in Tavush Marz. Recently tobacco plots have notably been increased in the Marz. This was strongly conditioned by policy of “Grand Holding” company that has created stable demand and is able to procure any quantity of this product. Tobacco production is the best example of private cooperation (B2B⁶) in Tavush Marz. The complaints of farmers about prices of tobacco procurements are few compared to procurement of grape and fruits.

⁵ By saying tropical fruits, the respondents mainly mean persimmon, fig and pomegranate

⁶ Business to business

Good conditions of *fig* growing are mainly based on existing payable demand at the internal market. In Armenia this product is growing mostly in Tavush (Ijevan and Noyemberyan sub-regions) and Syunik (Meghri sub-region) Marzes, production volumes are not so big and market prices are favorable for farmers. Though, the fresh product has not big potential of export for transporting and preservation problems.

Involvement of *corn* in the list of leading products in Tavush Marz is mostly conditioned by procurements of large animal husbandry (particularly poultry) farms. Again, the actual market demand provides good tendencies of development.

The last statement is less or more general for all the products listed in the table. Obviously, the driving force for development is the market demand. This means, that in order to have general development it is necessary to concentrate all efforts for promoting the existing market demand, as well as creating demand for other products. It is necessary to increase the awareness of farmers about internal and external market opportunities, increase product quality, decrease processing costs and increase competitiveness by offering affordable prices in order to resolve this problem.

Along with traditional and recently developing sectors also new products have good potential for development. Especially, in plant-growing sectors the respondents mentioned citrus plants, sunflower, garlic, watermelon, potato, olive, legume (peas, lentils), mushrooms, etc. Most of these crops were growing in Tavush Marz also before, but in small quantities, mostly intended for subsistence use. Nowadays, some farmers use new approaches, trying to diversify their activities and get qualitative products.

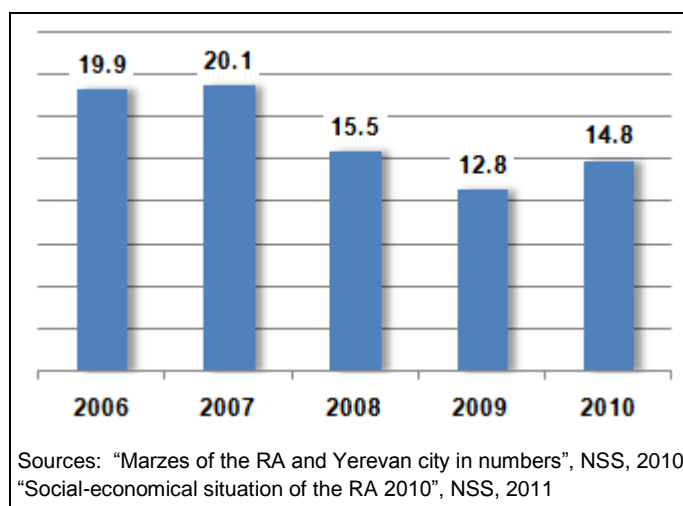
The attempts to establish greenhouses, dryers (the most mentioned), processing of organic berries are worth of special attention. In all of the cases good results have already been recorded, though there is a need of initial capital investments. In such situation it would be reasonable to mobilize the resources of international development programs to replicate the best practices.

2.2.4 Animal husbandry

2.2.4.1 Current situation and problems

Animal husbandry has been traditionally developed and leading agricultural sector in Tavush Marz. Until 2007-2008, gross production of animal husbandry comprised 20 million AMD (see Picture 3), which was about double more than gross production of plant-growing. Particularly, Tavush Marz had leading role in pig livestock which was 28,987 as of 2007. With this figure the Marz was the first in Armenia. But the livestock has decreased about 4 times during a year caused by African plague in 2007. Though nowadays the stock is growing slowly the Marz will not reach the

Picture 3 – Gross production of animal husbandry in Tavush Marz at current prices⁷ 2006-2010, billion AMD



⁷ According to the specialists of Armenian NSS Agricultural Statistics division the gross agricultural production in compatible prices is not calculated for Marzes

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livestock of the beginning of 2007 still for a few more years.

Other animal livestock have also decreased. Decrease of other cattle livestock was caused by strictly low prices of milk until autumn 2010 (80-90 AMD/l). Large export of sheep in 2009-2010 resulted in decrease of the livestock, too. In total, the animal livestock decreased for 30% in the period of 2007-2011.

Table 13 - Animal livestock in Tavush Marz 2007-2011 (as for January)

Animals	Armenia					Tavush Marz				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Cattle	620,197	629,146	584,779	570,633	571,357	37,710	37,794	33,361	33,751	33,755
of which: cows	307,089	310,610	283,048	273,854	272,572	19,327	19,395	15,853	16,320	16,331
Pigs	152,791	86,710	84,801	112,608	114,777	28,987	7,872	8,626	13,348	13,696
Sheep	589,972	598,116	526,638	481,342	503,624	21,352	21,949	14,034	12,444	12,936
Goats	42,922	38,985	32,580	29,687	28,891	3,322	3,136	2,088	1,711	1,638
Horses	12,628	11,776	11,290	10,777	10,042	1,613	1,741	1,642	1,755	1,694
Buffaloes	no data	no data	no data	no data	no data	no data	no data	no data	190	180
Rabbits	no data	no data	no data	no data	no data	no data	no data	no data	1,596	1,630
Donkeys, mules	no data	no data	no data	no data	no data	no data	no data	no data	1,331	1,040
Beehives	no data	no data	no data	no data	200,000	no data	no data	no data	17,826	18,444
Poultry	no data	no data	no data	no data	no data	no data	no data	no data	191,985	185,554

Source: "Animal livestock in 2007-2011, as of January 1st", NSS, 2007-2011, Tavush Marz Governorate

Comparing with plant-growing the animal husbandry in Tavush Marz has relatively modest position. Even with pig livestock the Marz is only the fourth in Armenia. Data in Table 14 shows the distribution of livestock in Tavush Marz by sub-regions.

Table 14 - Livestock by sub-regions, 2011 (as of January 1st)

Animals	TAVUSH Marz	IJEVAN sub-region		DILIJAN sub-region		NOYEMBERIAN sub-region		BERD sub-region	
		heads	%	heads	%	heads	%	heads	%
Cattle	33,755	11,879	35.2%	4,304	12.8%	10,126	30.0%	7,446	22.1%
of which: cows	16,331	5,928	36.3%	2,337	14.3%	4,665	28.6%	3,401	20.8%
Pigs	13,696	4,301	31.4%	2,117	15.5%	3,619	26.4%	3,659	26.7%
Sheep	14,574	4,900	33.6%	673	4.6%	3,828	26.3%	5,173	35.5%
Goats	1,694	840	49.6%	346	20.4%	311	18.4%	197	11.6%
Horses	180	160	88.9%	0	0.0%	14	7.8%	6	3.3%
Buffaloes	1,630	740	45.4%	104	6.4%	453	27.8%	333	20.4%
Rabbits	1,040	232	22.3%	67	6.4%	262	25.2%	479	46.1%
Donkeys, mules	18,444	6,580	35.7%	1,239	6.7%	6,002	32.5%	4,623	25.1%
Beehives	185,554	48,876	26.3%	9,060	4.9%	58,365	31.5%	69,253	37.3%

Source: Tavush Marz Governorate

It is not difficult to understand that with decrease in livestock the production volumes of animal husbandry products reduced, too. This can be seen first of all in meat production volumes. The only figure that increased was egg production.

Table 15 - Production of main animal husbandry products in Tavush Marz in 2006-2010

Animals	Armenia					Tavush Marz				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Animals and poultry in real weight, tones	117,100	122,200	125,900	126,200	124,300	9,000	9,200	9,400	7,600	7,600
Milk, tones	620,000	641,200	661,900	653,000	600,900	42,900	44,300	45,900	36,700	34,800
Egg, thousand	463,700	525,400	576,100	630,100	719,200	18,900	22,900	37,400	44,300	44,800
Wool, tonnages	no data	1,277	1,332	1,307	no data	no data	31	34	36	no data
Honey, tonnages	no data	no data	no data	no data	~ 3,000	no data	no data	no data	~ 225	~ 230

Sources: "Marzes of the RA and Yerevan city in numbers", NSS, 2010
 "Food supply and poverty, January-December 2010", NSS, 2011

Problems concerning animal-breeding in Tavush Marz are the same as in whole Armenia and they are quite obvious for the officials and experts of this field. The most important hindering factors are insufficient breeding activities, including low extent of artificial insemination, insufficient conditions of feeding and treatment of animals, small sizes of farms, lack of farmers' knowledge, lack or absence of working capital, etc.

Absence of breeding activities has had negative influence on breeding features for many years: that affected the productivity characteristics. Particularly, the annual average milk productivity in Tavush Marz is 2,131 liters/year, a little lower than the average for Armenia. This is about 2.5-3 times lower than the potential of the main breed ("Caucasus Grey" cattle).

There are serious gaps in animal feeding. Considering the fact that the pastures in Tavush Marz comprise more than 60 thousands ha, and the total number of cattle, pigs, sheep, and horses is 50 thousands, it was supposed that the Marz should not have any problems of feeding⁸. But farmers of the Marz mainly use the nearest pastures that are not even half of the total area available. Moreover, this intensive overgrazing at the nearest pastures resulted in degradation of near pastures; the grass is very thin, and 1 ha is not sufficient for grazing of 1 animal. This means insufficient feeding of the livestock. The situation is even worse in winter, when the livestock is mainly fed by dry grass or straw, and succulent feed is almost not used.

Another problem for development of animal husbandry is small sizes of farms. In average, a cattle-breeding farm has 2-3 animals. The activities of small farms are tended mostly to self-supply and they have very low level of commercialization of animal husbandry products. There are only a few large breeding farms. Particularly, in Tavush Marz the number of breeding farms having 10 and more cattle does not exceed 150 (Table 16) in case that the number of all breeding farms is a couple of thousands.

Table 16 - Number of relatively large animal-breeding farms in Tavush Marz as of August 2011

Sizes of farms →	10-20 animals	21-30 animals	31-50 animals	51-75 animals	76-100 animals	>100 animals
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⁸ According to the normative accepted by the RA Ministry of Agriculture 1 ha pasture is needed to feed 1 animal

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Number of farms →	85	30	18	9	2	3
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Source: Tavush Marz Agriculture Support Center

2.2.4.2 Leading products

List of leading animal husbandry products in Tavush Marz is presented in Table 17.

Table 17 - The 5 leading products of animal-breeding in Tavush Marz

Leading products	State and social bodies	Development programs	NGOs	Credit facilities	Processing enterprises	Large farmers	Total
Beef	17	3	11	1	32	72	136
Milk	11	4	7	0	28	50	100
Honey	9	0	2	2	1	29	43
Pork	7	2	2	3	8	20	42
Mutton	3	1	2	0	1	24	31

Source: Database of study results

Again we shall refer to the answers of respondents concerning the mentioned products. Cattle-breeding is the most developed branch of animal husbandry in Tavush Marz at the moment. From marketing view, the beef production more rational, as it has demand in the market and has had 30-50% growth in the last year. *Milk* production has dual nature in Tavush Marz. Problems of milk preservation, suspension of activities of milk procurement facilities are the main problems mentioned by respondents. Nevertheless, milk was defined as one of the leading animal husbandry products in Tavush Marz.

The same situation is in case of *honey*. Major part of respondents mentioned problems of sales, monopoly of the market, high prices of waxes etc., which, anyway, do not make honey stop being one of leading products of the Marz with great potentials of development.

The pork produced in Tavush Marz is traditionally considered one of the best-qualified and tasty products in the market. There was great decrease of pig livestock in the Marz for the recent years caused by diseases that increased prices and market demand even more. Although the price of pork is relatively high at local market it is still strongly demanded and has good potential for development. But there are serious problems, and the most important one is the creation of proper treatment and preventive healing conditions for animals.

Mutton is the only product having serious export potential. Moreover, at the moment it is strongly demanded also at the internal market. Conditioned by mass export of sheep, the mutton supply at internal market has decreased, which resulted 200% increase in prices. In such conditions it is natural that the respondents consider the mutton as a leading product.

Among new developing sectors of animal husbandry that have good potentials of development the respondents mentioned poultry (as well as creation of incubators), rabbit breeding, ostrich breeding, fishery, and buffalo-breeding. All the mentioned fields need experimental projects that would find out their whole potential in Tavush Marz.

2.2.5 Processing of agricultural products

2.2.5.1 Current situation and problems

The recent difficulties of agricultural sectors affected also the processing of the primary agriculture products. The food processing sector is presented by two groups of processing companies. Companies of the first group are engaged in processing of plant-growing products, including companies of wine, brandy, and preserves production. The second group consists of processors of animal husbandry products, i.e. mostly milk processors.

As of August 2011 there are 42 enterprises engaged in processing of plant-growing products.

Table 18 - Number of enterprises engaged in processing of plant-growing products in Tavush Marz, August 2011

Activity / Production	Number	Business activity		
Companies of grape-processing and wine/brandy production	5	Acting - 5	Partially acting - 0	Not acting - 0
Companies of fruit processing and preserve production	4	Acting - 1	Partially acting - 1	Not acting - 2
Mills	7	Acting - n/d	Partially acting - n/d	Not acting - n/d
Companies of bread and cookie production	24	Acting - n/d	Partially acting - n/d	Not acting - n/d
Processing of tobacco	3	Acting - 1	Partially acting - 0	Not acting - 2

Sources: Tavush Marz Governorate and Tavush Agriculture Support Center

Few companies that are engaged in processing of grapes, fruits, and vegetables have particular significance for development of plant-growing in Tavush Marz. Special role belongs to companies producing wine and brandy as 90% of grapes growing in Tavush Marz are of technical sorts, and only processing companies are their consumers. This is the reason that viticulture and grape processing curves are almost parallel. It becomes obvious when we compare data from Table 8 and the one below:

Table 19 - Grape procurements by processing companies in 2006-2010 in Tavush Marz, tons

Processing companies and their locations	2006	2007	2008	2009	2010
"Ijevan wine and brandy factory" CJSC ⁹ , Ijevan sub-region, town Ijevan	590	1,212	452	295	729
"Yerevan brandy factory" CJSC ("Ararat"), Berd sub-region, town Berd	3,046	4,350	2,095	2,814	3,005
"Yerevan champagne and wine factory" OJSC, Noyemberyan sub-region, Debedavan	880	1,980	1,440	465	785
"Yerevan Ararat brandy-wine-vodka factory" OJSC	-	-	-	1,400	-
"Berdavan wine factory" OJSC, Ijevan sub-region, Berdavan	962	51	-	50	1,488
"Tavush wine-brandy factory" CJSC, Berd sub-region, Aygepar	-	-	-	-	1,406
Total	5,478	7,593	3,987	5,024	7,413

Source: Operative data of the RA Ministry of Agriculture

Four of the mentioned 6 companies conduct their main activities outside of Tavush Marz or make procurements for other entities. Companies that "belong to" Tavush Marz are two; who procure and process

⁹ In past: "Ijevan wine factory" OJSC, Tavush Marz, town Ijevan

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grape in Tavush Marz. But this is only a small part of total amount of procured grape; maximum 30% of total during the last 5 years.

The procurement volumes of fruits and vegetables are not significant. Only 5-6 kinds of fruits are procured by 4 processors for production of preserves, although they operate very irregularly. Procurements of fruits and vegetables by these companies in 2006-2010 are presented below:

Table 20 - Procurements of Tavush Marz processors of fruits and vegetables in 2006-2010, tons

Processing companies and their locations	Procured products	2006	2007	2008	2009	2010 ¹⁰
"Maga" Cannery LLC ¹¹ , Ijevan sub-region, Varagavan	Apple	-	-	50.0	10.0	
	Walnut	-	4.0	-	10.0	
	Berry	-	-	2.0	5.0	
	Other fruits	-	3.0	-	1.0	
	Vegetables	-	2.0	-	-	
	Total	-	9.0	52.0	26.0	
"Ayrum" Cannery OJSC, Noyemberyan sub-region, town Ayrum	Apple	-	-	279.0	196.0	
	Peach	21.0	2.0	715.0	521.0	
	Apricot	10.0	-	-	-	
	Cherry, plum	-	1.4	26.0	38.0	
	Walnut	8.0	5.5	6.5	25.0	
	Berry	9.2	4.3	15.0	48.0	
	Other fruits	8.0	2.2	18.0	18.0	
	Total	56.2	15.4	1,059.5	846.0	
"Shush" LLC, Noyemberyan sub-region, Koghb	Apple	3.0	-	-	-	
	Walnut	1.0	4.0	-	-	
	Berry	1.0	-	0.5	-	
	Other fruits	1.0	1.2	0.5	-	
	Total	6.0	5.2	1.0	-	
"Arthur and Edita" LLC, Noyemberyan sub-region, Jujevan	Walnut	1	2.0	-	-	
	Berry	2.5	-	-	-	
	Other fruits	-	1.0	-	-	
	Total	3.5	3.0	-	-	
Total		65.7	32.6	1,112.5	872.0	

Source: Operative data of RA Ministry of Agriculture

In 2011 the processing list was expanded with one more company which is called "Ecogarden production corporation" LLC (it is located in Berd sub-region, Aygedzor). This is a company established two years ago. They began fruit procurements in 2010 on experimental basis and only in 2011 did procurements for production purposes. They procure and store walnut, mulberry, berry, eglantine in little amounts.

¹⁰ There is no data about fruit procurements by processing companies in 2010 but they were very little

¹¹ In past: "Tavush cannery" OJSC, Tavush Marz, Varagavan

Fruits and grape stored and processed directly in Tavush Marz are not of large quantities. This is the reason that in 2010 the production of alcohol beverages comprised 342 million AMD, and comparing to it the cannery production is not high. Thus, the cost of production (2,551 million AMD) refers mostly to bread-cookie production. The latter, though, does not relate so closely to the agriculture of the Marz as production of wine, brandy and preserves.

Different from beverage and preserve production, **animal husbandry products processing** in Tavush Marz is less developed. This regards the products produced not in private farms but in industrial enterprises. The problem is that supply of primary products (meat and milk) is small in Tavush Marz, and is intended for internal consumption, as well as for final sales in the market for higher prices. This is the reason that 2 meat processing and more than half of 20 milk processing enterprises do not act as of August 2011. The few acting companies either procure milk in small quantities or process the milk of their own production, such as “Dili” LLC in Dilijan.

At the moment of study 7 cooperatives of milk consumption in Tavush Marz were not acting. Of course, the reason is not that there is no milk production in the Marz. Where and how are the 35 thousand tons of milk produced in the Marz, consumed? The study results show that this volume of milk is produced by 10 thousand of individual farms of the Marz. The latters, as breeding farms, are very small entities and have 2-3 cattle in average, including 1-1.5 cows. In Table 16 we have mentioned already that the number of farms having 10 and more animals do not exceed 150. This means that all the other breeding farms are smaller in their sizes than the above mentioned average. So it is not hard to understand that **production of small breeding farms almost totally is intended for internal consumption**. These farms are not supplying to the market. This role belongs to those few farms that have relatively bigger livestock. Thus, it becomes obvious that there are no places of concentration for milk supply in Tavush Marz. This is the reason that milk processing companies or cooperatives have serious problems in milk procurements; that is a serious obstacle for their activities. Exactly due to this, large farmers have problems with sales of milk. Thus, they have nothing else then organize the processing and sales of the milk on their own.

2.2.5.2 *Leading areas of agricultural products’ processing*

Three sectors of plant-growing have traditionally been developed in Tavush Marz: grape-processing (primary and final production of wine and brandy), preserve production from different fruits, berries and vegetables, processing of tobacco materials. Answers of respondents fully confirm this opinion.

Table 21 - Leading areas of plant-growing production processing in Tavush Marz

Leading products	State entities	Development programs	NGOs	Financial institutions	Processors	Large farmers	Total
Grape processing	17	5	10	4	21	47	104
Processing of fruit, berries, and vegetables	8	2	6	2	8	47	73
Processing of tobacco	12	3	1	0	7	30	53

Source: Database of study results

The situation is quite different for the processing of animal husbandry products. Such companies in Tavush Marz almost do not exist. Many milk procurement points have been established and none of them conducts sustainable procurements as of summer 2011. There are no slaughterhouses or meat processing facilities (such as sausages production). There are many cheese producers that are mostly primary farmers and the production is directed mostly to self-consumption. That is why; the questions concerning leading processed animal husbandry products have been redesigned for the respondents. They have expressed their opinion about the potential fields. The answers are summarized below:

Table 22 - Potential processing fields of animal-breeding products in Tavush Marz according to respondents

Potential sectors	State entities	Development programs	NGOs	Financial institutions	Processors	Large farmers	Total
Milk processing	5	2	1	1	12	44	65
Meat processing	0	1	0	0	2	39	42
Wool processing	0	0	0	0	0	10	10

Source: Database of study results

The data presented is self-sufficient and does not need any comments.

Table 23 - Primary agricultural products with production and export potential

2.3 PRODUCTION AND EXPORTS

2.3.1 Production and export potential

The potential of production and exports of primary and processed agricultural products is one of the main objectives of this study. The problem is not only in identifying the enhancement opportunities of traditionally developed areas, but also in finding out new products having serious potential for development. By the way, from the viewpoint of sales it is important to pay attention not only to exports out of Armenia, but also out of Tavush Marz, to other places of Armenia. Opinions of respondents involved in the study are summarized below.

2.3.1.1 *Primary agricultural production*

The list of agricultural products with strong development potential is presented below (see Table 23): The data presented in the table is self-sufficient and only a few common comments will be made.

Primary agricultural products having potentials of production and sales	Number of respondents
Main list	
Grape	80
Beef	69
Persimmon	65
Peach	48
Tropic fruits (fig, pomegranate, kiwi)	57
Milk	47
Tobacco	37
Berries	36
Cornelian cherry	35
Honey	30
Additional list	
Wheat and other cereals	21
Black plum	16
Apple	16
Walnut/nut	16
Pork	15
Potato	15
TOTAL Answers	99

Source: Data base of study results

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In case of primary agricultural products the list of potential products with certain potential does not differ so much from the list of leading products of Tavush Marz defined initially by respondents. This one is just wider and more detailed. Besides, the same list includes both plant-growing and animal husbandry products.

From the viewpoint of production and export (sales out of the Marz) potential, only pork and honey have relatively surrendered. The case of pork is conditioned by limited volumes of production and difficulties of breeding. The case of honey is conditioned by absence of consumption system. Berries and cornelian cherry have strengthened a little their positions. This is also clear and conditioned by presence of processing companies in the Marz.

There were great differences of views of different groups of respondents, concerning priority of potential products. These differences are presented below:

Table 24 - Agricultural products with production and export potential according to groups of respondents

Products mentioned by state entities (109 answers)	Number	Products mentioned by development programs (31 answers)	Number	Products mentioned by NGOs (60 answers)	Number
Grape	12	Tropic fruits (fig, kiwi, pomegranate)	5	Grape	11
Peach	10	Grape	4	Persimmon	10
Tropic fruits (fig, kiwi)	10	Milk	4	Peach	8
Persimmon	9	Beef	3	Tobacco	5
Berries	9	Persimmon	3	Beef	4
Beef	8	Peach	3	Berries	3
Tobacco	8			Cornelian cherry	3
TOTAL Answers	66	TOTAL Answers	22	TOTAL Answers	44
Products mentioned by financial institutions (23 answers)	Number	Products mentioned by processors (134 answers)	Number	Products mentioned by large farmers (378 answers)	Number
Grape	4	Grape	18	Beef	36
Peach	3	Beef	17	Persimmon	33
		Milk	13	Grape	31
		Tropic fruits (fig, pomegranate)	9	Tropic fruits (fig, pomegranate)	30
		Tobacco	9	Honey	21
		Persimmon	8	Milk	21
		Peach	8	Cornelian cherry	21
				Peach	16
				Berries	15
TOTAL Answers	7	TOTAL Answers	82	TOTAL Answers	224

Source: Database of study results

Data presented above uncovers awareness and priorities of different groups of respondents. At the same time, it is necessary to consider the subjectiveness of these answers. The respondents mentioned mostly

the products they are more or less informed about or the ones they produce or process. In such situation some artificial priorities are being formed that may influence on the final image. This influence has been reduced to minimum still in the study preparatory and respondents' selection stages, but anyway it is important not to forget the mentioned problem.

2.3.1.2 Processed products

Different from the description of leading areas and products presented in other sections, the respondents tended to give more information while defining the potential products. In particular, they mentioned not only the product groups (for instance - preserves), but also certain products (for instance - preserve or juice of this or that kind of fruit). Answers of respondents about production and export of processed products are summarized below:

Table 25 - Potential processed products

Processed products having potential of production and consumption (exports)	Number of respondents
Main list	
Fruit vodka (cornelian cherry, mulberry, grape, apple, black plum, wild pear, peach, strawberry)	61
Cheese (from cow and sheep milk, string cheese)	60
Dried fruit (persimmon, black plum, fig, peach, cornelian cherry, pear, berries)	55
Wine and brandy (wine materials, red, white, fruit, grape, brandy, vinegar)	53
Preserves/jams/ (walnut, berries, cornelian cherry, fig, peach, plum)	48
Additional list	
Sour milk-products (sour cream, yogurt from cow and buffalo milk, fat sour-cream)	30
Butter and fat	19
Other preserves (marinated cucumber, olive, tomato, etc)	15
TOTAL Answers	64

Source: Data base of study results

List of processed potential products is relatively more differing from the list of leading products mentioned by the respondents. Among new products special attention is driven to fruit vodka and dried fruits. The field of tobacco processing has not almost been mentioned. This has its explanation. The respondents classified also the products that are possible to produce in non factory conditions.

Providing conditions of production and sanitary maintenance, proper marketing, packing and labeling, targeting of corresponding market segments, this approach may be very promising. At least in Armenian society so called "homemade" products are quite respected and many consumers are ready to pay extras for such products.

In case of processed products the priorities of respondents towards different products are also evident. The attitude of different groups of respondents about processed products with potential of production and export is presented below (Table 26).

Table 26 - Processed potential products by groups of respondents

Products mentioned by state entities (52 answers)	Number	Products mentioned by development programs (13 answers)	Number	Products mentioned by NGOs (35 answers)	Number
Wine and brandy	11	Preserves (jams of berries and apricot jams)	5	Wine and brandy	7
Sour milk-products	7	Wine	4	Dried fruit (persimmon, black plum, fig, peach, cornelian cherry, pear, berries)	6
Preserves/jams/ (walnut, berries, cornelian cherry, fig, peach, plum)	7	Dries fruit (fig, berries)	3	Sour milk-products	5
Other preserves	5			Preserves/jams/ (walnut, berries, cornelian cherry, fig, peach, plum)	5
Cheese	5			Fruit vodka (cornelian cherry, mulberry, grape, apple, black plum, wild pear, peach, strawberry)	3
Tobacco	5			Other preserves (marinated cucumber, olive, tomato, etc.)	3
TOTAL Answers	40	TOTAL Answers	12	TOTAL Answers	29
Products mentioned by financial institutions (7 answers)	Number	Products mentioned by processors (73 answers)	Number	Products mentioned by large farmers (206 answers)	Number
Wine and brandy	2	Cheese	15	Fruit vodka (cornelian cherry, mulberry, grape, apple, black plum, wild pear, peach, strawberry)	45
		Wine and brandy	12	Cheese	37
		Preserves/jams/ (walnut, berries, cornelian cherry, fig, peach, plum)	10	Dried fruit (persimmon, black plum, fig, peach, cornelian cherry, pear, berries)	34
		Sour milk-products	9	Butter and fat	17
		Fruit vodka (cornelian cherry, mulberry, grape, apple, black plum, wild pear, peach, strawberry)	8	Wine and brandy (wine materials, red, white, fruit, grape, brandy, vinegar)	17
		Dried fruit (persimmon, black plum, fig, peach, cornelian cherry, pear, berries)	7	Preserves/jams/ (walnut, berries, cornelian cherry, fig, peach, plum)	14
TOTAL Answers	2	TOTAL Answers	61	TOTAL Answers	164

Source: Data base of study results

The data presented is self-sufficient and does not need any comments.

2.3.2 Justification of production and export potential

Not all the arguments advanced by the respondents about production and export potential of certain products are realistic and objective. In some cases instead of statements respondents presented their wishes, in other cases the given statements were very subjective. Anyway, summarized answers of respondents (without being seriously edited) by *main potential products* is presented below.

2.3.2.1 Primary agricultural products

Grapes

- There are not serious sales problems. There are some large procurers that procure and store the entire yield even regardless the quality. Procurement prices are mostly low but they are being stably paid. Partially, it is processed to final products (mostly wine) in the very Tavush Marz (44 of 80 respondents).
- Natural and climatic conditions in Tavush Marz are favorable for grape growing. Productivity is high. There are many grape plots (12 of 80 respondents).
- It has been one of traditionally developed fields of agriculture since Soviet times (6 of 80 respondents).
- It is ecologically clean and is grown in accordance of requirements (7 of 80 respondents).
- Especially industrial sorts of grape have great demand for processors of Tavush Marz. From this viewpoint, the viniculture is very convenient: it has low level of glucose that is very convenient for production of wine, champagne and brandies (5 of 80 respondents).

Beef

- There is some livestock in the Marz. The climatic conditions are favorable. There are sub-alpine and meadow pastures in Tavush Marz. The pastures are in good conditions and there are some accommodation facilities in many places. There are no serious problems of forage. Young workforce is available, too (17 of 69 respondents).
- There is demand of qualitative meat all over the Marz; the internal supply is not sufficient (12 of 69 respondents).
- Meat produced in Tavush Marz is ecologically clean and has good oligoleptic features (7 of 69 respondents).
- It has been one of traditionally developed sectors of agriculture since Soviet times (6 of 69 respondents).

Milk

- There is some livestock in the Marz. The climatic conditions are favorable. There are subalpine and meadow pastures in Tavush Marz. The pastures are in good conditions and there are some facilities for accommodation in many places. There are no serious problems of forage. Young workforce is available, too (10 of 46 respondents).
- Production volumes are small while it is demanded. Only in case of large supply it would be possible to do stable procurements (8 of 46 respondents).
- It is ecologically clean and has good taste features (7 of 46 respondents).

Persimmon

- It is grown in few places in Armenia; the supply is not sufficient. It is imported and there is a big demand in the market. Sales are very easy even without any use of export opportunities. It is demanded also for production of dried fruits (34 of 65 respondents).
- It's possible to grow even in not irrigated areas. The productivity is high, it yields every year. Some experience of growing exists. The climatic conditions are favorable and the plots are getting more in Tavush Marz. The product appearance is good and it is long-lasting; it is stable against climatic changes (22 of 65 respondents).

Peach

- It is ecologically clean and demanded. The internal demand is high, sales are guaranteed even without exports. Sales potential is high, sales is easy. It also can be bartered with other necessary products (21 of 48 respondents).

- Noyemberyan sub-region is famous for its peach. It is one of traditionally developed sectors of the Marz agriculture. It is a famous brand, has high quality and the taste is good. Previously, Noyemberyan sub-region produced 34,000 tons of peach, half of which was being exported (currently it produces only 1,000 tons of production); (13 of 48 respondents).
- The productivity is high. Climatic conditions are favorable for production, it has specific taste. There is experience of production, favorable climatic conditions, more or less stable yield (9 of 48 respondents).

Fig and other tropic products

- Its growing is limited, the demand is high. Sales are easy; prices are stable and high. There is some export potential to Russia (23 of 48 respondents).
- It is not injured by rains; the yield grows immediately and remains long. Production conditions are favorable; growing is easy and is of low expenses. The harvest is long lasting. There is experience of growing. The productivity is high and is adapted to climatic conditions of the Marz. It blossoms late, it is not affected by climatic conditions heavily; it is frost-resistant (13 of 48 respondents).
- It has good taste features. It is ecologically clean and convenient for preservation. (8 of 48 respondents).
- Kiwi is expensive and has large demand. It is imported in large quantities and substitution is largely possible. It is a new product in Armenia.
- Pomegranate is produced in limited quantities; there is great demand for it. The prices are high. Import substitution is possible.

Tobacco

- Procurement points do operate; it is demanded. The procurement prices are acceptable, in general. It is a private financing project with (23 of 37 respondents).
- It has been one of traditionally developed sectors of agriculture since Soviet times. The climatic conditions are favorable, productivity is high (7 of 37 respondents).
- Growing is easy. The work process is short, procured in fresh condition. The productivity is high, vegetation period is long (3 of 37 respondents).

Berries

- There are many berries in forests. If it is not gathered, then it remains without use and get spoiled. The nature and forests create favorable conditions for them (16 of 36 respondents).
- Easy to sell; barter with other necessary products is also possible. The demand is evident; the processing enterprises do the procurements. Intensive demand is advanced by "Tamara-Fruit" company (11 of 36 respondents).
- The quality is high, there are conditions of organic production, taste features are very high, and the prices are low. It is a brand of pure forest product (7 of 36 respondents).

Cornelian cherry

- It has high demand, factories and procurers make stable procurements (14 of 35 respondents).
- There are big quantities in forests. If it is not harvested, it remains useless and gets spoiled. The nature and forest create favorable conditions for its growing, which is easy enough. It does not require intensive watering (12 of 36 respondents).

Honey

- There are many forests and areas full of flowers. There are many lime-trees in the Marz, and the best honey is made of lime. There is full feed basis in the Marz. It is ecologically clean product (20 of 30 respondents).
- The demand is high, especially in abroad. Sometimes, there are even special orders. (4 of 30 respondents).

Summarizing the presented analysis, it can be concluded that justification statements of respondents can be classified to the following big groups: existing market demand, favorable conditions for production and high qualitative characteristics of products. Special attention should be paid to those products that have all three preconditions at the same time.

2.3.2.2 Processed products

Fruit vodka

- Is of high demand. Can be produced at household conditions. Sold at high prices. Produced in small volumes, and has big demand (22 of 60 respondents).
- Being consumed in reasonable quantities it has healing features (13 of 60 respondents).
- Has export potential. There is serious demand in Russian and other countries inhabited with Armenians. Armenian Diaspora may become the target market segment (11 of 60 respondents).
- It is a clean product of high quality, has good taste features. Considered to be a special product in Armenia (7 of 60 respondents).

Cheese

- Animals are bred in alpine zones that are rich of forage variety. Fatty cheese is produced from high quality raw material (milk). Ecologically clean; no additives are applied (23 of 59 respondents).
- It has sales potential, production is economically feasible. Procurement volumes are especially big in winter. It has big demand in internal market and abroad (17 of 59 respondents).
- Being produced from natural and clean material, and by modern machinery it will have big demand in abroad. Prices of milk products are high at international markets; there is need for more production to meet this demand. There are orders from Moscow; consumers are ready to buy even the low quality product. There is perspective to export also to Europe. It used to be demanded by Georgia for “khachapuri”; and also tourists like it very much (6 of 59 respondents).

Dried fruit

- Is of big demand. Certain fruits do not grow in other Marzes and there is demand of dried fruits of those kinds. Just should be processed to final product. There are no serious problems of consumption; there are no big energy costs; there is no need of professional specialists. Currently, only 30% of market demand is met (18 of 55 respondents).
- Can be exported since it is of high quality and produced from clean inputs. The export potential is especially high in Russia (13 of 55 respondents).
- It is natural and tasty. There are plenty of raw materials, and the product is of high quality. Very tasteful homemade dried fruit is prepared and sold. It is healthy and ecologically clean, useful for cardiovascular diseases (12 of 55 respondents).

Wine and brandy

- There are active factories, the production is a brand and is very popular. There is stable demand also in abroad. The market prices are quite high (14 of 50 respondents).
- The products are of high quality; taste features are high. There are certain markets developed (10 of 50 respondents).
- Plenty of high quality inputs are available. White wine is popular also in abroad. Growing sorts of grapes (mainly Rkatsiteli) is particularly for wine, brandy and champagne (8 of 50 respondents).
- Wine production is one of traditionally developed processing sectors in Tavush Marz (6 of 50 respondents).

Jams

- Ecologically clean product. Taste features are high. Experience in exports is available. It is also healthy (17 of 39 respondents).
- High market demand is available. Especially, Russia and other countries inhabited with Armenians have good potential. Procurement points are permanently active in the Marz (15 of 39 respondents).
- Plenty of raw materials are available and the market demand exists. As the raw materials are of good quality, the final product has high quality (5 of 39 respondents).

Justifications can be classified to 3 main groups: existing market demand and export opportunities, high quality of products, and favorable production conditions, i.e. availability of raw materials.

2.3.3 Factors hindering production/exports and opportunities for overcoming them

Regardless the export potential of selected products there are many hindering factors in Tavush Marz which significantly impede the future development. Some of these factors are common also for other Marzes, while others are specific to Tavush Marz. The interviews have resulted in tens of valuable responses for each selected potential product. The collected responses have been processed and classified. Very subjective and/or not relevant opinions have been taken off. The presented hindrances and ways of their solution have been **conditionally classified** into 2 major groups from the viewpoint of production and exports. Meantime, for many cases such division is not well grounded and even advisable. The hindering factors and respective measures to overcome those for each potential product are listed below.

Grapes

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Orchards are old and sparse ▪ Establishment of new orchards is expensive, there is no money for that ▪ Orchards are logged ▪ Productivity is low ▪ New sorts are not introduced ▪ Phyloxera-resistant plans are not enough 	<ul style="list-style-type: none"> ↳ Finance the establishment of new orchards via state and donor funding ↳ Subsidize establishment of new orchards ↳ Establish new vineyards, apply prompts agricultural techniques, new sorts ↳ Establish phylozera resistant nurseries and orchards ↳ Ensure accessible and affordable financing
<ul style="list-style-type: none"> ▪ Medicine and fertilizers are expensive, old, low-quality and are delivered with delays 	<ul style="list-style-type: none"> ↳ Provide cheap and high-quality medicine and fertilizers ↳ Ensure compatibility of medicine dozes to licenses ↳ Establish a network of specialized shops for medicine and fertilizers
<ul style="list-style-type: none"> ▪ Irrigation water is insufficient ▪ irrigation water is very expensive ▪ Irrigation water is not clean 	<ul style="list-style-type: none"> ↳ Construct and recover irrigation systems ↳ Ensure watering of lands ↳ Collect water payments in autumn

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	<ul style="list-style-type: none"> ↳ Control pollution of waters from mining tails
<ul style="list-style-type: none"> ▪ Orchards are cultivated wrongly ▪ There are many diseases 	<ul style="list-style-type: none"> ↳ Apply prompt agricultural techniques ↳ Establish massive orchards
<ul style="list-style-type: none"> ▪ Agricultural machinery is not sufficient ▪ Manual cultivation is common 	<ul style="list-style-type: none"> ↳ Apply proper financial schemes for the procurement of agricultural machinery
<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ Improve tax regulation ↳ Ensure fairness and equality ↳ Coordinate state and donor support ↳ Increase income of farmers by decreasing profits of intermediaries
<ul style="list-style-type: none"> ▪ Lands are bordering to Azerbaijan; they are mined and shot ▪ Financial resources are insufficient 	<ul style="list-style-type: none"> ↳ Demine the bordering territories ↳ Attract investments
<ul style="list-style-type: none"> ▪ Anti-hail stations are not available 	<ul style="list-style-type: none"> ↳ Establish anti-hail stations
<ul style="list-style-type: none"> ▪ Professional knowledge is not sufficient 	<ul style="list-style-type: none"> ↳ Organize professional trainings
<ul style="list-style-type: none"> ▪ Land taxes are too high 	<ul style="list-style-type: none"> ↳ Apply privileges to founders of new orchards ↳ Make the irrigation water cheaper

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Procurement prices are low ▪ Procurers limit quantities to contract ones ▪ Market price is really higher than procurement price ▪ Sales are problematic 	<ul style="list-style-type: none"> ↳ Apply flexible procurement schemes ↳ Ensure competition among procurers and processors ↳ Apply state control on procurement prices ↳ Suggest alternative ways for sales ↳ Increase procurement prices
<ul style="list-style-type: none"> ▪ Farmers inability to overcome difficulties alone ▪ Yields are of small quantity ▪ Transportation is expensive ▪ Lands are scattered 	<ul style="list-style-type: none"> ↳ Unite farmers for collective solution of problems ↳ Enlarge farms, ↳ Establish unions of farmers ↳ Establish procurement and distribution organizations
<ul style="list-style-type: none"> ▪ Orchards are cultivated wrongly ▪ There are many diseases 	<ul style="list-style-type: none"> ↳ Apply prompt agricultural techniques ↳ Establish massive orchards
<ul style="list-style-type: none"> ▪ Procurers are not well equipped 	<ul style="list-style-type: none"> ↳ Establish small processing units (cold storages, canneries, procurement points, vodka production units) and equip them with necessary machinery
<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ Improve tax regulation ↳ Ensure fairness and equality ↳ Coordinate state and donor support ↳ Increase income of farmers by decreasing profits of intermediaries
<ul style="list-style-type: none"> ▪ Storage and transportation are problematic ▪ Roads' condition is very bad in Berd sub-region 	<ul style="list-style-type: none"> ↳ Establish cold storages in Berd sub-region ↳ Recover intercommunity roads

Beef

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ There are many veterinary problems ▪ Injections and medicine are not accessible ▪ Veterinary measures are insufficient ▪ No veterinary services are available in remote pastures 	<ul style="list-style-type: none"> ↳ Ensure open and accessible sales of medicine ↳ Ensure prompt and high quality veterinary services
<ul style="list-style-type: none"> ▪ Epidemy happen often ▪ Access to medicine is low ▪ Veterinary measures are not conducted in time 	<ul style="list-style-type: none"> ↳ Recover state orders of medicine ↳ Ensure the availability of high-quality medicine and vaccines ↳ Provide vaccines in time

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<ul style="list-style-type: none"> ▪ Vaccines are of low quality 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means</i>
<ul style="list-style-type: none"> ▪ The livestock is small ▪ Feeding is expensive 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means</i> ↳ <i>Provide animals</i> ↳ <i>Assist the development of animal husbandry</i>
<ul style="list-style-type: none"> ▪ Roads to remote pastures are in bad condition ▪ Close pastures degrade due to intensive use ▪ Pastures are not watered ▪ No living facilities are available in remote pastures 	<ul style="list-style-type: none"> ↳ <i>Recover roads to remote pastures</i> ↳ <i>Implement complex agricultural projects</i> ↳ <i>Provide watering to pastures</i> ↳ <i>Provide agricultural machinery</i> ↳ <i>Construct facilities in remote pastures and supply with electricity and water</i>
<ul style="list-style-type: none"> ▪ There is lack of pedigree animals ▪ Artificial insemination is not applied ▪ Meat and milk productivity of local animals is low 	<ul style="list-style-type: none"> ↳ <i>Import and provide new pedigree sorts of animals</i> ↳ <i>Conduct breeding activities</i>
<ul style="list-style-type: none"> ▪ Feeding is insufficient ▪ Use of remote pastures is difficult 	<ul style="list-style-type: none"> ↳ <i>Provide financial support from the Government</i> ↳ <i>Enhance local production of feeding</i> ↳ <i>Recover roads to remote pastures</i> ↳ <i>Ensure accessible and affordable financial means</i>
<ul style="list-style-type: none"> ▪ Financial means are insufficient (especially for purchasing animals) 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means</i> ↳ <i>Implement complex agricultural projects</i>
<ul style="list-style-type: none"> ▪ There are sales difficulties ▪ Procurement points are few ▪ Intermediaries regulate the market ▪ The market is not stable 	<ul style="list-style-type: none"> ↳ <i>Establish small units for meat procurement and processing (such as slaughterhouses)</i> ↳ <i>Identify new markets</i> ↳ <i>Provide information on markets and prices</i> ↳ <i>Establish contractual relations with procurers and processors</i>
<ul style="list-style-type: none"> ▪ Professional knowledge is insufficient 	<ul style="list-style-type: none"> ↳ <i>Organize trainings</i>
<ul style="list-style-type: none"> ▪ Agricultural machinery is old and insufficient 	<ul style="list-style-type: none"> ↳ <i>Provide agricultural machinery: tractors and harvesters</i>
<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ <i>Improve tax regulation</i> ↳ <i>Ensure fairness and equality</i> ↳ <i>Coordinate state and donor support</i> ↳ <i>Increase income of farmers by decreasing profits of intermediaries</i>

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ There are sales difficulties ▪ Procurement points are few ▪ Intermediaries regulate the market ▪ The market is not stable 	<ul style="list-style-type: none"> ↳ <i>Establish small units for meat procurement and processing (such as slaughterhouses)</i> ↳ <i>Identify new markets</i> ↳ <i>Provide information on markets and prices</i> ↳ <i>Establish contractual relations with procurers and processors</i>
<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ <i>Improve tax regulation</i> ↳ <i>Ensure fairness and equality</i> ↳ <i>Coordinate state and donor support</i> ↳ <i>Increase income of farmers by decreasing profits of intermediaries</i>

Persimmon

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Orchards are few ▪ Irrigation is insufficient ▪ Establishment of new orchards is expensive, there is no money for that 	<ul style="list-style-type: none"> ↳ <i>Finance the establishment of new orchards via donor funding</i> ↳ <i>Establish nurseries and provide high quality plants</i> ↳ <i>Establish new orchards</i> ↳ <i>Recover the irrigation systems</i> ↳ <i>Establish gravity irrigation by artesian water</i>

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<ul style="list-style-type: none"> ▪ Medicine is of low quality ▪ Lands are scattered and small, difficult to cultivate ▪ Medicine and fertilizers are expensive 	<ul style="list-style-type: none"> ↳ <i>Establish farmers' unions</i> ↳ <i>Follow the regulations for medicine</i> ↳ <i>Provide cheap and high-quality medicine and fertilizers</i> ↳ <i>Construct and recover irrigation systems</i>
<ul style="list-style-type: none"> ▪ Agricultural machinery is insufficient 	<ul style="list-style-type: none"> ↳ <i>Provide agricultural machinery</i> ↳ <i>Introduce sufficient financial instruments for purchasing of agricultural machinery</i>
<ul style="list-style-type: none"> ▪ Hail is damaging the yield, climate is not good 	<ul style="list-style-type: none"> ↳ <i>Establish anti-hail stations</i>
<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ <i>Improve tax regulation</i> ↳ <i>Ensure fairness and equality</i> ↳ <i>Coordinate state and donor support</i> ↳ <i>Increase income of farmers by decreasing profits of intermediaries</i>
<ul style="list-style-type: none"> ▪ Land tax is too high 	<ul style="list-style-type: none"> ↳ <i>Apply privileges to founders of new orchards</i> ↳ <i>Make the irrigation water cheaper</i>
<ul style="list-style-type: none"> ▪ Financial means are insufficient 	<ul style="list-style-type: none"> ↳ <i>Provide small and zero interest loans</i>

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient ▪ Legal information and knowledge of farmers is insufficient ▪ Marketing information is insufficient 	<ul style="list-style-type: none"> ↳ <i>Organize trainings on professional and marketing topics</i> ↳ <i>Organize trainings on legal, tax and customs topics</i> ↳ <i>Provide market information</i>
<ul style="list-style-type: none"> ▪ Sales markets are low accessible ▪ Farmers face sales problems ▪ The products are fast spoiling ▪ Procurement points are insufficient ▪ Yield storage is problematic 	<ul style="list-style-type: none"> ↳ <i>Establish small procurement and processing points in communities</i> ↳ <i>Establish drying facilities</i> ↳ <i>Identify new sales markets</i> ↳ <i>Apply higher procurement prices supporting the increase of production</i>
<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ <i>Improve tax regulation</i> ↳ <i>Ensure fairness and equality</i> ↳ <i>Coordinate state and donor support</i> ↳ <i>Increase income of farmers by decreasing profits of intermediaries</i>

Peach

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Orchards are few and not properly cultivated ▪ Establishment of new orchards is expensive, there is no money for that ▪ No anti-hail measures are available 	<ul style="list-style-type: none"> ↳ <i>Establish new orchards by state support</i> ↳ <i>Apply modern agricultural techniques, drip irrigation</i> ↳ <i>Use small sorts of plants with higher productivity</i> ↳ <i>Apply anti-hail nets, establish anti-hail stations</i> ↳ <i>Establish nurseries and new massive orchards</i> ↳ <i>Provide professional consultancy</i>
<ul style="list-style-type: none"> ▪ There is lack of financial means for long-term investments 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means</i> ↳ <i>Provide long-term financing</i>
<ul style="list-style-type: none"> ▪ Irrigation is insufficient ▪ Irrigated lands are insufficient 	<ul style="list-style-type: none"> ↳ <i>Establish gravity irrigation systems</i> ↳ <i>Construct new pipelines, recover old ones</i> ↳ <i>Control the pollution of the irrigation water</i> ↳ <i>Plan the irrigation water use and ensure sustainable supply</i>
<ul style="list-style-type: none"> ▪ Medicine is expensive and not available 	<ul style="list-style-type: none"> ↳ <i>Provide medicine</i> ↳ <i>Establish a network of specialized shops for proper quality medicine</i>
<ul style="list-style-type: none"> ▪ Agricultural machinery is insufficient 	<ul style="list-style-type: none"> ↳ <i>Provide agricultural machinery</i>

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	<ul style="list-style-type: none"> ↳ Introduce sufficient financial instruments for purchasing of agricultural machinery
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient ▪ Legal information and knowledge of farmers is insufficient ▪ Marketing information is insufficient 	<ul style="list-style-type: none"> ↳ Organize trainings on professional and marketing topics ↳ Organize trainings on legal, tax and customs topics ↳ Provide market information
<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ Improve tax regulation ↳ Ensure fairness and equality ↳ Coordinate state and donor support ↳ Increase income of farmers by decreasing profits of intermediaries
<ul style="list-style-type: none"> ▪ There is a lack of advisory on soil analysis and plant treatment 	<ul style="list-style-type: none"> ↳ Establish plant protection station ↳ Test the chemicals
<ul style="list-style-type: none"> ▪ Land taxes are too high 	<ul style="list-style-type: none"> ↳ Apply privileges to founders of new orchards ↳ Make the irrigation water cheaper

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Sales are problematic ▪ Procurement prices are low ▪ Impossible to store the products for a long period, farmers must sell at lower prices ▪ Transportation is expensive 	<ul style="list-style-type: none"> ↳ Apply state control of prices ↳ Establish new procurement points ↳ Establish small processing units - drying facilities
<ul style="list-style-type: none"> ▪ Exports are artificially hindered 	<ul style="list-style-type: none"> ↳ Ensure easy and free exports ↳ Ensure the absence of monopolization ↳ liberalize the regulation, decrease the bureaucracy
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient ▪ Legal information and knowledge of farmers is insufficient ▪ Marketing information is insufficient 	<ul style="list-style-type: none"> ↳ Organize trainings on professional and marketing topics ↳ Organize trainings on legal, tax and customs topics ↳ Provide market information
<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ Improve tax regulation ↳ Ensure fairness and equality ↳ Coordinate state and donor support ↳ Increase income of farmers by decreasing profits of intermediaries

Fig and other sub-tropic fruits

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Orchards are few and not properly cultivated ▪ Establishment of new orchards is expensive, there is no money for that ▪ No anti-hail measures are available 	<ul style="list-style-type: none"> ↳ Establish new orchards by donor support ↳ Establish nurseries and new massive orchards ↳ Recover irrigation systems ↳ Establish anti-hail stations ↳ Ensure accessible and affordable financial means
<ul style="list-style-type: none"> ▪ Sorts are old, the variety is limited 	<ul style="list-style-type: none"> ↳ Import new sorts, localize them and provide to farmers ↳ Establish nurseries and provide farmers with high quality plants
<ul style="list-style-type: none"> ▪ There is a lack of financial means for long-term investments 	<ul style="list-style-type: none"> ↳ Ensure accessible and affordable financial means ↳ Provide long-term financing
<ul style="list-style-type: none"> ▪ Irrigation is insufficient ▪ Irrigated lands are insufficient 	<ul style="list-style-type: none"> ↳ Construct and recover irrigation systems ↳ Ensure accessible and affordable financial means
<ul style="list-style-type: none"> ▪ Medicine is expensive 	<ul style="list-style-type: none"> ↳ Provide affordable and high-quality medicine

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<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ <i>Improve tax regulation</i> ↳ <i>Ensure fairness and equality</i> ↳ <i>Coordinate state and donor support</i> ↳ <i>Increase income of farmers by decreasing profits of intermediaries</i>
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient ▪ Marketing information is insufficient 	<ul style="list-style-type: none"> ↳ <i>Organize trainings on professional and marketing topics</i> ↳ <i>Provide market information</i>

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Sales are problematic ▪ Procurement prices are low ▪ Impossible to store the products for a long period, farmers must sell at lower prices ▪ Big quantities cannot be sold, procurers have insufficient capacities ▪ Transportation is expensive 	<ul style="list-style-type: none"> ↳ <i>Establish new procurement points</i> ↳ <i>Establish small processing units and drying facilities, and equip them with necessary machinery</i> ↳ <i>Identify new markets</i> ↳ <i>Ensure free export opportunities</i>
<ul style="list-style-type: none"> ▪ Tax regulation is bad ▪ Competition is not fair ▪ Local products are not competitive vs. imported ▪ Intermediaries are not fair 	<ul style="list-style-type: none"> ↳ <i>Improve tax regulation</i> ↳ <i>Ensure fairness and equality</i> ↳ <i>Coordinate state and donor support</i> ↳ <i>Increase income of farmers by decreasing profits of intermediaries</i>
<ul style="list-style-type: none"> ▪ Exports are artificially hindered 	<ul style="list-style-type: none"> ↳ <i>Ensure easy and free exports</i>
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient ▪ Marketing information is insufficient 	<ul style="list-style-type: none"> ↳ <i>Organize trainings on professional and marketing topics</i> ↳ <i>Provide market information</i>

Milk

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ The livestock is small and tends to decrease 	<ul style="list-style-type: none"> ↳ <i>Support the increase of the livestock</i> ↳ <i>Ensure accessible and affordable financial means</i> ↳ <i>Implement complex projects and provide pedigree animals</i>
<ul style="list-style-type: none"> ▪ There is a lack of new pedigree sorts ▪ Artificial insemination is not applied ▪ Milk productivity of local animals is low 	<ul style="list-style-type: none"> ↳ <i>Import new pedigree sorts of animals and provide to farmers</i> ↳ <i>Apply breeding activities</i>
<ul style="list-style-type: none"> ▪ Epidemy happen often, access to medicine is low ▪ Veterinary measures are not conducted in time ▪ Vaccines are of low quality ▪ State orders decreased 	<ul style="list-style-type: none"> ↳ <i>Recover state orders of medicine</i> ↳ <i>Ensure the availability of high-quality medicine and vaccines</i> ↳ <i>Provide vaccines in time</i> ↳ <i>Ensure accessible and affordable financial means</i>
<ul style="list-style-type: none"> ▪ Roads to remote pastures are in bad condition ▪ Close pastures degrade due to intensive use ▪ Pastures are not watered ▪ No living facilities are available in remote pastures 	<ul style="list-style-type: none"> ↳ <i>Recover roads to remote pastures</i> ↳ <i>Implement complex agricultural projects</i> ↳ <i>Provide watering to pastures</i> ↳ <i>Provide agricultural machinery</i> ↳ <i>Construct facilities in remote pastures and supply with electricity and water</i>
<ul style="list-style-type: none"> ▪ Agricultural machinery is old and insufficient 	<ul style="list-style-type: none"> ↳ <i>Provide agricultural machinery: grass cutters and harvesters</i> ↳ <i>Introduce sufficient financial instruments for purchasing of agricultural machinery</i>
<ul style="list-style-type: none"> ▪ Financial means are insufficient (especially for purchasing of animals) 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means</i> ↳ <i>Implement complex agricultural projects in communities</i>

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Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Sales markets are low accessible ▪ Procurement prices are low, the market is monopolized (“by Ashtarak-Kat”) ▪ Procurers are not able to procure the milk officially 	<ul style="list-style-type: none"> ↳ <i>Establish processing units</i> ↳ <i>Conduct market research, identify new markets</i> ↳ <i>Establish contractual relations with procurers</i> ↳ <i>Ensure competitiveness among procurers</i> ↳ <i>Establish quality control laboratories</i>

Berries

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Orchards are few ▪ Establishment of new orchards is expensive, there is no money for that ▪ There is a lack of high-quality plants 	<ul style="list-style-type: none"> ↳ <i>Provide young plants and establish orchards</i> ↳ <i>Recover irrigation systems</i> ↳ <i>Ensure accessible and affordable financial means</i> ↳ <i>Direct farmers in their activities</i>
<ul style="list-style-type: none"> ▪ Financial resources are insufficient 	<ul style="list-style-type: none"> ↳ <i>Ensure the availability of financial means for conducting long-term projects</i> ↳ <i>Provide zero interest small loans</i>
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient in the field of organic agriculture 	<ul style="list-style-type: none"> ↳ <i>Organize trainings on professional and marketing topics</i> ↳ <i>Organize trainings on organic agriculture topics</i>

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Sales are problematic especially in case of big quantities ▪ Procurement points are insufficient, prices are low ▪ Transportation costs are high 	<ul style="list-style-type: none"> ↳ <i>Establish procurement points, application of advanced-payment schemes</i> ↳ <i>Establish storage and processing facilities</i> ↳ <i>Equip mentioned points with necessary equipment</i> ↳ <i>Identify new markets</i>
<ul style="list-style-type: none"> ▪ Exports (to Georgia) are artificially hindered 	<ul style="list-style-type: none"> ↳ <i>Ensure free and easy exports</i>
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient in the field of organic agriculture 	<ul style="list-style-type: none"> ↳ <i>Organize trainings on professional and marketing topics</i> ↳ <i>Organize trainings on organic agriculture topics</i>

Cornelian cherry

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ There is a need for high quality young plants ▪ Irrigation system is insufficient ▪ Yield losses are frequent 	<ul style="list-style-type: none"> ↳ <i>Provide young trees, establish orchards</i> ↳ <i>Recover irrigation system and coordinate the watering schedule</i> ↳ <i>Establish anti-hail stations</i>
<ul style="list-style-type: none"> ▪ Financial means are insufficient 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means</i> ↳ <i>Provide zero interest small loans</i>
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient ▪ Legal knowledge of farmers is insufficient 	<ul style="list-style-type: none"> ↳ <i>Organize trainings on professional and marketing topics</i> ↳ <i>Organize trainings on legal topics</i>

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Sales are problematic especially in case of big quantities ▪ Procurement points are insufficient, prices are low ▪ Transportation costs are high 	<ul style="list-style-type: none"> ↳ <i>Establish procurement points, application of advanced-payment schemes</i> ↳ <i>Establish storage and processing facilities</i> ↳ <i>Equip mentioned points with necessary equipment</i> ↳ <i>Identify new markets</i>

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<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient ▪ Legal knowledge of farmers is insufficient 	<ul style="list-style-type: none"> ↳ Organize trainings on professional and marketing topics ↳ Organize trainings on legal topics
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Honey

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Beehives are old and obsolete ▪ New be-hives are expensive ▪ Wax-papers are expensive 	<ul style="list-style-type: none"> ↳ Provide new beehives and other inputs ↳ Implement complex projects ↳ Ensure accessible and affordable financial means
<ul style="list-style-type: none"> ▪ Medicine is expensive and low-quality ▪ There is not control and treatment of diseases 	<ul style="list-style-type: none"> ↳ Ensure proper provision of high-quality and affordable medicine ↳ Establish a network of specialized shops for medicine ↳ Provide state control on the quality and prices of medicine ↳ Provide effective control of beehives diseases ↳ Improve feeding, recover ground roads in fields and forests
<ul style="list-style-type: none"> ▪ Financial resources are insufficient 	<ul style="list-style-type: none"> ↳ Ensure the availability of financial means for conducting long-term projects ↳ Provide zero interest small loans
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient 	<ul style="list-style-type: none"> ↳ Organize trainings on professional and marketing topics ↳ Provide marketing information

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Sales are problematic in case of big quantities ▪ Exports are artificially hindered 	<ul style="list-style-type: none"> ↳ Expand export opportunities, identify new markets ↳ Establish processing and packaging facilities
<ul style="list-style-type: none"> ▪ Professional and marketing knowledge of farmers is insufficient 	<ul style="list-style-type: none"> ↳ Organize trainings on professional and marketing topics ↳ Provide marketing information

Fruit vodka

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ The market is saturated ▪ Technologies are old, new equipment is needed ▪ Inputs transportation is expensive 	<ul style="list-style-type: none"> ↳ Apply modern technologies ↳ Introduce product standards ↳ Ensure accessible and affordable financial means

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Sales are insufficient ▪ Product does not meet export requirements ▪ Marketing is insufficient 	<ul style="list-style-type: none"> ↳ Implement (foreign) market researches ↳ Provide market information and support exports ↳ Organize marketing trainings
<ul style="list-style-type: none"> ▪ Product appearance is insufficient ▪ Packaging and labeling are insufficient ▪ No advertisement is made 	<ul style="list-style-type: none"> ↳ Establish bottle-filling workshops in communities ↳ Apply new technologies and equipment ↳ Provide proper packaging and labeling
<ul style="list-style-type: none"> ▪ There are many factors hindering exports ▪ Customs intervene too often and create problems ▪ Difficult to compete with imports 	<ul style="list-style-type: none"> ↳ Ensure free and easy exports ↳ Improve customs regulations ↳ Restrict imports

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Cheese

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Milk quantity is small ▪ Livestock is few and there is insufficiency of funding for increase of livestock ▪ Roads to remote pastures are in a bad condition, milk transportation is difficult 	<ul style="list-style-type: none"> ↳ <i>Increase the cattle livestock and conduct intensive breeding activities</i> ↳ <i>Develop cooperatives</i> ↳ <i>Ensure accessible and affordable financial means</i> ↳ <i>Improve cattle-breeding infrastructure - roads, and milk transportation</i>
<ul style="list-style-type: none"> ▪ Professional and technological knowledge is insufficient 	<ul style="list-style-type: none"> ↳ <i>Train producers by special courses, practical classes and exchange of experience</i> ↳ <i>Introduce main requirements of foreign markets</i>
<ul style="list-style-type: none"> ▪ Financial means are insufficient 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means for long-run investments</i> ↳ <i>Introduce sufficient financial instruments for purchasing of agricultural machinery and processing equipment</i> ↳ <i>Implement complex projects, including grant programs</i>

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Milk collection vehicles are few ▪ There are no milk testing laboratories ▪ Milk storing conditions are insufficient ▪ Technologies are obsolete 	<ul style="list-style-type: none"> ↳ <i>Provide milk collection vehicles</i> ↳ <i>Establish laboratories, freezing facilities</i> ↳ <i>Increase the number of initial procurers and processors</i> ↳ <i>Equip procurers and processors with necessary equipment</i>
<ul style="list-style-type: none"> ▪ Sales are problematic, especially in summer ▪ Product appearance is insufficient ▪ Marketing and market information is insufficient 	<ul style="list-style-type: none"> ↳ <i>Apply modern technologies, establish packaging facilities</i> ↳ <i>Improve products' appearance</i> ↳ <i>Conduct marketing researches</i> ↳ <i>Establish a network of specialized shops</i> ↳ <i>Provide market information and identify sales opportunities and markets</i> ↳ <i>Organize marketing trainings</i> ↳ <i>Promote local products by state efforts</i>
<ul style="list-style-type: none"> ▪ There is a lot of low-quality and cheap products in the market ▪ Intermediaries monopolize the market 	<ul style="list-style-type: none"> ↳ <i>Control the quality of products in the markets</i> ↳ <i>Increase profits of professors at the expense of intermediaries</i>
<ul style="list-style-type: none"> ▪ Evaluation of local currency hinders exports 	<ul style="list-style-type: none"> ↳

Dry fruits

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Drying facilities are few ▪ The quality of homemade products is poor ▪ Impossible to consume all the raw materials 	<ul style="list-style-type: none"> ↳ <i>Establish procurement points and processing facilities</i> ↳ <i>Restrict homemade production practices</i> ↳ <i>Establish drying facilities (solar, electric) and equip with modern machinery</i> ↳ <i>Apply proper sanitary control</i>
<ul style="list-style-type: none"> ▪ Financial means are insufficient 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means for long-run investments</i>
<ul style="list-style-type: none"> ▪ Taxes are too high ▪ Attitude towards producers is not equal and fair 	<ul style="list-style-type: none"> ↳ <i>Improve tax and customs legal framework</i> ↳ <i>Improve tax and customs regulation</i> ↳ <i>Ensure equal conditions for all producers</i>

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Product appearance is insufficient ▪ Packaging is insufficient 	<ul style="list-style-type: none"> ↳ <i>Establish drying facilities and equip with necessary machinery for packaging and labeling</i>

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<ul style="list-style-type: none"> ▪ Traditional and obsolete technologies are applied 	<ul style="list-style-type: none"> ↳ <i>Apply new technologies</i> ↳ <i>Train employees via trainings and exchange of experience</i>
<ul style="list-style-type: none"> ▪ Individual sales volumes are small ▪ Exports are limited ▪ Product does not meet export requirements ▪ Marketing is insufficient ▪ Imports hinder the development 	<ul style="list-style-type: none"> ↳ <i>Concentrate the production at enterprises</i> ↳ <i>Support the exports, identify new markets, restrict imports</i> ↳ <i>Organize marketing trainings</i> ↳ <i>Provide market information</i> ↳ <i>Promote local products by state efforts</i>
<ul style="list-style-type: none"> ▪ Taxes are too high ▪ Attitude towards producers is not equal and fair 	<ul style="list-style-type: none"> ↳ <i>Improve tax and customs legal framework</i> ↳ <i>Improve tax and customs regulation</i> ↳ <i>Ensure equal conditions for all producers</i>

Wine and brandy

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Professional knowledge is insufficient 	<ul style="list-style-type: none"> ↳ <i>Organize trainings for technological personnel</i> ↳ <i>Organize exchange of experience</i>
<ul style="list-style-type: none"> ▪ Processors capacities are insufficient ▪ Technologies are old 	<ul style="list-style-type: none"> ↳ <i>Apply modern technologies</i> ↳ <i>Ensure accessible and affordable financial means</i>

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Sales are the major problem ▪ Local market is full of cheap and low quality products ▪ Market is saturated 	<ul style="list-style-type: none"> ↳ <i>Support product marketing and sales</i> ↳ <i>Introduce quality standards and get the market rid of low quality products</i> ↳ <i>Identify new markets</i> ↳ <i>Introduce new products</i>
<ul style="list-style-type: none"> ▪ Exports costs are high ▪ Marketing is insufficient ▪ Product does not meet export requirements 	<ul style="list-style-type: none"> ↳ <i>Promote local products by state efforts especially in European markets</i> ↳ <i>Introduce international quality standards</i> ↳ <i>Conduct marketing researches and provide market information</i> ↳ <i>Intensify support towards support of the exports</i>
<ul style="list-style-type: none"> ▪ Product appearance is insufficient ▪ Packaging and labeling is insufficient 	<ul style="list-style-type: none"> ↳ <i>Improve product appearance, packaging and labeling</i> ↳ <i>Apply modern technologies</i> ↳ <i>Establish bottle-filling facilities</i>

Sweet preserves

Production

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Financial means are insufficient 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means for long-run investments</i>
<ul style="list-style-type: none"> ▪ Processors capacities are weak ▪ Technologies are old 	<ul style="list-style-type: none"> ↳ <i>Apply modern technologies</i> ↳ <i>Ensure accessible and affordable financial means</i>
<ul style="list-style-type: none"> ▪ Professional knowledge is insufficient 	<ul style="list-style-type: none"> ↳ <i>Organize trainings for technological personnel</i> ↳ <i>Organize exchange of experience</i>
<ul style="list-style-type: none"> ▪ Inputs are not enough 	<ul style="list-style-type: none"> ↳ <i>Increase production volumes of particular products</i>

Exports

Hindering factors	Measures recommended
<ul style="list-style-type: none"> ▪ Financial means are insufficient 	<ul style="list-style-type: none"> ↳ <i>Ensure accessible and affordable financial means for long-run investments</i>
<ul style="list-style-type: none"> ▪ Taxes are too high ▪ Attitude towards producers is not equal and fair 	<ul style="list-style-type: none"> ↳ <i>Improve tax and customs legal framework</i> ↳ <i>Improve tax and customs regulation</i>

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<ul style="list-style-type: none"> ▪ Customs hinder exports 	<ul style="list-style-type: none"> ↳ Introduce tax privileges for entities from the bordering territories ↳ Ensure equal conditions for all producers
<ul style="list-style-type: none"> ▪ Product appearance is insufficient ▪ Packaging and labeling is insufficient 	<ul style="list-style-type: none"> ↳ Improve product appearance, packaging and labeling ↳ Apply modern technologies, establish bottle-filling facilities ↳ Ensure product compatibility to international standards
<ul style="list-style-type: none"> ▪ Access to markets is low, export costs are too high ▪ Marketing is not sufficient ▪ Product does not meet export requirements 	<ul style="list-style-type: none"> ↳ Promote local products by state efforts especially in European markets ↳ Conduct marketing research and provide market information

Factors hindering the production and exports of particular products, as well as ways of overcoming those factors significantly vary for different products. Even in case of grouped analysis the list of hindering factors is very long and addresses almost all aspects of operations. This situation is not specific for only Tavush Marz, but for all of Armenia.

Nevertheless, some hindering factors can be separated as the boldest ones, such as small quantities/volumes of production, insufficiency of financial means for long-term investments, insufficiency of irrigation system and infrastructure, old technologies, sales problems, wrong tax regulation, low professionalism, etc. These are the target directions of interventions that should be addressed by stakeholders, i.e. state agencies and international development programs on the first turn.

2.3.4 Sales markets of potential products

The awareness of respondents about sales markets of primary agricultural and processed products is mostly based on their own experience and of their colleagues, information got from different development projects and mass media. This study tries to identify all the actual information and to find out the most possible markets for different potential products. The summarized data is presented below.

Table 27 - Sales markets of potential primary agricultural products

Primary agricultural products with production and export potential	In the Marz	Out of the Marz, in Armenia	Export	Export countries							
				Difficult to answer	Russia	Georgia	Europe	USA	Netherlands	Italy	Norway
Persimmon	59	59	22	4	13	4	1	1	1	0	0
Grape	79	40	9	1	6	4	1	0	0	0	0
Beef	67	50	8	1	2	4	0	0	0	0	0
Peach	36	46	37	1	32	11	2	2	0	0	0
Fig	40	38	18	3	9	3	2	1	1	1	0
Cornelian cherry	32	33	13	2	8	3	1	1	1	1	0
Berries	31	35	11	2	5	2	2	2	0	0	0
Honey	30	26	20	5	9	3	5	2	0	0	0
Milk	43	21	2	0	1	1	0	0	0	0	0
Tobacco	36	11	3	1	2	1	0	0	0	0	0
Walnut/hazel	16	15	10	3	6	0	1	1	0	0	1

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Black plum	15	14	6	0	2	2	1	1	0	0	1
Apple	15	11	7	0	3	1	1	1	1	0	0
Pork	13	14	1	0	1	0	0	0	0	0	0
Wheat and other cereals	21	5	1	0	0	0	0	1	0	0	0
Potato	15	9	1	0	1	1	0	0	0	0	0
Tropic fruits (pomegranate, kiwi)	9	8	1	0	1	0	1	0	0	0	0
TOTAL Answers	557	435	170	23	101	40	18	13	4	2	2

Source: Database of study results

It is natural that the respondents consider markets of the Marz and Armenia as major markets for potential primary agricultural products. It was already mentioned that the Armenian market is not totally saturated with all kinds of leading and potential products. This creates the best opportunities to expand the production and sales volumes of certain products. According to respondents, peach, persimmon, honey and fig have the best export potential. These opinions are some kind of subjective and express more the wishes of respondents than the reality, at least in case of honey and fig. In the first case, the local product does not correspond to international standards and is quite expensive. In case of the second product there are serious problems of transportation.

The most perspective markets for primary agricultural potential products are Russia and Georgia. This opinion of respondents is fully accepted and is confirmed also by other studies of the sector. Moreover, there is successful export experience to these countries (for instance, activity of “Spayka” company).

Table 28 - Sales markets of potential processed products

Processed products with production and export potential	In the Marz	Out of the Marz, in Armenia	Export	Export countries											
				Difficult to answer	Russia	Georgia	Europe	USA	Ukraine	Places inhabited with Armenians	Greece	France	Turkmenistan	Kazakhstan	Iran
Fruit vodka	53	55	46	0	33	5	0	2	1	6	0	0	0	0	0
Cheese	46	45	40	2	25	6	10	0	2	0	1	1	0	0	0
Dries fruits	38	44	40	3	25	1	6	6	0	1	3	2	0	0	0
Wine and brandy	57	40	24	4	9	5	2	2	0	0	1	2	0	0	1
Jams	28	34	33	3	28	6	3	3	4	0	0	0	2	2	0
Sour milk-products	30	23	7	2	3	0	0	1	0	0	0	0	0	0	0
Butter and fat	18	17	20	2	12	4	3	5	1	0	0	0	1	1	1
Other preserves	19	11	4	0	1	3	0	0	0	0	0	0	0	0	0
TOTAL Answers	289	269	214	16	136	30	24	19	8	7	5	5	3	3	2

Source: Database of study results

The export potential is bigger for processed products. It is natural as the transportation of processed products is much easier and the exporters are assured from losses. According to respondents, fruit vodka, cheese and dried fruits have the best export potential. Again this argument is not fully accepted. Fruit vodka still need appropriate packing and labeling. Cheese transportation needs special conditions and, besides,

Armenian salty cheese is not so much demanded at the external market. In case of dry fruits the competitiveness is very high. Russia and Georgia are again the best export markets.

2.3.5 Exports legislative framework

2.3.5.1 General information

The export legislation in Tavush Marz does not have specific characteristics and it is the same as for whole Armenia. All the groups of respondents involved in the study answered the basic questions concerning export legislation though not all of them deal with tax and customs services. Detailed analysis follows. Some groups of respondents (state entities, NGOs, development programs) have limited relation to tax service in the frame of their activities. In case of processing enterprises the situation is totally different; all these companies deal with tax services quite intensively. In this context the relations of large farmers with tax services are very important.

70 of 85 large farmers involved in the study mentioned that they have no relations with tax services. This is natural as the primary agriculture is free of main taxes and payments: it is exempted from profit tax, income tax, etc. Remaining farmers have some relations with tax authorities.

Farmers pay taxes for their livestock, land both property and rented. Even in this case, they deal with their municipalities and do not have any relations with tax service.

Identification and promotion of primary agricultural and processed products' export opportunities in Tavush Marz, definition of difficulties and justification of ways to overcome them, are the main objectives of the current study. From this viewpoint of the tax policy of the country, particularly the activities for export promotion, is an important factor. Among them 3 important aspects were considered: VAT threshold (58.35 million AMD), VAT exemption of exports and free economic zones (FEZ) in Armenia.

2.3.5.2 Influence of the availability of VAT threshold

The respondents were active in expressing their opinions for all the three topics. Summary of respondents' answers about VAT threshold is presented below (see Table 29):

Table 29 - Influence of the availability of VAT threshold

Groups of respondents	Attitude of respondents				Total
	Positive	Negative	Indifferent	Difficult to answer	
State entities	14	1	1	3	19
Development programs	5	0	1	0	6
NGOs	11	1	1	0	13
Financial institutions	1	0	3	1	5
Processors	26	3	2	5	36
Large farmers	62	3	7	13	85
TOTAL Responses	119	8	15	22	164

Source: Database of study results

The table shows that major part of the respondents has positive opinion on VAT threshold. Representatives of *development programs* think that this threshold should be kept and even raised in order to ensure development. At the same time they think that it may have positive outcomes only in parallel with raising awareness and creating equality of activities. *Large farmers* also agree that VAT threshold promotes development of primary agriculture and processing (expansion of production volumes, creation of new farms and SMEs, etc.) and exports. This can result in further expansion of production facilities and diversification of sales markets.

The presented opinions are generally supported by other groups of respondents. Additional taxes would influence on production prices, decreasing their demand and sales volumes. The targeted sectors are not able to face these challenges, yet.

Arguments of groups of respondents having negative and/or indifferent opinion about VAT threshold are also different. In this case also the small sizes of the Marz farms and SMEs and lack of real exporters are mentioned. Respondents with negative opinion think that these tools may efficiently be used only in case of fair implementation of tax policy and laws, which is not possible in our country. It can be concluded that the farmers engaged in micro or small activities in Tavush Marz, simply are not able to export themselves. Their production is small; they do not have necessary financial resources and knowledge to export.

Opinion:

The following negative opinion of respondents on VAT threshold is important to highlight: **“The VAT threshold should increase up to 100-110 million AMD for agricultural enterprises. Only in this case possessors of large financial resources will be interested in agriculture and will make large investments”.**

2.3.5.3 Influence of the exports’ exemption from VAT

Exports exemption from VAT payment is one of direct actions taken to promote the exporting companies. This opinion shares major part of respondents involved in the study (see Table 30).

Table 30 - Influence of exports exemption from VAT

Groups of respondents	Attitude of respondents				Total
	Positive	Negative	Indifferent	Difficult to answer	
State entities	16	3	0	0	19
Development programs	5	0	0	1	6
NGOs	13	0	0	0	13
Financial institutions	2	0	2	1	5
Processors	35	0	1	0	36
Large farmers	58	4	9	14	85
TOTAL Answers	129	7	12	16	164

Source: Database of study results

Exports’ exemption from VAT can be considered definitely positive measure. It allows being in more competitive position at external market, saving considerable working capital, avoiding attraction of expensive financial resources, etc. At the same time, only this is not sufficient to ensure the increase of exports. The product quality, external market circumstances, demand, competitors’ strategies, local

currency fluctuations, existing infrastructures (product maintenance, transportation), and other aspects also have serious influence on exports. There is another major factor hindering the exports of especially industrial enterprises (such as producers of preserves, wine and brandy, etc) - VAT receivables from the budget. VAT debits are usually accumulated and in Armenian reality the clearing is simply impossible. This means that there are no real offsets and these enterprises, anyway, make large VAT payments.

Respondents with positive opinion made the following comments on VAT exemptions:

- The idea is positive, but the population is not informed about it. Special attention should be paid to increasing the social awareness;
- This measure is definitely positive. Besides financial savings it will allow avoiding additional troubles and paperwork;
- This measure will particularly support development of small farmers who cannot afford such expenses at all;
- Such measures definitely interest exporters. This will have its positive influence if other “non resolvable” problems do not accrue, such as certification, patronage, delays, etc.

Opinion:

Opinion of a farmer on the topic: **“My farm is small; I have no exports and will never be able. Meantime, such measure makes me think, motivates. It opens new opportunities, and many people would be glad to use it”.**

Though the number of respondents *with negative and indifferent attitude* is quite little, their opinion is also strongly important in this context. The most frequent argument refers to production volumes.

The respondents mention that the legislative framework in reality is insignificant for farmers in Tavush Marz, as there are no farmers with real export production volumes in the Marz. This legislative framework will not have any influence on them. The simple farmers are not “grown-up” enough; they do not have enough knowledge, they are not aware of the markets and cannot negotiate, they do not have financial resources for export transportation expenses, etc. Few local companies specializing in exports of agricultural products currently hold monopoly and dictate their conditions (cost, quality, delivery, and payment conditions) to primary producers.

2.3.5.4 Influence of Free Economic Zones

In recent years the establishment of Free Economic Zones (FEZ) has been one of the most discussed issues in Armenia. Certain activities were started in 2010-2011 with establishment of “Zvartnots” FEZ; one of its major objectives is the promotion of primary and processed agricultural products’ exports. The FEZ has the best modern technologies for the production maintenance. Systematic services should be provided to the exporters at this place, exempting them from additional problems and bureaucracy. The idea is very positive, but the attitude of the respondents towards it is quite ambiguous.

Table 31 - Influence of FEZs on respondents’ activities

Groups of respondents	Attitude of respondents				Total
	Positive	Negative	Indifferent	Difficult to answer	
State entities	8	0	0	11	19
Development programs	2	1	0	3	6
NGOs	4	2	0	7	13

Study for identification of actual capacities and development opportunities of entrepreneurship and agricultural food production, processing and export promotion in Tavush Marz

// Current situation and development opportunities of agriculture and processing

Financial institutions	1	0	0	4	5
Processors	6	4	0	26	36
Large farmers	27	11	5	42	85
TOTAL Answers	48	18	5	93	164

Source: Database of study results

Though the establishment of FEZs has been done in participatory way and it was widely addressed in mass media, most part of the respondents was not aware of this process and had no idea about certain activities of FEZs. Thus, the majority of respondents were not able to give any answer.

Respondents with positive opinion can see serious progress. Establishment of FEZs is an example of implementation of the best international experience directed to export promotion. It will allow promoting export, and therefore, the increase of production volumes, becoming competitive at external market, avoiding hindrances, if this structure acts properly. Otherwise, it will become another tool for monopolists. Cooperation with such structure is something like a dream for many farmers.

Opinion:

Tavush Marz vice-governor's answer to this question: **“There used to be Bagratashen market on the border that was stopped by state initiative. This market was not other than a free market zone where many inhabitants of Tavush Marz were working. The created FEZ will have similar function at bigger scale. Why wasn't it possible to create that FEZ on Bagratashen market base? This is another concentration of economic activities that will not be profitable for population in Tavush Marz (or other bordering communities)”**.

The respondents seriously proclaim the location of the FEZ in Yerevan. According to them, such structures should be located in places that need development. In current conditions many farmers simply will not be able to register and act in the FEZ because of distance. Besides, they are afraid that this structure will become another wholesale market dictated by intermediaries and sellers. Taking the production to the FEZ the farmers will not have other choice than to leave the products with conditions dictated by local factories. The solution of these problems is based on decentralization of such activities and their creation in bordering communities.

2.3.5.5 Influence of tax hindrances and ways to overcome them

The answers of respondents about tax hindrances and ways to overcome them were very different in quality that makes it harder to group them and give their quantitative summary. In many cases, positive and negative opinions are mixed in the answers of respondents and grouping them would result in loss of information. That is why quantitative summary has not been done and the gathered opinions are analyzed by groups of respondents in a qualitative manner.

Representatives of development programs mention that the primary agriculture is exempted from the main taxes and there is no need of changes in this sphere. The necessity for tax exemption of agricultural machineries' imports was mentioned, but this is the case when the respondents were not well informed. The actual legislation exempts major types of agricultural machinery from import taxes. In case of processing enterprises the problem is equality and fairness of tax regulation. At the same time, it is mentioned that if these enterprises operate properly they will not have serious problems with tax authorities. Special attention was paid to the policy towards start-ups. The respondents think that they should have privileges.

The major part of *large farmers* (78 of 85 respondents) involved in the study did not face any tax hindrances. They do not expect serious changes; they just want not to deal with tax entities and continue their activities. Though, they are not against of additional improvements. This regards the taxes and other similar payments in bordering communities. They offer to have special policy for new farms that do capital investments by creating plots, animal-breeding farms, etc. The situation is a little different in case of processors: they are not exempted from taxes. According to large farmers, SMEs usually have problems with tax regulation. The tax service puts them under pressure that has its negative influence on their cooperation with farmers.

Representatives of NGOs mention that taxes paid by farmers - land tax, livestock tax, etc are high. Especially in bordering zones all these taxes and payments should be exempted. Moreover, support funds should be allocated and there should be serious struggle against imposed payments of farmers: high costs of market sales places, payments to traffic police during production transportation, etc. The opinion is different in case of processors, again. Although processors are not always very objective, their tax regulation is proclaimed. Tax rates are too high, treatment is unequal, and regulation is too hard. It is especially hard the paperwork offered to small processors.

13 of 19 *state entities* did not mention serious problems and they think that there is no need of any changes. These respondents also refer to "legal" payments gathered from farmers: marketplace rents, paperwork payments, treatment of police, etc. They also mentioned the necessity of privileged tax conditions and rent payments. It was also mentioned that in many cases the processing enterprises face unfair treatment from the side of tax authorities. The regulation should not be so tough and some state protection activities should be undertaken to increase the local products' competitiveness at local market. This is mainly suggested against the imported meat and meat-products, preserves, juices, cheese and milk-products, etc.

Opinion:

One of the best and most comprehensive responses to the topic: **"Special tax regime should be applied for the remote areas, but it should not be allowed to business community to misapply this opportunity (i.e. businesses from other regions should not be allowed to be registered here and benefit from the special regime). Besides, possibility of monopolization should be brought to the minimum"**.

As it was supposed, the most critical answers about tax hindrances gave the processing enterprises, though half of 36 respondents of this group also mentioned about the absence of serious tax problems¹². Answers of the other part of respondents of this group are presented below:

- Profit tax prepayments create serious problems;
- It is not possible to put to the debit the VAT of material acquisition as the primary agriculture pays VAT only in case of exceeding the currency of 58.35 million AMD;
- If the obtained material from a certain person exceeds 80% of total acquisitions, they need to pay VAT. This prevents them from establishment of stable relationship with the main suppliers;
- Information about changes in legislation are not provided to processors in time (*though this is a subjective opinion as all the changes are widely provided to society in time*);
- Tax entities make unnecessary troubles, there is much bureaucracy;
- There are no serious problems with tax legislation. The problem is its implementation;
- There is no privileged treatment towards local processors, particularly start-ups. These enterprises simply do not manage to establish themselves.

¹² This is conditioned by the fact that processors of cheese are not registered and operate as farmers and do not pay taxes.

To overcome the mentioned problems and hindrances the processors offer the following activities:

- Reform RA laws concerning VAT and Profit Tax and improve their application;
- Improve the accessibility of information on tax legislation changes;
- Totally exempt primary agriculture from taxes and soften the regulation towards processors;
- Subsidize the primary agriculture;
- Simplify relations with tax entities and decrease bureaucracy;
- Promote the establishment of start-up enterprises and apply some protectionism policy for local enterprises, make stricter control of imports;
- Consult with representatives of specific spheres before adopting laws, etc.

The most loyal opinions about tax hindrances were expressed by the *representatives of financial institutions*. According to them, there are no real problems in legislation, it is necessary to reform only the tax regulation.

2.3.5.6 Influence of customs hindrances and ways to overcome them

Before passing to analysis of customs' influence it should be noted once again that major part of respondents (even processors) involved in the study has never had any relations to customs. Farmers engaged in primary agriculture have never exported. This means that some reservations should be applied towards their opinions and suggestions. Anyway, opinions of studied respondents on influence of customs on activities (production and export) of farmers and processing enterprises in Tavush Marz are presented below:

Table 32 - Customs influence on respondents' activities

Groups of respondents	Attitude of respondents				Total
	Positive	Negative	Indifferent	Difficult to answer	
State entities	3	4	0	12	19
Development programs	1	1	0	4	6
NGOs	3	2	0	8	13
Financial institutions	1	1	0	3	5
Processors	5	6	0	25	36
Large farmers	12	11	1	61	85
TOTAL Answers	25	25	1	113	164

Source: Database of study results

It is evident, that most of the respondents have lack of information about the problem. Respondents with positive opinion did not make any comments, though they mentioned that in general the exports are exempted from duties, and recently they see positive changes in simplification of procedures and decrease of bureaucracy. This regards mostly exports; in case of imports the situation is not so positive.

Respondents with negative opinion were more justified, noting certain reasons stating their opinions. Particularly, they think that the customs bureaucracy is still high, attitude towards exporters is not polite, delays of processes are usual, there are groups formed that control all the process, the main exports are not done by producers but by certain intermediaries, etc. More precise examples are also mentioned: 1

USD for 1 kg peach export, 15.000 AMD for 15 kg eggplant export have been demanded by customs authorities; similar cases appeared in potato exports, import of young plants is simply prohibited. The processors also mentioned that behavior of local customs created adequate response from the side of foreign customs services (meaning Georgian).

15 of 164 respondents mentioned that there is no need of any changes. The most important reforms offered by the others are:

- Decrease customs bureaucracy, stop artificial delays and troubles;
- Make the customs authorities change their behavior and be more polite to clients;
- Exclude non legal payments for exported products;
- Have equal and fair treatment to all the exporters, ensure competitiveness and exclude monopoly;
- Make the customs authorities operate by law and not adapt the law to serve their personal needs;
- Improve the decision making process on customs values, restrict price adjustment processes, etc.

Summarizing, we can say that all the tax and customs problems mentioned by the respondents refer to activities by certain structures, i.e. the administration and regulation. This problem exists in Armenia for many years and recently notable improvements can be observed. It is natural that not all the problems are resolved, though the progress is evident. Definitely, most part of the mentioned problems cannot be resolved (or even cannot be referred to) within the framework of UNDP projects, but UNDP can be an additional platform to highlight them once more and to offer new possible solutions.

3 SMEs ACTIVITIES AND BUSINESS ENVIRONMENT

3.1 DYNAMICS OF SMEs ESTABLISHMENT AND CLOSURE

Issues related to SMEs establishment and closures in Tavush Marz have been discussed with regional representatives of the Agency of the Public Register of Legal Entities (APRLE) (of the RA Ministry of Justice) and State Revenue Committee (i.e. Tax Service). Other respondents were not asked this question due to specific nature of the topic. Other respondents simply cannot possess such information and their subjective responses may distort the overall real picture.

Collection of necessary information on the mentioned topic became a serious problem for the study team. No quantitative data has been obtained so far. This information, even if available, is simply not provided by respective state agencies in the format requested by the ToR of the study. The major problem is in the fact that establishment of legal entities (also SMEs) is registered by the APRLE, while the temporary squeezing of operations of legal entities is registered by Tax Service. Quite often enterprises are liquidated but officially they just temporarily squeeze their operations. Providing that two mentioned agencies usually avoid disclosing any kind of specific and comprehensive information it is completely clear why the analysis of this issue became impossible. There is no baseline input data for that. Nevertheless, some general information (of mainly qualitative nature) was collected and somehow analyzed below.

Number of agricultural firms in Tavush Marz almost does not vary: new businesses are not registered; old businesses are not officially liquidated. For example, only 2 consumption cooperatives¹³ have been established in one of sub-regions of the Marz in 2011 (just for comparison: 1,925 sole entrepreneurs (SEs) have been registered in the same sub-region since 1994). This fact is explained by slow development of agriculture. Trade and services sectors are developing much faster. The general impression is that the situation more or less stays unchanged although in a long-run the number of newly registered businesses tends to decrease.

Opinion

One of the best responses to the question: "There is no bureaucracy for the SMEs establishment, but we are not able to provide necessary affordable financial support to start-up businesses. Before the global financial crisis the number of new established SMEs was growing, but now the tendency is the opposite. We lack professional advisors and especially an entity that will be able to provide affordable funding to start-ups".

Squeezing the operations and liquidations in Tavush Marz can be met more often after the global financial crisis in 2009-2010. Interestingly, SEs usually tend to be liquidated while other legal entities usually temporarily squeeze their operations since the liquidation of such entities is quite sophisticated process. The respondents, inter alia brought the following main reasons for squeezing operations and liquidations:

- Global economic and financial crisis;
- Wrong business and insufficient management;
- Narrow markets and low demand conditioned by low purchasing parity;
- Wrong and too tough tax regulations;
- Lack of innovative ideas and approach;
- Economic inability, changes of activity and household locations, etc.;
- Low procurement prices (in case of milk collection points) and inability to establish stable relations with partners.

¹³ Respondents mention that establishment of cooperatives is recent tendency

3.2 ASSESSMENT OF THE MARZ BUSINESS ENVIRONMENT

3.2.1 Conditions for the establishment of new businesses

Information on Tavush Marz business environment is much more and easy accessible. All respondents (except of large farmers) expressed their opinions on business environment of the Marz, i.e. to what extent this environment is supportive. The comprehensive analysis of their responses is presented below (see Table 33):

Table 33 - Are the Marz conditions supportive for establishment of new businesses?

Respondents' groups	Respondents' attitude			Total
	... are supportive	... are not supportive	Difficult to answer	
State entities	14	7	3	24
Development programs	2	3	1	6
NGOs	4	9	0	13
Financial institutions	1	4	0	5
Processors	8	26	2	36
TOTAL Responses	29	49	6	84

Source: Database of study results

Again, there is no certain concentration of responses and it would be wiser to analyze responses by the groups of respondents. Positive responses were addressed at first turn.

Development projects

- Environment is supportive but proper support should be delivered to start-ups. Also they need support for networking their activities.
- Ensuring the availability of long-term and affordable financing is of special importance.

NGOs

- Businesses in the Marz are few, the market is comparatively open and competition is not severe;
- Businesses established under the proper idea have good development opportunities.

State entities

- Many projects delivering professional, technical, and financial assistance do operate in the Marz. The substantially support establishment of orchards, development of animal husbandry, etc.;
- A lot of unused lands and other facilities are available;
- Bordering to Georgia provides additional export opportunities;
- The geographic location of the Marz is good; the climate is supportive for various types of agricultural activities.

Processors also agree with the last opinion. In particular, they mentioned good opportunities for food processing, dry and frozen fruit production, establishment of greenhouses, etc.

Respondents that expressed negative attitude towards Tavush Marz business environment and conditions for establishment of new businesses brought the following justifications:

Development programs

- Tavush Marz is far from Yerevan - the main market, and the local market is not sufficient;
- Poverty is high in the Marz, and consumption volumes are not big;
- There is a lack of professional personnel, youth migration is common;
- There is a lack of knowledge and financial resources;
- Competitiveness of local products vs. imported ones is low.

NGOs

- Taxes are too high, tax regulation is hindering very much;
- The Marz area is bordering to Azerbaijan and the political situation is not stable;
- There is a lack of financial resources necessary for the establishment of new businesses;
- There is no entity to support start-up businesses, explain them how to operate and motivate.

State entities

- Concentration of the business community in Yerevan is too high;
- Tax regulations are bad, fees and penalties are too high;
- Product sales opportunities are limited;
- There is a lack of affordable financial resources necessary for the establishment of new businesses.

Processors

- Tax regulations are bad especially for start-up businesses, patronage schemes are applied by officials;
- There is lack of seed capital and affordable financial resources, available loans are expensive and short-term;
- There is no special attitude towards businesses that operate in bordering areas;
- Producers are far from Yerevan and other sales markets;
- Sales are problematic especially in case of big volumes of production, markets are insufficient;
- There is lack of skilled personnel and investors avoid remote regions.

Financial institutions

- Tax regulations are bad, SMEs do not survive;
- Start-up businesses do not get proper assistance;
- Local market in the Marz is small; start-up businesses may survive, but cannot develop.

3.2.2 Ways of overcoming the problems and support needs

3.2.2.1 Proposed ways for overcoming the problems

In the last chapter the respondents uncovered major problems hindering establishment and development of new businesses in Tavush Marz. In parallel respondents also suggested possible ways of overcoming those problems that are described below (again by groups of respondents).

Development programs

- Promote production and sales of primary agricultural products;

- Ensure state participation and support in overcoming the problems via the following measures:
 - ↳ Providing state control of the prices, quality and volumes of imported products;
 - ↳ Supporting local producers;
 - ↳ Provide state support only on the strategic level of regulations.
- Change the mentality of the population and businesses providing specific examples and evidence on how they must work;
- Implement small demonstrative projects providing equipment, trainings, etc.;
- Ensure/provide affordable financial/loan resources.

NGOs

- Increase the transparency of the business environment; create open economic environment and ensure competitiveness;
- Ensure/provide affordable financial/loan resources;
- Consider compensation schemes against losses caused by natural and climatic conditions;
- Provide tax privileges for businesses that operate/are established in bordering area;
- Improve the access to markets, minimize the benefits gained by intermediaries;
- Continue massive projects of infrastructure recovery funded by state and donor resources;
- Intensify the cooperation with international donor programs and institutions, coordinate the efforts for ensuring synergy;
- Improve the tax regulations towards the start-up businesses at least for the first 4-5 years of operation.

State entities

- Improve the tax regulations, ensure equal treatment of local and outside businesses especially within the frame of tendered state projects;
- Ensure/provide affordable financial/loan resources and grants;
- Subsidize primary agriculture and recover infrastructure;
- Ensure equal development opportunities for all sub-regions of Tavush Marz;
- Provide necessary legal information to the business community;
- Support in identification of new sales markets.

Processors

- Improve tax regulations especially towards start-up businesses, ensure equal treatment of all entities;
- Provide tax privileges to farmers (especially at bordering area) or even cancel all taxes for them; ensure special conditions for start-up businesses;
- Recover the infrastructure - roads, irrigation system, etc.; special attention should be paid to remote regions;
- Ensure/provide affordable financial/loan resources;
- Support in identification of new markets and exports;
- Intensify the implementation of exemplary development projects.

Financial institutions

- Ensure special conditions for new ideas, innovative business projects;
- Support especially the industrial businesses;
- Improve tax regulations especially towards start-up businesses.

The above mentioned proposals of respondents have been classified and grouped by the study team, but were not edited. In reality some concentration can be observed around the following 3 ideas: **necessity of**

affordable financial resources, improved tax regulations and provision of privileges, and identification of new sales opportunities.

3.2.2.2 Advisory support needs of start-up businesses

During the study respondents mentioned that start-up businesses of Tavush Marz need any kind of support, especially of advisory nature. From the very beginning 4 types of advisory services have been identified to be requested by respondents the most: accounting, legal, business planning and entrepreneurship advisory. Respondents' needs for such advisory support are summarized below (see Table 34).

Table 34 - Advisory needs (initially identified) of start-up businesses

Respondents' groups	Accounting	Legal issues	Business planning	Entrepreneurship
State entities	13	12	15	14
Development programs	6	5	6	6
NGOs	12	12	12	12
Financial institutions	3	3	4	3
Processors	29	26	30	30
TOTAL Responses	63	58	67	65

Source: Database of study results

Respondents from various groups appreciated different types of initially identified advisory needs almost equally. Nevertheless, business planning and improvement of entrepreneurial skills have been paid a little more attention, which was indirectly confirmed also during the informal interrogations. Even experienced businessmen mentioned that they do not face serious legal problems; accounting issues are resolved via attraction of specialists, while problems regarding the management of the business and entrepreneurship they have to meet themselves. Here, their majority becomes unable to solve problems due to lack of knowledge and skills. On the other hand, it is very good that respondents comprehend the existence of such problem and are ready to undertake immediate measures for overcoming it.

Opinion:

One of representatives of financial institutions expressed the following interesting opinion on the topic: **“Advisory and education are very important for the Marz businesses. Being educated people will finally understand that taking loan also means risks. They will start making calculations and who knows...?”**

Aside from initially identified types of advisory needs, respondents also mentioned other needs that are presented additionally (see

Table 35). The first 3 columns of the additional list can be simply merged with the business advisory column of the previous table. This again confirms the need for such training in the Marz.

Table 35 - Advisory needs (identified additionally) of start-up businesses

Respondents' groups	Business planning and management	Professional advisory	Marketing	Financial support	Tax regulations	Any advisory
State entities	1	0	0	7	2	2
Development programs	1	1	1	0	0	1
NGOs	0	1	0	5	1	0
Financial institutions	1	0	0	0	1	0
Processors	3	6	3	11	4	2
TOTAL Responses	6	8	4	23	8	5

Source: Database of study results

Although this question has been asked to identify the needs for so called “soft measures” or advisory services, respondents again mentioned their needs for more tangible support, i.e. improved access to financial resources, better tax regulations, etc. These two problems really hinder the Marz economy development and urgent measures should be undertaken concerning this.

Respondents also mentioned that advisory services should be funded by the support of state and donor organizations, and should be delivered by organizations that have necessary professional potential and experience, as well as are well aware of Tavush Marz problems. Practical use of obtained knowledge and skills should become another important requirement for delivering such services.

4 MONOPOL MARKETS INFLUENCE ON TAVUSH MARZ AGRICULTURE AND PROCESSING SECTORS

4.1 INFLUENCE OF MONOPOLIES ON NATIONAL LEVEL

Existence of monopolies on national level and their influence on economy is not a primary and direct objective of this study. Inclusion of this issue aims at figuring out general awareness of respondents about economic life of the country, their attitude towards existence of monopolies. This part of the study has been a foreword to finding out the monopolies in Tavush Marz and to understand their influence on regional level. The collected information about the monopolies on national level was very different. Again the analysis was made by groups of respondents.

Representatives of *development programs* mentioned fuel, infrastructures and main strategic products, meaning foods of primary importance, among the monopoly products and services.

Large farmers gave more detailed answers, though there were many expressions such as “everything is monopolized”, but attempts of explanations were not successful. More or less justified were answers mentioning fuel, flour, sugar, oil and other imported products. More interesting answers were given by large farmers about the sectors related to them directly. They mentioned the monopolistic situation of honey and beeswax market, oligopolic situation of milk market, and procurement price regulations by a few large dairy companies, oligopolic situation of fruit procurements (a few local processors, 1-2 wholesale markets, 1 large local exporter etc), oligopolic market of grapes procurements and price regulation by 3-4 large processing factories, and finally, tobacco price regulation by one large operator. *Though the answers were spontaneous, respondents of this group successfully defined the main monopolistic and oligopolic markets, mentioning their negative influence, i.e. defining of procurement prices' at the lowest level.*

Answers of representatives of *NGOs* do not differ so much. Again, the main imported products were mentioned to be honey and beeswax, procurements of grapes and tobacco, apricot exports. The *state entities* had almost similar opinions. Meantime, respondents not always speak about monopolistic and oligopolic markets negatively. Existence of monopolies for most of them is already a given fact. Instead, the intermediaries within the sales channels are considered to be negative players in the market. Almost all the respondents think that they pick-up the biggest share of profits. The experts' opinion on this issue is different. These intermediary cycles, anyway, are necessary, but the way of their activities (service prices, formed functions, sponsorship etc) should be changed.

22 representatives of 36 *processing enterprises* involved in the study did not mention any monopoly product market (they do not know or they think there is no any). The other processors mentioned peach export, procurements of grape and tobacco, procurement of milk, honey and beeswax as well as wheat and fuel import, as monopolistic markets. Representatives of *financial institutions* expressed more general opinions. They think that all strategic product markets are monopolistic in Armenia, meaning first of all major food products and fuel.

4.2 MONOPOLIES ON MARZ LEVEL

After definition of monopolistic and oligopolic markets an attempt was made to find out the main factors that interfere with the development of primary agricultural and processing sectors in Tavush Marz and the exports. Almost half of the respondents did not bring any example for such negative influences. Other answers of respondents are presented by groups.

The most mentioned among monopolistic products is fuel. Price of fuel in many countries decreases at the beginning of active agricultural season (or its increase is prohibited) that promotes to activities of farmers, decreasing their expenses. In Armenia, on contrary, prices of diesel usually increase in season.

Recently, procurement prices of grapes vary between 120-150 AMD/kg depending on sort, glucose content, and other features. According to formal calculations made by the RA Ministry of Agriculture, the average cost of grapes is about 140 AMD/kg for farmers. Low procurement prices (that is defined mostly in oligopolic market), as well as payment difficulties, do not give much opportunities for profit and development. At present, many farmers simply liquidate vineyards replacing them with fruit orchards and other plots.

The same refers to the milk procurements. Though there are many processors procuring milk in Armenia, procurers in Tavush Marz are not so many and the existing entities can dictate procurement prices. Recently, many entities for initial storage and processing of the milk have been established in the country, but none of them does operate currently. The problem is the same - low prices defined by final procurers of milk. The final processors are able to minimize procurement prices, since they can replace the fresh milk with even cheaper milk-powder if needed. For example, they do this in winter period.

Serious problems for internal market of Tavush Marz create import of vegetables and fruits from Georgia, Iran, and other countries. Particularly, in case of greenhouse firms the internal producer is simply not competitive against importers. They find themselves in unfavorable conditions quite often. The same problem refers to the meat market. Cheap supply of imported meat hinders local meat production notably.

The monopolistic market of honey products (beeswax) was already mentioned. This problem was proclaimed by almost all the farmers engaged in apiculture. According to them, the monopolistic market makes it harder and more expensive the honey production, decreasing both profitability and development opportunities.

Opinion:

Many respondents (especially large farmers) see the reflection of negative influence of monopoly in markets. According to them, **“The farmers are not able to take their products into market. Market belongs to a single person who alone makes decisions on its work-style, prices. Etc.”**.

5 IMPLEMENTATION OF DEVELOPMENT PROGRAMS

5.1 STATUS OF DEVELOPMENT PROGRAMS

5.1.1 Awareness on implemented and current development programs

Tavush Marz has been the most active Marz in Armenia cooperating with development programs since independence of Armenia. Almost all development organizations and projects that ever operated in Armenia conducted their project in Tavush Marz. The main reasons are the high level of the population poverty, distant location and the bordering communities to Azerbaijan. All three mentioned reasons prevent the Marz from social-economical development that attracts the attention of development programs' representatives.

Involvement of the assessment of implemented development projects in the scope of the current study aims at finding out best practices, shortcomings, lessons learned, and cooperation opportunities. Thus, it was found out that 51 respondents (out of 169) do not have any information about such programs. Answers of informed respondents are presented below:

Table 36 - Implemented and ongoing development programs in Tavush Marz

Groups of respondents	UN Programs	WB (ARSP)	MCA-Armenia	World Vision	IFAD	All Armenian Fund	GIZ	CARD	Masis Tobacco	DFID	OXFAM GB - Armenia
State entities	8	7	6	2	6	11	3	0	1	3	0
Large farmers	16	18	10	15	12	5	2	2	4	2	5
Development programs	3	0	4	2	1	2	3	4	1	2	0
NGOs	3	1	4	2	1	2	2	0	0	1	0
Financial institutions	1	2	2	2	1	0	2	0	0	0	1
Processors	9	4	4	6	4	4	0	3	2	0	2
TOTAL Responses	40	32	30	29	25	24	12	9	8	8	8
Index of programs' efficiency	3.4	3.1	3.2	3.2	3.2	3.2	2.8	3.2	3.4	2.9	3.4

Source: Database of study results

Many projects have been implemented in Tavush Marz by UN office in Armenia, such as establishment of cooperatives, milk procurement points, cold storages and drying facilities, etc. Projects completed by WB ARSP include agriculture extension system, community development, competitive grants program, activities for pasture and breeding development. MCA-Armenia has more concentrated on irrigation system recovery, post-harvest services, organization of demonstrative programs. World Vision targets development programs, health and educational problems at certain communities. IFAD has made large investments for recovery of primary irrigation system, established orchards. The All Armenian Fund works on establishment of farm unions and agricultural machinery parks. With support of "Masis-Tobacco" company small community development programs, as well as recovery of tobacco-growing traditions in Tavush Marz were conducted.

Table 36 presents the most known programs. The more detailed list includes programs implemented by less famous donors and organizations, such as Heifer, ASIF, Trpanjyan Fund, USA PC, USDA, CEP, Finca UCO, JICA, Lincy Foundation, OSCE, ADB, etc.

5.1.2 Lessons learned and replication potential

All the implemented projects have had tangible results. Unfortunately, the awareness of respondents about purposes, activities and results of implemented and ongoing projects is very low and, in many cases, wrong. People have general information and very often they do not differentiate projects implemented by different donors. This, in some way, shows lack and even absence of feedback between implementers and beneficiaries.

Inter alia, main lessons learned are the following:

- Some projects do not target the primary needs of beneficiaries that is conditioned by non-participatory activities and passing over the needs of beneficiaries in the phase of project design. One of the best examples is the creation of milk procurement points. Being successfully established by different projects, they just do not operate;
- Cooperation between different projects needs improvement. Different projects define some purposes without taking care for synergizing efforts with others and sometimes repeat others. In result, the limited resources are used non-efficiently. Coordination of activities (under the control of regional authorities) currently is one of the most important issues;
- In the phases of project design and implementation proper attention is not paid to continuity and sustainability of results. Many projects were successfully implemented and provided expected results. But in the end of the project their continuity was not ensured and progress lows down in a long-run.
- There is actual cooperation between development programs and local entities (NGOs, unions, specialized organizations, etc.), but in the implementation phase (investment activities) this cooperation has potential for intensification;
- Implementation of development programs became usual in Tavush Marz. The beneficiaries consider such programs as granted and do not appreciate properly their outcomes. This is again conditioned by wrong project design and implementation of non-participatory activities.

From the efficiency viewpoint, the beneficiaries appreciated projects implemented by UN, OXFAM GB - Armenia and "Massis-Tobaco" the most; they were ranked 3.4 from 4 maximum. Programs with replication potential were the following¹⁴:

- **Irrigation system improvement.** Introduction and application of modern economical and more efficient technologies. Increasing efficiency of irrigation water-supply.
- **Establishment of fruit orchards.** Establishment of plots, inputs supply to farmers, use of modern sorts, and application of efficient agricultural techniques.
- **Increase of livestock.** Import of high-productive animals and their provision to farmers, proper implementation of breeding and veterinary.
- **Improvement of pasture accessibility, management and efficiency.** Restoration of roads for distant pastures, electricity and water supply to pastures;
- **Establishment of agricultural machinery parks.** Import of modern agricultural machinery and provision to communities.

¹⁴ Full list of reproductory projects is presented in database of current sudy.

- **Increase of primary agricultural products' value by providing processing and other opportunities.** Improvement of procurement points, cold storages, drying facilities, slaughterhouses, sales and distribution systems. Also, establishment of small greenhouses.
- **Implementation of social projects (educational, health, cultural, infrastructural, and other) for integrated community development.** Gasification, water-supply, dispensaries, schools, community illumination, inter-community roads, etc.
- **“Food for work” Project.**

Almost all development programs and NGOs involved in the study expressed their readiness to cooperate with UNDP. Respondents' attitude is presented without editing:

- Resources of communities and cooperatives are limited. It is possible to schedule and implement complementary activities;
- Cooperation can be efficient especially in field of organizing demonstrative projects;
- Cooperation can be in the fields of fishery and bee-keeping by providing professional consulting;
- Good projects are implemented by UN. There is actual successful experience of cooperation with UN and other international organizations;
- Ready to cooperate with any entity implementing support projects in the field of agriculture;
- The presented project is very important and there is readiness to support comprehensively for the project implementation.

The following assistance can be provided by local entities within the possible cooperation framework:

Table 37 - Support by different stakeholders

Groups of respondents	Trainings	Cunsultancy	Financial support	Technical support	Professional support	Information support and awareness
Development programs	6	3	3	2	3	3
NGOs	12	12	2	8	10	12
TOTAL Answers	18	15	5	10	13	15

Source: database of study results

6 MARKETING INFORMATION CENTER

6.1 AWARENESS ON EXISTING MARKETING INFORMATION CENTERS

6.1.1 Status of existing entities

No operational marketing information center (MIC) was identified in Tavush Marz (as well as in Armenia) as of the August - September 2011. Various entities in Armenia are currently conducting some functions of MICs, but none of them delivers complete and comprehensive services as to be suggested by classic MICs. Nevertheless, this issue has been thoroughly addressed and discussed with all surveyed stakeholders during the study. It was tasked to assess the respondents' awareness on such entities and their estimation of the effectiveness of those few and scattered activities such entities undertake while providing so called "marketing information".

Almost half of the respondents that expressed their opinions on MICs either do not know about such entities, or think there is none of alike. Those respondents simply never heard about such entities or have never been interested in MICs. Few respondents suggested specific comments - they never appreciated the work of such entities and think they work not accurately and the information they might have is not widely accessible.

Respondents that seem to be "aware" on MICs in general mentioned a number of organizations that provide some kind of information. Among them are the following:

- Tavush Marz Agricultural Support Center (ASC);
- National and regional TV channels, such as Armenia, H1, H2, Kentron, Ijevan TV, Censur, etc.;
- Agrolratu and Fermer newspapers;
- Communities municipalities;
- Various NGOs and Projects: SME-DNC, GTZ business center in Ijevan, Yerevak NGO, Dilnet NGO, Emulik Cooperative, Trpanjyan Foundation, OXFAM-GB Armenia, AARHUS Center, and other. Slightly similar (but much more modest) project has been initiated by World Vision and implemented by Young Tavush NGO.

Frankly speaking, all these answers uncover the low and even wrong awareness of respondents. None of mentioned entities conducts and never did MIC operations. Some specific measures were implemented by some entities, but they were mainly of instant nature. Anyhow, some entities that were mentioned by respondents more often (i.e. Tavush Marz ASC and media) have to be addressed. The Tavush Marz ASC mainly provides general advisory services to local farmers. Some market information is also provided, but this is not done permanently. Moreover, this information is not collected permanently; the ASC does not possess sufficient resources for that.

In case of media the Agrolratu newspaper can be mentioned with its monitoring and publication of prices for main agricultural products. This is very useful and even important information for farmers to guide them in their sales activities. Meantime, the presented prices are mainly averaged and cannot be considered as specific sales or purchase offers.

The following two attempts for MICs establishment in Armenia can be considered as more or less close to the current idea. Unfortunately, respondents were not aware of none of them.

Marketing Network of Caucasus (MANEC)		Armenian Agricultural Market Information System (ARMIS)	
Initiated and funded by:	The American University Center for Global Peace	Initiated and funded by:	Millennium Challenge Account - Armenian Program, WtoM
Implemented by:	International Center for Human Development (ICHHD), (Armenia)	Implemented by:	Federation of Agricultural Association (FAA), (Armenia)
Status:	Not operating	Status:	Not operating
Objectives:		Objectives:	
The purpose of the MANEC project was to assist farmers in the regions of participating countries to sell their agricultural products using features provided by web technologies. This virtual marketplace was supported with regional offices that facilitate the collection of information about available products and the communication between buyers and sellers. The MANEC regional offices act as intermediaries between suppliers and customers, with this website as our information clearinghouse.		The aim of the project is to provide farmers and other participants in the food production and marketing chain in Armenia with relevant and timely information on the agricultural products market, especially with market prices. This information for more than 40 specific products were provided from Yerevan, Armavir, Gyumri and Vanadzor markets.	

None of these 2 MICs currently operates. Although the reasons for squeezing operation for these two entities are different at first sight, they are based on the same preconditions. The main reason was the completion of funding projects and lack of necessary financing. In case of MANEC the Project had an objective to (re)activate commercial relationship between Armenia and Turkey that was not possible to achieve due to unchanged political situation (i.e. closed borders). In case of ARMIS system the MIC stopped its activities after the completion of the MCA-Armenia Program and stop of the funding in Armenia.

Achieving the sustainability and self-sufficiency is of crucial importance for any MIC. This is a primary problem, and it should be taken into consideration by the UNDP Task Team that will be involved in establishment of future MIC in Tavush Marz.

6.1.2 Features of provided information

6.1.2.1 *Types of information available and ways of provision*

Although entities mentioned by respondents are not MICs by their definition, they regularly provide some types of information to Tavush Marz farmers, processors and other organizations involved in the study. The general impression is that any provided information is important and supportive for them. Thus, it was decided to assess the major features of provided information, i.e. information types and ways of provision.

Information provided to private businesses/farmers as well as to other entities is of vary different nature. During the analysis some conditional classification and grouping has been applied. It should also be mentioned that respondents have been given a chance for multiple responses. Responses that worth to be mentioned are the following.

Provision of *professional (agricultural)* information was mentioned most often (50 responses from 170 respondents). The following types of information have been mentioned within this group: agricultural consultancy, new agricultural techniques and technologies, plant growing and treatment of orchards, and,

finally, cattle-breeding and veterinary treatment consultancy. Interestingly, respondents identify the provision of information with consultancy services. The correlation between the most often mentioned provider (i.e. Tavush Marz ASC) and the type of information is obvious. The information was mainly provided via face-to-face discussions, seminars, as well as by providing different printed materials. Once again it should be mentioned that this group of provided information is not market(ing) oriented.

General trends of agricultural development, as well as various news on this topic are the next leading types of information requested by respondents (41 responses from 170 respondents). The following types of information have been included in this group: national and regional news, weather forecast, agricultural news of specific type, etc. This confirms that farmers, processors and other representatives of agricultural sector regularly follow the news and development of the sector. Mass media is the major source of such information. Again, provision of this type of information is not the primary task of MICs; this can be just another complementary activity for them.

Market(ing) information is ranked to be the third (31 responses from 170 respondents). In particular this group contains the following specific types of requested information: prices, trend of supply and demand, as well as of various markets, marketing tools, etc. Such information respondents used to obtain from the mass media - newspapers, TV, and web. Agrolratu newspaper was mentioned specially due to their practice of publicizing the prices for major agricultural products. Seminars and discussions organized by different organizations have been quite useful, too. Collection and provision of this type of information should be the primary objective and function of MICs. Meantime, the available practices should be taken into account as well; cooperation possibilities with existing similar entities should be considered.

The last statement also relates to the next type of requested information (10 responses from 170 respondents), i.e. *agricultural development projects and financing opportunities*. Such information is mainly distributed by the organizations that implement various projects, as well as from local municipalities. Information is usually provided via seminars and meetings, printed materials, and media.

It can be concluded that **the major way of information provision and distribution is the use of newspapers and other printed materials. They are comparatively easy accessible for the overwhelming majority of respondents and they use that opportunity quite intensively. Seminars, trainings and meetings have been also mentioned quite often. This is important since only during such events it is possible to organize real discussions and identify beneficiaries' needs. This is of special importance from the viewpoint of the establishment of new MIC, at the stage of definition of its objectives and functions.** Among the other ways of information provision respondents also mentioned (although rarer) phone calls, text messages (in case of weather forecasts), visits of professionals and discussions, electronic correspondence, etc.

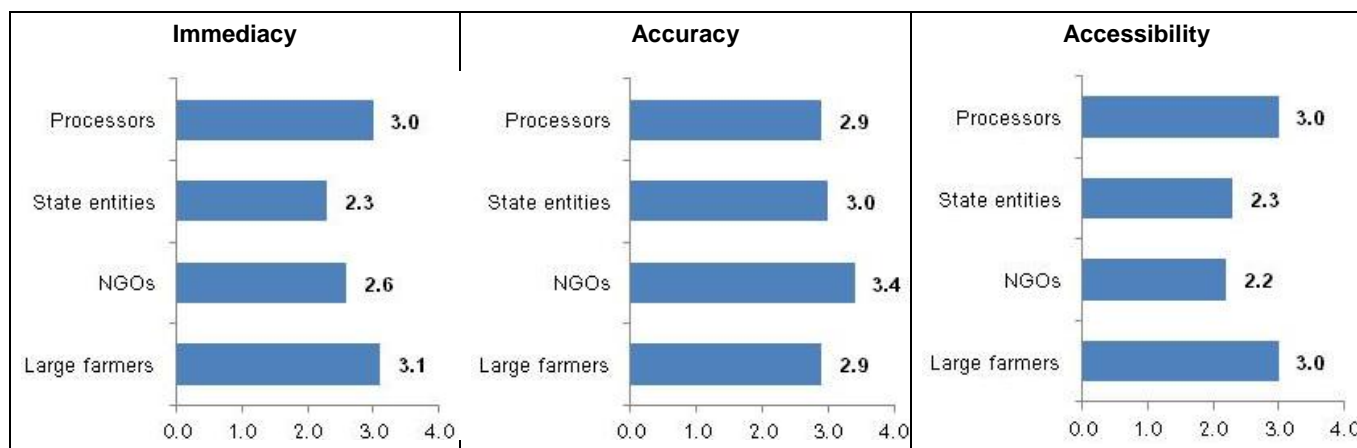
6.1.2.2 Assessment of available information

Availability and accessibility of market(ing) and other complementary information is a very useful opportunity for farmers and other stakeholders. As mentioned, any kind of information is very important currently. In this viewpoint, the respondents' assessment of the available information becomes a quite interesting issue. 3 major characteristics have been identified in order to assess the available information: immediacy, accuracy, and accessibility. Respondents have been suggested a 4-scale ranking scheme for the evaluation of the mentioned features of the information available. Within the scheme the 4 stands for the best rank and

the 1 is for the worst. The survey resulted in collection of a large volume of information that was classified and analyzed. Results are presented below and are classified by respondents' groups.

Respondents from *development projects* and *financial institutions* did not express their opinions regarding this topic, since they mentioned that although they have heard something about MICs, they never used their services (i.e. never got information) and cannot answer any questions. The average attitude of the other groups of respondents is presented below:

Picture 4 - Estimation of the provided information features



Source: Database of study results

High ranks for the immediate/prompt provision of market information were mainly received from large farmers and processors. Among entities that provide fresh state of the art information these two groups of respondents mentioned Trpanjyan Foundation, brandy factory, SME-DNC, CARD, consumer cooperatives, OXFAM-GB Armenia, Heifer NGO, and others. It is clear again, that respondents did not properly comprehend the nature of market information, since none of the mentioned entities has a mandate and function of the market information collection and dissemination. Low ranks for the immediacy have been given mainly by representatives of state entities, who mainly used to get information from Tavush Marz ASC and Governorate. Unfortunately, respondents did not justify ranks they applied by appropriate comments, which makes it impossible to develop an opinion on their ranks' objectiveness.

The *accuracy* of the information received its highest marks from Tavush Marz NGOs. The following entities were mentioned to be sources of accurate information: ASC, Trpanjyan Foundation, SME-DNC, Heifer NGO, and others. Other groups of respondents especially appreciated the information provided by CARD and Union of Communities. Once again, it should be mentioned that none of these entities collects and distributes market information on permanent basis. Additional comments made by respondents explain that ASC was given such high ranks due to regular visits and consultancy of farmers; as to Trpanjyan Foundation - for the establishment of an effective business and information networking among its beneficiaries.

Opinion:

OXFAM-GB Armenia practiced an interesting and replicable system of information dissemination. This organization provides its beneficiaries with SMS messages on weather forecast. This service was appreciated especially by large farmers. **Described method of communication with beneficiaries and provision of information can be successfully replicated for dissemination of other types of information, too.**

Higher ranks on information *accessibility* were again received from large farmers and processors. Sources of information in this case are the same, too, i.e. CARD, Yerevak NGO, Trpanjyan Foundation, OXFAM-GB Armenia, etc.

6.1.3 **Major problems that hinder activities**

Once again - no entity was identified in Tavush Marz that implements comprehensive package of MIC functions on permanent basis. Problems addressed below relate to the activities of those entities that collect and provide any type of information to farmers, processors and other entities of the Marz. It is wiser to analyze this topic by entities that were identified as leading “information centers”. This will allow us to somehow classify the received responses and identify accents. According to the frequency of responses the following “information centers” have been classified as leaders:

- Tavush Marz ASC (30 responses from 61 respondents);
- Regional and national TV channels (7 responses from 61 respondents);
- Regional and local authorities (3 responses from 61 respondents);
- SME-DNC (3 responses from 61 respondents).

While analyzing and presenting the results of this part of study we tried to avoid the extremely subjective and unfounded opinions. Besides, similar and complementary responses have been grouped together. Respondents mentioned the following problems regarding the information dissemination activities of *Tavush Marz ASC*:

- There is a need for improving skills and knowledge of professional staff and attracting new experts;
- The provided information is limited; it would be good if they also provide information on weather forecast, medicine, new technologies, etc.;
- There is a need for intensification of communication and information provision. Such an entity must be physically more accessible for beneficiaries. Regular TV programs are considered to be the best way of information provision;
- Provided market information is not sufficient, the entity must intensify its activities towards identification of new sales opportunities for farmers.

Respondents mentioned the following problems regarding the information provision activities of *regional and national TV channels*:

- There is lack of Marz related and agricultural programs;
- Provided information is monotonous;
- Information provision can be done more frequently and needs to be intensified.

Following problems have been mentioned regarding the information provision activities of *regional and local authorities*:

- Specialists with proper background (such as sales and market experts) should be attracted to information collection and dissemination processes;
- Provided information is monotonous; multilateral approach should be applied;
- The immediacy of information provision is on a low level.

Following problems have been mentioned regarding the information provision activities of *SME-DNC*:

- Personnel servicing of beneficiaries should be applied, group solutions are not always sufficient;
- The entity should be more proactive and accessible for beneficiaries.

The presented analysis may be of certain use for the organization of the future MIC. Obviously, the MIC must attract best specialists with relevant background and skills, the information must be as accurate and state of the art as possible and easy accessible for beneficiaries. MIC must collect and provide multilateral information but should not overlap functions conducted by other institutions such as ASC. Large volume of information must widespread - this is the recommendation of the study team.

6.2 REQUIREMENTS FOR NEW MIC

6.2.1 Requested types of information

Some awareness raising measures should be undertaken prior to the establishment and regular operation of the MIC. This will allow the organizers to avoid further difficulties and establish links with potential beneficiaries from the very beginning. These measures will be important also concerning the finalization of tasks and functions of the MIC, since currently local stakeholders do not comprehensively understand the objectives of such an entity. This final statement is definitely confirmed also by the analysis of requirements announced for the MIC. Again, we tried to address mainly well-grounded requests.

According to representatives of Tavush Marz *development projects* the MIC must collect and provide information on the following issues:

- **Primary agricultural produce (by sub-regions), SMEs and their activities;**
- **Agricultural products, their market prices, specific supply offers, demanded products and services.**

According to Tavush Marz *large farmers* the MIC must collect and provide information on the following issues:

- Animal husbandry and breeding, veterinary and use of medicine;
- Effective agricultural techniques in the field of plant-growing and horticulture, organic agriculture, effective medical treatment;
- Modern apiculture technologies;
- Data on suppliers of medicine, i.e. firm shops, certified trade outlets, importers;
- Modern high-productive technologies, new sorts, agricultural machinery;
- **Demand of exporters of agricultural products, their locations and contacts;**
- **Agricultural products' prices, sales markets, consumers' demand;**
- **Markets, specificities of product marketing, requested conditions, etc;**
- Climate data and weather forecast;
- Non-traditional agriculture;
- Agriculture funding opportunities.

According to Tavush Marz *NGOs* the MIC must collect and provide information on the following issues:

- **Prices for agricultural and wild collected products, sales markets and demand;**
- Advanced agricultural technologies and technique, fertilizers, chemicals and feeding;
- Advanced international agricultural experience, new sorts and technologies;
- Development projects, donor and community development organizations, and their activities;
- Agriculture funding opportunities.

According to Tavush Marz *NGOs* the MIC must collect and provide information on the following issues:

- **(Procurement) Prices for agricultural produce and inputs, trend forecasts, market demand, sales opportunities and foreign markets;**
- **Capacities of Tavush Marz large agricultural farms and processing enterprises, their products, tourism opportunities;**
- Agricultural cultivation, medicine and seeds, inputs' certification, prices;
- Feeding and forage, agricultural machinery;
- Agricultural development opportunities;
- Development projects and their activities;
- Capacities of industrial and agricultural business entities, as well as tourism opportunities.

Opinion:

Tavush Marz Vice-Governor answered this question as follows: **"In which community, what product, who and how much has, and what is the price? What is the demand of processors and wholesale procurers: what do they want to procure, at what best price and what should be the features of products?"**

According to *processors* of Tavush Marz the MIC must collect and provide information on the following issues:

- **Products' market (international) prices, demand of foreign organizations;**
- **Inputs' and sales' markets;**
- **Procurement prices for milk and cheese, as well as grapes, development trends of internal and external markets, consumers demand;**
- Animal husbandry and breeding, treatment and slaughtering, milk production;
- Plants and animals diseases and their preventive protection, new technologies;
- Seed suppliers, licensed sales outlets;
- Weather forecast;
- Tax and customs regulation changes.

Finally, representatives of financial institutions of Tavush Marz think that any information that the future MIC will be able to provide will be obviously useful for the business community of the Marz. The only requirement is the assurance of the accuracy and immediacy of the information.

Respondents' opinions on the mentioned issues are very comprehensive and probably there is no need for further comments. Meantime, the responses attest that overwhelming majority of respondents does not comprehend objectives and functions of future MIC. The major part of the information they request must be provided by other entities that currently operate in the Marz, such as ASC, Governorate, etc. **The planned MIC cannot undertake the responsibility for providing agricultural advice; this will simply contradict the definition of the MIC and may end by dilution of limited resources. It would be better to concentrate on provision of exactly market information assuring maximum benefits for its beneficiaries.**

Opinion:

Reservations advanced by a representative of a financial institution: **"Several years ago an attempt was made to establish a MIC via GTZ Business Center, but this effort failed. The population was incredulous and did not use the services the entity was suggesting. Without very specific and tangible achievements the MIC will not survive."**

6.2.2 Ways of information provision

Way of information provision is of high importance. Information should be easy accessible for as many users as possible. In this context, it is necessary to take into consideration the opinion of potential users of the information. In total, some 149 respondents expressed their opinions on this issue. Groups of the most frequent responses are presented below:

Table 38 - Current formats of the information provided

Information provision via...	Number of respondents	Total number of respondents ¹⁵
Internet, e-mail, any other digital provision	61	149
Newspapers	40	
Meetings, seminars, trainings	29	
Booklets, brochures, other printed materials	17	
TV Programs	15	
Telephone calls, SMS messages	14	

Source: Database of study results

Obviously, digital technologies are more and more applied in the public; people really comprehend the convenience of electronic communication. Meantime, internet and other computer facilities are not widely accessible in remote rural communities and population mainly uses newspapers to get information. Again the boundaries between receiving information and advisory services are not clear. In the context of market information provision there is not a strict need for organizing seminars and trainings; anyhow beneficiaries do not exempt this way of information provision.

6.2.3 Fees

More than half of respondents that expressed their opinions are ready to pay for the information provided, but with some conditions. First of all, the information should be useful; respondents need to receive information that can be applied and will bring to increase of the efficiency of their activities. The information should be state of the art, accurate, and applicable. Meantime, fees should be of rather symbolic nature and should not exceed 10,000 AMD per annum, although few respondents are ready to pay 3,000-5,000 AMD per month just to get the information they need. Some respondents are even ready to contribute with other assets too, such as office space, facilities, equipment, etc. There were options to establish cause and effect relations, i.e. payments' size depend on real tangible results, such as size of profits, volume of sales conditioned by use of the provided information, etc.

In parallel, there are many opinions (68 responses from 153 respondents) that MIC must provide free information at least during the first several years. Providing very high level of poverty in remote rural communities, it can be stated that many farmers will simply not be able to handle even minimal fees for the information. The MIC should target such clients on the first turn and support them in their activities.

¹⁵ The remaining 20 respondents either rejected or could not response

The general conclusion is that MIC can diversify its activities. After the certain period (1-2 years) of providing information free of charge it can develop diversified service packages and offer to its clients. Some clients will use general services free of charge (limited information) while others will be suggested more sophisticated services for quite notable fees.

Finally, the overwhelming majority of respondents are ready to provide information available with them to planned MIC. Only 6 respondents out of 159 rejected to provide information, including financial institutions, which are prohibited to do this by law.

7 INFORMATION AND KNOWLEDGE NEEDS

7.1 INFORMATION NEEDS ASSESSMENT

7.1.1 Applied method

Awareness is another important pre-condition for efficient activities in any field. Analysis of information needs aims at finding out the information gaps of farmers and processing enterprises and trying to fill those gaps in future. For this purpose respondents gave answers on what information the farmers and processors should possess for efficient production and export.

To assess different types of information needs the following criteria have been selected: *their importance level* (using Likert scale; 4 - the most important, ..., 1 - not important), *actual level* of such kind of information in the Marz (yes, no, partially, do not know) and *accessibility level* (high, medium, low).

7.1.2 Information needs

7 main types of information are distinguished in study result and the respondents also referred to them. The digitized analysis of results is presented below.

Table 39 – Importance, existence and accessibility of different types of information

Information types	Importance ¹⁶	Existence in the Marz				Accessibility		
		Yes	No	Partially	Do not know	High	Medium	Low
<u>New technologies</u>								
State entities	3.7	1	10	4	3		2	3
Development programs	3.5		1	3	2		2	1
NGOs	3.9		11	2			2	
Financial institutions	3.4		1	3	1		2	2
Processors	3.7		28		7			
Large farmers	3.6	3	38	39	5	1	36	5
Total	3.6	4	89	51	18	1	44	11
<u>Sales markets</u>								
State entities	3.3	2	8	6	2		5	3
Development programs	3.8		1	3	2		2	1
NGOs	3.8		11	1	1			1
Financial institutions	3.6		2	2	1		2	1
Processors	3.7	4	26		5	3	1	1
Large farmers	3.4	11	37	28	9	4	32	3
Total	3.5	17	85	40	20	7	42	10

¹⁶ Weighed averages are provided

Study for identification of actual capacities and development opportunities of entrepreneurship and agricultural food production, processing and export promotion in Tavush Marz

// Information and knowledge needs

Prices								
State entities	3.2	3	6	7	2		6	4
Development programs	3.8	1	1	2	2		2	1
NGOs	3.8	1	12			1		
Financial institutions	3.4	1	2	1	1		2	1
Processors	3.6	9	20		6	3	3	3
Large farmers	3.3	19	33	27	6	8	30	8
Total	3.4	34	74	37	17	12	43	17
Competitors								
State entities	2.8		12	4	2			4
Development programs	3.7		1	3	2		2	1
NGOs	3.7		11	1	1		1	
Financial institutions	3.2		2	2	1		2	1
Processors	3.1	2	25		8	2		
Large farmers	2.9	6	56	15	8	2	18	1
Total	3.1	8	107	25	22	4	23	7
Consumers								
State entities	2.8		12	4	2		1	3
Development programs	3.3		1	3	2		2	1
NGOs	3.6		11	1	1			1
Financial institutions	3.4		2	2	1		2	1
Processors	3.2	2	25		8	2		
Large farmers	3.1	11	54	12	8	4	18	2
Total	3.1	13	105	22	22	6	23	8
Legislation								
State entities	3.4	2	8	5	3	1	3	3
Development programs	3.3	1	1	2	2		2	1
NGOs	3.8	2	10	1		2		1
Financial institutions	2.6		2	3			2	1
Processors	3.3	4	24		7	2	2	
Large farmers	2.9	9	55	8	13	5	13	
Total	3.1	18	100	19	25	10	22	6
Statistics								
State entities	2.4	5	8	2	3	1	1	5
Development programs	3.0	1	2	1	2		1	1
NGOs	2.6	1	10	1	1			2
Financial institutions	2.6		2	2	1		1	2
Processors	2.6	5	22		8	3	1	1
Large farmers	2.7	15	43	21	6	11	13	12
Total	2.6	27	87	27	21	15	17	23

Source: Database of study results

The fact that the respondents consider *new technologies* as the most important one for their information needs, confirms that the business community of the Marz has wrong understanding on tasks and activities of MIC. Anyway, there is obvious information need (only 4 respondents mentioned the existence of such information in the Marz), though activities and consulting in this sector is one of major responsibilities of Tavush Marz ASC and other similar structures. This situation has different explanations and among them the following ones can be distinguished:

- Corresponding structures either do not have such information or have very limited knowledge;
- There is lack of specialists in corresponding structures who could collect and spread the information;
- Even if there is such information in the Marz, most part of the population is not aware of the ways of getting it;
- The farmers are used to their traditional working style and very often they are not ready to use new technologies.

Opinion:

Demonstrative model projects funded by WB RESCAD Project and implemented by ASCs are very good examples of application of new technologies and dissemination of information about them. During their implementation specific modern technologies are applied in selected farms; farmers are trained on their use, practical advantages and tangible results.

Farmers always give importance to information about *possible sales markets*. For medium and small primary producers it is more convenient to sell their products directly to consumers though it is connected with some marketing and sales expenses. Wholesale traders tend to cooperate with large procurers and resellers, but, as a rule, they are never satisfied with sales prices.

From sales markets' viewpoint, information about external markets of high-value agricultural products is especially important. Sources (newspapers, heads of agricultural cooperatives, NGOs, ASC, etc) mentioned by the respondents do not possess much of such information.

Information on *market prices* is the next of high importance. Respondents mentioned that they get information about prices mostly from "Agrolratu" and "Farmer" newspapers, but this information is not always actual and accurate. Usually, farmers have to orientate by wholesale prices of Ijevan that are usually dictated by local resellers. This fact is especially worrying as it results in unfair distribution of generated profits.

Farmers are usually not aware of retail sales prices of Yerevan and other markets, and this fact decreases their accessibility even more. In this situation, again interesting solution is suggested by OXFAM GB - Armenia, which spreads operative information about sales markets by text messages among its beneficiaries.

It should also be mentioned that respondents give importance to information regarding sales market prices not only for their products but also for their inputs, such as seeds, fuel, chemicals and fertilizers.

Information of the least importance for the respondents is *legislation* and *statistics*. This is explained by limited activity dimensions of most farmers in Tavush Marz; they are out of tax regulations field, do not do product marketing, and do not use productive and financial scheduling tools. They just do not need such information and do not use it.

7.1.3 Preferred ways of getting information

151 respondents gave specific answers about preferable ways of getting information. Notably, they prefer to get information as they do currently.

Table 40 - Preferable ways of getting information

Ways of getting information	Number of respondents	Total respondents
Internet, e-mail or other electronic way	59	151
Newspapers	48	
Meetings, seminars, trainings	34	
Booklets, brochures and other published materials	27	
TV	20	
Phone calls and text messages	20	

Source: Database of study results

The preferable ways of getting information vary depending on groups of respondents. Representatives of *development programs* prefer getting information by internet, but they mention that it is not always accessible for the main beneficiaries (farmers and processors). That is why; they offer also other sources of information, such as TV, newspapers, printed materials, etc.

In case of *large farmers* the situation is a little different; this group of respondents prefers getting information from newspapers and printed materials as well as by personal meetings, trainings and seminars. Again it comes to question of what type of information farmers consider to be market one.

Opinion:

The study referred also to actual regular information collection activities conducted by respondents. It was found out that currently there are no such regular activities. A few structures gather information from time to time, but these activities are irregular, situational, and limited. Particularly, financial institutions gather marketing information to assess credit applications, NGOs – to prepare business plans and to carry out researches, etc.

Other groups of respondents do not have clearly expressed priorities on how to get information.

There is some tendency towards electronic ways of getting information, but the other formats are also mentioned in parallel.

7.2 TRAINING NEEDS ASSESSMENT

7.2.1 Main training topics

The training needs assessment of primary agricultural and processing sectors' representatives was conducted to find out how much those needs prevent smooth realization of activities and what measures should be applied to overcome these hindrances. Representatives of 4 groups from 6 involved in the study expressed their opinions on training needs. These questions were not given to state entities, as well as to representatives of development programs. Summarized analysis of respondents' answers is presented below.

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// Information and knowledge needs

Again criteria were selected for trainings' needs assessment. *Importance level* of different topic again was assessed from 4 (very important) to 1 (not important) scale, *existence* of such trainings in the Marz with answers: yes, no, partially, do not know. Trainings were distinguished by theoretical, practical and mixed content.

Table 41 – Training needs assessment

Training subjects	Importance	Existence in the Marz				Content		
		Yes	No	Partially	Do not know	Theoretical	Practical	Mixed
<u>Agricultural technology</u>								
NGOs	3.9	2	7	2	2	1		12
Financial institutions	3.4	2		3		1	1	3
Processors	3.7		26	1	9		6	28
Large farmers	3.2	13	35	32	5	14	28	40
Total	3.4	17	68	38	16	16	35	83
<u>Entrepreneurship</u>								
NGOs	3.8	4	8	1		2	1	10
Financial institutions	2.8	1		4			1	4
Processors	3.4	2	23	2	9	2	8	24
Large farmers	3.1	8	38	28	11	29	8	42
Total	3.2	15	69	35	20	33	18	80
<u>Marketing</u>								
NGOs	3.7	2	10	1		1		12
Financial institutions	3.0	1	1	3		1	1	3
Processors	3.3	1	27		8	3	6	24
Large farmers	3.1	14	32	31	8	39	5	36
Total	3.2	18	70	35	16	44	12	75
<u>Planning</u>								
NGOs	3.6	2	10	1				12
Financial institutions	3.4	1		4		1	1	3
Processors	3.0	1	24	1	10	4	7	19
Large farmers	2.9	5	44	21	15	17	8	52
Total	3.0	9	78	27	25	22	16	86
<u>Accounting</u>								
NGOs	3.7	4	8	1		1	1	11
Financial institutions	2.0	1		4				3
Processors	3.2	2	23	2	9	3	8	22
Large farmers	2.9	12	34	32	7	28	14	36
Total	3.0	19	65	39	16	32	23	72
<u>Taxes/duties</u>								
NGOs	3.8	2	10	1		1	1	11

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// Information and knowledge needs

Financial institutions	2.2		3	2				4
Processors	3.1	2	22	2	10	3	6	22
Large farmers	2.8	2	50	13	20	11	4	63
Total	3.0	6	85	18	30	15	11	100
<u>Computer</u>								
NGOs	3.8	3	8	1	1		2	11
Financial institutions	2.0	1		3			1	2
Processors	2.9	5	20	1	10	2	4	28
Large farmers	3.0	19	31	29	6	19	29	29
Total	3.0	28	59	34	17	21	36	70
<u>Foreign language</u>								
NGOs	3.2	3	7	1	2	1		11
Financial institutions	1.8	1		3			1	2
Processors	2.5	5	21	1	9	4	4	23
Large farmers	2.7	13	35	27	10	37	7	28
Total	2.7	22	63	32	21	42	12	64

Source: Database of study results

Trainings on *Agricultural techniques* were considered the most important by the respondents. This means that our farmers appreciate the importance of using modern technologies and having more efficient activities. At the same time, providing such information, implementation of corresponding trainings and practical events has been one of prior objectives for Tavush Marz ASC for more than one decade. The current study does not refer to the efficiency of ASC activities, but this organization should intensify its activities as only 55 of 139 respondents mentioned the existence of such events in the Marz.

The training needs on *entrepreneurship and marketing* were given equal importance by respondents. Especially NGOs and processors consider this very important. This opinion was confirmed also by the study team members while implementing the assignment. Major part of respondents (particularly large farmers) operates without long-term planning and efficient resource management. They face such necessities only in case of cooperation with financial institutions (for credits).

Need of trainings on *foreign languages* was assessed with the lowest mark. Only representatives of NGOs are exception. This mark is a little strange as many international organizations and development programs operate in Tavush Marz. Knowledge of foreign languages would foster cooperation opportunities between beneficiaries and the mentioned organizations.

Thus, it can be concluded that *in the framework of this study the most important training needs refer to business and marketing issues. At the same time it is notable that the respondents prefer mixed (both theoretical and practical) trainings.*

7.2.2 Other training topics

Besides the presented main topics some respondents (of limited number) mentioned also other subjects. Large farmers gave importance to animal husbandry (breeding, pig feeding, fur). The farmers mentioned the

implementation of HACCP standards, budgeting (financial planning), creation of standards, etc. It was noted that there are not any training opportunities in the Marz for mentioned subjects. Again, mixed trainings are preferable.

7.2.3 Places for trainings

122 respondents expressed their opinions about places for trainings. The others either were not given these questions or they did not want to answer. Notably, the most part of the answers was given by large farmers and processors (120 respondents). The respondents mostly tend to have trainings at local level. 88 respondents (including 55 large farmers) think that these trainings should be hold in Tavush Marz, and in case of possibility, in communities. Trainings held in Yerevan are not accessible for the Marz population. It would be better if the trainings were hold by the best specialists. The trainings are better to hold during non-agricultural seasons (from late autumn to early spring), which will allow to involve more participants.

25 respondents (including 20 large farmers) think that trainings are better to be organizes out of the Marz, in a resort (especially Tsakhadzor) or in abroad (USA, Germany, Italy, Netherlands, Spain). The wish to have trainings abroad is defined by direct relations to the best international practice, wish to have practical knowledge. The fact that respondents mention certain countries (sometimes even organizations) testifies that they are quite serious about the issue and are even prepared.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 CONCLUSIONS

Main objective of the study of Tavush Marz entrepreneurship and especially the opportunities of production and exports of primary agriculture and processing products is the identification of possible ways towards effective and coordinated struggling the poverty, ensuring employment and income generation for local population. The study addressed the many problems regarding the economy and entrepreneurship in the Marz. All those issues have been analyzed separately and in close correlation to each other and results were presented in respective chapters above. Outcomes of the study have been concluded below and recommendations towards overcoming specific problems are also suggested.

8.1.1 Development trends of agriculture and processing sector

Recent development trends of agriculture and processing sector in Tavush Marz are rather negative. Decrease of gross agricultural production in quantitative and monetary means can be observed; some traditional types of activities are degrading. There are many problems regarding the infrastructure (roads, irrigation system, agricultural services and inputs, veterinary), sales, accessibility to finance, state support, community development and other aspects. Meantime, the overwhelming majority of problems are of general nature; almost all other (rural) regions of Armenia face similar problems. The general nature of problems condition the similarity of ways and tools to overcome those problems and the necessity for applying general, i.e. strategic approach to their solution.

In parallel to identification of problems possible ways of overcoming have been assessed during the study. Particularly, promising development potential has been identified in sectors of viniculture, horticulture (especially cultivation of sub-tropic fruits), tobacco cultivation, grapes processing, production of cans and preserves, and cheese production. These sectors can ensure sustainable development opportunities contributing to solution of existing serious problems and development of the Marz economy.

Besides the traditionally developed sectors of the Marz economy some new opportunities and potential have been identified. In particular, the following products have good potential for enhancement in the Marz (both traditional and new):

▪ Primary agricultural products	→ Grapes, beef, persimmon, peach, sub-tropic fruits, milk, tobacco, berries, cornelian cherry, and honey
▪ Processed products	→ Fruit vodka, cheese, dry fruits, wine and brandy, cans and preserves

The potential of presented products can be justified by following identified arguments and pre-conditions:

- Existing demand and sales opportunities;
- Export opportunities;
- Supportive climate conditions;
- Availability of production bases (orchards, processing facilities, some infrastructure, and high productivity);
- Developed traditions for specific types of activities;

- Import substitution opportunities;
- High quality and oligoleptic features;
- Products image in local and foreign markets;
- Availability of high-quality inputs (in case of processing).

The list of obstacles hindering the realization of the mentioned products potential includes:

- Low procurement prices and limited access to sales markets;
- Insufficiency of infrastructure;
- Limited production bases (small livestock, few and rare orchards) and obsolete facilities;
- Small volumes of production;
- Limited application of modern technologies;
- Insufficiency of inputs;
- Insufficiency of breeding activities;
- Insufficiency of professional knowledge;
- Low accessibility of financial resources;
- Wrong tax and customs regulations;
- Insufficiency of state support;
- Insufficiency of product marketing and sales;
- Monopol position of intermediaries;
- Incompatibility of the products' features to requirements of external markets (quality, packaging, labeling).

The primary and main markets for the identified products with high potential are considered to be the Marz and Armenian markets, which currently face deficits of those products. This creates good opportunities for the increase of production volumes and sales. The best potential for exports have peach, persimmon, fig, cheese, brandy, and sweet preserves. The most promising export markets are Russia and Georgia` although certain potential is observed also in other post Soviet countries, Europe and Northern America.

8.1.2 Business environment

According to entities that possess respective information the dynamics of establishment and closure of enterprises (SMEs) in Tavush Marz is almost stable. The number of newly established business entities slightly decreases, and many entities temporarily squeeze their operations. Pity to mention, that studied entities rejected to provide exact quantitative data on these issues.

The majority of respondents (especially those representing private sector) think that the business environment in the Marz is not supportive. Although many development programs, advisory services, financial institutions operate in the Marz the entrepreneurship development is not very obvious recently. Respondents mention wrong and too tough tax and customs regulations, insufficiency of support to start-up business entities, lack of privileges to remote and bordering areas.

Negative influence of monopolies is not significant, except of negative influence of monopolized market of fuel, which creates notable problems during the agricultural season. Meantime, respondents are extremely unhappy with the activities of intermediaries. They think that intermediaries should not earn more profits on re-selling than they do by producing those products.

8.1.3 Development programs

Almost 30 different organizations and entities have been implementing development projects in Tavush Marz. The majority of implemented projects resulted in projected achievements. Nevertheless, some problems do still exist. Among them we could mention non-identification of important problems within the design of development projects; beneficiaries' limited participation in projects' design and implementation, inefficient use of limited resources and their dilution on the same or alike problems, non-sustainability of outputs, etc.

Among the best projects we could mention the recovery and improvement of irrigation systems, establishment of new orchards, increase of the livestock, improvement of pastures and increase of productivity, establishment of agricultural machinery parks, foundation of product storage, processing and sales systems, community development and improvement of social infrastructure, etc.

8.1.4 MIC establishment pre-conditions

MIC establishment in Tavush Marz is a requested measure. Currently there is no practice of the provision of the state of the art, accurate and applicable market information in the Marz. Lack of market information significantly impedes the activities of local farmers and processors, hinders sales, decreases income generation, etc. Meantime, the majority of respondents have wrong comprehension of the MIC objectives, tasks and functions.

Ways of market information dissemination and its formats should vary significantly. In remote rural communities electronic information is not accessible, but instead, in regional center this way of information dissemination was requested the most. Self sustainability of the MIC is another issue which was not overcome by other initiators of MICs in Armenia.

8.1.5 Information and knowledge needs

Among the variety of information needs respondents highlight the following several:

- Information on new technologies;
- Information on sales markets;
- Information on market prices;
- Information on competitors.

It is peculiar that respondents made the need for information on new technologies and agricultural technique to be the most important one. From the specific viewpoint this may become not so good estimation of the work that specialized entities have been conducting in the Marz for many years. Internet (meaning also e-mail) and mass media (meaning newspapers) are the most requested of information provision.

The needs for the following knowledge have been expressed most frequently:

- Agricultural techniques;
- Entrepreneurship and planning; and
- Marketing.

8.2 RECOMMENDATIONS

As it was already mentioned, the problems and hindering factors identified during the study can be classified into two major groups, i.e. general (strategic and systematic) and specific. Naturally, the proposed activities towards their solution are to be general and specific.

8.2.1 General recommendations

- Continue the implementation of regional, community and agricultural development projects in Tavush Marz ensuring high participation of interested stakeholders and beneficiaries in all stages of projects' design and implementation.
- Coordinate the operation of various development projects and make the state to co-finance the implementation of those projects;
- Increase the access of the sales markets;
- Improve the condition of agricultural infrastructure and its accessibility;
- Improve the business environment;
- Increase the access of financial resources;
- Increase the population awareness.

8.2.2 Recommendation of specific activities

- Support the enhancement of processors' capacities for the procurement of primary agricultural products;
- Support the free formation of the procurement prices via efficient regulation of market monopolization and oligopolization trends (in particular in the case of grapes procurements);
- Support the enhancement of sales opportunities for primary agricultural products, identification of new markets;
- Support the establishment of new vineyards and orchards;
- Support the establishment and development of nurseries;
- Support the application of modern and accurate agricultural techniques, refreshment of sorts;
- Support the increase of access and quality of agricultural inputs (medicine, fertilizers, seeds, young plants, fuel) via centralized procurements and quality control;
- Support the increase of pastures accessibility and improvement of facilities there, such as roads recovery, watering, establishment of accommodation, supply of electricity and water;
- Support the refreshment of agricultural machinery and create machinery parks and effective management systems;
- Support the increase of livestock and its refreshment;
- Support the improvement of veterinary services and breeding activities;
- Support the refreshment of processing facilities and installation of modern technologies;
- Support the processors for the installation of better packaging and labeling facilities;
- Support the establishment of greenhouses, (cold) stores, drying facilities, processing units, packaging and labeling workshops, slaughterhouses, and other similar entities via implementation of demonstrative grant projects;

- Support the recovery of irrigation system, installation of modern saving and efficient systems (drip irrigation, artesian wells, gravity systems, etc), fair and effective management of the irrigation water;
- Support the establishment of market information system;
- Support the assessment of foreign markets and identification of sales opportunities;
- Support local producers in participation of international fairs;
- Support in establishment of anti-hail stations;
- Continue the process of farmers consolidation and establishment of unions;
- Support the implementation of farmers' awareness raising and implementation of information campaigns;
- Support the improvement of farmers' and other stakeholders' professional qualifications (theoretic and practical), organize trainings on entrepreneurship and management, business planning, marketing, installation of modern efficient technologies, and other topics;
- Support in increase of the access to affordable financial resources (loans and grants, as well as leasing services) and revision of too tough policy of the financial institutions.

9 APPENDICES

9.1 INFORMATION SOURCES

9.1.1 1st group of information sources: 1. Respondents

a) State entities 24 respondents

Entity	Respondent		Location (sub-region)
	Name	Position	
Marzpetaran of Tavush	Levon Sargsyan	Deputy Marzpet	Ijevan
Marzpetaran of Tavush	Grigor Paytyan	Senior Specialist of agricultural and ecological department	Ijevan
Marzpetaran of Tavush	Gurgen Harutyunyan	Head of Regional Development and Analysis Department	Ijevan
Marzpetaran of Tavush	Askanaz(Vrej) Bablunyan	Deputy of Head of Financial and Economical Department	Ijevan
Tavush Regional Department of NSS	Aida Achinyan	Head of Regional Department	Ijevan
Noyemberyan Territorial Department of State Register Agency of Legal Entities of Armenia	Serjik Kocharyan	Head of Department	Noyemberyan
Ijevan Territorial Department of State Register Agency of Legal Entities of Armenia	Gurgen Arakelyan	Head of Department	Ijevan
Tavush Territorial Department of State Register Agency of Legal Entities of Armenia	Angela Herikayan	Head of Department	Berd
Dilijan Territorial Department of State Register Agency of Legal Entities of Armenia	Karen Saghatelian	Head of Department	Dilijan
Ijevan Territorial Tax Inspectorate	Hamlet Kamalyan	Head of Inspectorate	Ijevan
Municipality	Sevada Balasanyan	Head of personnel, secretary	v. Azatamut (Ijevan)
Municipality	Sargis Ghazaryan	Head of Community	v. Getahovit (Ijevan)
Municipality	Shahen Shahinyan	Head of Community	v. Gandzakar (Ijevan)
Municipality	Hemlet Gevorgyan	Head of Community	v. Achajur (Ijevan)
Municipality	Hamayak Nazaryan	Head of Community	v. Kirants (Ijevan)
Municipality	Samvel Manucharyan	Head of Community	v. Varagavan (Berd)
Municipality	Lorik Badiryan	Head of Community	Berd
Municipality	Hayk Kamalyan	Head of Community	v. Khashtarak (Ijevan)
Municipality	Nairi Atabekyan	Head of Community	v. N. Tsaghkavan (Ijevan)
Municipality	Arsen Aghababyan	Head of Community	v. Koghb (Noyemberyan)
Municipality	Ararat Gabrielyan	Head of Community	v. Berdavan (Noyemberyan)
Municipality	Seyran Mikichyan	Head of Community	v. Artchis (Noyemberyan)

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Municipality	Aram Nigoyan	Head of Community	v. Navur (Berd)
Municipality	Kajik Shahnazaryan	Deputy of Head of Community	v. Aknaghbyur (Ijevan)

b) Development programs 7 respondents

Entity	Respondent		Location (sub-region)
	Name	Position	
CARD	Naira Mkrtchyan	Projects Manager	Yerevan
MCA, Water to market component	Nora Alanakyan	Marketing Specialist	Yerevan
TRDP (Tavush Region Development Project)	Zorayr Kirakosyan	Projects Manager	Ijevan
World Vision Armenia, Regional Development Programme of Tavush	Robert Hakobyan	Senior Projects Coordinator	Ijevan
WB CARMAC Project	Pavel Tsutsulyan	Tavush Marz Assistance Team Coordinator	Ijevan
SME DNC, Branch of Tavush	Tamara Gabrielyan	Expert	Ijevan
OXFAM-Armenia	Vadim Uzunyan	Projects Coordinator	Yerevan

c) NGOs 13 respondents

Entity	Respondent		Location (sub-region)
	Name	Position	
Tavush Marz ASC	Vahan Karapetyan	Director	Ijevan
Tavush Development NGO	Sirak Martirosyan	President	Ijevan
Progress NGO	Geghetsk Gyulanyan	President	Ijevan
Dialogue and ntrepreneurship NGO	Shirak Edigaryan	President	Noyemberyan
Huso Shogh NGO	Voskan Sargsyan	President	Noyemberyan
Verelk NGO	Pavlik Hakobyan	President	Noyemberyan
Yerevak NGO	Sasha Gishyan	Executive Director	Noyemberyan
Elen NGO	Melsik Engibaryan	Deputy President	Dilijan
Garun Veratsnund NGO	Davit Melikyan	President	Berd
Kaghni NGO	Artak Chilingaryan	Deputy President	Berd
Support to Farmers NGO	Merujan Pashikyan	President	v. Koghb (Noyemberyan)
Tavush-Mshak NGO	Artsrun Ghaltakhchyan	President	v. Achajur (Ijevan)

d) Financial institutions 5 respondents

Entity	Respondent		Location (sub-region)
	Name	Position	
ACBA Credit Agricole Bank, Branch of Tavush	Sasun Avetisyan	Head of Branch	Ijevan
New-Horizon UCO	Gagik Bejanyan	Head of Branch	Ijevan
ArmEconombank, Branch of Tavush	Hayk Ghalumyan	Head of Branch	Ijevan

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Aregak UCO, Branch of Tavush	Greta Harutyunyan	Head of Branch	Ijevan
ACBA Credit Agricole Bank, Branch of Berd	Sasun Asatryan	Head of Noyemberyan Branch	Berd

e) Processors 36 respondents

Entity	Respondent		Activity	Location (sub-region)
	Name	Position		
Ijevan Wine-Brandy Factory CJSC	Robert Iskandaryan	Deputy director	Production of wine, brandy, and fruit vodka	Ijevan
Henrik Amirkhanyan and Sons LLC	Ashot Amirkhanyan	Manager	Slaughterhouse	Noyemberyan
SE Kamo Mamyanyan	Kamo Mamyanyan		Meat transportation and distribution	Noyemberyan
SE Arshaluys Israyelyan	Arshaluys Israyelyan		Cheese production	Noyemberyan
SE Andranik Veranyan	Andranik Veranyan		Dry fruit production	Noyemberyan
	Samvel Gasparyan		Slaughterhouse, fruit re-sell	Noyemberyan
Balud LLC	Davit Hovsepyan	Director	Fish fodder production	Dilijan
Dili LLC	Alexandr Alexanyan	Manager	Dairy production	Dilijan
H. & T. Hakobyanner LLC	Vachagan Gevorgyan	Director	Dairy production	Dilijan
	Hamlet Palanduzyan		Dairy production	Berd
Navur milk producers' consumer cooperative	Gagik Asryan	President	Milk re-sell, sheese production	v. Navur (Berd)
Vardashen milk producers' union	Navasard Simonyan	Union member	Milk re-sell	v. N. Karmiraghbyur (Berd)
	Gevorg Galstyan		Cheese production	v. N. Tsaghkavan (Ijevan)
Cooperative of N. Tsaghkavan's pasture users	Karo Galstyan	Cooperative member	Cheese production	v. N. Tsaghkavan (Ijevan)
Mikland LLC	Naira Budaghyan, Sos Kocharyan	Director	Cheese production	v. Koghb (Noyemberyan)
SE Gurgen Abovyan	Gurgen Abovyan	Founder	Cheese production	v. Koti (Noyemberyan)
	Spartak Khachikyan		Meat re-sell	v. Koti (Noyemberyan)
MAGA Cannery LLC	Grisha Manucharyan	Director	Cannery	v. Varagavan (Berd)
Tavush Milk Cooperative	Arakel Poghosyan	President	Milk re-sell	v. Tavush (Berd)
Yerevan Brandy Company CJSC	Garik Vardanyan	Branch manager	Brandy spirit production	v. Tavush (Berd)
Lusadzor ACC	Suren Kocharyan	Cooperative member	Cold storage	v. Lusadzor (Ijevan)
Lusadzor ACC	Artsrun Nazaryan	Cooperative president	Dry fruit production	v. Lusadzor (Ijevan)
	Marine Manucharyan		Cold storage	v. Sarigyugh (Ijevan)
SE Lusik Ghukasyan	Lusik Ghukasyan		Cold storage	v. Ptghavan (Noyemberyan)
SE Henrik Sarukhanyan	Henrik Sarukhanyan		Cheese production	v. Voskeper (Noyemberyan)

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Chinar ACC	Samvel Saghoyan	President	Wine and vodka production	v. Chinari (Berd)
Saragar LLC	Armen Hakhverdyan	Founder	Cheese production	v. Teghut (Dilijan)
EcoGarden LLC	Samvel Makaryan	Director	Cannery	v. Aygedzor (Berd)
Aknaghbyur ACC	Hakob Eganyan	President	Cold storage	v. Aknaghbyur (Ijevan)
Achajur ACC	Armenak Gasparyan	President	Cold storage	v. Achajur (Ijevan)
Azamatut milk LLC	Robert Martirosyan	Director	Meat and milk re-sell, cheese production	v. Azamatut (Ijevan)
	Hovsep Veranyan		Cheese production	v. Gosh (Dilijan)
	Serjik Veranyan		Dairy production	v. Gosh (Dilijan)
SE Emma Hakobyan	Emma Hakobyan		Cheese production	v. Gandzakar (Ijevan)
Gvarzin LLC	Derenik Bejanyan	Agronomist	Cheese production	v. Bagratashen (Noyemberyan)
Berdavan Wine Factory LLC	Arshak Avagyan	Executive director	Production of wine, brandy, and fruit vodka	v. Berdavan (Noyemberyan)

f) Large farmers 85 respondents

Activity	Respondent		Location (sub-region)
	Name	Farm size	
Cattle breeding	Karine Meliksetyan		v. Gandzakar (Ijevan)
Cattle breeding	Azat Hakobyan		v. Gandzakar (Ijevan)
Cattle breeding	Artak Iskandaryan		v. Gandzakar (Ijevan)
Cattle breeding	Garnik Eganyan		v. Achajur (Ijevan)
Cattle breeding	Ashot Naghdalyan		v. Hovk (Ijevan)
Cattle breeding	Albert Davtyan		v. Sarigyugh (Ijevan)
Cattle breeding	Jora Martirosyan		v. Azamatut (Ijevan)
Cattle breeding	Hovik Khecgyan	186 heads	v. Getahovit (Ijevan)
Cattle breeding	Kensaber(Rubik) Aydinyan	100 heads	v. Getahovit (Ijevan)
Cattle breeding	Lora Hovlatbekyan		v. Gandzakar (Ijevan)
Cattle breeding	Baghchiman Shahnazaryan	60 heads	v. Aknaghbyur (Ijevan)
Cattle breeding	Hunan Eganyan		v. Sarigyugh (Ijevan)
Cattle breeding	Ervand Gevorgyan		v. Vazashen (Ijevan)
Cattle breeding	Artsrun Simonyan	50 heads	v. V. Tsaghkavan (Berd)
Cattle breeding	Armenak Baylamyan		v. Baghanis (Noyemberyan)
Sheep breeding	Araz Engibaryan		v. Getahovit (Ijevan)
Sheep breeding	Soghom Maghakyanyan		v. Gandzakar (Ijevan)
Sheep breeding	Grigor Grigoryan		v. Aghavnavank (Ijevan)
Sheep breeding	Baghshi Poghosyan		v. Kgachardzan (Ijevan)
Sheep breeding	Haykaz Harutyunyan		v. Aknaghbyur (Ijevan)
Sheep breeding	Hayk Petrosyan	110 heads	v. Getahovit (Ijevan)

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Sheep breeding	Araksya Machkalyan		v. Tavush (Berd)
Sheep breeding	Samvel Arakelyan		v. N. Karmiraghbyur (Berd)
Sheep breeding	Novella Gasparyan		v. Teghut (Dilijan)
Sheep breeding	Mkhitar Mikayelyan	45 heads	v. Artchis (Noyemberyan)
Pig breeding	Andranik Virabyan		v. Khashtarak (Ijevan)
Pig breeding	Tatul Nerkararyan		v. Gandzakar (Ijevan)
Pig breeding	Arthur Hovhannisyan		v. Tavush (Berd)
Pig breeding	Artak Mkhitaryan		v. Norashen (Berd)
Pig breeding	Rafik Babajanyan		v. Zorakan (Noyemberyan)
Apiculture	Hakob Jilaryan		v. Getahovit (Ijevan)
Apiculture	Pavel Janinyan		v. Gandzakar (Ijevan)
Apiculture	Andranik Ghaltakhcyan		v. Achajur (Ijevan)
Apiculture	Kamo Mirzoyan		v. Aghavnavank (Ijevan)
Apiculture	Simon Shahnazaryan		v. Khachardzan (Ijevan)
Apiculture	Radik Mkhitaryan		v. N. Tsaghkavan (Ijevan)
Apiculture	Alvard Harutyunyan		v. Aknaghbyur (Ijevan)
Apiculture	Viktor Eganyan		v. Sarigyugh (Ijevan)
Apiculture	Martik Arakelyan		v. V. Tsaghkavan (Berd)
Apiculture	Ara Harutyunyan		v. Baghanis (Noyemberyan)
Apiculture	Armen Ghulijanyan		v. Koghb (Noyemberyan)
Apiculture	Seryoja Kocharyan		v. Koghb (Noyemberyan)
Apiculture	Vladimir Poghosyan	47 beehives	v. Zoarakan (Noyemberyan)
Viniculture	Yuri Mirzoyan		v. Achajur (Ijevan)
Viniculture	Zabela Shabanyan		v. Achajur (Ijevan)
Viniculture	Tsolak Nazinyan		v. Achajur (Ijevan)
Viniculture	Arthur Ghazaryan		v. V. Tsaghkavan (Berd)
Viniculture	Hratsin Grigoryan		v. Tavush (Berd)
Viniculture	Serob Amirkhanyan		v. V. Tsaghkavan (Berd)
Viniculture	Harutyun Harutyunyan		v. Paravakar (Berd)
Viniculture	Marietta Dallakyan		v. Paravakar (Berd)
Viniculture	Samvel Brutyan		v. Paravakar (Berd)
Viniculture	Hovsep Brutyan		v. Paravakar (Berd)
Viniculture	Alik Petrosyan		v. Paravakar (Berd)
Viniculture	Marine Poghosyan		v. Paravakar (Berd)
Viniculture	Anichka Mardanyan		v. Paravakar (Berd)
Viniculture	Vahan Grigoryan		v. Tavush (Berd)
Viniculture	Vardan Zurabyan		v. Berdavan (Noyemberyan)
Horticulture	Martik Mkhitaryan	1 ha	v. Aknaghbyur (Ijevan)
Horticulture	Samvel Aghasyan		v. Chinari (Berd)

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Horticulture	Հրէմայի ԵՉՍԻՍԻ		v. Norashen (Berd)
Horticulture	Hayk Petrosyan		v. Chinari (Berd)
Horticulture	Rafik Ohanyan		v. Ptghavan (Noyemberyan)
Horticulture	Spartak Zakharyan		v. Ptghavan (Noyemberyan)
Horticulture	Mekhak Harutyunyan		v. Ptghavan (Noyemberyan)
Horticulture	Karapet Aghababyan		v. Koghb (Noyemberyan)
Horticulture	Smbat Makaryan		v. Zorakan (Noyemberyan)
Horticulture	Arkadi Makyan		v. Bagratashen (Noyemberyan)
Tobacco cultivation	Samvel Eghikyan		v. Varagavan (Berd)
Tobacco cultivation	Rima Manucharyan		v. Varagavan (Berd)
Tobacco cultivation	Marine Melikyan		v. Tavush (Berd)
Tobacco cultivation	Ashot Baldryan		v. V. Tsaghkavan (Berd)
Tobacco cultivation	Arsen Maralyan		v. Tavush (Berd)
Greenhouse	Lorik Simonyan		v. Lusadzor (Ijevan)
Greenhouse	Aram Amirkhanyan		v. Sarigyugh (Ijevan)
Greenhouse	Artsrun Mkhitarian		v. Khashtarak (Ijevan)
Greenhouse	Erjanik Ayvazyan		v. Lusadzor (Ijevan)
Greenhouse	Vachik Harutyunyan		v. Aknaghbyur (Ijevan)
Greenhouse	Alexandr Ohanyan		v. Ptghavan (Noyemberyan)
Non-traditional activity / Sunflower	Samvel Ghazaryan		v. Getahovit (Ijevan)
Non-traditional activity / Ostrich breeding	Rafik Balabekyan		v. Zorakan (Noyemberyan)
Non-traditional activity / Mushrooms	Rafik Khachikyan		v. Koti (Noyemberyan)
Non-traditional activity / Olive	Gagik Davtyan		v. Berdavan (Noyemberyan)
Non-traditional activity / Ostrich breeding	Ashot Bejanyan		v. Ltchkadzor (Noyemberyan)
Non-traditional activity / Pheasant breeding	Seyran Zurnachyan		v. Haghtanak (Noyemberyan)

9.1.2 2nd group of information sources: Statistical materials, official statements, reports

1. Statistical forms, publications, reports (issued by Armenian NSS, 2007-2011) - see Armenian version of the report;
2. Information leaflets provided by the RA Ministry of Agriculture;
3. Study of Possible Exporting Volumes of Armenian Fruits and Vegetables, WB/ADA/AM Partners, 2010
4. Information leaflets provided by Tavush Marz Governorate;
5. Information leaflets provided by Tavush Marz Agricultural Support Center.