ENPARD: A European Union Programme supporting Agriculture and Rural Development

Assessment of Training Evaluation, Coop Registration Forms and Pre & Post Tests for Agriculture Cooperatives

Capacity Building to the Agriculture Cooperatives Development Agency (ACDA)

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EUROPEAN NEIGHBOURHOOD PROGRAMME FOR AGRICULTURE AND RURAL DEVELOPMENT (ENPARD)

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Project implemented by	Assessment conducted by
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Disclaimer

"This Report was prepared with the financial assistance of the European Commission. The views expressed in this report are those of the consultants and do not necessarily reflect those of the European Commission"

Content

Introduction

The European Neighbourhood Programme for Agriculture and Rural Development in Georgia (ENPARD Georgia) was implemented in March 2013. The main goal of the ENPARD program is to reduce rural poverty in Georgia.[1] The total budget of the program is 102 million EUR. Through close cooperation with the government, civil society, and farmers, ENPARD is working on achieving three main goals:

- Building capacity and supporting government institutions in the reform of the agriculture and rural development sector;
- Improving employment and living conditions of rural populations by strengthening farmers' cooperation skills and access to resources;
- Promoting diversified social and economic opportunities in rural areas, particularly for women and youth, in due respect to the environment and the cultural heritage.

The Law of Georgia on Agricultural Cooperatives was passed on July 12, 2013. On October 1, 2013, the Agriculture Cooperatives Development Agency (ACDA) was established. The ACDA works under the Ministry of Agriculture of Georgia (MoA). The ACDA is responsible for granting, terminating, and monitoring the status of agricultural cooperatives in Georgia.

Under the ENPARD framework, Evoluxer provides training programs for registered cooperative managers and management leaders, and strengthens management capacity and proper governance at registered cooperatives. Furthermore, it works to improve awareness among cooperatives members of the meaning and purpose of cooperative enterprises, and increases their sense of ownership of their cooperatives. Overall, the project aims to strengthen institutional capacity and skills of the ACDA.

Project activities involve cooperatives throughout Georgia. In autumn 2016, Evoluxer, with the help of ACDA, ICCs, municipality administrations, sub-contracted Service Providers, selected trainers, and started to provide trainings for agriculture cooperatives in Georgia.

Two training modules of five days' duration each were developed: (1) basics of agricultural cooperatives (four sub-modules) and (2) business planning. The first trainings took place in October and November 2016. It contained the following four sub modules: I. Basics of agricultural cooperatives; II. Agricultural cooperatives' organization development cycle; III. Methodology of organizational audit of agricultural cooperatives; IV. Legal regulations and internal administration rules of agricultural cooperatives. Training sessions were organized in West and East Georgia, and 57 different groups (maximum 18 participants per group) were trained in different regions. According to signed attendance sheets, the total number of participants was 928.

The second trainings took place in December 2016 (in West Georgia) and February 2017 (in East Georgia). The course was designed to cover all essential steps for drafting a business plan. Overall, 949 participants in 55 different groups attended the training on business planning. The training program aimed to strengthen the capacity of the registered cooperatives by equipping them with knowledge and the ability to organize and develop their business.

This study provides an evaluation of the training program. The main purpose of this assessment is to analyse the impact of the trainings on participants' level of knowledge of the basics of agricultural cooperatives, and business planning. This report evaluates the impact of the trainings

[1] http://enpard.ge/en/what-is-enpard/

by exploring the differences between pre-and post-tests results. Based on the findings, it provides the recommendations for revisions/modifications that are in line with the log-frame and final training impact assessment.

The primary clients for this assessment and the main stakeholders are: agricultural cooperatives, ACDA, ENPARD implementer organizations (CARE, Oxfam, Mercy Corps, People in Need), and MoA.

The report is divided into three parts. The first part describes the methodology of the evaluation. The second part separately examines the results of two training modules: basics of agricultural cooperatives and business planning. The assessment of each module includes the description of sample, an analysis of the impact of trainings, training evaluation, and training needs. Finally, the third part provides suggestions and recommendations for future trainings in order to achieve the desired outcomes.

Methodology

The participants filled out a 14-item questionnaire before training, and a 24-item questionnaire with the same set of 14 items, and additional 10 questions (it was 6 in business planning training), after the training. The questionnaires were concerned with fundamental knowledge of cooperatives, its principles and legal issues. Questions were multiple-choice with 4 possible answers; a participant got 1 point for each correct answer, and 0 for each wrong answer. This study compares the mean of percentages of correct pre-and post-test answers in order to assess the outcome of the training, and therefore includes only participants with both pre- and post-tests for purposes of the analysis.[2]

Different analyses were conducted on data aggregated by gender and region. Using the paired t-test, the differences between pre- and post-tests were examined for statistical significance. The paired t-test is commonly used in before- and after-analysis to measure learning from a training program. However, this analysis does not allow for evaluation of the impact of trainings at a qualitative level because it does not give a qualitative picture of participants' knowledge before and after trainings. It only compares pre- and post-tests results at aggregated quantitative level.

Basics of agricultural cooperatives

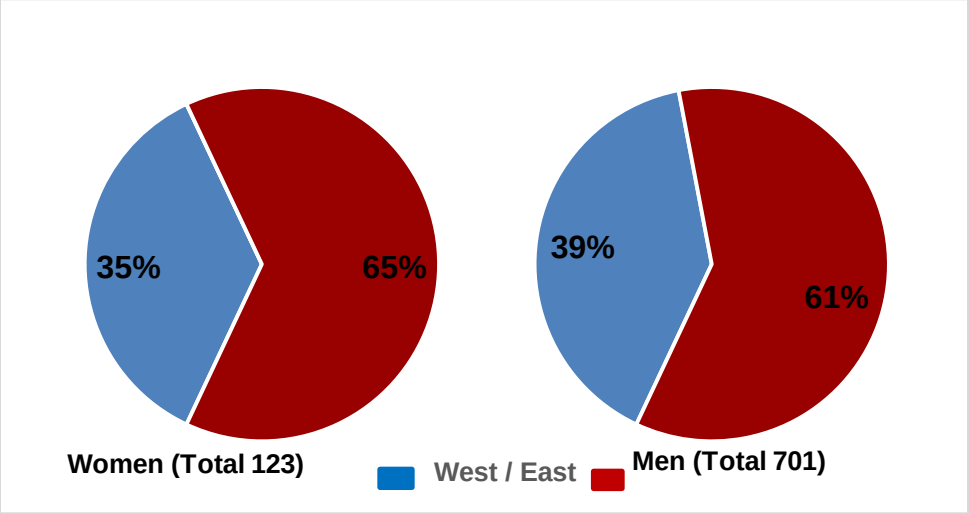
Study sample

As mentioned above, for our analysis we only included the individuals who had taken both pre- and post-tests. The total number of participants was 824, out of which 314 were from West Georgia and 510 from East Georgia.[3] 43 out of 314 participants from West Georgia were women and 271 were men; 14% and 86%, respectively. From East Georgia, 80 out 510 participants were women (16%) and 430 were men (84%). As we see, women were underrepresented in the trainings. This is not surprising, as women's participation in cooperatives is very low in Georgia. According to ACDA statistics, as of January 2017, the total number of cooperative members is

[2] The trainings were evaluated by using pre- and post-tests results of the same 14 questions.
[3] As mentioned above, total 928 members of cooperatives signed attendance sheets in 4 modules; however, valid data for evaluation was for 824 participants.

13,225, out of which 2,989 (22.6%) are females. Considering the difference between the number of participants in West and East Georgia (in West Georgia there were 25 groups, and in East Georgia, 32), women and men were equally represented in both areas. Figure 1 shows the gender ratio by West and East Georgia.

Figure 1: Gender ratio by West and East Georgia

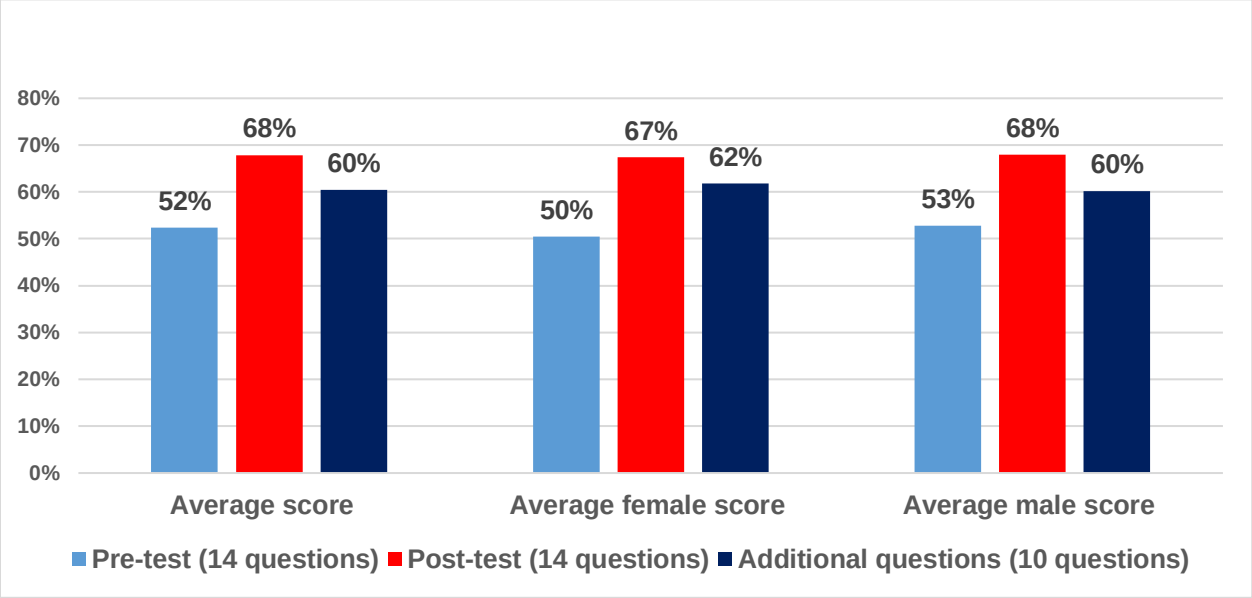


Impact analysis of the trainings

Before starting the analysis, it is interesting to look at general figures. The average pre-test scores of females and males were 51% and 50%, respectively. Breaking down the data by East and West Georgia, the average West Georgia female pre-test score was 50%, while this indicator was 53% for males. Figure 2 below provides information about pre- and post-test average scores in West Georgia.

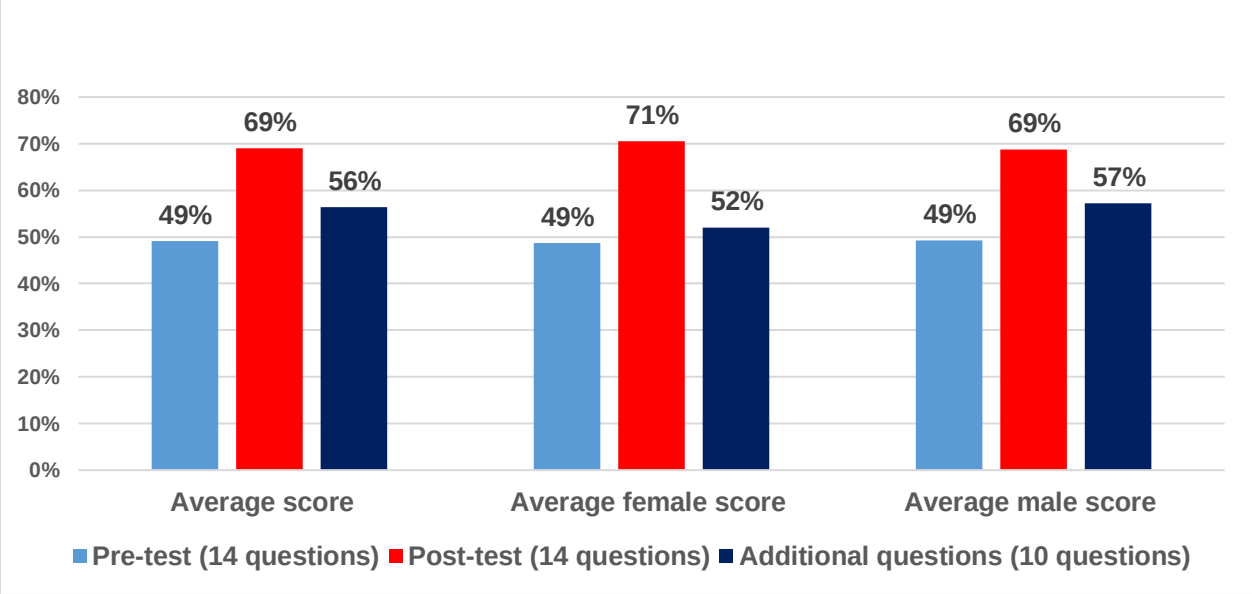
It is noteworthy that participants answered 10 additional questions in the post-test that were not included in the test given prior to training. The average score of the additional questions was 60% for participants from West Georgia; this means that the participants answered 6 out of 10 questions on cooperatives correctly.

Figure 2: Pre-and Post-tests scores in West Georgia



For participants from East Georgia, the average pre-test score was 49%, lower than average pre-test score from West Georgia. The average score of the additional 10 questions was 56%, also lower than from West Georgia. The average scores were almost the same for males and females. Figure 3 shows pre-and post-test statistics for East Georgia.

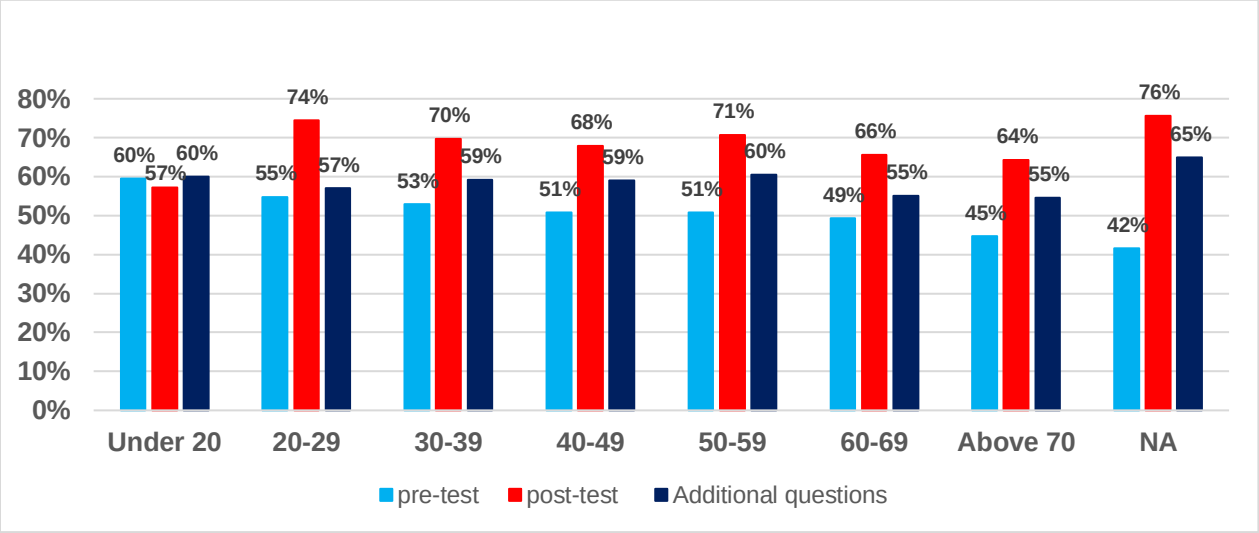
Figure 3: Pre-and Post-tests scores in East Georgia



It is interesting to look at test scores for different age-ranges. Figure 4 shows the average pre-and-post-tests by age. However, 12 participants did not indicate their age, and their scores are indicated as NA. Individuals under age 20 had the highest average pre-test score (60%), and individuals over the age of 70 had the lowest indicator (45%). It is worth noting that trainees under the age of 20 had their average score after training go down from 60% to 57%. In the post-test,

individuals in the age range 20-29 showed the highest post-test score (74%), and individuals above the age of 70 again had the lowest result - 64%.

Figure 4: Pre-and Post-test by age



The baseline knowledge on cooperatives in Georgia was low: the average score in the pre-test was 51%. As a result of the training, the average score increased to 69% (by 36%). In order to evaluate whether the difference is statistically significant, the paired t-test was used. STATA produced the following table:

Table 1: The output of Paired t-test

```
. ttest  posttest== pretest

Paired t test
```

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
posttest	824	9.694175	.0742524	2.131444	9.548428	9.839921
pretest	824	7.122573	.0786659	2.258135	6.968163	7.276982
diff	824	2.571602	.0946536	2.717071	2.385811	2.757393

```
    mean(diff) = mean(posttest - pretest)                         t =  27.1685
Ho: mean(diff) = 0                              degrees of freedom =      823

 Ha: mean(diff) < 0           Ha: mean(diff) != 0           Ha: mean(diff) > 0
 Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000          Pr(T > t) = 0.0000
```

In the 'diff' (difference=post-test score minus pre-test score) line of the table, there are 824 differences (one for each trainee), and the mean of these differences is 2.6. The p-value associated with the appropriate one-sided test is 0.0000 (the alternative hypothesis on the far right). With this p-value, the null hypothesis can be rejected at any level of significance; the trainees' mean of differences (post-test minus pre-test) is greater than zero. It can be concluded that trainees significantly improved their knowledge on cooperatives after trainings; they have higher scores in post-test.

Table 2: Knowledge on basics of agricultural cooperatives by region

Knowledge by Region	N=824			
	pre-test	post-test	Diff	sig.
	%	%	%	
Adjara	60%	73%	21%	***
Guria	51%	62%	21%	***
Imereti	52%	71%	36%	***
Racha-Lechkhumi-Kvemo Svaneti	50%	69%	39%	***
Samegrelo-Zemo Svaneti	53%	67%	27%	***
Kakheti	54%	68%	26%	***
Kvemo Kartli	49%	75%	54%	***
Mtskheta-Mtianeti	53%	74%	40%	***
Samtskhe-Javakheti	46%	66%	41%	***
Shida Kartli	56%	72%	27%	***
Tbilisi	47%	66%	39%	***

*5%; ** 1%; *** 0.1%.

There are significant differences between the levels of knowledge on the basics of cooperatives among regions (Table 2).[4] The average pre-test score was the lowest (46%) in Samtskhe-Javakheti, while it was the highest (60%) in Adjara. This might be explained by the fact the ENPARD started earlier in this region. Adjara is the Autonomous Republic that has its own Ministry of Agriculture; therefore, the coordination and management are easier at the smaller scale. The region with the highest post-test score was Kvemo Kartli (75%), while the lowest score was recorded in Guria (62%).

Overall, the difference between the pre-and post-tests were statistically significant in every region. The participants showed the biggest improvement in Kvemo Kartli at 54%. The difference was comparatively modest (21%) for the two regions of Adjara and Guria. As mentioned above, Adjara had the highest average score in the pre-test and, accordingly, their improvement was not as big in percentage terms. As for Guria, the difference between post- and pre-test scores was very small in absolute terms. According to the Rural Development Strategy in Georgia 2017-2020,[5] Guria has the lowest agricultural productivity level in Georgia. Furthermore, the level of education is very low in this region.

[4] Annex 3 includes the gender differentiated analysis by region
[5] Rural Development Strategy in Georgia 2017-2020

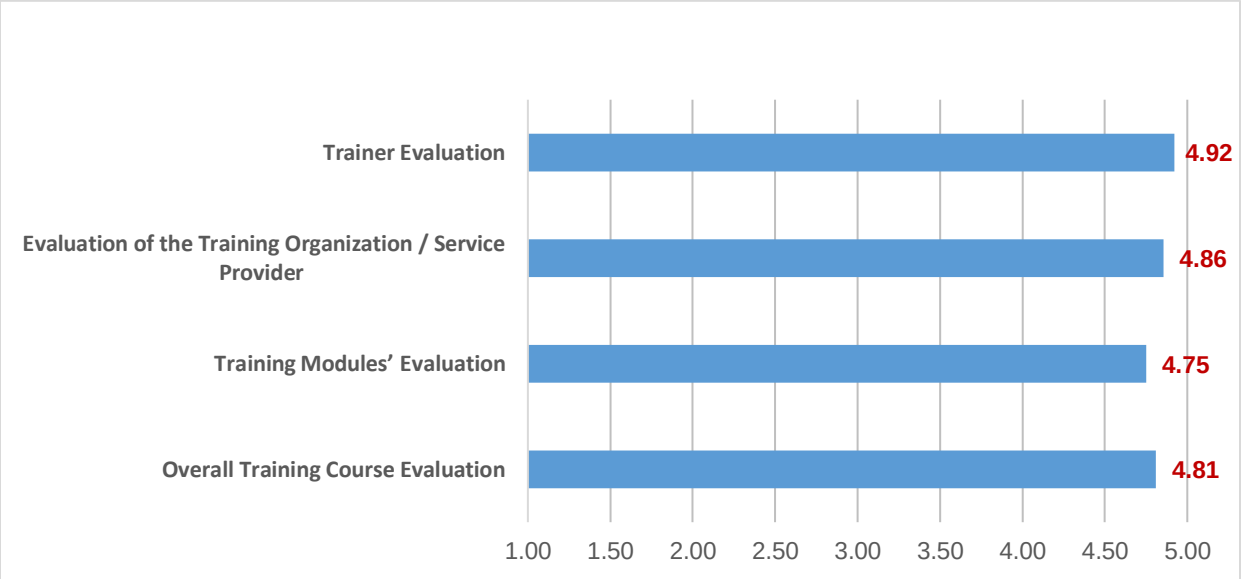
Training evaluation

At the end of the training session, the participants had the opportunity to provide their opinions about the training, its content, the trainers and the service providers. The questionnaire included "how-type" questions in the following categories:

1. A. Overall Training Course Evaluation;
2. B. Training Modules' Evaluation;
3. Evaluation of the Training Oganization / Service Provider;
4. Trainer Evaluation.

The evaluation was based on a standard 1-5 scale; 5 (very important) was the maximum and 1 (not at all) was the minimum evaluation score. Participants had very positive responses regarding the training course (Figure 5). The average evaluation of the overall training course (1.A.) was high (4.81 out of 5); this implies that the participants thought that this training was very beneficial for them. The questionnaire included questions on the importance of the course modules for trainees (1.B); again, participants indicated that the training modules were beneficial for their activities (4.75 out of 5). In second category, trainees evaluated the training organization and service provider with an average 4.86 score. Moreover, trainees gave very positive feedback regarding the trainers (4.92 out of 5).

Figure 5: Training evaluation



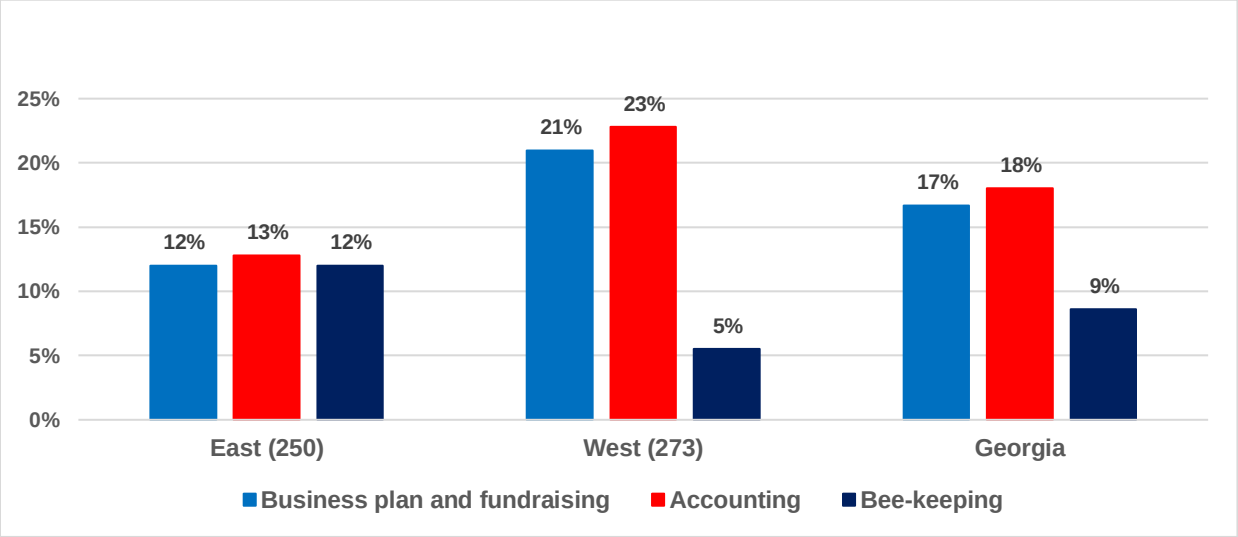
In order to check the validity of training evaluation, monitoring team conducted random interviews with 33 trainees. Respondents stated that the trainings were useful for them as they gained knowledge on the cooperative's internal legal relations, proper maintenance of the documents, and on other important issues regarding to their activities. Furthermore, they told to interviewers that they intend to share the gained knowledge with their cooperative members.

Operational capacity of cooperatives and training needs

An important part of the training assessment was to identify the areas that cooperative members wanted to improve their skills and knowledge. In the evaluation form, open questions about training needs were included. Overall, 523 responses out of 825 trainees (250 responses out of 315 West Georgia participants, and 273 East Georgia responses out of 510 participants) were recorded.

The assessment revealed that cooperatives lack knowledge on regulations and accounting; the trainings participants stressed that they need to know more on revenue service obligations, taxes and regulations. Furthermore, they need to be trained in financial accounting to record their daily transactions properly (18% of total 523 responses). Another important issue is that cooperatives need access to co-finance investments through grants (17% of total 523 responses); they responded that they want to attend training on writing business proposals for grants (keyword: fundraising). In many cases, cooperatives wanted to know the basic principles of business administration and management; marketing was also highlighted as a training need. It is noteworthy that cooperatives wanted training on their own specific type of business: for instance, wine producers wanted training on viticulture, therefore, honey producers wanted trainings on bee-keeping (9% of total 523 responses).

Figure 6: Training needs for cooperatives (overall picture)



The data was analysed for each region and accentuated topics for trainings were chosen. The responses are presented in Table 3 (see next page). For instance, in Adjara, 26% out of 34 individuals desire trainings on business plans and fundraising; they want to know how to write a proper business proposal in order to get grants or additional resources. In Guria (18% of 49 trainees), Samegrelo-Zemo Svaneti (36% of 33 trainees) and Samtskhe-Javakheti (29% of 98 trainees), participants also highlighted the need for trainings on the same topic. In Imereti, 14% of 65 individuals wanted to attend the trainings on accounting. The same topic was the most desirable in Kakheti (30% of 44 trainees), Shida Kartli (33.3% out of 15 trainees), and Tbilisi (38.5% of 13 trainees). 22% of 69 participants in Racha-Lechkhumi-Kvemo Svaneti and 23% of 22 participants in Mtskheta-Mtianeti desired more training on cooperatives. However, only in Kvemo Kartli and Imereti did people wanted to attend the trainings on modern technology and its use in agriculture.

Table 3: Most demanded topics for trainings

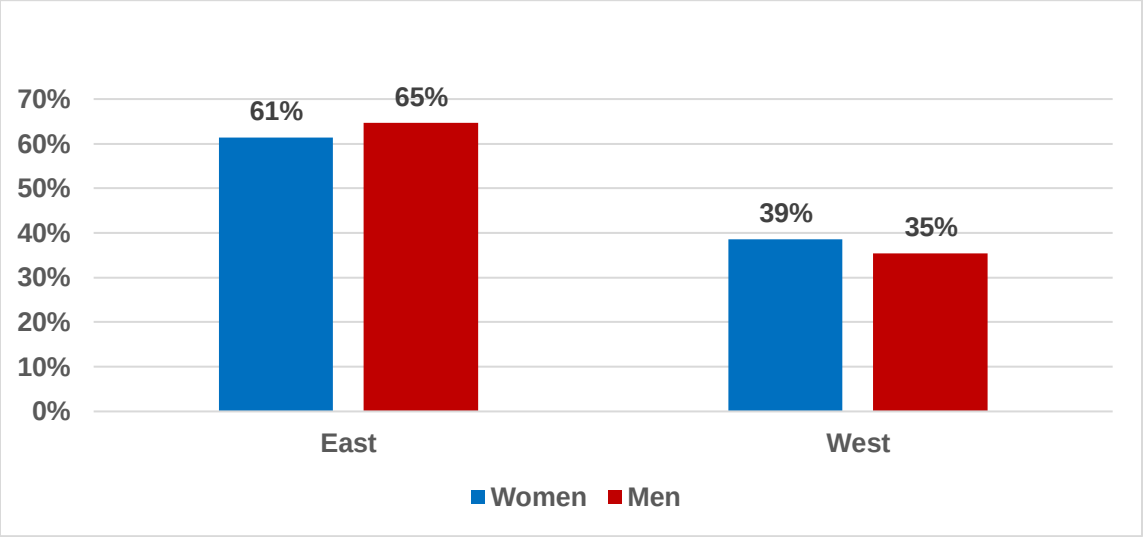
	Number of responses	Responses	%
Adjara	34	Business plan and fundraising	26%
		Cooperatives	15%
		Marketing; bee-keeping	12%
Guria	49	Business plan and fundraising	18%
		Accounting	12%
		Bee-keeping	12%
Imereti	65	Accounting	14%
		Technology	12%
		Bee-keeping	11%
Racha-Lechkhumi-Kvemo Svaneti	69	Cooperatives	22%
		Accounting	20%
		Bee-keeping	19%
Samegrelo-Zemo Svaneti	33	Business plan and fundraising	36%
		Accounting	9%
		Legal issues	9%
Total (West Georgia)	250		
Kakheti	44	Accounting	30%
		Business plan and fundraising	21%
		Marketing	11.40%
Kvemo Kartli	81	Technology	21%
		Business plan and fundraising	17%
		Accounting	16%
Mtskheta-Mtianeti	22	Cooperatives	23%
		Business plan and fundraising	14%
		Legal issues	14%
Samtskhe-Javakheti	98	Business plan and fundraising	29%
		Accounting	27%
		Bee-keeping; legal issues	15%
Shida Kartli	15	Accounting	33.30%
		Business plan and fundraising	20%
		Cooperatives	20%
Tbilisi	13	Accounting	38.50%
		Marketing	23.10%
		Financial management	23.10%
Total (East Georgia)	273		

Business Planning

Study sample

In order to assess the trainings on business planning, again, we only included the individuals who had taken both pre- and post-tests. The total number of participants was 949, out of which 419 were from West Georgia, and 530 from East Georgia. From West Georgia, 52 (12.9%) out of 404 participants were women, and 352 (87.1%) were men. As for East Georgia, 88 (17.1%) out 514 participants were women, and 426 (82.9%) were men. Taking into account the fact that in West Georgia there were 24 groups, and in East Georgia, 31, women and men were equally represented in both areas (Figure 7).

Figure 7: Gender ratio by West and East Georgia



Impact analysis of the trainings

Before starting the impact analysis, it is interesting to look at general figures in West and East Georgia. In West Georgia, the average pre-test scores were the same (49%) for females and males. However, the average female post-test score is higher (76%) than the average male post-test score (72%). Figure 8 provides the information about pre- and post-test average scores in West Georgia.

It is noteworthy that participants answered 6 additional questions in the post-test that were not included in the test given prior to training. The average score of the additional questions was 78% for participants from West Georgia; this means that the participants answered more than 4 out of 6 questions on cooperatives correctly.

Figure 8: Pre-and Post-tests scores in West Georgia

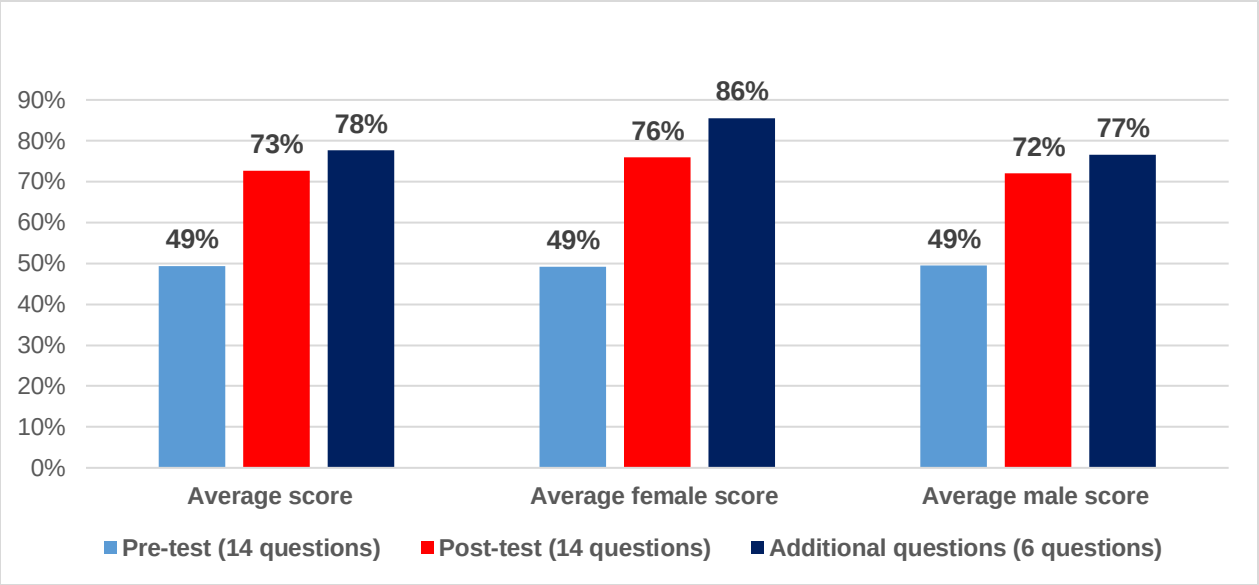


Figure 9 shows pre-and post-test statistics for East Georgia. For participants from East Georgia, the average pre-test score was 50%, which does not differ much from average pre-test score in West Georgia. The average pre-test score for females and males were 51% and 50%, respectively. Also, the average post-test scores were almost the same for males (66%) and females (69%). The average score of the additional 6 questions was 76%, only 2% lower than in West Georgia.

Figure 9: Pre-and Post-tests Scores in East Georgia

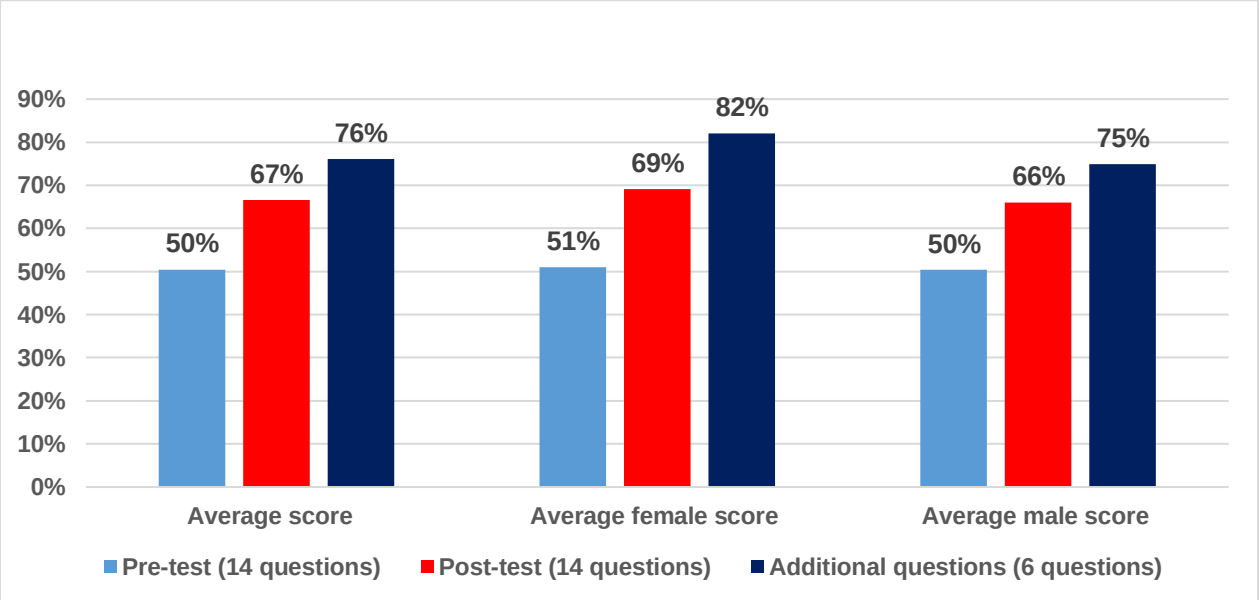
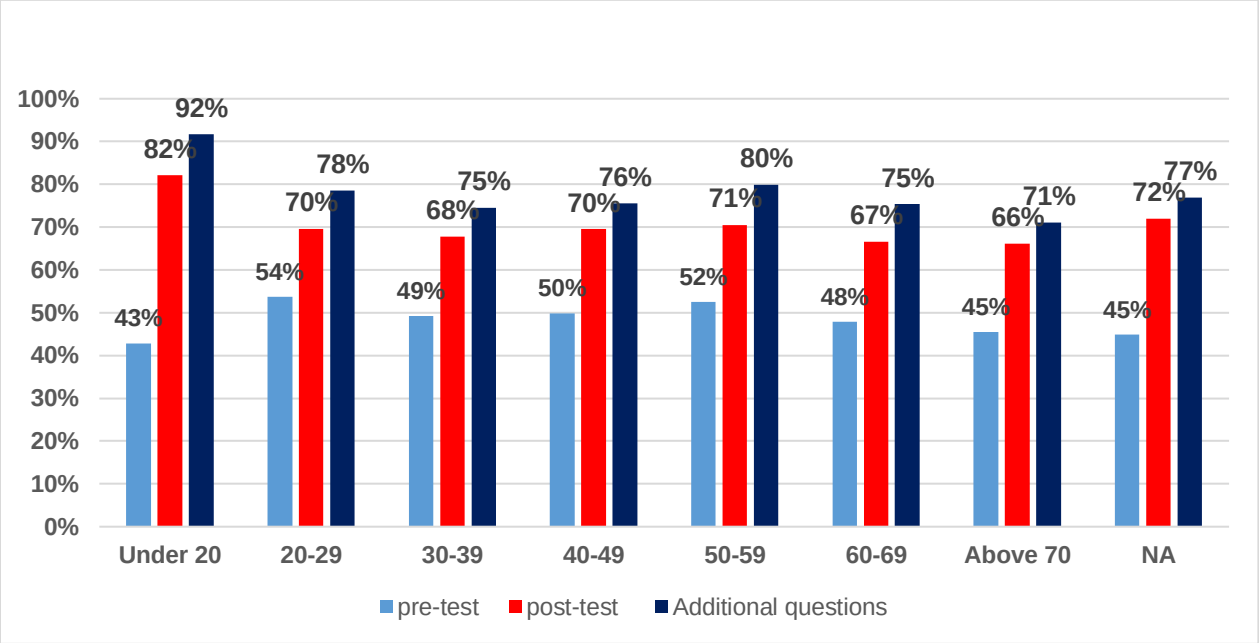


Figure 10 shows the average pre-and-post-tests by age. However, 68 participants did not indicate their age (their scores are indicated as NA). Individuals under age 20 had (only 2participants were under age 20) the lowest average pre-test score (43%), and individuals in the age range 20-29 showed the highest pre-test score (54%). After the training, the highest average post-test results (82%) had individuals under age 20, while the same indicator was the lowest (66%) for individuals above the age of 70.

Figure 10: Pre-and Post-test in business planning by Age



The baseline knowledge of cooperative members regarding the business planning and its features in Georgia was low: the average score in the pre-test was 50%. As a result of the training, the average score increased to 69% (by 38.4%). For statistically significance, the paired t-test was used. STATA output looks as follows:

Table 4: The output of Paired t-test

```
. ttest  posttest== pretest

Paired t test
```

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
posttest	918	9.688453	.0897109	2.718108	9.512391	9.864516
pretest	918	7	.0851393	2.579594	6.832909	7.167091
diff	918	2.688453	.1069393	3.240101	2.478579	2.898327

```
    mean(diff) = mean(posttest - pretest)                      t =  25.1400
Ho: mean(diff) = 0                              degrees of freedom =      917

Ha: mean(diff) < 0           Ha: mean(diff) != 0           Ha: mean(diff) > 0
Pr(T < t) = 1.0000         Pr(|T| > |t|) = 0.0000          Pr(T > t) = 0.0000
```

In the 'diff' (difference=post-test score minus pre-test score) line of the table, there are 918 differences (one for each trainee), and the mean of these differences is 2.69. The trainees' mean of differences (post-test minus pre-test) is greater than zero as the p-value associated with the appropriate one-sided test is 0.0000 (the alternative hypothesis on the far right). With this p-value, the null hypothesis can be rejected at any level of significance. It can be concluded that trainees significantly improved their knowledge regarding business planning after trainings; they have higher scores in post-test.

Table 5: Knowledge on Business Planning by region

Knowledge by Region	N=918			
	pre-test	post-test	Diff	sig.
	%	%	%	
Adjara	54%	72%	32%	***
Guria	46%	65%	43%	***
Imereti	54%	74%	37%	***
Racha-Lechkhumi-Kvemo Svaneti	44%	68%	55%	***
Samegrelo-Zemo Svaneti	51%	80%	56%	***
Kakheti	55%	65%	19%	***
Kvemo Kartli	48%	66%	36%	***
Mtskheta-Mtianeti	59%	75%	27%	***
Samtskhe-Javakheti	48%	63%	31%	***
Shida Kartli	47%	75%	60%	***
Tbilisi	57%	71%	24%	***

*5%; ** 1%; *** 0.1%.

Overall, the levels of knowledge regarding business planning differed across regions (Table 5). It appeared that the region with the highest (59%) pre-test score was Mtskheta-Mtianeti, and the lowest score was recorded in Racha-Lechkhumi-Kvemo Svaneti (44%). As for post-test scores, we have a different picture: the highest post-test score (80%) were observed in Samegrelo-Zemo Svaneti, while it was the lowest (63%) in Samtskhe-Javakheti. The paired t-test showed that the difference between the pre-and post-tests were statistically significant in every region. The participants showed the biggest improvement in Shida Kartli at 60%. The difference was comparatively lower (19%) in Kakheti.

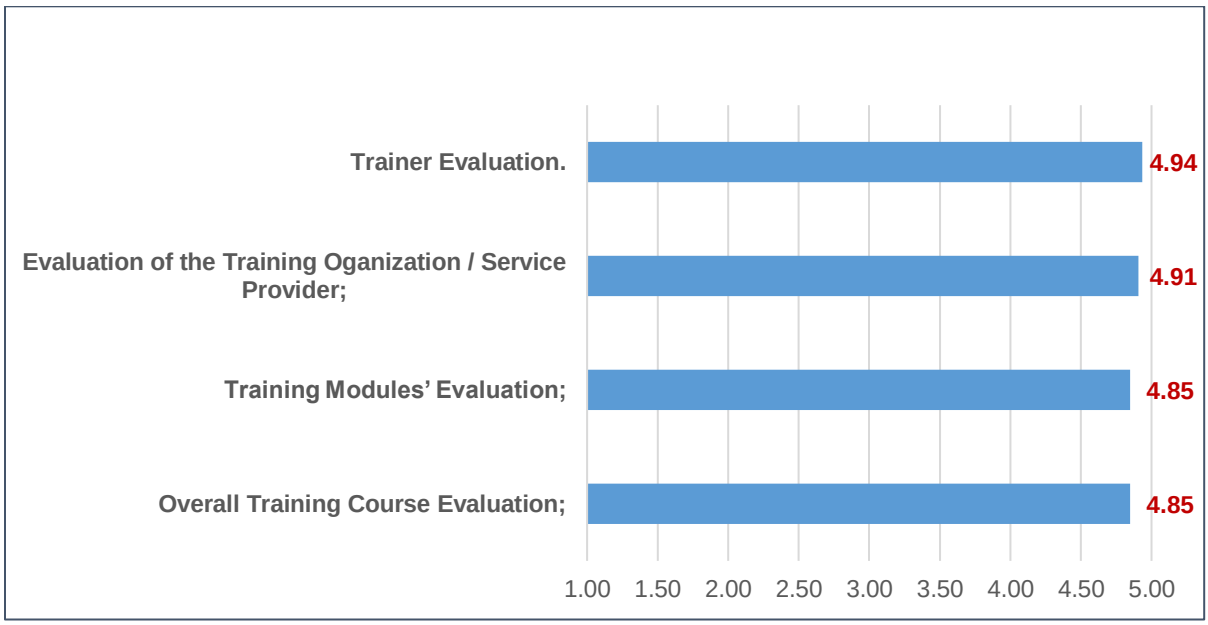
Training evaluation

At the end of the training session, participants provided their evaluation regarding the training, its content, the trainers and the service providers. The questionnaire was the same (included “how-type” questions) as it was in the first module (basics of agricultural cooperatives); therefore, the evaluation was based on a standard 1-5 scale; 5 (very important) was the maximum and 1 (not at all) was the minimum evaluation score.

Participants had very positive feedback regarding the training course (Figure 11); therefore, they thought that business planning training was very beneficial for them. Moreover, they gave very positive feedback regarding the trainers; the average evaluation of the trainers was 4.94 out of 5. In second category, trainees evaluated the training organization and service provider with an

average 4.91 score. As for the importance of the course modules, participants indicated that the training modules were beneficial for their cooperative activities (4.85 out of 5). The average evaluation of the overall training course (1.A.) was high (4.85 out of 5).

Figure 11: Training evaluation



In order to check the validity of training evaluation, monitoring team conducted random interviews with 33 participants. The interviews revealed that the trainings have a crucial importance for cooperative members as the participants learnt the basic tools on how to write a business plan, calculate direct and indirect costs, and estimate whether they can obtain the profit. The respondents stated that they would put the knowledge acquired at the training into practice and write new business plans in order to obtain additional funding. Furthermore, they are going to share the training materials with other cooperative members.

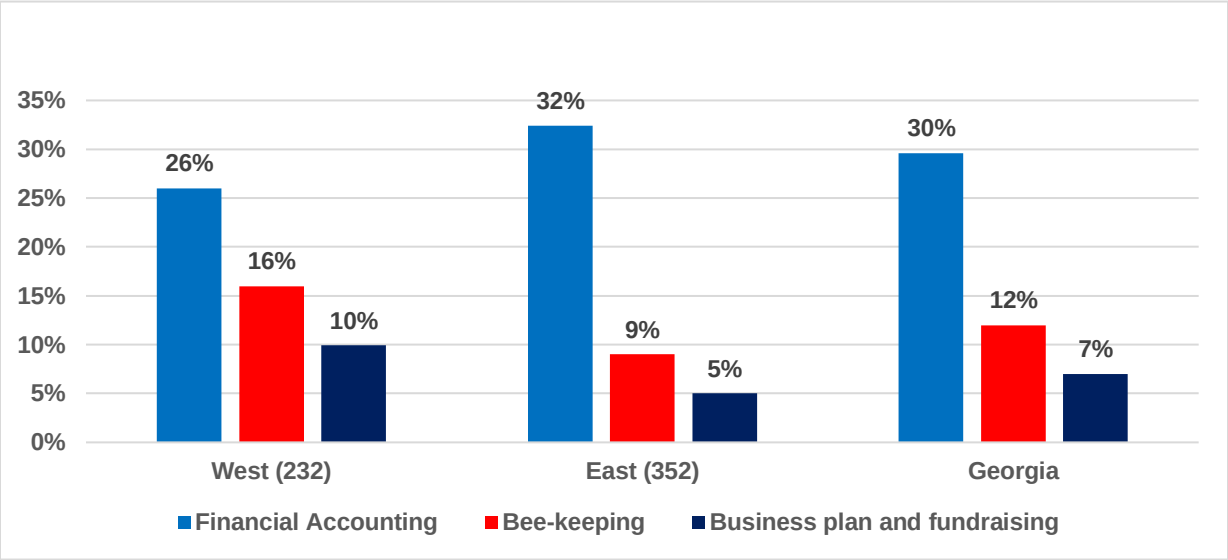
Operational capacity of cooperatives and training needs

After the trainings, cooperative members identified the areas that they needed to be trained in order to improve their knowledge. Overall, 584 responses out of 949 trainees were recorded: 232 and 352 responses from West and East Georgia respectively.

Similar to the first module (Basics of agricultural cooperatives), the participants reported that they lack knowledge on financial accounting (30% of total 484 responses); the trainees emphasized that their cooperatives did not have competence to perform and record daily transactions. According to the responses, access to finance remains the main constraint for cooperatives. They attempt to get additional financial resources; for this purpose, cooperative members were willing to attend trainings on fundraising including writing proposals for grants (7% of total 484 responses).

It is worth to note that ACDA supports the sector's specific initiatives including hazelnuts, dairy production, and bee-keeping[6]. Not surprisingly, 12% out of total 484 responses indicated that they wanted training on bee-keeping. In many cases, cooperatives wanted to attend trainings regarding their own specific business.

Figure 12: Training needs for cooperatives (overall picture)



The assessment highlighted training needs for cooperatives for each region (Table 6). In Adjara, 20% out of 20 participants wanted trainings on cooperatives, its principles and benefits. In Guria, 18% of 34 trainees desire trainings on hazelnuts. In Imereti, most demanded topic for training was accounting (23% of 57 responses). The same topic was the most desirable in other regions: Racha-Lechkhumi-Kvemo Svaneti (28% of 76 trainees), Samegrelo-Zemo Svaneti (22% of 45 trainees), Kakheti (44% of 64 trainees), Kvemo Kartli (29% of 84 trainees), Mtskheta-Mtianeti (42% of 31 trainees), Samtskhe-Javakheti (15% out of 131 trainees), Shida Kartli (68% of 34 trainees), and Tbilisi (63% of 8 trainees). This implies that accounting is an important issue for cooperative members. It should be noted that the trainees also emphasized that they lack knowledge regarding the legal issues and taxes and they want to improve their skills and competencies regarding this topic.

[6] http://acda.gov.ge/index.php/eng/static/175

Table 6: Most demanded topics for trainings (after training on business planning)

	Number of responses	Responses	%
Adjara	20	Cooperatives	20%
		Business plan and fundraising	20%
		Marketing	15%
Guria	34	Hazelnuts	18%
		Bee-keeping	14%
		Technology	12%
Imereti	57	Accounting	23%
		Marketing	16%
		Bee-keeping	14%
Racha-Lechkhumi-Kvemo Svaneti	76	Accounting	28%
		Business plan and fundraising	24%
		Bee-keeping	20%
Samegrelo-Zemo Svaneti	45	Accounting	22%
		Pest & Disease control	18%
		Legal issues	9%
Total (West Georgia)	232		
Kakheti	64	Accounting	44%
		Viticulture	9%
		Bee-keeping	8%
Kvemo Kartli	84	Accounting	29%
		Cattle-breeding	8%
		Technology	7%
Mtskheta-Mtianeti	31	Accounting	42%
		Business plan and fundraising	13%
		Legal issues; bee-keeping; cold-storage	6%; 6%; 6%
Samtskhe-Javakheti	131	Accounting	15%
		Bee-keeping	13%
		Technology	11%
Shida Kartli	34	Accounting	68%
		Legal issues	20%
Tbilisi	8	Accounting	63%
Total (East Georgia)	352		

Conclusions and recommendations

Evoluxer, with the help of ACDA, ICCs, and municipality administrations, organized and provided the trainings for agriculture cooperatives in Georgia. Two training modules were developed: (1) basics of agricultural cooperatives (including four sub-modules) and (2) business planning.

This study analysed the level of knowledge of the participants regarding fundamentals of agricultural cooperatives and business planning, and evaluated the impact of the training by examining the differences between pre-and post-tests results. Using the paired t-test, this assessment tested the differences for statistical significance.

This study revealed that the trainings were effective in increasing the knowledge of participants regarding the fundamentals of agricultural cooperatives, and business planning.

The assessment of the training on basics of agricultural cooperatives showed that as a results of the training**, the average participant score increased from 51% to 69% (by 36%).** Furthermore, the difference between pre- and post-test results are statistically significant at any level (P-value=0.0000).

There were major differences between the regions: the average post-test score varied from 62% (Guria) to 75% (Kvemo Kartli**). Participants showed the biggest improvement in Kvemo Kartli (54%).** Overall, the difference between the pre-and post-tests were statistically significant in every region. The difference between the pre-and post-tests scores among regions might be explained by difference between baseline knowledge in regions or difference in motivation to learn about these topics.

Participants had very positive responses regarding the training course evaluation, and they indicated that **they would participate in other trainings organized by Evoluxer/ACDA**. In addition to this, monitoring team conducted random interviews with 33 participants after the trainings. Again, they highlighted the importance of content of trainings for their cooperative activities.

In the evaluation forms, **trainees accented their training needs**. **The analysis of the evaluation forms shows that the cooperative managers and cooperative members wish to attend the following operational training courses:**

- **Fundraising,**
- **Financial accounting and**
- **Business administration.**

Some participants, despite the fact that they attended the training on basics of agricultural cooperatives, still demanded more training on this topic. This has an implication for the next trainings and "**basics of agricultural cooperatives (4 sub-modules)" might have to be partly repeated.**

The assessment of the training on business planning showed that the participants improved their knowledge regarding the essential steps for writing a business plan. The average participant score increased from 50% to 69% (by 38.4%). Again, the difference between pre- and post-test scores are statistically significant at any level (P-value=0.0000).

Overall, the levels of knowledge regarding business planning differed across regions. **The lowest post-test score (63%) was recorded in Samtskhe-Javakheti, the highest (80%) in Samegrelo-Zemo Svaneti.** The paired t-test showed that the difference between the pre-and post-tests were statistically significant in every region. In addition, the trainees showed the biggest improvement in **Shida Kartli at 60%.**

At the end of the training session, participants provided their evaluation regarding the training, its content, the trainers and the service providers. The trainees had very positive feedback regarding the training course; trainees thought that business planning training was very beneficial for them. After the trainings, monitoring team conducted random interviews with 33 participants. As cooperatives face constraints regarding access to finance, the participants highlighted that this training had a crucial importance for their cooperative; they will apply knowledge acquired at the training to write proper business plans to obtain additional funding.

In the evaluation form, participants highlighted the most in-demand operational training needs:

- **Financial accounting,**
- **Fundraising, and**
- **Legal issues and taxes.**

After two successful training modules, basics of agricultural cooperatives (including 4 sub-modules) and business planning, Evoluxer has conducted the following trainings:

- Hazelnut production and primary processing (12 modules)
- Taxation
- Accounting

In order to improve capacity of agricultural cooperatives, Evoluxer has already planned to conduct the following trainings:

- Beekeeping including primary processing (10 modules),
- Pest management
- Artificial Insemination
- Milk processing technology
- Cheese Production Technologies
- Winery - Business Planning
- Maintenance of the equipment and processing
- Food Safety and Quality Control in Hazelnut
- Food Safety in Dairy Sector and in Honey

It can be noticed that Evoluxer has already conducted the trainings that were mostly demanded by the participants. Consequently, ISET provided the extended list of trainings that were not developed by Evoluxer, but were demanded by large share of trainees (Table 7).

Table 7: Recommended Trainings

Recommended Trainings	Number of responses (total 1107)	Share (%)
Marketing	113	10%
Cattle-breeding and veterinary	84	8%
Legal issues	89	8%

On 21 April, 2017, ISET presented the main findings of the study on the workshop, which was organized by Evoluxer. Representatives from ACDA also attended the meeting. Presentation was followed by a fruitful discussion on future trainings. As cattle-breeding and veterinary would be mostly covered during the upcoming training modules, attenders decided that pedigree production would be relevant and beneficial for agricultural cooperative members. Finally, participants agreed that Evoluxer should develop the following training modules:

- Marketing (for those cooperatives who are producing cheese and wine);
- Pedigree Production
- Legal Issues (for newly established cooperatives).

It should be mentioned that this study assessed the effect of trainings at a quantitative level by analysing the difference between pre-and post-tests scores. A more diversified questionnaire (including multiple choice, yes/no, true/false, open questions) would provide an opportunity to observe the qualitative picture of the impact of trainings.

In order to ensure the quality of data for upcoming trainings, holding a session for trainers to explain the use of tools for data entry is recommended, as it has been observed that some questionnaires were not properly filled in, which did not allow including them into the analysis. In terms of planning and conducting trainings, the trainers should be recruited carefully based on the pre-defined criteria of the target group; trainers can be sources of knowledge discrepancies in different groups and bias the data.

References

Martinez-Camblor, P., Corral, N., & de la Hera, J. M. (2013). Hypothesis Test for Paired Samples in the Presence of Missing Data. *Journal of Applied Statistics, 40*(1-2), 76-87

Samawi, M. H., & Vogel, R. (2014). Notes on two sample tests for partially correlated (paired) data, *Journal of Applied Statistics, 41* (1), 109-117

Annexes

Annex 1: Terms of reference of the expert

TERMS OF REFERENCE FOR SHORT TERM SENIOR EXPERT

Position: Expert for assessing training evaluation and coop registration forms and pre & post tests for agriculture coops, developed by the project and prepare report on the findings, conclusions and recommendations for revision/modification in line with log frame and final training impact assessment (activity 3.2). In addition to use training statistics of 4 basic and business planning for coops, process it and write 2 midterm training impact analysis for cooperatives.

(Activity 3.3)

Duration of assignment: 6 months (September 2016 – March 2017),

Expert days: up to 15 man-days

Aims and Objectives of the project

The goal of the project is to contribute to increase food production in Georgia and reduce poverty. The project purpose is to strengthen institutional capacity and skills of the Agriculture Cooperatives Development Agency (ACDA), to institutionalize continued training programmes for registered cooperative managers and management leaders, to strengthen the management capacity and install proper governance at registered cooperatives and to improve understanding among cooperatives members of the meaning and purpose of cooperative enterprises and an increased sense of ownership of their cooperatives. The project activities will be throughout Georgia.

General Tasks

The expert will work under the supervision of the EU expert (Team Leader / Institutional Expert) and in close cooperation with the project team and the project counterpart (Agriculture Cooperatives Development Agency ACDA). The expert will also link with other EU / international donor funded projects in Georgia and project stakeholders.

Profile and responsibilities

The expert will contribute to the successful performance of **activity 3.3 Prepare reports on the findings, conclusions and recommendations for revision of training program** while ensuring strict adherence to all project policies and procedures.

Key activities / tasks of the assignment and the related time-lime / deadline will be:

Activities	Start	End	Duration
3.3 Prepare reports on the findings, conclusions and recommendations for revision of training program in line with log frame and final training impact assessment	**26.09.16**	**15.03.17**	**7 months**
3.3.1 Assess training evaluation and coop registration forms and pre & post tests for agriculture coops	26.09.16	03.10.16	1 week
3.3.2 Use training statistics of 4 basic modules for coops, process it	28.11.16	15.12.16	2 weeks
3.3.3 Use training statistics of business planning module for coops, process it	01.03.17	15.03.17	2 weeks
3.3.4 Write 1st midterm training impact analysis for cooperatives, which will comprise findings, conclusions and recommendations for revision of 4 basics training program in line with log frame and final training impact assessment		20.12.16	2 weeks
3.3.5 Present the final results at ENPARD/ACDA monthly meeting in December and integrate feedback in final versions (two presentations one for each module)		20.12.16	1 day each
3.3.6 Write 2nd midterm training impact analysis for cooperatives, which will comprise findings, conclusions and recommendations for revision of business planning training program in line with log frame and final training impact assessment		15.03.17	2 weeks
3.3.7 Present the final results at ENPARD/ACDA monthly meeting in December and integrate feedback in final versions (two presentations one for each module)		20.03.17	1 day each
3.3.8 Submit final reports		31.12.16 31.03.17	2 months

Project indicators:

- Number of modifications to training programs proposed
- Number of modifications to training programs approved

Outputs: Training program is revised & improved in line to the needs emerged & feedback obtained from the relevant authorities, ETIs & beneficiaries

Draft & final reports (in Georgian and English) – Consultant should submit draft report first and after the project comments, finalize it.

The report will include the following:

a. Description of the context in which the assignment was conducted
b. Description of the primary clients of the assignment and the stakeholders involved
c. Definition of the objective of the assignment and its scope.
d. Overview of the approach / methodology and the tools used;
e. Information on the sub-sectors of operation of the agricultural cooperatives (Registration form)

f. Impact analyses of the trainings
g. Statistical information and visual charts
f. Conclusions and Recommendations on the necessary technical and operational capacity building and training areas.

Annexes:
Annex 1: Terms of Reference of the expert
Annex 2: Work plan
Annex 3: pre & post test
Annex 4: Evaluation form with statistic template
If necessary other annexes …

The Senior Expert will have to provide sound experience in a certain number of activities to perform his/her tasks in the project in an adequate and professional manner.

For this reason the expert will have to show the following qualifications:

- university degree in a subject relevant to the post
- a minimum of 7 years working experience
- knowledge of agriculture and/or agribusiness situation in Georgia
- experience in capacity and institution building, agriculture economics, business planning (incl. business/market analysis and marketing plan, operation/investment planning and budgeting, cash-flow forecast, cost-benefit analysis, training modules evaluation, taxation, risk analysis and economic impact analysis)
- working experience in international projects
- proficiency in oral and written English
- communication and presentation skills
- proven ability to perform the duties for which he/she will be recruited
- good IT experience (Word, Excel, PPP)
- free to travel to Georgia in a period of two months (September 2016 – March 2017)

This Project is funded by the EU as part of the ENPARD Programme

Annex 2: Pre & post tests

ENPARD: A European Union Programme supporting Agriculture and Rural Development

Capacity Building to the Agriculture Cooperatives Development Agency (ACDA)
Project Number: Europe Aid/136454/DH/SER/GE

Post-Test for Cooperatives Trainings (4 basics)

<u>To be filled in at the end of fifth day session</u>
Course content:
Fundamentals of Agricultural Cooperatives
Organization Development Tool-kit (ODT)
Legal Regulations of Agricultural Cooperatives & Rules of Internal Relations
Organizational Capacity Assessment Tool (OCAT)

Service Provider	
Region, Municipality	
Group Number	
Address of Training Location	
Name of Cooperative	
Name, Surname	
Age	
Gender	Female ◯ Male ◯
Date	

1. <u>The procedure for granting the membership of agricultural cooperative is defined by:</u>
   - Agricultural cooperative charter;

- Law on Agriculture Cooperatives;
- Rule on granting and terminating status of agricultural cooperative

2. A cooperative member can participate in the economic activity of the cooperative through:
   - Money;
   - Property;
   - Money, Property and Labor

3. The minimal value of the cooperative member's share is defined by:
   - Agricultural cooperative charter;
   - Law on "Agriculture Cooperatives;
   - Rule on granting and terminating status of agriculture cooperative

4. Which of the below- listed activities the agricultural cooperative is not entitled to carry out?
   - Production of the agricultural raw materials;
   - Joint purchase of materials and equipment necessary for agricultural production;
   - Credit -deposit activities;
   - Product packing and labeling activities;
   - Product transportation and sale activities

5. Economic participation of the agricultural cooperative member in the cooperative activity means:
   - Participation in the financing of the cost price of the service rendered by the cooperative;
   - Participation in the investments made by the cooperative;
   - Participation in the both listed above

6. Which of the below-listed is not regulated by the Law on Agricultural Cooperatives?:
   - Areas of activities of agricultural cooperatives;
   - Trade activities of the cooperative member;
   - Certain restrictions set forth for the non-members of the cooperatives

7. The shareholder of the agricultural cooperative may be:
   - Legal entity registered in other country;
   - Legal entity registered in Georgia;
   - Any person residing in Georgia
   -

8. The minimal share is:
   - The value of the smallest contribution, made by the cooperative shareholders to pay the obligatory membership fee;
   - Value of one share;
   - Value of the smallest contribution made by the cooperative shareholders as additional in-payments

9. The obligatory membership fee should be paid by:
   - Cooperative shareholder;
   - Associated member of the cooperative;

- Both

10. The value of the obligatory membership fee is defined:
    - In proportion to the economic participation of the cooperative shareholder;
    - In agreement with the cooperative management board, that is approved by the general meeting;
    - In proportion to the value of the product and/or the service the cooperative should provide for this shareholder

11. The additional in-payment of the shareholder fee is made:
    - In proportion to the increased economic participation of the cooperative shareholder;
    - In proportion to the additional service the cooperative should provide for this shareholder;
    - In agreement with the cooperative management board

12. The dividends are distributed (paid) among the associated members:
    - Dividends are distributed among the shareholders according to the additional membership fee made by them;
    - After the reserve fund is replenished;
    - Dividends are distributed among the shareholders according to their economic participation

13. The amount of the issued dividends should not exceed:
    - 30 % of the value of the additional membership fee made by the shareholder within 1 fiscal year;
    - 15% of the value of the membership fee of the associated member within 1 fiscal year;
    - 30 % of the value of the obligatory membership fee made by the shareholder within 1 fiscal year

14. Cooperative income is:
    - Part of the contribution made by the associated member;
    - Part of the shareholder's income;
    - Part of the shareholder's profit

15. Which of the below-listed is not a fundamental principle of the cooperative;
    - Independence;
    - Voluntariness;
    - Economic participation of the members;
    - Receipt of the cooperative gains (profits);
    - Democratic principles of management

16. The agricultural cooperative is the only business union that is allowed by the Georgian legislation to:

- Obtain untaxable grant;
- Not be levied with profit tax;
- Be VAT exempt

17. Which of the below-listed traditional forms of the cooperation would ensure creation of the added value?
    - Joint labor
    - Joint dairy production
    - Herd / stock farming

18. In what kind of cooperative the shareholder can't retain its economic independence within the cooperative boundaries?
    - Industrial cooperative;
    - Mutual aid cash-box;
    - Service cooperative

19. Constitution of which below-listed countries provide regulations supporting the cooperatives?
    - Belgium
    - Italy
    - France

20. Which of the internationally recognized documents approve the fundamental principles of cooperatives?
    - Recommendation # 193 on "Supporting Cooperatives,", issued by the International Labor Organization (ILO);
    - Statement of Cooperative Identity, promulgated by the International Co-operative Alliance (ICA) (Manchester, 1995);
    - Resolution of General Assembly of UN Food and Agriculture Organization (FAO) made in 1997

21. Which of the below-listed does not belong to the key principles of agricultural cooperatives:
    - Activities within the certain territorial boundaries;
    - Economic participation of the shareholders of the agricultural cooperatives;
    - Social responsibility, justice and mutual aid

22. Which of the below-listed normative-legal acts defines the principle: "Each member has one vote. The cooperative charter may define the different distribution of votes":
    - Law on Agricultural Cooperatives'
    - Civil Code;
    - Law on Entrepreneurship

23. Based on the Law on Agricultural Cooperatives, which of the below-listed does not belong to agricultural activity:
    - Selling of the products of the cooperative members;
    - Production of the packing materials for the products produced by the cooperative shareholders;
    - Transportation of the cooperative shareholders' products

24. To which members of the cooperative are applied the restrictions, stipulated by the law, related to the distribution of the dividends:
    - Cooperative shareholder
    - Cooperative associated member
    - Both

Annex 3. Knowledge on basics of agricultural cooperatives by region and gender

Knowledge by Region	Men (N=701)			Women (N=123)		
	pre-test	post-test	sig.	pre-test	post-test	sig.
	%	%		%	%	
Adjara	59%	72%	***	74%	90%	*
Guria	50%	62%	***	57%	60%	ns
Imereti	52%	70%	***	52%	75%	**
Racha-Lechkhumi-Kvemo Svaneti	51%	69%	***	45%	70%	***
Samegrelo-Zemo Svaneti	52%	68%	***	53%	60%	*
Kakheti	54%	68%	***	55%	71%	**
Kvemo Kartli	49%	75%	***	45%	76%	***
Mtskheta-Mtianeti	52%	74%	***	57%	76%	***
Samtskhe-Javakheti	47%	65%	***	46%	68%	***
Shida Kartli	57%	72%	***	53%	70%	**
Tbilisi	47%	64%	**	46%	75%	ns

Annex 4. Evaluation Form

Capacity Building to the Agriculture Cooperatives Development Agency (ACDA)
Project Number: Europe Aid/136454/DH/SER/GE

Training Evaluation Questionnaire for Cooperatives (4 Basic Modules)

Note: Fill in at the end of fifth day session

Please provide your opinion about the delivered training and answer the below-listed questions

In the table below, the 5 (very important) is the max. and 1 (not at all) is the minimum evaluation score

Service Provider:	
Region, Municipality:	
Group Number:	
Address of Training Location:	
Date:	

1. A. Overall Training Course Evaluation	
How would you evaluate the training course	5 4 3 2 1
Has the training met your expectations?	5 4 3 2 1
What is your satisfaction level with the course content?	5 4 3 2 1
Are you satisfied with the course materials?	5 4 3 2 1
Are you satisfied with usage of the visual aids?	5 4 3 2 1
How would you evaluate the applied training methods?	5 4 3 2 1
How would you evaluate the course duration and number of hours allocated for the course?	5 4 3 2 1
Will you be able to use the gained knowledge while fulfilling your daily tasks?	5 4 3 2 1
1. B. Training Modules' Evaluation	
Please indicate which of the course modules were especially important and beneficial for your activities	
Fundamentals of agricultural cooperative	5 4 3 2 1
Organizational Development cycle and tool-kit (ODT) for agricultural cooperatives	5 4 3 2 1
Legal Regulations of Agricultural Cooperatives and Rules of Internal Relations	5 4 3 2 1

Agricultural Cooperatives Organizational Capacity Assessment Tool (OCAT)	5 4 3 2 1

2. Evaluation of the Training Oganization / Service Provider	
How was the training organized?	5 4 3 2 1
Are you satisfied with training facilities and environment? (training room, equipment, etc.,)	5 4 3 2 1
Are you satisfied with training timing (start hrs. and end hrs.)?	5 4 3 2 1

3. Trainer Evaluation	
How the trainer motivated the participants' engagement into discussions	5 4 3 2 1
Knowledge of the subject	5 4 3 2 1
Presentation skills	5 4 3 2 1
Application of diverse training methods	5 4 3 2 1
Readiness to provide comprehensive answers to questions	5 4 3 2 1

Additional questions to support improvement of the training course:

4. Which was the most useful training topic and will you be able to apply the gained knowledge to your daily work?

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5. Which was the less useful training topic, not relevant to your daily activities?

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6. What are the issues you want to have more comprehensive information on?

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7. What are the issues you what to have trainings in the future?

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8. Your Comment

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