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AGRICULTURAL AND RURAL VOCATIONAL EDUCATION PROJECT AVEP

TRACER STUDY OF FIRST GRADUATES 2004, KOCHKOR AND OTTUK



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TRAINEE IN AVEP**

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Abbreviations

AVEP	Agricultural and Rural Vocational Education Project
RAS	Rural Advisory Service
VES	Vocational Education Scheme

1. Introduction

The Agricultural and Rural Vocational Education Project (AVEP) like to achieve the following overall goal:

The project contributes to a locally adapted, effective and sustainable vocational education system for agricultural and rural development that provides graduates with the knowledge, skills and attitudes to manage private farms and business, helping to raise the incomes of people living in the rural space.

In 2001 the project in its pilot phase opted to develop and finance a three-year formal education system for young farmer. Four experimental classes were introduced in two schools, Kochkor and Ottuk, in the Naryn Oblast. Every school had an equal number of women and men between 16 and 25 years old and were separately taught in class of 25 students. In June 2004 the first 78 graduates were assessed in final theoretical and practical tests.

1.1. Objectives of tracer study

This tracer study of the first graduates describes the project impact at the level of the final beneficiaries.

The most important information that AVEP wanted to obtain from the tracer study was the following:

- How is the situation on the graduate's farm?
- How it is the influence of the graduates to their surrounding? How is the perception of villagers about Agricultural Vocational School?
- How is the reputation of the Agricultural Vocational School? How do the graduates evaluate their education?

Another aim was to have a quantitative evaluation on presenting how many graduates work on their farm or others who have left the village.

Following, the results will assist in the planning of the second phase of the project in Mai 2005 to implement improvements in VES, Curricula and textbooks.

2. Methodology

The main target group of the tracer study were the first graduates from the experimental classes in Ottuk and Kochkor. There were 35 graduates from Kochkor and 43 graduates from Ottuk. The interview team was composed of a trainee from Swiss College of Agriculture and a translator. To having an overview about the opportunity of graduates after their education, the interview team, tried to visit as many graduates as possible. A Coach accompanied the interview team from each Vocational School, who supported the graduates during their education and knows where they are living now.

The tracer study was an informal survey, which included a semi-structured interview and direct observation of the graduate's farm. For the survey synthesis based on the interview and observation the SWOT method was used to present the feedback and experiences from the graduates.

Not only graduates were interviewed, but also villagers who are living in the same village as the graduates. For the semi-structured interview of graduates and villagers the interview team elaborated a topic guide which is added in the Annex 1 and 2.

3. Results and Observation

3.1. Description of graduate's farm

3.1.1. Kochkor

On most farms of the graduates 3-7 adults and 2-3 children live in household and are dependent of the farm income. Some farmer graduates have taken over the responsibility of the farm, but they live together with parents and share the farm income. Most woman farmer graduates who are farming live on husband farm.

On average the graduates cultivate 3 to 6 ha of land. Most of them rent one part of their land. On the cropland graduates cultivate frequently potato, wheat, barley, lucerne and esparcet. Many graduates make vegetable production such as carrot or cabbage. Regarding fruit growing they have among other things currents, apples and apricots. Some graduates have planted new apple and apricot trees, another graduate will increase his strawberry production.

For cultivation, most of the graduates hire the machines or make their fieldwork with horses. Only few graduates have their own tractor. Two farmers bought a tractor after graduation. One of them paid the tractor with the benefit of his project work in barley production. The other graduate had to sold all his animals for buying his tractor, but he will do contract labour with his tractor. Two graduates own a van/lorry for transport.

Concerning livestock, the number of animals per farm varies from 20 to 130 heads. In average graduates keep 2-20 cows, 20-50 sheep (one woman graduate 100 sheep), 5-40 goats, 1-8 horses, sometimes donkey or poultry. The difference between the numbers of animals is dependent of the parent's or husband's fortune. But some graduates have already increased the number of animals since graduation. Some of the graduate will move or have already moved to jailoo during the summer. Others give their animal to shepherds.

Graduates from Kochkor mentioned that they sell wheat, vegetables, potato or animals. One graduate sells kymys and goat wool, another is selling fruits. Rather graduates sell milk products. As a result a lot of farming products are used for own consumption.

3.1.2. Ottuk

Like in Kochkor, about 3-8 adults with 2-3 children live in the same household. All woman farmer graduates, who live on a farm are married. Concerning farmer graduates, some are married and others live on parent's farm. Some of them are separated from parent house. One reason is that farmers in Ottuk have houses without stables, so the stables are located outside of the village. Therefore one part of the family, parent or brother, take care about livestock and the other are responsible for crop production. Because of Kyrgyz tradition the youngest son takes over the farm, some graduates have to leave their farm in future. For this reason some farmer graduates are working in Bishkek.

As well the land for crop production is not available in Ottuk village. The field of the graduates are situated in "Kara-Talaa" about 40 km far form Ottuk. There is a different situation for graduates who are living in the neighbour villages "Echki-Bashy" and "Kuibyshev". The fields are about 4-8 km far from farm.

For land tenure, graduates own 0.25-3.5 ha of land for crop production. Three farms are cultivating about 6-7 ha. Some of them rent one part of their land. The main products are potato, wheat, barley, lucerne and esparcet. Less than in Kochkor, graduates are cultivating vegetable because of lack of land around farm and the Ottuk area is less suitable for vegetables. Concerning horticulture, a lot of the graduates have or will plant new fruit tree or bush fruit.

As in Kochkor, every graduate has to hire the machinery for fieldwork. Only one of the visited graduates owns tractor, combine and other equipment.

Not all graduates are keeping livestock, because they have no stable or enough money. In some case other farmers care about the graduate animals. The other graduates have about 1-5 horses, 1-10 cows, 20-50 goats and sheep, chicken or turkey. The biggest farm is keeping 50 cows, 60 sheep, 50 goats, and 20 horses.

Some graduates are producing for own consumption, other have possibility to sell livestock, for example calves, colts or goat wool. Further selling products are potato, wheat, barley, vegetables as carrots. Few graduates sell milk products as milk, ayran (yoghurt) or butter. A group of 4 woman farmer are producing together handicraft. At the moment they made handicrafts to order from a deputy. But they are looking for a further possibility to sell their products.

3.2. Quantitative Results

The quantitative result of this tracer study is only an indicator and not a statistical evaluation. For interpreting the graphics below it is important to get to know how many graduates were included in the evaluation. Additionally, the graphics represent the difference between the two Vocational School and gender.

3.2.1. Kochkor

For Kochkor, all 35 graduates, 16 woman farmers and 19 farmers, were planned to be visited for the tracer study. Out of 35 graduates 22 graduates are living on their farm. The interview team met 7 woman farmers and 12 farmers and 3 graduates were not at home.

One woman farmer lives very far from Kochkor and could be not been visited. One graduate is in the army. The 11 remaining graduates, 7 woman farmers and 4 farmers, are studying or working in Bishkek, mainly. Therefore, the tracer study team went to some parents of the graduates to ask about their son or daughter current occupation.

The quantitative synthesis of Kochkor is represented in the Figures below. The Figure 1 shows that 63% of the graduates live on farm with their parents, but some have already taken over the responsibility of the farm. Most woman farmers live on husband's farm. Four graduates are in Bishkek to continue their studies, two in Agriculture, one in Electricity and another in Computer and English, represented in Figure 2 and 3. Further, one fifth of graduates, mainly women, are in Bishkek to earn money. For example, they work in factories or sell handicrafts. One woman is working in a credit agency near the Issyk-Kul. This spring or summer some farmer graduates will return to their farm for field work. Concerning women farmer, parents said that their return from Bishkek depends on the prospective husband.

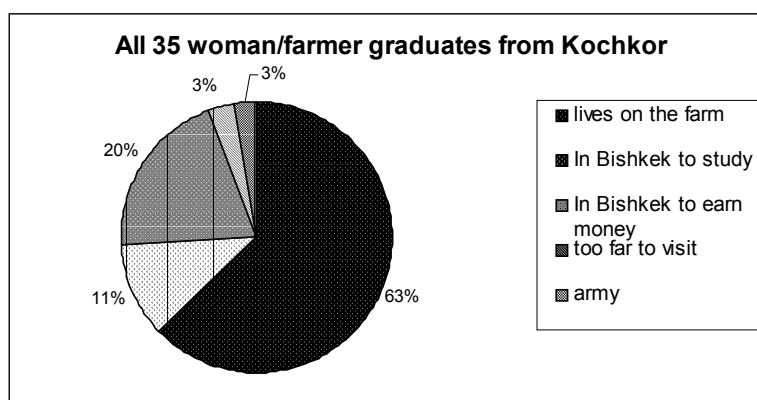


Figure 1: All 35 woman/farmer graduates from Agricultural Vocational School in Kochkor, 2005

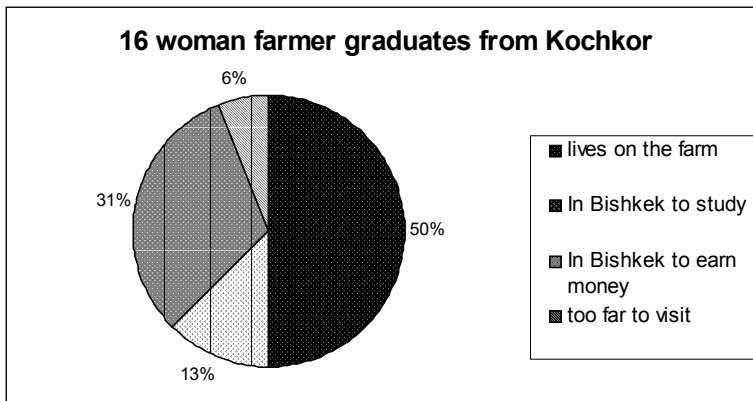


Figure2: 16 woman graduates from Agricultural Vocational School in Kochkor, 2005



Figure3: 19 farmer graduates from Agricultural Vocational School in Kochkor, 2005

3.2.2. Ottuk

In all, 43 students, 20 woman farmers and 23 farmers, graduated in Ottuk Vocational school. During the tracer study the interview team found out that 21 graduates are living on farm. The tracer study team met 8 woman farmers and 11 farmers and two graduates weren't on farm at the moment.

Three graduates are working in Ottuk: as poultry teacher in Vocational School, as a secretary. In addition both of them are active in farming. One farmer graduate is selling petrol and oil. About 15 graduates, 9 woman farmers and 6 farmers, have left Ottuk. The interview team met some parents of these graduates and find out that most of them are working in Bishkek or in Chui Oblast.

The four remaining graduates, two of them are living in Naryn, but their home address and occupation is unknown. After tracer study the trainee met one woman graduate in Naryn who is working as a supervisor in the school internat. And because of far distance two farmer graduates weren't visit.

The figures below indicate the quantitative synthesis of Ottuk. In Figure 4 it can be seen that from all graduates 46% live on their farm. In comparison between woman farmers and farmers 57% of farmers and 40% of woman farmers are doing farming. These women farmers are all married and live on husband's farm. It must be said that in Figure 5 10% of woman farmer who are working in Ottuk are besides running a farm or cultivating some land. 45% of woman farmers and 26% farmers are working in Bishkek or Chui Oblast. Mainly, women are working in factories, restaurants or shops and men as construction worker.

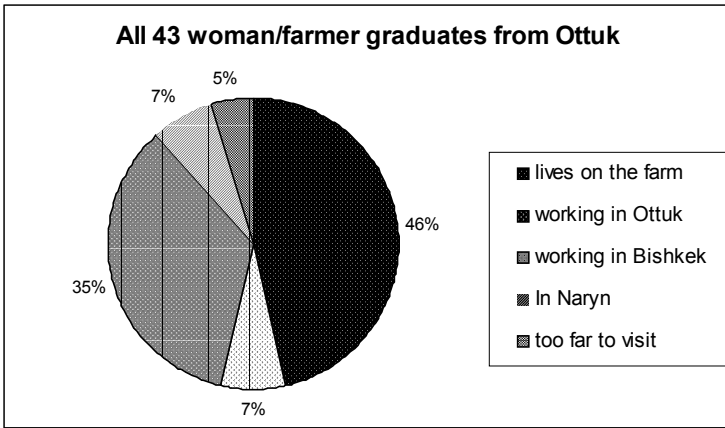


Figure 4: All 43 woman/farmer graduates from Agricultural Vocational School in Ottuk, 2005

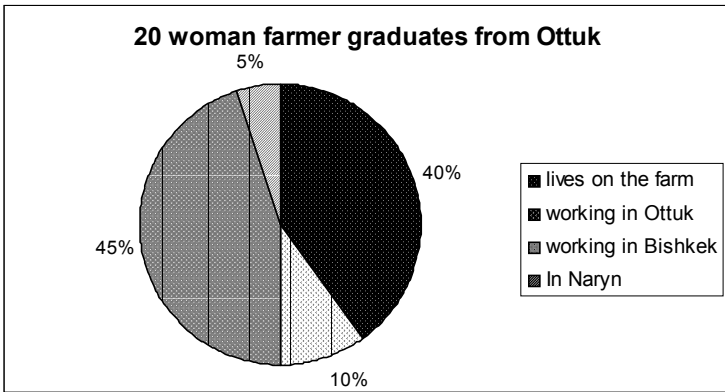


Figure 5: 20 woman farmer graduates from Agricultural Vocational School in Ottuk, 2005

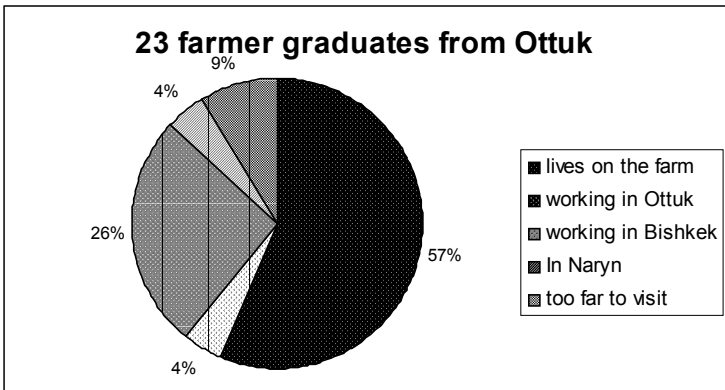


Figure 6: 23 farmer graduates from Agricultural Vocational School in Ottuk, 2005

3.3. SWOT analysis

The SWOT analysis is used as a tool to analyze the answers from the semi-structured interview and the observation of graduate's farm. Further, this analysis shows the success, weakness, unused potentials and obstacles of the Agricultural Vocational School and of the graduates farming life.

Because of similar results, the first part of the SWOT analysis present results from Ottuk and Kochkor in a summarily way. Specific outcomes are mentioned separately for each of the two schools in the second and third part of this chapter.

3.3.1. Summarily SWOT analysis Ottuk and Kochkor

Successes:

- Graduates use their knowledge in their daily activities; see below;
- Graduates have a better knowledge than non-graduate farmers because graduates can give advice to parents and non-graduate farmers or argue in specific agricultural topics;
- Graduates recommend vocational education to friends, siblings and descendants;
- Graduates who are on farm are motivated and want to continue working as a farmer in future;
- Textbooks are useful and clear/distinct during and after education not only for graduates, but also for parents, friends and neighbours;
- Agronomy knowledge/skill is used by graduates on their farm for example crop rotation, using manure for example horse manure, treatment of seed, way of cultivation, judgment of seed quality, producing compost or humus, using wood ash, etc.
- Graduates prune fruit trees and some planted new seedlings;
- Valuable knowledge about and cultivation vegetable; for example to plant carrots in ridges;
- Livestock education is useful for daily farming life: animal breeding (goat, sheep, cattle), husbandry (for example feeding the animals) or poultry (hen-house, nests);
- Graduates learnt to build stables and houses→some have already enlarged the stables or are building new stable;
- Project Work or Business Plans gave a lot knowledge to graduates; possibility to receive a credit, to try out new variety or breed, to make a profit and can be used after education for example the seed or the breeding animals;
- Graduates are motivated in working with credits, because in one hand it is a need for them, in another hand they know more or less how to work with credits and they are not afraid to get a credit;
- Not only woman farmer but also farmer are still producing handicrafts and selling them;
- The relation between theory and practice in teaching lessons was well balanced;
- Woman farmers can use the household knowledge;
- Graduates liked the processing topics;
- Accounting, management, economics and marketing knowledge can support farming business;
- Education was a big benefit for older graduates because they are more conscious about how to use their educational knowledge on farm;

Weaknesses:

- Some graduates are not at farm; especially graduates who are not yet married or oldest sons are working in Bishkek or in another places to earn money;
- Graduates don't try by themselves to take a credit;
- Apprenticeship was too long and too boring; no new knowledge from the coach farmer because he is not well informed about or didn't met the criteria of apprenticeship; for example coach farmer used student as a labour and didn't teach him/her new knowledge or coach farm was only active in livestock and not in plant production;
- Not enough content in the textbooks: too little additional information from the teachers;
- Less support from AVEP in the third year; less meetings with students;
- Coaches or teachers gave wrong information about giving credits with low interest to graduates → during tracer study graduates asked: "Why you don't give us a credit?"

Obstacles:

- No available credit after graduation from school (credit agency);
- Difficult to get a credit; credit agency didn't accept collateral for example the house;
- Lack of finance on farm; no possibility to buy new seed, suitable animals for breeding, medicine, mineral fertiliser, etc.
- Oldest son can't take over the farm → some graduates have to leave parent's farm → non finance to buy house or land → go to Bishkek to earn money;
- Lack of machines: graduates have to hire the machines;
- Machinery is in bad conditions;
- Low price of potato, high price for wheat seed and fuel;

Unused potentials:

- Training after graduation → consolidation of topics for example in livestock (breeding);
- To support graduates to get a credit: inform the graduates about financial institutes who offer credits to villagers and their requirements;
- Credit agency from Agricultural Vocational School can provide a credit for graduates;
- More information and training about apprenticeship for Coach farmer;
- Instead of a Certificate, the graduates receive a Diploma;
- Increase teaching quality; more training for teachers to improve practice in theoretical lessons;
- More detailed content in the textbooks;
- More lessons in sewing or handicrafts → introduce sewing or handicraft specialisation/education.

3.3.2. Specific SWOT analysis Kochkor

Success:

- Some graduates are building new stables and houses on another place and they will move there;

- Two graduates realised a magazine; one farmer graduate is selling food and a woman farmer beverage additionally to the bath for villagers that she opened;
- With benefit from project work one graduate bought a tractor;
- Method of teaching was interesting → a lot of games in the lessons;
- One woman graduate liked the teachers very much and had good relation with them during education;
- One woman graduate has 4 apprentices on her farm;
- One woman graduate could treat foot and mouth disease → sick animals survived;
- Many graduates have changed the animal breeding: goat, "gisar" (fat tail sheep), horses or cattle breeding.

Weaknesses:

- Only certificate and not diploma after gradation;
- Three years education is too short;
- Too less practice lessons and not enough visualization for example how to drive a tractor, about erosion, how to treat plants and livestock;
- Lessons/apprenticeship in April and May; students have to work at home on their own field;
- Household topic too short treated;
- Scholarship came late.

Obstacles:

- Lessons during April and May: graduate missed the lessons because of work on her/his farm;
- AVEP is supporting too many Agricultural Vocational School in Naryn Oblast → less support and less money for each school;
- Friends of graduate went to AVEP school, but they left school because it was too difficult;

Unused potentials:

- April and May holidays instead in summer July and August;
- English courses be included in the education;
- New computers and starting with computer lessons;
- Student Field Schools → students can observe diseases and pest and learn how to treat them;
- More Veterinary education;
- More information about strawberry production/honey production;
- More training in "relationship between teachers and students";
- For better understanding some pictures in textbooks should be coloured for example in breeding;
- Practice abroad;
- Five years education.

3.3.3. Specific SWOT analysis Ottuk

Success:

- Processing lessons are useful for the graduates for example one farmer graduate can prepare food himself;
- For some graduates apprenticeship was useful: for example they learnt to give birth to sheep and goats, new knowledge about poultry, learnt to construct buildings and how to milk cow and horse;
- Useful knowledge in poultry; one graduate has turkeys, woman graduate is teaching poultry and parents-in-law from one woman farmer mentioned the useful education in poultry;
- One year apprenticeship is useful because of different farming activities during the year;
- Good relation between theory and practice;
- Graduates are able to recognize animal illnesses and to treat them (to choose medicine, to make injections);
- Good support during education with scholarship, transport, food etc.
- Graduate learnt to plan and analyze farm activity and make business;
- It is easier to hire machines because the graduate learnt to make contracts;
- Graduate knows how to use and apply chemical treatments;
- Graduate is interested to work with RAS especially goat breeding;
- Four woman graduates are producing together handicrafts and sell them;
- Some graduates who are living on farm, would like to continue their agricultural education in Institutes or University;
- Even graduates who are working as a teacher and secretary are active in farming in addition.

Weaknesses:

- A lot of repetition instead of consolidation;
- Old infrastructure of the school building and school farm: too small rooms, dormitory is in bad condition, old machines for demonstration and no new trials in animal breeding;
- Not enough discipline of teacher and director regarding students absences;
- One graduate had a low yield in the project work→For paying back the credit she had to sell their animals;
- Apprentice farm too close from home→similarly activity as on home farm;
- Coach didn't visit the apprentice;
- With the certificate graduates can not find a qualified job.

Obstacles:

- For Ottuk farmers fields for crop production are situated far from village→about 40 km from Ottuk;
- Woman graduate bought carrot seed→plant didn't grow;
- Some graduates who are living in Ottuk village don't have a stable and few land around the house;
- Many graduates may leave the Ottuk if they don't have own farm and land.

Unused potentials:

- Instead of repetition more consolidation in different subjects;
- Better relation between the students and the director;
- Put the law lessons in the first or second semester;
- The teachers should be more motivated→students don't leave the lessons;
- More practice lessons to motivate students to study;
- Specialisation as shoe maker;
- Specialisation as hairdresser;
- Scholarship during apprenticeship;
- Lessons about car driving;
- After graduation exchange days with other graduates or farmers;
- More business and management lessons;
- Processing specialisation;
- Investment in the school infrastructure;
- Apprentice farm should be far from home to see different farming activity;
- Exchange with Swiss farmer students.

4. Discussion

For describing the project impact at the level of the graduates, the discussion of observations, quantitative evaluation and SWOT analysis is presented for each leading questions of the tracer study:

- **How is the situation on the graduate's farm?**

The quantitative results showed that more graduates from Kochkor are living on farm than in Ottuk. There is an equal result if you compare the occupation of woman farmers between both schools. Half of them are active in farming if you count in addition the woman farmers in Ottuk who are working besides as teacher and secretary. In comparison with men more farmer than woman graduates are working as farmer. Mainly woman farmer are married and live on husband's farm and single women are studying or working in Bishkek. Concerning farmer graduates most of them live with parents and will take over the farm in future if they are the youngest son. Otherwise the oldest sons have to look for another farm and for this reason some graduates from Ottuk are working in Bishkek. As a result this will be a threat for the future if the graduates don't have their own farm and enough land that he will leave the village. Additionally some farmer graduates from Kochkor who are working in Bishkek will return on farm for field work.

Further the tracer study showed some differences between the conditions of farms in Kochkor and Ottuk. Most graduates who are living in Ottuk village don't have a stable or livestock and the crops field are situated 40 km far from the farm. Furthermore it is more difficult to care about the crops and to keep livestock than in Kochkor. However Ottuk graduates who are living a bit further from village or in another village have same conditions as Kochkor farmer.

But there also some points which are valid for all graduates who are living on the farm. So graduates who actually live on farm are motivated and would like to work as a farmer in future. Since their education as a woman farmer/farmer they have a better knowledge about the farm activity.

Most graduates use the skills they learnt in Agronomy or Livestock lessons. Mostly Kochkor graduates mentioned that they have made changes in animal breeding. Furthermore they concentrate their breeding for one species for instance for wool goats, "gisar" (big tail sheep), cattle or horses. These changes in breeding have been less executed by the graduates from Ottuk. One reason could be the lack of money that the graduates didn't have the possibility to improve their breeding. Another reason is the lack of **thorghoubred** (breeding stock); one graduate from Kuibyshev village would like to improve his goat breeding but he needs help and will apply RAS. But the Ottuk graduates have more knowledge in veterinary medicine, more details are described below. On the other hand the knowledge in Agronomy is used by all graduates, Kochkor and Ottuk. They are doing crop rotation, using new varieties and manure if possible, producing compost and humus. For Ottuk graduates where their field are far from farm it is not possible to put organic manure.

By the visits it was observed that some graduates have planted new fruit trees. This shows that graduates could profit from their education in horticulture. Additionally graduates are mentioned that they know how to prune and care about fruit trees. One graduate from Kochkor would like to increase his strawberry production because he thinks there is a gap in the market of strawberries in village. Also some graduates, especially from Kochkor, are using their knowledge in vegetables production in practice. For example one graduate sowed his carrots in ridges and one woman farmer presented her well-growing cabbage chits. Another woman farmer told that she is using the vegetable seed which her teacher gave her. In another case a woman farmer graduate from Ottuk bought new carrot seed but the carrots didn't grow.

As well the observation showed that some graduates from Ottuk and Kochkor schools have improved or increased their infrastructure on farm. As a result these changes were influenced by the agricultural education, because many graduates learnt in apprenticeship how to make brikes and build walls, stables and houses. Additionally in future many graduates would like to enlarge and improve their stables by increasing their livestock. Even few graduates will move to another place where they are building a new stable.

But the tracer study also showed that the using of new agricultural knowledge has obstacles. Many graduates expressed that they are not able to realize changes on their farm because they are limited in finance. For instance they can't buy better seeds, suitable animals for breeding, machines, etc. Supplementary some graduates would like to realize small business like opening a small noodle factory or the oldest sons to buy his own farm. On the other hand there were also graduates who mentioned that money is not a problem on the farm. For example, one graduate from Ottuk will organise in future a technical service with machines. That means he hires all kind of machines who are needed for field work from the plough to the combine. And he will to continue to do contract labour.

Consequently many graduates would like to receive a credit from the Vocational School or the AVEP Project. The graduates complained that is no more support from School or Project since their graduation. Especially graduates from Vocational School in Ottuk expected that they will receive a credit after their graduation. Maybe this is a result of wrong information from Coaches or teachers during education about giving credits with low interest after graduation.

After questioning the farmer if they tired to get a credit by your own they answered that there are enough local financials corporations but their requirements are very demanding. For example they demand a lot of documents and collaterals. Often the credit agency didn't accept the

house or stable as collateral, because they were not registered, combined with other houses or in bad conditions. Additionally the interests are very high between 16 and 18 percent per year and some financial corporations demand the interest during the credit period. Also there was the impression that the graduates didn't receive enough information during their education how to get a credit.

➤ **How it is the influence of the graduates to their surrounding? How is the perception of villagers about Agricultural Vocational School?**

The graduates have a positive influence to their surrounding, because there are able to give advice to parents and other non-graduates farmers. Furthermore all graduates recommend the agriculture education to friends, siblings and descendents. Some of them followed the graduate's recommendation and are studying at Vocational School now. As a result it can be said that people started to realize that the education in the Agricultural Vocational School is very useful for the young generation.

Additionally parents and friends are interested to read the textbook form the graduates. As a result the teaching materials are simple and clear for villagers.

Concerning the results of the interviews with villagers there are different opinions. Not all Kochkor villagers know the Agricultural Vocational School. But most people know Helvetas. One villager said thank you by Helvetas for implementing the knowledge about growing esparcet and clover. But he wants to know more about cheese production, because he thinks there is a demand for cheese. Further he mentioned that Agricultural Vocational School is a needed because of changed system; people have to understand the capitalism system. Additionally Vocational School should teach how to cultivate land; how to put input and not only take output as most farmers are doing now. Another villager heard about AVEP Project and will send his children to this school, because he knows that school pays scholarship. People who are working at the bazaar heard good things from students about Agricultural Vocational School. One villager mentioned that this School has a good reputation because the students receive credit with good conditions. Mostly all villagers agree that the farmer profession is useful and important in village. About the question which profession the villagers would like to learn, men answered: construction, electricity or carpenter professions. But on the other hand they think it is difficult to find work in the village. Girls are more interested in sewing, teaching, computer or medicine education. One man who is working in local tourism office and propose to inform farmer students about tourism activity, because he thinks tourism could be an extra income for farmers. He also think that handicraft specialisation at Vocational School would be useful if there is a demand on the market. A police man believes that there are some unused potential for example poultry farming or fish production in the region and proposed to implement credit system in which several persons receive together a credit and run a business.

As in Kochkor villagers in Ottuk think farmer profession is important in villages. Most people heard about AVEP school and know students who are studying agriculture. Also one villager mentioned that it is a good education for young people, because it is better if they are learning a profession instead of hanging around. A mother of a graduate said that sewing specialisation at Vocational School would be useful. But she also mentioned that the discipline at Agricultural Vocational School should be improved and thinks teachers are not enough specialists in their teaching subjects. Other villagers proposed to implement hairdresser, shoemaker or processing specialisation. Students from Secondary School, especially girls are not interested to study farming. They mentioned that only bad students are going to Agricultural Vocational School in Ottuk. Villagers from further village from Ottuk said they have only knowledge about farming from practice. Women would like to learn to sew and make handicrafts, but the courses should be take place in their village and not in Ottuk.

Consequently the interview with villagers showed that the perception of Agricultural Vocational School in Kochkor is better than in Ottuk. This perception is more influenced by the management of school than of the education itself, because the graduates from Ottuk are satisfied with their education. But some graduates criticize the management of school and the engagement of director and teachers since their graduation.

➤ **How is the reputation of the Agricultural Vocational School? How do the graduates evaluate their education?**

In general the reputation of the agricultural vocational education is positive because the graduates liked their education, above all the lessons at school. Some graduates who have already studied agriculture before the AVEP project started are convinced that "Soviet time agriculture knowledge" was not enough. This study was not helpful for farmer practice because it was very scientific and theories didn't coincide to the need of farmers.

A big contribution to this success was achieved by new implemented textbooks. The graduates evaluated these textbooks as useful and comprehensible not only during education but also after graduation. Some graduates mentioned that the information are not enough consolidated. Furthermore, some graduates criticize the lack of additional information from teachers apart from what is in the textbooks. For example some graduates from Kochkor didn't receive much information about veterinary medicine.

Concerning teaching methods, most graduates mentioned that the relation between theory and practice was well balanced. Individual graduates from Kochkor, mainly men, criticized that were to little practice lessons and not enough visualization. One reason could be that woman farmers have potato and vegetable lessons during 2nd semester and farmers in the 3rd semester. Additionally graduates from Kochkor proposed to have holiday in April and May instead in July and August, because in spring students should help for field work and were absent in the lessons. Further most graduates from Kochkor missed English and computer courses. Some Ottuk graduates mentioned that some subjects were repeated instead to receive more detailed information. Some graduates from both schools would like to have more training in different topics like livestock or agronomy to consolidate their knowledge.

Another big benefit of the education was the project work. Mainly all graduates mentioned that they could make a profit with their project. It was very useful to receive a credit, because they could try out new varieties or animal breeding. Some graduates are still using the seed or are keeping animals from project work. Consequently, most graduates mentioned that they would like to receive a credit from school or the AVEP project now.

The evaluation of apprenticeship was less gratifying. Many graduates from Ottuk and Kochkor mentioned that the apprenticeship was too long and too boring. So a lot of them think it would be better to shorten the apprenticeship from spring until autumn. Additionally some graduates didn't learn new things during apprenticeship because the coach farmer was not well qualified. Furthermore the coach farmer used the student as a labour and was not motivated to teach something to students. Maybe the selection of coach farmer was not well done because one graduate from Ottuk told that his activity in apprenticeship was only livestock and no fieldwork.

5. Recommendations

The results and the discussion of the tracer study caused some recommendations. The first part will present proposals for the Vocational School in Kochkor and Ottuk and the second part concerns recommendations for the AVEP Project. Additionally the following recommendations should be considered in the planning of the second phase of AVEP Project.

Some proposals were already mentioned in the SWOT analysis in the part: Unused potentials.

5.1. Vocational School in Kochkor and Ottuk

- ✓ Agricultural Vocational Schools should use graduates in promotion campaigns for attracting new students: for example Demonstration day at school, visits in Secondary schools to do information campaign;
- ✓ More information and training about apprenticeship for Coach farmer → qualified Coach farmers;
- ✓ Potential graduates can be selected as Coach farmers and educate apprentices;
- ✓ Apprenticeship can be shortened: beginning of field work until harvest in autumn;
- ✓ More information about RAS to attract the graduates to their trainings/workshops → even graduates can work as a village consultant;
- ✓ During education to provide the information about financial institutes who offer credits to villagers and their requirements;
- ✓ School credit agency can provide a credit for graduates;
- ✓ Increase teaching quality:
 - teachers participate in trainings for teachers
 - teachers improve practice in theoretical lessons → lessons in the fields
 - more additionally information in the textbooks given by the teachers
 - to prevent repetition and make consolidation in different topics
 - put the Farmer profession lessons about potato production, horticulture & vegetable production in summer semester (2nd semester) instead 3rd semester
 - improving of school farm (implement new breeding, improving machinery)
- ✓ To offer additional professions/specialisations to attract and motivate students:
 - Handicraft specialisation
 - Sewing specialisation
 - Processing specialisation
 - Mechanic specialisation
 - Advisory specialisation
 - Car- or -tractor driver specialisation
 - Tourism specialisation (guide, host farm or jailoo)
 - Carpenter
 - Constructor
 - Electrician
 - Hairdresser
 - Accountant

5.1.1. Kochkor

Specific recommendations for Vocational School in Kochkor are mentioned in chapter 3.3.2. in paragraph unused potentials.

5.1.2. Ottuk

Specific recommendations for Vocational School in Ottuk are mentioned in chapter 3.3.3. in paragraph unused potentials.

5.2. AVEP Project

- ✓ Support schools in implementing new professions/specialisation;
- ✓ Support schools with training in teaching quality;
- ✓ Support apprenticeship→Revision of duration and coach farmer selection(including graduates, coach farm in another Oblast), more trainings for coaches at school or Coach farmers;
- ✓ Elaborating a concept to facilitate the access to credit for graduates in collaboration with credit agency from school and local financial corporation;
- ✓ Revision of textbook→more content or consolidation;
- ✓ Selling the textbooks to students, graduates and interested people;
- ✓ Exchange with Swiss Agricultural Vocational School;
- ✓ Implementing of system that graduates can go to university and continue their studies.

Annex 1:**Topic guide for graduate****Situation on the farm****Quantitative questions:**

- How many people live in your household? (number of people who are dependent on the farmers income)
- How many animals do you have? What kind of animals?
- How many hectares of land do you own? (Land tenure: private, cooperative, etc.)
- Which crops do you cultivate?

- Since your graduation, have you taken over the farm from your parents or have you worked for your father?
- Have you changed something since you are back from school? When non, why not?
 - Breeding
 - Infrastructure
 - New machines
 - Way of cultivation (new seed, crop rotation, fertiliser, etc.)
- Which products do you sell? Where?
- Do you have difficulties in your daily farming life?
 - Irrigation
 - Animal illness
 - Machines in bad conditions, lack of machines
 - To get new seed
 - Price of crops, fuel, seed, mineral fertiliser
 - Access to credit
- Do you like to have more education (University) or training (Advisory Services)?
- Do you meet other graduates? When yes, do you exchange your knowledge form your vocational education with her/him?
- How do you see your farm in five years?
- In the future will you stay on the farm and keep/remain farmer?

Evaluation of the vocational education

- Why did you apply to agricultural vocational school?
- Did agricultural education justify your expectations?
- Which topic in your education did you like the most?
- How was the relation of practice and theory? Is the practice part useful for you now on the farm?
- Did you like the way of the teaching? How were the teachers in this school?

- What can you use from your education on your farm?
 - General education (Law, Economics, Science, Calculation)
 - Management and infrastructure (Mechanisation, Accounting)
 - Livestock (Breeding)
 - Agronomy (Soil science, crop production, fodder production)
 - Marketing
 - Handicraft and household
- Did you miss something in your education? What would be useful for you now (not enough practice in school)?
- Do you have proposal for changes in the agricultural vocational education?
 - Curriculum (Subjects, Topics) → Farmer profession: no potato production, horticulture & vegetable production in summer semester (2nd semester)
 - Theoretical lessons
 - Practical lessons → Farmer profession: Cereals and fodder production in 2nd semester OK?
 - Project works → which topic? Can you need it now?
 - Apprenticeship → how was the knowledge of your Coach farmer?
- What do you think about a shorter education than three years? Which part would you leave out?
- Would you recommend the agricultural vocational schools to your friends?
- Give you advice to your neighbour farmer about what you learned in the agricultural education?
- Imagine you are the director of the school, what would you change?

Annex 2:**Topic guide for non graduate (villager)****Graduates Reputation**

Do you know somebody who studies/studied in the agricultural vocational education school with the new vocational educational scheme introduced by the Helvetas Swiss project AVEP? Did he tell you something about this school?

Do you think there are/Can you see differences between the graduate farm and other farms in the village?

What do you think, is the farmer profession useful for your village?

What are the main difficulties of the farmers?

What other professions than farmers could you need in your village?

- Construction (roads, buildings, bridges, ...)
- Sanitary facilities
- Electricity
- Administration
- Sewing

If you could learn a profession, what would you learn?