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# Tracer Study of Graduates 2013 & 2014

## from the Northern Agriculture and Forestry College (NAFC)

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A Report by Andrea Schroeter, Education and Development Consultant

April 2015

# Support to the Reform of the Northern Agriculture and Forestry College in Laos (*SURAFCO*)

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## Executive summary

This tracer study assessed the **employment situation** of the graduates from the first two batches educated under the new curricula who graduated in 2013 and 2014, **changes in economic and social situation** after the graduation and the **quality and relevance** of the training programs. The survey was based on quantitative and qualitative questions with individuals and focus group and reached 89 % of all graduates, 126 (31) out of 142 (35). The employers' view is reflected through 31 interviews with projects, Small and Medium (S&M) family enterprises, private and public sector employers.

Graduates include 25% female. The predominating ethnic group is Lao Tai with 57%. Graduates **moved out of rural areas** with only 18% still living in rural area compared to 45% before the studies.

Outlook towards a **good employment, good reputation** of NAFC and **income improvement** have been mentioned as the three core reasons for entering the studies. Surprisingly the lowest score was related to the reasonable tuition fee compared to other institutions, which seems not to play an important role.

The 3-years **training duration** was identified as the **highest obstacle** for enrolment and is a greater burden for female students – reasoning in the fact that female household contribution is still more important. 96% of all female graduates mentioned that the study duration was too long. Also “**social pressure and traditional believes**” are still an obstacle to enroll for 12% of the graduates.

“Livestock and Fishery” is the most popular Major, followed by Agronomy, Forestry and Agri-Business. **Agri-Business** is a still a very new professional profile and offered since 2010 only. The **job profile** is still **not yet very clear** and thus attractiveness not very high. There is a need of further promotion, clarification on job opportunities, e.g. through preparation of more case studies, through connection of students to present graduates working in the field of agri-business.

At the time of the study 61% of all graduates are wage employed, including the majority (51%) employed in the government service and 10% with the private sector. Only 19% opted for self-employment. 2% continued their studies. Overall, **80% are in wage- or self-employment**, which is a good result compared to the previous tracer studies at NAFC and MAF's assessment during the development of the reform strategy. Obtaining a position in the **public administration is considered to be still much more attractive** than working in the private sector or being self-employed. Those job profiles are missing positive role models and general support by the government for the development of S&M enterprises in Laos.

Not surprising is the major concentration in professional profiles on crop and livestock technicians with 22% respective 17% of all graduates. Interestingly the number of graduates posted as crop and livestock technicians within the police or army are increasing and make the third highest percentage with 9% of all graduates. All other professional fields range between 1 and 2 %.

A **striking gender difference** occurred related to **unemployment** – with 12% for male and 33% for female - leaving a total of 18% of the graduates unemployed.

Comparing the situation before the studies the **average income** increased from 655.000 Kip to 1.686.000 Kip at present stage, however differing between the majors and the type of employment and again with an **extreme dissimilarity between male and female graduates**. Female Livestock graduates earn in average only 71% of their male colleagues, 58% in Agro Business and 50% in Forestry. Only average earnings in agronomy are gender balanced.

Most of the graduates (83%) are **satisfied with their present work**, however the satisfaction level of women is again much lower than for men (67% for female compared to 87% for male). 19% of the female graduates are not satisfied with their present work situation with main reasons identified in low salary, employment not according to educational field and not able to apply knowledge gained at NAFC.

These **significant gender inequalities** - related to unemployment, income and work satisfaction - needs urgent attention. It is overall assumed that women and men are treated equal on the labor market, which is proved to be not correct. Those facts shall be specifically considered and addressed by CCU within their further engagement, e.g. through strengthening women so that they are confident to request higher entry salaries that reflect the job market.

Most of the graduates appreciate the **practical focus** and general orientation of the education offered by NAFC. Skills gained through the practice orientated curricula are very much appreciated – by both graduates and employers – and overall skills and practical work performance is more valued compared to graduates from Nabong or Soupanouvong Universities, who are stronger e.g. in report writing or English. Content and subjects identified as most relevant for the present work are:

TOPIC	RELEVANCE
Computer	Basic computer skills are required in nearly all-relevant professional fields. Preparing small excel tables, writing requests or work reports and preparing power point presentations are an integral part of most of the job requirements. Even the remotest work places use computers.
English	Similar to Computer skills, English skills become more and more important. This was mentioned not only by projects and international organization, but also by the government employers from PAFO and DAFO.
Rural & Community Development and Extension	A lot of students work on district or cluster (Kumban) level. Their knowledge and skills in community organization, rural development, communication, group establishment and training are very important. Those subjects are considered essential by most of the students as well as private and public employers.
Agriculture Policy, Laws and Regulations	The framework for policies, laws, rules and regulations are very important for the graduates, especially in the light of new in-country developments, but also the increased boarder trade, related international agreements and within the frame of ASEAN. Those policies and regulation underlie a permanent adjustment and improvement process to cope with new developments.
Reporting	Report writing is essential for all job profiles: reports on field visits, meetings, conferences, study tours, research, monthly-quarterly-or-yearly activities, work performance, marketing, farm activities – the list could be continued endlessly. It was mentioned as highly important by 100 % of the interviewees – graduates as well as employers.
Technical subjects	Some of the technical modules need to be revised or adapted to new developments. Without valuing the present quality of each technical subject, the following courses are of high importance for the constantly changing labor market, especially in the light of the orientation to international trade and ASEAN commitments: Disease prevention, plant protection, new agricultural technologies, agriculture politics, agriculture law and trade regulations.

All related recommendations are summarized in a separate chapter at the end of the report.

## Acronyms and Abbreviations

CCU	Carrier Counseling Unit
CTA	Chief Technical Adviser
DAEC	Department of Agriculture Extension and Cooperatives (former NAFES)
DAFO	District Agriculture and Forestry Office
DGRV	German Cooperative and Raiffeisen Confederation
GDG	Gender and Development Group
GoL	Government of Lao PDR
HAFL	School for Agriculture, Forest and Food Sciences of Bern University of applied sciences, Switzerland (former SCA)
HRD	Human Resources Development
IG	Income Generation
ILO	International Labor Organization
IT	Information Technology
IVET	Integrated Vocational Education and Training
Kumban	Sub-district or cluster level
Lao PDR	Lao People's Democratic Republic
LURAS	Lao Upland and Rural Advisory Service Project
LWU	Lao Women's Union
MAF	Ministry of Agriculture and Forestry
MPI	Ministry of Planning and Investment,
MoES	Ministry of Education and Sports
MoLS	Ministry of Labor and Social Welfare
NAFC	Northern Agriculture and Forestry College
NAFRI	National Agricultural and Forestry Research Institute
NFEDC	Non Formal Education and Development Center
PAFO	Provincial Agriculture and Forestry Office
SM(E)	Small and Medium (Enterprises)
SCM	Steering Committee Meeting
SKAT	Swiss Resource Centre and Consultancies for Development.
SURAFCO	Support to the Reform of the Northern Agriculture and Forestry College in Lao PDR
SDC	Swiss Agency for Development and Cooperation
TVET	Technical and Vocational Education and Training
TOR	Terms of Reference

## 1 Rationale

A gradual reduction of labor in the agricultural sector can be observed in the recent years - declining from 75,1% in 2010 to 69 % in 2014. However, the agriculture sector is still dominating the Lao labor market, though also consisting of labor with low productivity<sup>1</sup>. Thus modernizing the agriculture and forestry sector remains still a high priority of the Lao Government in achieving food security and better livelihoods for all Lao people. In January 2008 the Ministry of Agriculture and Forestry's (MAF) launched a reform strategy for agriculture and forestry college education<sup>2</sup>, as a response to major shortcomings identified in agricultural education, especially the **low market and practice orientation**.

The strategy aims at developing skilled human resources in the five agricultural colleges under MAF needed in the public and in the private sector of a modern market-based agricultural sector. It does not simply focus on improvement of teaching and learning only, but is a holistic approach based on the principles of a pro-poor and pro-environment development to ensure a successful transition from subsistence into commercial smallholder production.

“Linking training to the extension system and **the labor market**” is the first of out of six core objectives mentioned in the reform roadmap. The underlying job-placement situation analysis<sup>3</sup> pointed out an upsetting picture: one year after graduation only about 20% of all graduates from agricultural and forestry colleges countrywide were in paid jobs or self-employment.

In September 2009 the Swiss Government launched the “**Support to the Reform of the Northern Agriculture and Forestry College**” (SURAFCO) project at the Northern Agriculture and Forestry College (NAFC) to support MAF's strategic efforts to build up a new type of human resources and contribute to increased graduates' employment in line with the requirements of the public and private agricultural job market. The project is implemented by HELVETAS Swiss Intercooperation.

The first phase focused on improvements in students' enrolment, teaching quality, teachers' knowledge, partner cooperation, infrastructure and management development. This included a launch and accreditation of new skills-based, practice-oriented high-diploma curricula, developed based on assessments of prevailing job-profiles.

Next to spreading lessons learnt to other colleges, the second phase<sup>4</sup> puts more intensive emphasis on the **increased employment of the graduates**. Under output 4 “*The majority of graduates are wage- or self-employed, mainly in upland development related occupations, due to relevant practical terms and a well functioning job counseling system*” various measures have been approached, including the establishment of a career counseling unit (CCU) at NAFC, the creation of a graduate data base and the conduction of pre-tracer studies.

This tracer study provides an indication on the **employment situation** of the graduates from the first two batches educated under the new curricula, **changes in economic and social situation** after the graduation and on **quality and relevance** of the training programs. It also gives **recommendations to NAFC leadership and the CCU** staff for intensifying the cooperation with the labor market and improving the student's preparation for employment and self-employment. It moreover includes a **description on survey steps, instruments and methodology** to be used for conduction of tracer studies in the future.

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<sup>1</sup> Ministry of Planning and Investment, 25 February 2015: 8<sup>th</sup> NSEDP 2016 -2020, 5th Draft, Vientiane, Lao PDR

<sup>2</sup> MAF, 2008, Strategy for Reform in the Agriculture and Forestry Colleges towards 2020. Vientiane, Lao PDR

<sup>3</sup> ibid.

<sup>4</sup> Outputs in SURAFCO phase 2: 1. Increase outreach through partnering, 2. Increase education quality, 3. Transparent, effective and gender sensitive management system, 4. Increased employment of graduates.

## 2 Objectives of the tracer survey

The tracer study assessed the general employment situation of the graduates from the first (2013) and second (2014) batch educated under the new high diploma curricula at NAFC. The 1<sup>st</sup> batch in 2013 addressed 58 (including 07 female) graduates and the 2<sup>nd</sup> batch in 2014 addressed 84 (including 28 female) graduates, in total 142 (35) graduates.

The skills-based and practice-oriented curricula have been developed based on existing job-profiles between 2009 and 2010. Those curricula have been accredited by MAF and launched by NAFC in 2010 for the 3 majors agronomy, livestock and agro-business<sup>5</sup>. A fourth major for forestry was launched in 2011. The full-courses cover 3 years, including a practical term in the last semester.

This tracer study provides an indication on the **rates of employment, self-employment, unemployment and further education** after graduation and the **economic and social returns** of the received education. It provides a feedback on the **quality of the training programs**. It also identifies differences in students' enrolment and labor market outcomes with respect to gender and socio-economic background and whether the provided **knowledge and skills level is relevant** to the demands of the job market.

Included in the finding section, the study provides **recommendation** to each respective section. Main recommendations are also summarized in separate chapter and shall be specifically helpful to improve the links with the private sector labor market and to support graduates' self-employment. Obtaining a position in the public administration still seems to be much more attractive and working in the private sector or self-employed lacks role models and clear understanding of benefits and obstacles. Additionally recommendations focus on how to increase the attractiveness of the studies for women and how to improve the practical term.

### Objectives

➔ **Assess situation of all high diploma graduates from NAFC**

- 1<sup>st</sup> batch in 2013: 58 (07) graduates
- 2<sup>nd</sup> batch in 2014: 84 (28) graduates

➔ **Provide general indication on**

- Rates of employment, self-employment, unemployment and further education after graduation
- Economic and social returns of received education
- Quality of the training programs
- Relevance of provided knowledge/skills for the job market

➔ **Provide specific recommendation on**

- how to improve the links with the private sector labor market
- how to support graduates' self-employment
- how to increase the attractiveness of studies for women
- how to improve the practical term

➔ **Develop tools & methodology for further use and spreading**

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<sup>5</sup> Full curricula titles are "Higher Diploma of Upland Agriculture Program" in Agronomy, Livestock, Agro-business or Forestry.

### 3 Survey Methodology

#### 3.1 Survey Timeframe

The tracer study was prepared over a period from January to March 2015. The field survey including training and testing was conducted in the 8 Northern provinces of Laos between 15<sup>th</sup> March and 2<sup>nd</sup> April 2015. Data entry was partly done during the field visits. The CCU team entered the final full data one week after the survey. Analysis and a draft report were compiled until 22 April to provide information for the mid term review of SDC Final reporting was completed by begin of May.

TIME FRAME	Jan-15	Feb-15	Mar-15	Apr-15	May-15
<b><i>I. Preparation</i></b>					
Checking of Pre Tracer Data	xxxxxxx				
Updating contact list of graduates	xxxxxxx				
Preparing field visit and budget plan	xxxxx				
Identification of data collection teams	xxxxx				
Invitation of graduates & follow up	xxxxx				
Contacting graduates abroad via e-mail		xxxxx	xxxxx		
<b><i>II. Conduction of study</i></b>					
Meeting NAFC Management planning & prepare training			x		
Training to data collection teams			xx		
Testing & data collection of LBP graduates at NAFC			xxx		
Review first testing & prepare further data collection			xx		
Data collection in other provinces			xxxxx		
Review field visits & presentation to NAFC Management				x x	
<b><i>III. Data Entry and Reporting</i></b>					
Data entry by CCU team				xx	
Assessing data and reporting in English				xxxx	
Comments and adjustments					xx
Final report preparation					xx

#### 3.2 Survey Team

The survey team was led by Andrea Schroeter - education and development consultant, previous CTA of the project - and involved the staff of the NAFC Career Counseling Unit (CCU) and teachers from NAFC, coached and supported by the SURAFCO team – in total 17 person. The team leader was aware of the fact that an independent survey team is recommended for the conduction of a tracer study. After discussions with SURAFCO and NAFC it was decided to use NAFC staff and teachers for two reasons: (a) the dense time frame, which did not allow the training of external staff and (b) the intention to train NAFC staff - especially those of the CCU - in field assessments, focal group discussions and collection of information for the preparation of case studies. The risk of being biased was addressed during the preparation and all staff instructed accordingly.

#### 3.3 Survey Samples

As the number of students in the first two batches was not too high, the study allowed to opt for a survey scope of 100 % and approached all graduates. It is crucial for further steps within the reform strategy to get a full picture on graduates’ employment situation and their feedback on the usefulness of the new curricula. Approaching a 100% survey rate, the achieved level of **89 %** is quite respectable and provides various indications to MAF and all supporting organization on the effectiveness of the strategy.

In total 126 (include 31 female) graduates out of 142 (35) were interviewed.

Figure 1: Survey Samples - Graduates

	1st Batch Graduates 2013		2nd Batch Graduates 2014		TOTAL	TOTAL	TOTAL			
Graduates from Provinces	Graduate coming from	Presently working in	Graduate coming from	Presently working in	working in Province Both batches	Interviewed	%	Direct	Phone	FAX or E-mail
<b>ALL TEAMS</b>										
Luang Prabang	37	32	28	27	59	54	92%	47	7	
VTE Province	2	3			3	3	100%	3		
VTE Capital	1	2	3	4	6	6	100%	5		1
<b>TEAM 1:</b>										
Oudomxay	2	1	6	5	6	6	100%	6		
Phongsaly	2	2	3	3	5	5	100%	5		
<b>TEAM 2:</b>										
Bokeo	1	1	2	2	3	3	100%	3		
Luang Namtha			4	1	1	1	100%	1		
<b>TEAM 3:</b>										
Sayabouri		2	4	3	5	5	100%	5		
Xaysoumboun	8	7	8	8	15	13	87%	11	2	
Bolikhamxay	1	2			2	2	100%	2		
<b>TEAM 4:</b>										
Huaphan	4	4	9	7	11	11	100%	9		2
Xieng Khouang		1	17	9	10	7	70%	7		
<b>EXTRA by CCU</b>										
Israel				15	15	10	67%			10
Thailand		1			1	0	0%			
<b>TOTAL</b>	<b>58</b>	<b>58</b>	<b>84</b>	<b>84</b>	<b>142</b>	<b>126</b>	<b>89%</b>	<b>104</b>	<b>9</b>	<b>13</b>

The employers' view is very important. In total 31 employers and potential employers could be interviewed. It was decided to include also potential employers and those employing mid-diploma graduates to a) intensify the links to potential private sector employers and b) broaden the feedback scope.

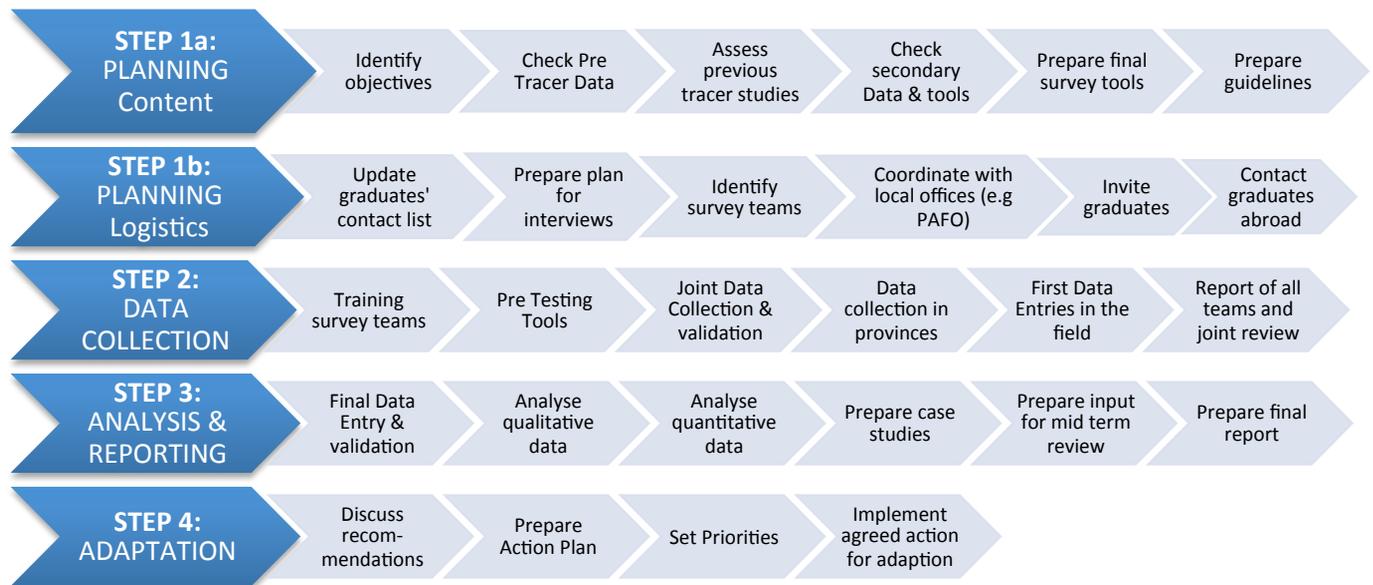
Employers have been categorized and approached as stated below:

Figure 2: Survey Samples - Employers

EMPLOYERS' and potential EMPLOYERS' Interviews	Government	Project	Companies	S&M Family Enterprise	TOTAL
<b>ALL TEAMS</b>					
Luang Prabang			4		4
VTE Province					0
VTE Capital					0
<b>TEAM 1</b>					
Oudomxay				2	2
Phongsaly		1			1
<b>TEAM 2</b>					
Bokeo	2	1		1	4
Luang Namtha	3	1	1		5
<b>TEAM 3</b>					
Sayabouri	1	1		1	3
Xaysoumboun	1				1
Bolikhamxay					0
<b>TEAM 4</b>					
Huaphan	1		1		2
Xieng Khouang	5	1		3	9
<b>TOTAL</b>	<b>13</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>31</b>

### 3.4 Survey Steps

The implementation followed the subsequent four core steps:



#### 3.4.1 STEP 1: Planning & preparation

Even though the overall goal of a graduates' tracer study is customary and remains similar for all studies, during the planning process for each study **specific objectives and targets**, based on local conditions and specific circumstance, need to be identified. Thus the planning process started with the reconsideration of general and elaboration of specific objective, as stated in chapter 2. Pre-tracer study data, collected with all students at the beginning of their studies at NAFC, was reviewed and a pre-tracer study report finalized. The Tracer Study Survey Tool was adjusted to local context compatibility and aligned with the pre-tracer study questionnaire. Furthermore an additional questionnaire focusing on more qualitative information was developed based on the specific objectives identified.

Other local training institutions, like GIZ supported TVET & IVET schools<sup>6</sup>, Soupanouvong University<sup>7</sup> and Pakpasak vocational college have been consulted on their experiences with tracer studies in Laos. The only two NAFC tracer studies in 2004 and 2007<sup>8</sup>, ever conducted since the establishment in 1989, have been screened<sup>9</sup>. Only the report on the Lao-German vocational schools provided an overall indication on the graduates' employment situation.

Related to logistical issues, the preparation phase focused on the tracing of the graduates' whereabouts, updating related graduates' database, the preparation of time schedule, teams and budgets, and the coordination with the provincial and district agriculture offices (PAFOs & DAFOs). Tracing of the graduates was done by direct phone-calls, contacts with PAFO and DAFO staffs and

<sup>6</sup> Lao-German Development Consulting, *Tracer Study Vocational Education & Training in TVET & IVET Institutions in Lao PDR*, 2013

<sup>7</sup> Soupanouvong focused on feedbacks of a limited number of graduates mainly in government jobs and could not provide any indication on the actual job placement.

<sup>8</sup> DED, *Tracer Study 2004 & 2007 on Agriculture Education of graduates 1992 to 2003 & from 2000 and before*

<sup>9</sup> Both DED studies do not provide a clear picture on the labor market situation, as they reached only less than 30 % of the targeted graduates, with a focus on government employees only (95 % respective 79 %).

contacts over e-mail for those graduates working abroad. The first job-fair organized at NAFC in July 2014 helped to refresh contacts with graduates and provided a basis for up-dated contact data.

### 3.4.2 STEP 2: Data Collection

The field mission started with a training of the survey teams on the objectives of tracer study and the data collection questionnaire and methodology. As a test run, the first batch of graduates' based in Luang Prabang were jointly surveyed with all teams at the college compound. This allowed a close supervision and coaching and strengthened the interviewers capacities. Experiences and data were reviewed and processed and assured a confident basis for the survey teams to conduct the interviews in the provinces.



*Data collection team in Xaysoumboun province*



*Data collection team in Phongsaly province*

Data collection in the provinces took place for 2 days at each province. 4 teams covered each 2 to 3 provinces. The graduates have been invited to the provincial towns, as the timeframe did not allow a visit to each district or even village. PAFO staffs provided assistance in logistical organization. Interviews took mainly place in PAFO offices, provincial meeting rooms or at the graduates' work places if nearby, but also at guesthouses or restaurants. The teams had to act very flexible to select the most appropriate interview situation.

Some graduates, who could not be met directly, have been interviewed via phone or via e-mail, mainly those living abroad.



*Data collection team in Luang Namtha province*



*Data collection team in Huaphan province*

Additional individual interviews with those graduates showing an interesting vita took place directly after the quantitative assessment. Additionally focus group discussions with female and self-employed graduates have been organized.

Employers' interviews with present and potential employers from the government, private sector companies, projects and small & medium scale family businesses took place during whole period of the field mission.

### **3.4.3 STEP 3: Analysis and Reporting**

The quantitative data collected from the graduates was transcribed from the questionnaires and entered into an Excel analysis tool – starting already during the field visits and finalized at the beginning of April 2015.

During a review-meeting end March, all teams presented their core findings. Qualitative data from selected graduates and employers through the semi-structure interviews was analyzed; interesting cases have been selected and documented in written case studies. Those cases complement the already produced videos on graduates profiles and women in leadership roles and will help to provide role modules to present to future students. They are integrated into this report.

The quantitative data from the employer questionnaire was used to complement and validate the information given by the graduates. The additional qualitative data provided indication on employers' expectation, their recruiting process and the relevance of NAFC courses for the labor market. Their view is mainly integrated in the respective sections.

Finally all detailed results and findings have been summarized, including conclusions, lessons learnt and recommendations for further action. Outcomes are reported together for both batches, as the results did not show major differences between the batches.

They also provided an input for the Mid Term Review of SURAFCO conducted by SDC.

### **3.4.4 STEP 4: Adaptation**

This final step of adaptation is often underestimated, but is a core part of the assessment. Findings and recommendations need to be discussed and strategies for improvement need to be approached.

The following next steps are suggested:

- Organize a meeting to present findings and prioritize recommendations
- Identify steps for further action, including identification of priorities, responsibilities and support needed
- Make final adaptation in Lao language to questionnaires based on learnings during the study
- Make final adaptations to the database
- Share and discuss outcomes of the study with the Ministry of Agriculture and Forestry (MAF), the Ministry of Education and Sports (MoES), the Ministry of Labor and Social Welfare (MoLS) and other relevant stakeholders
- Spread lessons learnt to other education institutions and introduce tracer study methodology

### 3.5 Survey Instruments

The methodology is based on (a) a tracer study tool developed by HELVETAS Swiss Intercooperation<sup>10</sup>, (b) additional questionnaires for semi-structured interviews of selected graduates and (c) additional questions for focal group discussion – both (b) and (c) developed by the consultant based on the specific requirements of NAFC.

Type	Tracer Study Instruments	Sources of information	Type of data	Data analysis
A	<b>Standardized Questionnaires</b> <ol style="list-style-type: none"> <li>1. Pre-tracer questionnaire</li> <li>2. Graduate questionnaire</li> <li>3. Employer questionnaire</li> <li>4. Informant questionnaire (not used)</li> </ol>	Students, Graduates and Employers	Mainly quantitative	Analysis tools in Excel Analysis tools in Excel Qualitative data analysis
B	<b>Specific semi-structured questionnaires for selected graduates</b> <ol style="list-style-type: none"> <li>1. working with the private sector</li> <li>2. working self-employed</li> <li>3. selected female graduates</li> <li>4. not in work</li> <li>5. working with the public sector</li> <li>6. working abroad</li> </ol>	Graduates	Qualitative	Qualitative data analysis Summary in written case studies (additional suggested to produce videos)
C	<b>Focus group discussions</b>	Graduates	Qualitative	Qualitative data analysis

#### A: Standardized Questionnaires:

##### 3.5.1 Pre-Tracer questionnaire

This questionnaire has been designed to generate baseline data on the student's socio-economic and socio-demographic background. This data collected at the beginning of the studies is extremely valuable to gain information regarding the motivation to enroll in a specific training program, the reputation of the training institution and the changes in economic and social returns of the training program.

Data collection has been done within the first semester of the students' studies **for all students** and contact information has been updated in the final semester.

The time required for each interview was about 10 minutes.

#### Content Students' Questionnaire

##### **A General information**

- Study program
- Motivation to enrol
- Situation before enrolment
- Reputation of College

##### **E Income**

- Before the study

##### **G Biographical data**

- Socio-economic data
- Demographic background

➔ 17 Questions

➔ Time per interview about 10 minutes

➔ Aligned with graduates' questionnaire

<sup>10</sup> *Measuring education's path to prosperity, Macchi, Jenny & Wilhelm, HELVETAS Swiss Intercooperation, Feb 2009*  
Tracer Study NAFC 2015, AS

### 3.5.2 Graduate questionnaire

The core instrument of this tracer study is the graduate questionnaire for structure interviews, which is connected to the pre-tracer questionnaire. The questionnaire has been adjusted to the local context and the consultant has reviewed the form to be align with the pre tracer format and the excel data entry sheet.

It follows a biographic logic, covering the seven core areas:

Questions start with a validation of the **general information** on the educational program already collected during the pre-tracer study. In this assessment validation (e.g. a change in study program) was made during the data entry.

The second area covers a retrospective evaluation of **quality and relevance of study program**, including the curriculum, competence and commitment of teachers, study conditions, length of studies and apprenticeship and overall satisfaction. The third part addresses the **transition period to employment** with the chronology of main activities since graduation, type of activity, strategy to find employment and migration rate. The fourth and core part addresses the **Current activity**, including the type of activity, location, duration, sector and satisfaction.

The fifth part focuses on the **Income** situation from primary and secondary activities both before and after the study.

**Relationship between study and work** is addressed in the sixth part and looks into the usefulness and applicability of skills and knowledge acquired during the studies.

Finally the seventh part is a validation of the **graduates' biographical data** collected during the pre-tracer study (e.g. changes in phone number or address).

Data collection was done **with 126 graduates, including 31 women**: 104 direct interviews, 9 via phone interviews and 13 graduates (mainly those working abroad) via e-mail.

The time required for each interview was more than an hour during the testing phase and was reduced to 40 - 45 minutes during the field interviews.

### 3.5.3 Employer Questionnaire

#### Content Employers' Questionnaire

**A Name and Contacts**

**B Information on business/company**

**C Recruiting Process**

**D Performance of graduates & Reputation of college**

**E Income structure**

→ 14 Questions

→ Time per interview about 10 minutes

#### Content Graduates' Questionnaire

**A General information (& info Pre Tracer)**

**B Quality and relevance** (curriculum, condition of training, etc.)

**C Transition period to employment** (job searching, job entry, etc.)

**D Job situation** (career situation, etc.)

**E Income** (before & after the study)

**F Coherence of training and occupation**

**G Biographical data (& info Pre Tracer)**

→ 55 questions (plus 17 from pre tracer study)

→ Time per interview 40 - 45 minutes

The employers' view is quite important for graduates' placement. Facing the situation that only a small number of employers' of related high-diploma graduates could be reached, it was decided that potential employers as well as employers of mid level graduates should be included.

This had the advantage to combine the assessment with the objective to increase the cooperation with private sector employer and broaden the range of impression from various angles. Thus employers' feedback is not solidly related to those students who actually graduated in these two batches.

Next to the quantitative interviews open discussions allowed to gain

- Information about employers' expectations and requirements from the employees.
- Information about the performance of graduates from the different majors
- Information about personnel and income structure.
- Information about the recruiting procedures.
- Information on NAFC's reputation and relevance of its courses for the labor market.

Data collection has been done among **31 employers**, including 13 government offices, 5 projects, 6 companies and 7 small and medium family enterprises.

The time required for each interview was about 10 minutes for the questionnaire and additional 15 minutes for the semi-structured open discussion.

### 3.5.4 Informant Questionnaire

The informant questionnaire was developed in the case graduates cannot be directly interviewed. As the graduates' tracing rate was over 90 %, we did not feel any necessity to include secondary informants, like relative or friends.

Thus **no other informants** have been interviewed.

## B: Specific semi-structured questionnaires for selected graduates:

### 3.5.5 Semi structure questionnaires

In order to gain more specific information on interesting graduates' vitas additional questionnaires for semi-structured interviews have been designed. They cover graduates working with the private sector, graduates working self-employed, female graduates, graduates not in work, graduates working with the government service and graduates working abroad. This qualitative information from a number of identified graduates was used for the preparation of case studies and helped to gain better insides on

- How to improve links with the labor market
- How to support graduates' self-employment
- Attractiveness of studies and employment in the agriculture sector for women
- Difficulties to find employment
- How to improve the practical term

Data collection has been done among more than **30 graduates**, covering all 6 different categories, with 3 to 6 interviews per category.

The time required for each interview was about 15 minutes.

#### Semi-structured Interviews with Selected Graduates

1. **Graduates working with the private sector (companies & projects)**
  2. **Graduates working self-employed**
  3. **Female Graduates**
  4. **Graduates not in work**
  5. **Graduates working with the government**
  6. **Graduates abroad**
- 6-8 pre-defined Questions on the specifics
  - 6 pre-defined Questions on the practical term performance and relevance
  - Open discussion
  - Time per interview about 15 minutes, preferable directly after the full tracer interview

## C: Focal Group Discussions

### 3.5.6 Focal group discussions

#### Content Focal Group Discussions

1. **Female Graduates**
  2. **Graduates working self-employed**
- 6-8 pre-defined Questions on the specifics
  - 6 pre-defined Questions on the practical term performance and relevance
  - Open discussion
  - Time per discussion round about 30 minutes

Additionally after the individual interviews, focal group discussion with female graduates, graduates previously working abroad and those working self-employed were arranged to get more detailed information on

- Private versus public employment
- Difficulties in self-employment
- Practical term performance and relevance
- Suitable teaching content
- Needs and requirements of female students

### 3.6 Survey Techniques and Rules

Survey techniques and rules have been discussed and agreed during the preparatory workshop. Techniques include the main following steps:

- Introduction of interviewers' name and function
- Explanation on objectives and purpose of the study
- Information on timeframe
- Information on kind of questions and how the data is used
- Confirmation that all collected data will be treated strictly confidential
- Respect the respondents' right to refuse participation in the study
- Ask questions in the order they appear on the questionnaire
- Thank the respondent at the end of the interview
- Inform the respondent on the further proceedings of the study

A Do's and Don'ts list for the interviewers was introduced, found useful and applied accordingly.

#### DO's

- Ask all questions unless there are special indication to skip certain areas
- Ask all questions even you might know the answer already
- Wait for the respondent to finish talking before you start to write
- Repeat questions if respondent does not understand
- Explain questions if the respondent still does not understand
- Always note all answers and comments given
- Show interest and empathy on the respondents' situation
- Use a calm and friendly voice
- Always keep a neutral role

#### DON'Ts

- Don't read instructions meant for you only - marked with ☞
- Don't interrupt the respondent
- Don't anticipate or assume answers
- Don't appear as a teacher who is taken an exam
- Don't be impatient and let the respondent take their time
- Don't accept "I don't know" without at least asking twice
- Don't let the respondent read the questionnaire before hand
- Don't let the respondent fill in the questions by him/herself
- Don't comment or judge any answers given

### **3.7 Limitations and weaknesses of applied methodology**

Overall the methodology applied proved to be appropriate and broad up all intended relevant results. It can be recommended for future use at NAFC, agricultural colleges under MAF and other educational institutions in Laos.

The following limitations and weaknesses should be mentioned to improve similar studies in the future. (Recommendations for future study are given in chapter 7.2).

#### **Employers View**

Not much attention was given to the selection of relevant employers. Employers in the provinces have not been approached in advance and at the start of the field assessment the number of employers identified was quite low. It was decided to approach employers directly during the field visits and involve also those who have employed mid-diploma graduates as well as potential employers. Thus the study covers only to a small extent direct employers of those graduates assessed. Even very useful information from those 31 interviewed was collected, the feedback on actual present performance of high-diploma graduates is limited.

#### **Interviewers**

The number of interviewers was quite high and not all proved to have full capability in interview techniques and documenting required data. Even discussed and tested in advance not all interviewers were able to fully distance themselves from their previous role as a teacher and superior. Experiences with this study should be used to make a smaller and appropriate selection of interviewing staffs for the next time.

#### **Data Entry**

Data entry was done in different excel sheets and by different teams. A joint training took place, compatibility was checked and data entry mechanism was agreed. Nevertheless, the teams made individual small changes in the database format and data entries were not fully consistent – probably also related to the different English language capacities. The format however does not allow those changes and even small differences, e.g. in big and small letters or tap space, are not recognized. As the major entries (except to the qualitative remarks) need to be done in English, only staffs with good English language capacities should be selected.

#### **Timeframe**

The timeframe was quite dense. More time should be allocated for a) selection and training of interviewing staff<sup>11</sup>, b) quality control of the data entry to ensure full correctness, c) tracing self-employed graduates and those graduated in Agri-Business to gain more insights on their development and d) discussion on outcomes and feedback from involved stakeholders after the study.

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<sup>11</sup> Even if only staffs that have already experiences with this tracer study are involved in future assessments, refresher training is needed.

## 4 Detailed Findings and related Recommendation

### 4.1 GENERAL INFORMATION on GRADUATES and ENROLMENT

#### 4.1.1. Gender

Since the launch of the new curricula in 2010 and related promotion activities, female enrolment in the 3-year courses increased from 12% in 2010 to 30% in 2011 and remained afterwards mostly on that level (Figure 3).

The female percentage of graduates assessed in this study amounts to an average of 25 % (Figure 4). Dropout rates among female are lower than among male students (15% for female and 21% for male in those two batches). Based on the focus group discussions with women the proportion of female students at NAFC will probably remain a little bit above 30 %. A higher enrolment seems unrealistic at present stage, as other professions are rated more attractive for females. Improved connections to the private sector and increased opportunities in the agri-business sector might contribute to more attractiveness for women to enroll.

Figure 3: Enrolment by Gender

Year Start	3 years		
	total	women	%
2010	65	8	12.3%
2011	111	33	29.7%
2012	162	51	31.5%
2013	216	82	38.0%
2014	247	81	32.8%
<b>TOTAL</b>	<b>801</b>	<b>255</b>	<b>31.8%</b>

Figure 4: Number of enrolment, graduates and graduates interviewed

	Enroll	Female	% Female	Graduate	Female	% Female	Interviewed	Female	% Female
1st Batch	65	8	12%	58	7	12%	55	5	9%
2nd Batch	111	33	30%	84	28	33%	71	26	37%
<b>TOTAL</b>	<b>176</b>	<b>41</b>	<b>21%</b>	<b>142</b>	<b>35</b>	<b>25%</b>	<b>126</b>	<b>31</b>	<b>25%</b>

#### → Recommendation – related to gender:

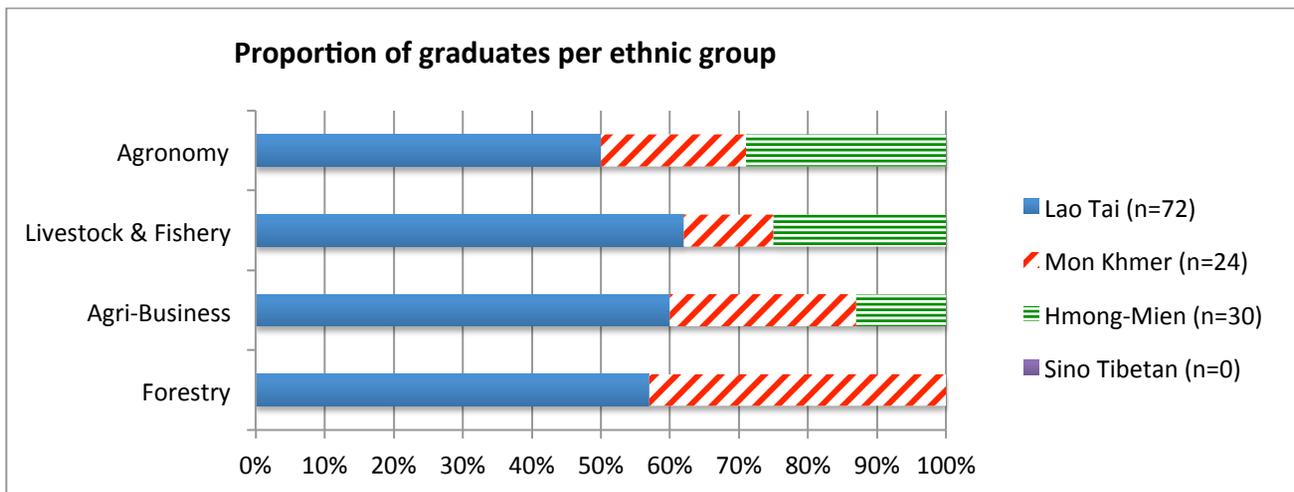
- Continue promotion for higher enrolment for female students and show potential career paths in the sector that are interesting for women.
- Continue with special support to female students during the studies, e.g. scholarships for female, female sport competitions, special study events or training for women.
- Special support to female graduates shall be provided, e.g. through a competition for female graduates to start up their own business (with a one-time start up fund)
- Spread information on improved infrastructure and safety conditions at NAFC
- Intensify strategic partnerships with key organizations operating on women empowerment, like Gender and Development Association (GDA), Lao Women's Union (LWU), MAF's committee for women advancement and other INGOs.

#### 4.1.2. Ethnicity

Overall ethnic composition represents more or less the proportion of the ethnics in the respective provinces (Figure 5). Lao Tai ethnicity is predominating in all majors with shares between 50% and 61%. However no graduates are released from the Sino-Tibetan (or Tibeto-Burman) ethnic group, which mainly occur in Phongsali, Luang Namtha and to a certain extent in Bokeo provinces.

Highest diversity is found among agronomy students with 50% Lao-Tai, 29% Hmong-Mien and 21% Mon-Khmer. Lowest diversity is in forestry with 57% Lao-Tai and 43% Mon-Khmer.

Figure 5: Ethnic proportion of Graduates



- ➔ **Recommendation – related to ethnicity:**
- Enrolment of students shall consider representation of ethnic groups in the respective province
  - At least a small number of Sino-Tibetan ethnic students shall be approached and enrolled in the future, e.g. through special scholarships for those ethnics

#### 4.1.3. Age

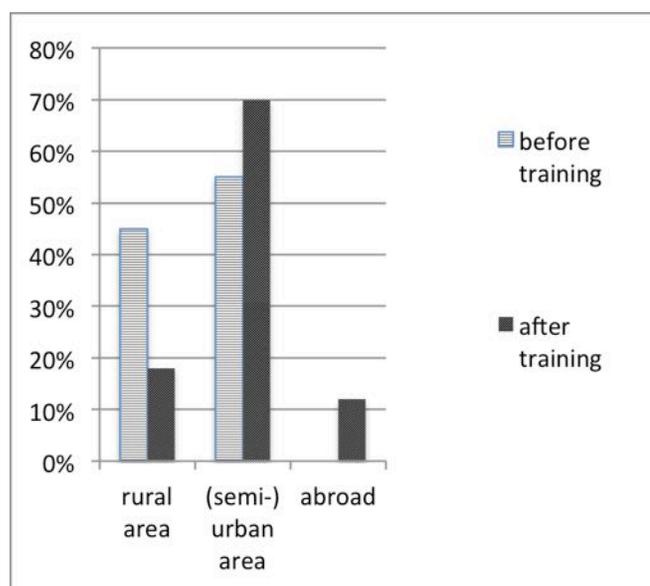
As most of the students in the full 3-year courses are entering the college after completion of higher secondary school, the majority age ranged between 18 and 25 years (71%). The remaining 29% are above 25. Only 2 graduates were older than 30 - with the age of 34 respective 39 at the time of the interview.

#### 4.1.4. Demographic Background (before and after)

Not surprising is the shift of the present living situation (Figure 6). Before starting the training about the same amount of students came from rural and (semi-) urban areas: 45% lived in rural and 55% in (semi-) urban areas.

Due to more job opportunities and the general attractiveness of urban areas especially for young people the proportion shifted to 18% in rural areas, 70% in (semi-) urban areas and 12% - exclusively male graduates - presently working abroad after the completion of their studies. Nearly all female graduates 28 out of 31 are now living in (semi-) urban areas.

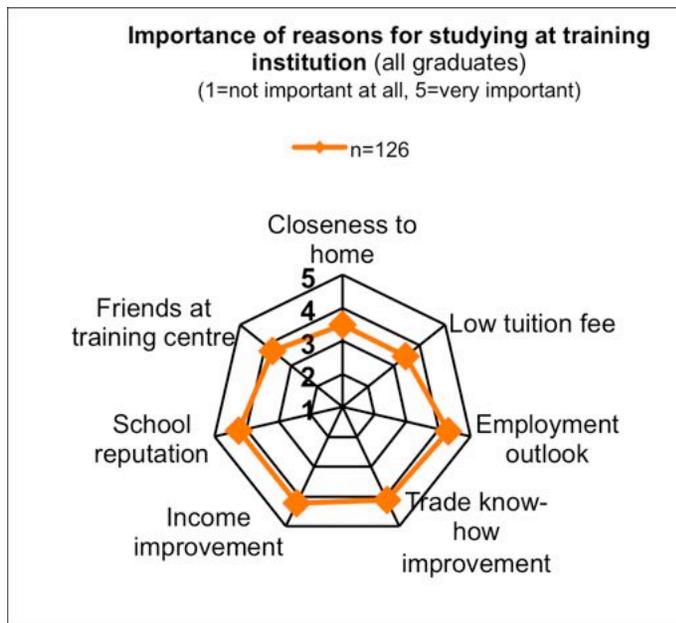
Figure 6: Graduates' Demographic Background



#### 4.1.5. Motivation for attending the study at NAFC

Outlook towards a good employment, reputation of NAFC and income improvement have been mentioned as the three core reasons for entering the studies with 4.3, 4.24 respective 4.23 scores (Figure 7). This was followed by the desire to improve the technical know-how (4.12). “Studying with friends at the college (3.72)” and “Closeness to home (3.5)” seem to be less important.

**Figure 7: Reason for study at NAFC**



Surprisingly the lowest score was the “Tuition fee” with 3.45 – assuming that financial contributions can be covered by most of the students and a good education and employment outlook is more important.

95% of all women scored income improvement highest and for the men employment outlook was considered of highest importance by 84%. One would assume that the closeness to home would be more important for the women. However the contrary is the case: 64% of the male students mentioned it as very important or important, while this was only an important reason for 48% of the women.

#### → Recommendation – related to reason for entering the studies:

- As “good employment outlook” is ranked as the most important enrolment reason, connection to potential employers shall be intensified. Opportunity to meet employers already during the studies shall be arranged, e.g. during the job-fair, during teaching through invitation of employers or self-employed farmers as resource person or guest lectures, or during practical teaching through field visits to established businesses and projects.
- “Income improvement” has a high priority for enrolment in the studies. Next to the improved opportunity to meet private sector employers during the studies, an additional focus shall be put on promoting self-employment. Experiences with self-employment shall become an integral part of the theoretical and practical teaching content.

#### 4.1.6. Knowledge about NAFC

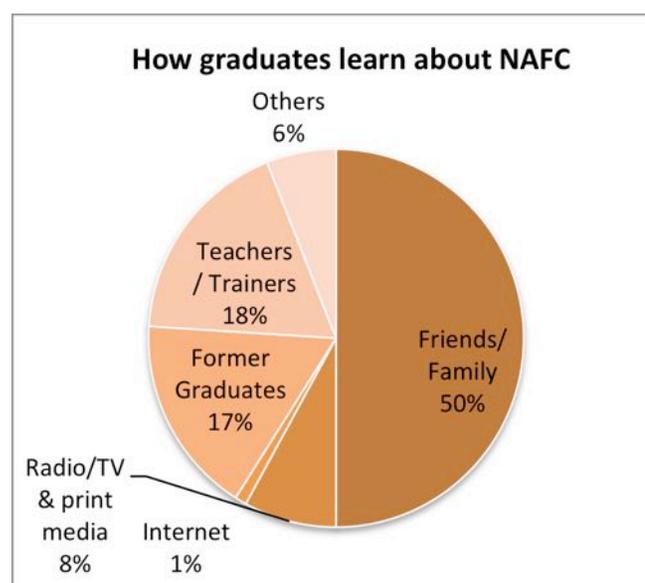
NAFC is very well known in the Northern provinces. Thus most of the students (67%) learnt about the college through their relatives or former graduates (Figure 8).

In this context the promotion campaigns started by NAFC in 2010 were mentioned as quite useful, as they contributed to a better understanding of the actual content, training program and job possibilities.

Figure 8: Knowledge about NAFC

18% of the graduates learnt about NAFC through direct contacts to NAFC teachers or through these promotion campaigns. These information days shall be continued – they furthermore contributed to a higher enrolment of female students.

Printed, visual and oral media seem not yet to play an important role. Also the information accessed via Internet - with only 1% of the graduates - is quite low. With an adjusted Internet appearance this could change in the future – especially as information access via Internet will become more and more important.



**→ Recommendation – related to prior knowledge about NAFC:**

- Continue to organize information days in the provinces prior to the start of the new academic year (at secondary schools and for parents), including showing videos of successful graduates
- Adjust the Internet appearance of NAFC to better reflect the offered curriculum, study terms, professional profiles, potential career paths and other relevant up-to-date information
- Continue to distribute general promotion and information leaflets on NAFC on a regularly basis
- Improve information leaflets on the specific majors with more detailed information on teaching content, skills to be achieved and job opportunities and distribute on regularly basis
- Involve former graduates for the promotion of courses at NAFC
- Consider the establishment of an NAFC alumni organization

4.1.7. Difficulties for enrolment

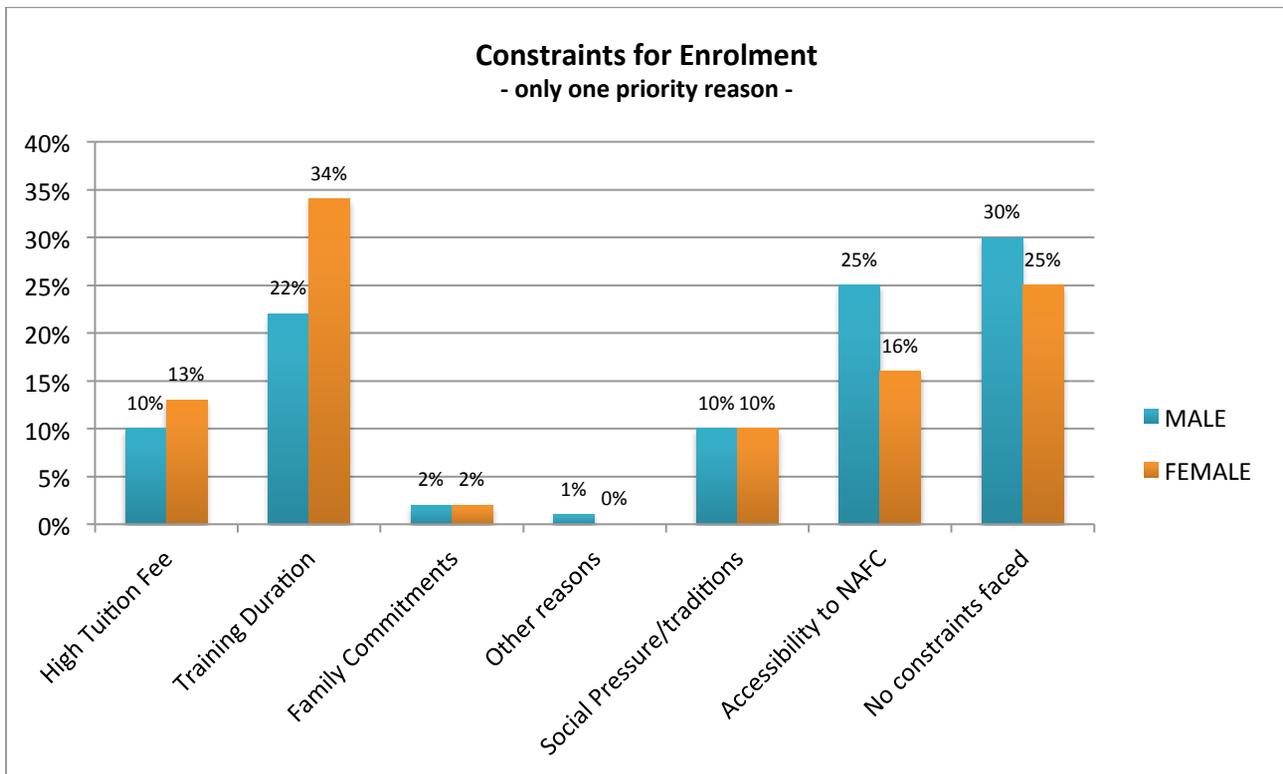
The 3-years training duration was identified as the highest (total 29%) obstacle for enrolment and is a higher burden for female students (34%) than for male (22%) (Figure 9) – reasoning in the fact that female household contribution is still more important. Accessibility to NAFC was mentioned by 25% of the graduates – mainly related to the location of NAFC – both compounds Pak Sueang and Xieng Nguen are 20 km outside of Luang Prabang with limited market access to Luang Prabang town. Not much can be changed related to the location, however – as lacking opportunities for additional income generation was mentioned as the main related reason - strategies for better sales of agriculture products with interested customers in Luang Prabang town could be developed.

Social pressure and traditional believes are still a big obstacle for enrolment, mentioned by 12%, without a gender difference. No specific examples were given – however all responses came from graduates with an economically poor background.

25% of the female and 30% of the male interviewees did not feel any constraints for the enrolment in the studies.

An additional general constraint, especially for poor and remote young people, is the requirement of a higher secondary degree – already mentioned in the assessment on female and other disadvantaged students’ enrolment at NAFC from 2010<sup>12</sup>.

**Figure 9: Constraints for Enrolment by Gender**



**→ Recommendation – related to constraints for enrolment:**

- Discuss the issue of “too –long-study duration” with MAF and MoES and get their view on this issue
- Develop a background paper, which explains the necessity of a 3-year study duration and related knowledge and skills to be achieved during this time and potential employment fields – including the difference to the 4-years bachelor courses related to job perspectives and achievement of knowledge and skills.
- Intensify marketing strategies (sales of agriculture and processed products) with potential buyers in Luang Prabang town, as access to generate some income seems to be one reason for the enrolment.
- As “social pressure and traditional believes” are still an obstacle for the enrolment, promote benefits of college studies, especially for poor and female students. Role models, e.g. the story of successful graduates in newspapers or on radio can also influence attitudes of parents.
- Find more donors for scholarships, to ensure increased enrolment of vulnerable students (from poor and remote areas).
- Take up the previous discussions on offering bridging courses for students without complete secondary education, which increases access to education for poor young people, also from remote areas.

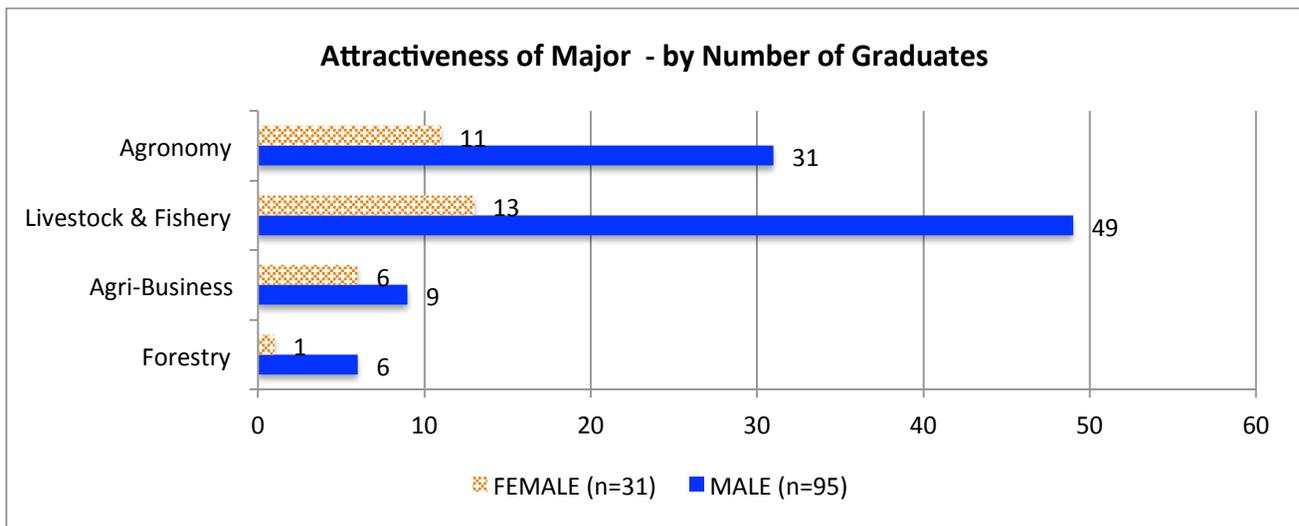
<sup>12</sup> Schroeter, A., 2010: Assessment on female and other disadvantaged students’ enrolment in Northern Agriculture and Forestry College Education, SURAFCO

## 4.2 QUALITY and SATISFACTION with education

### 4.2.1. Attractiveness of Study Majors

“Livestock and Fishery” is the most popular Major, chosen by 62 of the interviewees, followed by Agronomy with 42, Agri-Business with 15 and Forestry with only 7 (Figure 10). Forestry was an integral part of the mid-diploma courses before and only offered at NAFC under the new curriculum since 2011 – but is already rising in numbers of students. Agri-Business is a still a very new professional profile and has been offered since 2010 only. Related job profiles are still not yet very clear and thus attractiveness not very high. There is a need of further promotion, clarification on job opportunities, e.g. through preparation of more case studies, through connection of students to present graduates working in the field of agri-business.

**Figure 10: Attractiveness of Majors**



#### → **Recommendation – related to attractiveness of Majors:**

- Follow up the where-about and development of agri-business graduates on a regular basis to provide role models for present and future students in this major
- Prepare more case studies on agri-business graduates and communicate them widely
- Involve agri-business graduates as resource persons in practical and/or theoretical teaching
- Arrange field visits for students to agri-business graduates and the businesses they are working in
- Organize a special discussion forum with agri-business graduates during the job fair or other suitable events
- Further develop the organic pilot farm to provide “*real-context*” learning related to marketing, processing/value chain and income generation

### 4.2.2. Quality and Satisfaction

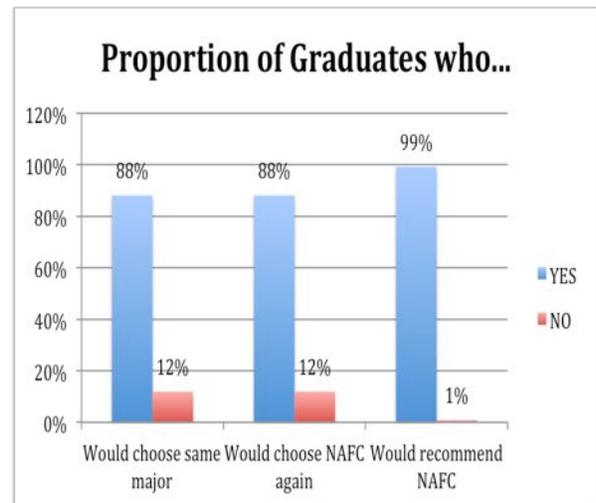
#### a. Overall

The level of overall satisfaction (rating 5 or 4) with the studies amounts to 98 % of all graduates. All women rated 5 or 4 stating that they are highly satisfied or satisfied. The men’s rating was 97% for highly satisfied or satisfied (rating 5 and 4) and 3% for moderately satisfied (rating 3).

**Figure 11: Overall satisfaction**

Beside only one graduate all others fully recommend NAFC as a training institution (Figure 11). 88% would choose NAFC again and also 88% would select the same major.

The reason of those who would choose another education institution is related to a) the desire to study for a bachelor degree or higher and b) the desire to select other majors, which are not offered by NAFC. Also some government employers indicated that they opt for employment of bachelor graduates – despite the practical qualification of NAFC students.



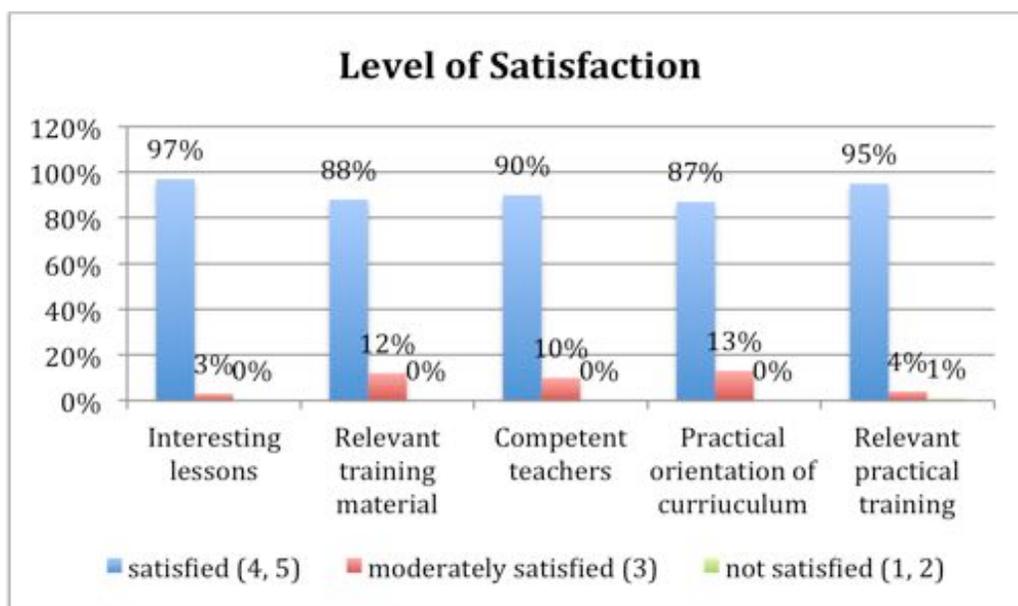
**→ Recommendation – related to overall satisfaction with the studies:**

- Consult with MAF on the wish of graduates for attaining a bachelor degree rather than a high-diploma and discuss a) the provision of guidelines for the requirement of government positions, especially in DAFO and on Kumban level and b) the possibility for bachelor and bachelor upgrading courses as a long-term perspective. (see employers view)

**b. Content**

The graduates were satisfied with the training quality. In all categories 87% to 97% of the graduates rated the quality with 5 for “very satisfied” or 4 for “satisfied” (Figure 12).

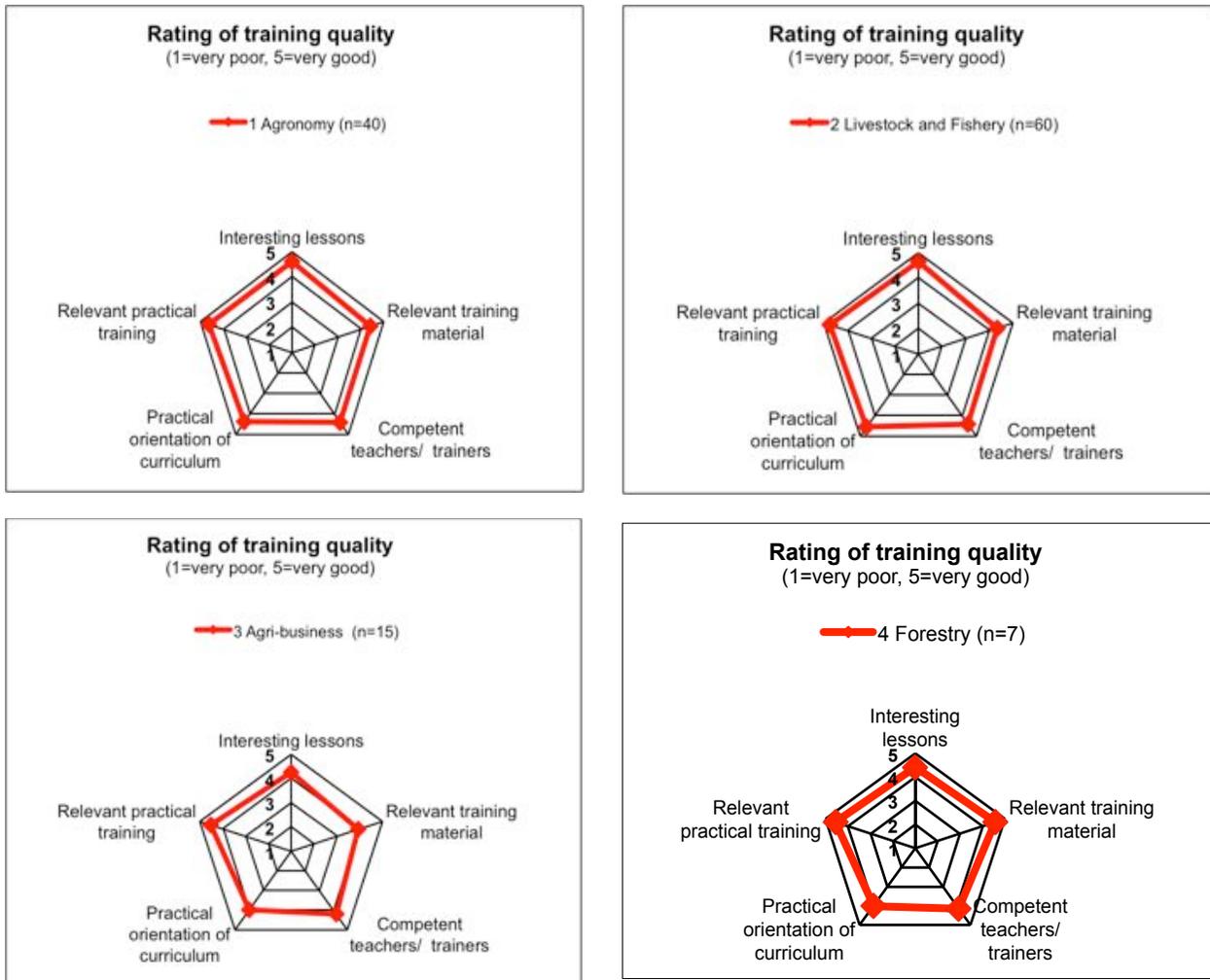
**Figure 12: Rating Training Quality**



Only a small proportion of graduates suggested any improvements, which were related to adjustment of teaching material.

The rating did not differ much per major (Figure 13). The agri-business graduates rated a bit lower, as the major was offered for the first time.

**Figure 13: Rating Training Quality by Major**



As the response to overall satisfaction is quite positive, recommendations focus here on maintaining students' satisfaction with the training quality.

- Recommendation – related to maintain quality of training:**
- Regularly assess the use of teaching material and produce up-to-date and relevant additional inputs
  - Keep the focus on the practical teaching and constantly improve practical lessons
  - Engage in strategic partnerships with organizations, projects and other educational institutions that can provide up-to-date technical information related to their respective technical field and be used during teaching

**c. Study conditions**

Study conditions are rated very good or good by 64% to 91% of the students (Figure 14). Improvements are suggested related to safety conditions by 7% and related to accommodation and equipment for practical training, both by 5% of the graduates. Safety conditions shall be improved related to use of lab and general security on the compound. Suggestions of improvements of accommodation facilitates are related to the fact that new dormitories and kitchens are not sufficient

for all students. Thus some of the students are still using the old accommodation facilities. Equipment for practical training varies a lot from farm to farm. In the last year all farms received again additional support in practical equipment. It needs to be assessed what additional equipment is really needed and relevant for the teaching.

**Figure 14: Rating Study Conditions**

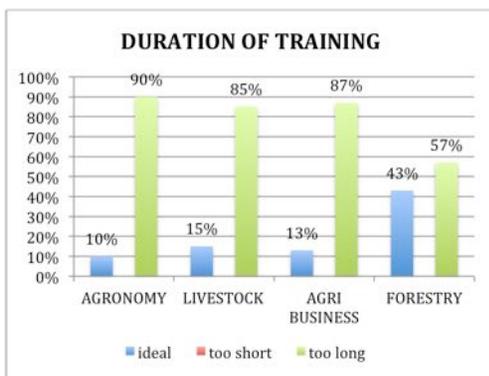
Study conditions	Class rooms/ training halls		Equipment for practical training		Safety conditions		Accommodation/ food		Hygiene/ sanitation facilities		Infrastructure overall	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
good (4,5)	112	89%	105	83%	81	64%	103	82%	105	83%	115	91%
fair (3)	13	10%	15	12%	36	29%	17	13%	17	13%	10	8%
poor (1,2)	1	1%	6	5%	9	7%	6	5%	4	3%	0	0%
<b>Total</b>	<b>126</b>	<b>100%</b>	<b>126</b>	<b>100%</b>	<b>126</b>	<b>100%</b>	<b>126</b>	<b>100%</b>	<b>126</b>	<b>100%</b>	<b>125</b>	<b>99%</b>

**→ Recommendation – related to study conditions:**

- Improve safety conditions, e.g. through the provision of health & safety guidelines for staff and students and overall fencing of the whole compound.
- Access additional funding for the construction of additional students’ dormitories. MAF to take decisions about such investments and about sources for the financing.
- Regularly assess safety condition in the laboratories, especially related to the use of chemicals
- Regularly assess the availability of necessary basic farm tools for practical teaching

**d. Study duration**

**Figure 15: Rating Study Duration**

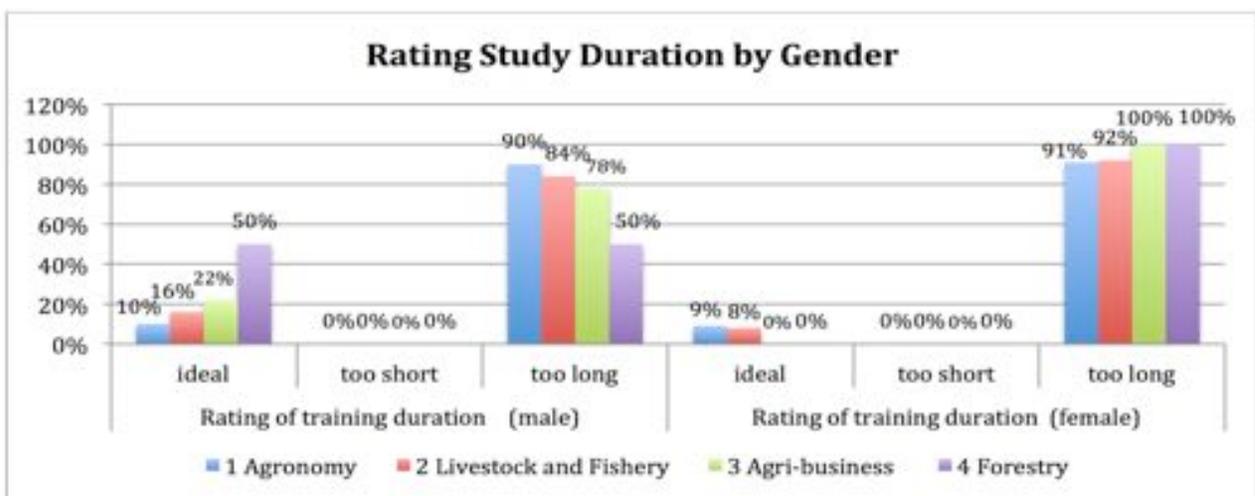


As already mentioned as a major constraint for enrolment the study duration was found too long by 80% of all graduates – with even 96% of all female graduates (Figure 15). The duration was too long for all female graduates in forestry and agri-business (Figure 16). It seems that the graduates want to finish their studies “fast”.

Compared to bachelor courses graduates suggested a reduction to 2 or 2.5 years for the high-diploma. However considering the already dense timeframe for teaching of all modules and suggestions from employers’ side for intensification of core issues, this suggestion seems not

very realistic. Moreover the educational system underlies an agreed requirement of credits for each grade, thus any change needed to be reflected within the whole educational structure.

**Figure 16: Rating Study Duration by Gender**

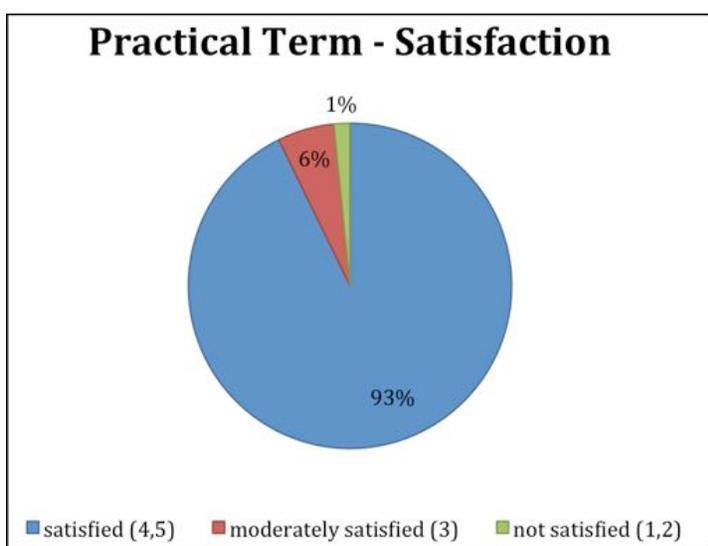


**→ Recommendation – related to study duration:**

- Discuss the issue of “too –long-study duration” with MAF and MoES and get their view on this issue (same as recommendation for enrolment)
- Develop a background paper, which explains the necessity of a 3-year study duration and related knowledge and skills to be achieved during this time and potential employment fields – including the difference to the 4-years bachelor courses related to job perspectives and achievement of knowledge and skills (same as recommendation for enrolment)

**e. Practical term**

**Figure 17: Satisfaction with Practical Term**



Overall 93% of the graduates were satisfied with the practical term (Figure 17), which is a very good result.

Looking at each of the five working condition categories the lowest score (72%) was related to the satisfaction with the availability of relevant tools and equipment (Figure 18).

Also lack of funding for related research was mentioned as a problem, by those not fully satisfied.

The time duration of the practical term was found appropriate. Those who felt that the practical term is too long, argued that a) data collection of the thesis was already done and non-related work needed to be preformed and that b) other educational institution perform the practical term for only 2 to 3 month.

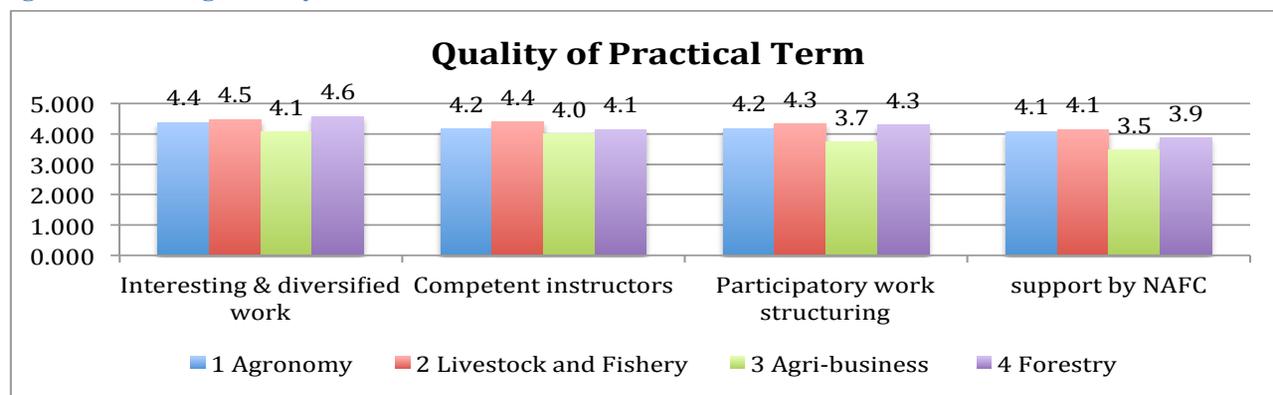
**Figure 18: Rating Working Conditions during Practical Term**

Working conditions (all trades and all graduates)										
B 2.4 (all trades)	General working conditions		Tools, material & equipment		Hygiene, sanitation facilities		Working hours/day		Accomodation/ food	
	all (number, %)	all (number, %)	all (number, %)	all (number, %)	all (number, %)	all (number, %)	all (number, %)	all (number, %)	all (number, %)	
satisfied (4, 5)	91	74%	89	72%	98	80%	112	90%	97	78%
moderately satisfied (3)	28	23%	26	21%	18	15%	12	10%	20	16%
not satisfied (1, 2)	4	3%	9	7%	7	6%	1	1%	7	6%
<b>Total</b>	<b>123</b>	<b>100%</b>	<b>124</b>	<b>100%</b>	<b>123</b>	<b>100%</b>	<b>125</b>	<b>100%</b>	<b>124</b>	<b>100%</b>

Other suggestions focused on the timing of the practical term, which was not always in line with the agricultural production season.

Out of a range from very poor (1) to very good (5), in average the quality of the practical term was rated over 4 in all categories. Comparing the scores among the four different majors, Agri-business graduates rate lowest in all categories (Figure 19). This is related to the fact that agri-business is a new and still developing professional area – as mentioned above. Related job profiles in the private sector are not yet very clear and related public positions in the agri-business divisions/sections of PAFO and DAFO are newly created and still lack substantial Terms of References and role models.

**Figure 19: Rating Quality of Practical Term**



The practical term was rated very positive, nevertheless the following additional remarks and suggestions collected during the focus group interviews, should be considered to improve the further performance.

The practical work was interesting with the instructors rated to be overall competent. However coordination between external supervisors and teachers at NAFC should be improved.

The support provided by NAFC teachers especially to students at outside practical places was found to be not always sufficient. Students would have liked more regular monitoring and advice in technical or operational issues and problems. The guidelines on duties, roles, expectations and coordination mechanism – for both students’ and practicum advisors - are not yet satisfactory.

The majority of the practical term places outside of NAFC focused on government institutions and the placement mechanism was not always fully clear for the students.

Practical term started late in several cases, which lead to problems with the practicum providers.

**→ Recommendation – related to practical term:**

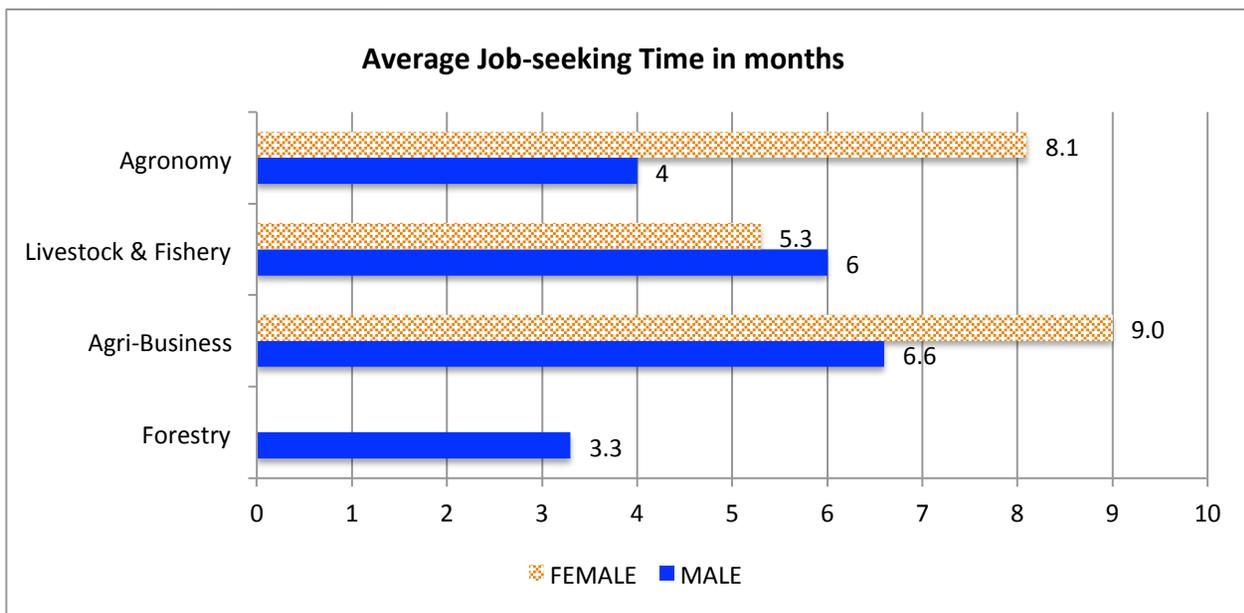
- Adjust the guidelines and information on the practical term (for both students and practical term providers) and provide an additional orientation course to students to be clear on duties, roles, expectations and coordination mechanism.
- NAFC teachers shall more closely monitor the technical performance during the practical term and provide regular feed backs on the progress and background information to the students, especially those outside of NAFC.
- Regularly coordinate with outside supervisors on students’ performance during the practical term, e.g. through phone calls or E-mail
- At least 1 coaching visit of NAFC teachers should be done after 3-4 month of the practical term
- Increase the number of private practical term providers, including projects and S&M enterprises (still more than 70 % of the students conduct their practical term with government services, including NAFC)
- Make sure that technical topics are appropriate for the respective season.
- Make a public announcement, e.g. on the whiteboard, on all available practical places and ensure a posting based on the students’ capacities and interest.

## 4.3 TRANSITION PERIOD to EMPLOYMENT

### 4.3.1 Period to find employment

The average time to find a job is lowest in forestry with 3.3 months, which is a very good average time, followed by agronomy graduates with 5 months, livestock and fishery with 5.8 months and highest in agri-business with 7.4 months – the last again related to the new and not fully clear job profile. In general women need more time for finding employment (Figure 20): 9 month for agri-business and 8.1 months for agronomy graduates. Only in livestock female graduates found a job quicker (5.3 month) compared to their male colleagues (6 months).

Figure 20: Average Job-seeking Time



Very interesting is the fact that nearly all graduates are using the transition period to employment for contributing to the household income. During the time between the graduation and a permanent job more than 95% of all graduates support their parents or relatives with their farming activities or with other family businesses.

#### → **Recommendation – related to reduce the job-seeking time:**

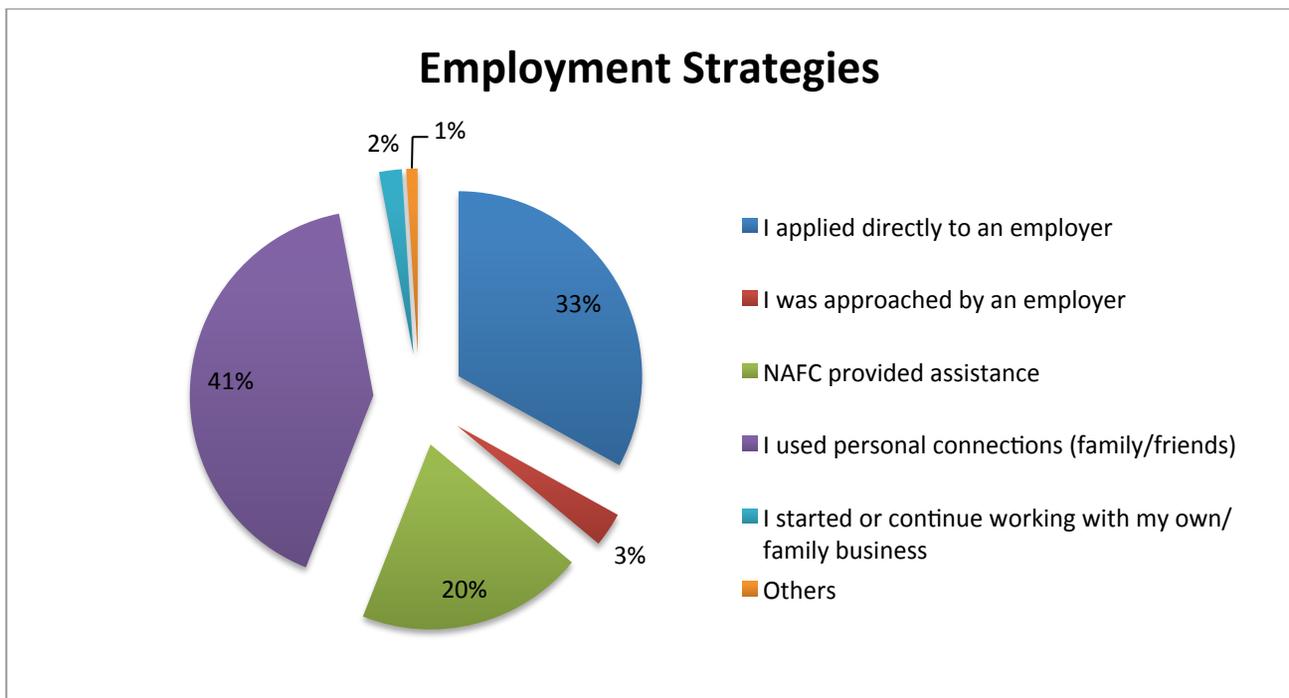
- Continue to organize job fairs and constantly increase the number of potential employers
- Assure that all third year students have the chance to fully participate in the job fair and that no other events are organized during this period
- Organize special workshops for students on job-finding strategies, CV writing and application techniques, interview techniques, as well as options and approaches for self-employment on a regular basis (not during the time of the job fair to ensure students can engage with employers during that time!)
- Improve the announcement board for job offers with selected open job offers and especially with information that helps students do their own search (e.g. web links for online job platforms and other sources)
- Increase numbers of practical terms with those providers, who are intending to take over graduates
- Keep contacts with potential employers on regular basis, not only at the end of the studies, e.g. invite them to practical demonstrations and teaching at NAFC

#### 4.2.1. Ways to find employment

Finding an appropriate work is still very much related to personal connections (Figure 21). 41% of the graduates tried to gain employment through their relatives or friends. 33% directly applied at companies, government offices or projects.

Very helpful is the assistance provided by NAFC respectively the NAFC teachers in linking students to potential employers, which 20% of the graduates used as their main approach to find employment. 3 graduates found employment by being approached directly by an employer.

**Figure 21: Employment Strategies**



**→ Recommendation – related to employment strategies:**

- Provide addresses and contacts of potential employers to students/graduates for arranging individual meetings
- Provide information for the students about relevant websites or newspapers, which launch job announcements and make announcements public, which were received by CCU.
- Inform graduates that CCU can also be approached for support to discuss employment questions and challenges after graduating from the college
- Update the data base and map enterprises and farms for employment (and internships) with basic background and contact data

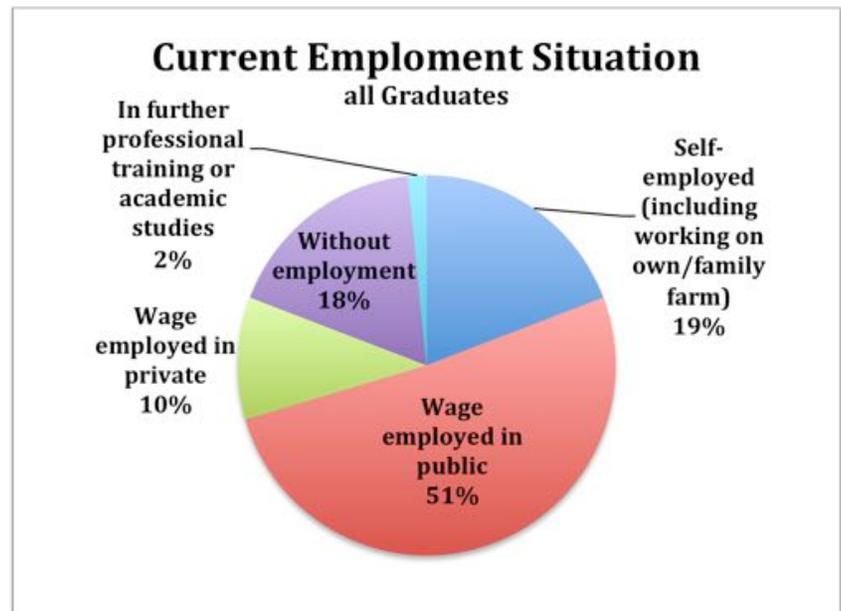
## 4.4 CURRENT PROFESSIONAL ACTIVITIES

### 4.4.1. Employment / education situation (before and after)

97% of all students enrolled with a complete secondary education – an equal rate for both gender. Only 1% had a lower secondary degree and 2% a vocational college degree.

Figure 22: Current Employment Situation

At the time of the study 61% of all graduates are wage employed, including the majority (51%) employed in the government service and 10% with the private sector (Figure 22). Only 19% opted for self-employment, which includes generating income on own/or family farm<sup>13</sup>. 2% are presently in further professional education studying for a bachelor degree.



Obtaining a position in the public administration is considered to be still much more attractive than working in the private sector or being self-employed. Graduates prefer the civil service despite the fact that they start their employment as contract staffs or volunteers, unpaid or with very low salaries for several years.

Job profiles in the private sector or being self-employment are missing positive role models and the S&M enterprise sector in Laos is not yet well developed in many places, which results in limited job opportunities in this sector.

Job profiles in the private sector or being self-employment are missing positive role models and the S&M enterprise sector in Laos is not yet well developed in many places, which results in limited job opportunities in this sector.

A percentage of 18% are presently without any employment. The figures demonstrate a **striking gender difference** – with 12% of the male and 33% of the female being unemployed.

Overall, 80% are in wage- or self-employment, which is a good result compared to the previous tracer studies at NAFC and the assessment of MAF on all agricultural colleges during the development of the reform strategy. However, this figure alone does not yet tell if it is gainful employment and therefore sufficient for a family's life.

Moreover reliable comparable statistical data for Laos' graduates from major educational institutions is not available. Compared to the TVET & IVET study the unemployment rate was similar in 2011 (17,8%) but reduced to 4,2% in 2013. However, this major decrease was only achieved by the increase of graduates moving to further education rather than a higher employment rate.

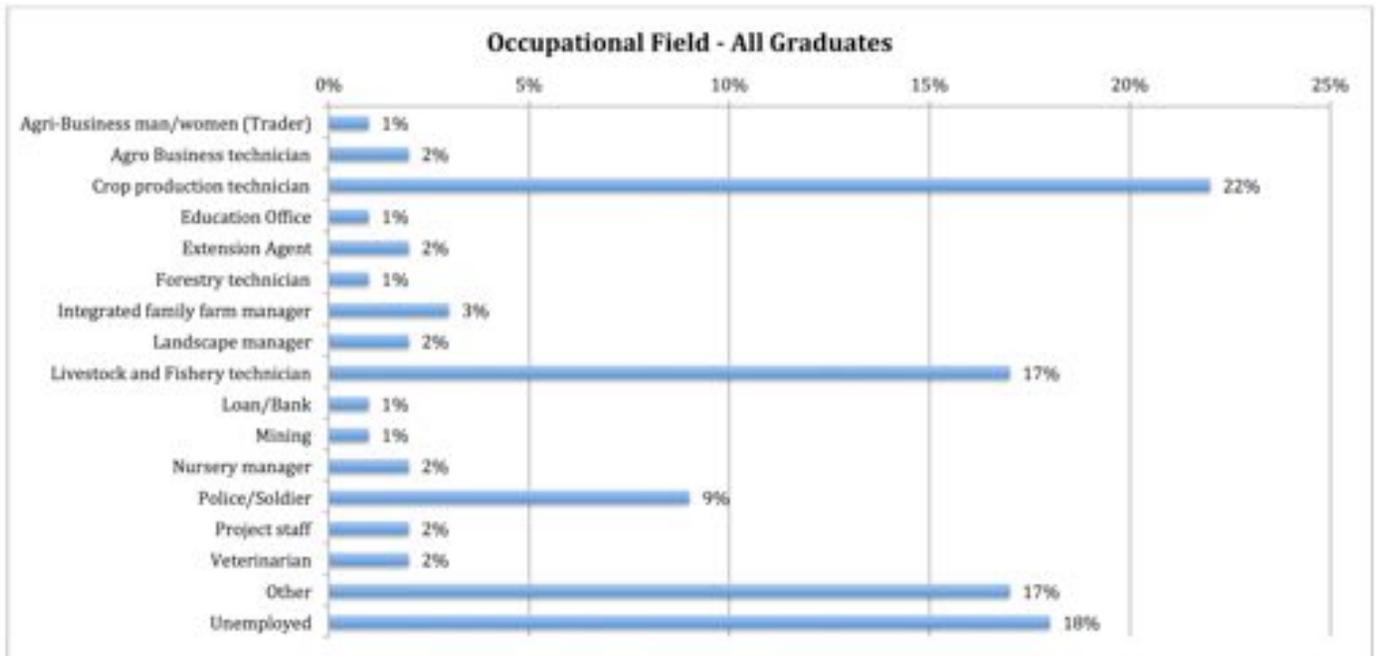
<sup>13</sup> This is surprising as the new Five Year Social Economic Development plan III (2016 -2020) states "Almost everyone involved in agriculture and fishery are self-employed (55%) or providing help to families (44%)", page 36 ff

#### 4.4.2. Employment Fields

Not surprising is the major concentration in employment on crop and livestock technicians with 22% respective 17% of all graduates (Figure 23). Interestingly the number of graduates posted as crop and livestock technicians within the police or army force are increasing and make the third highest percentage with 9% of all graduates. All other professional fields range between 1 and 2%.

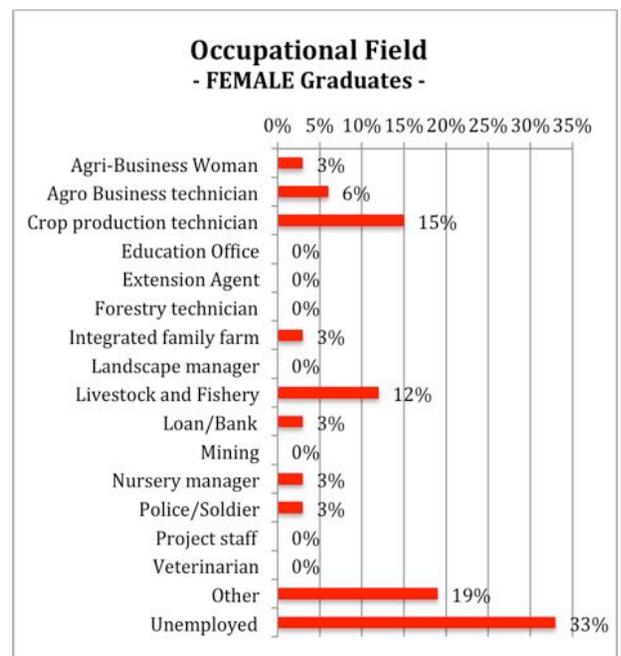
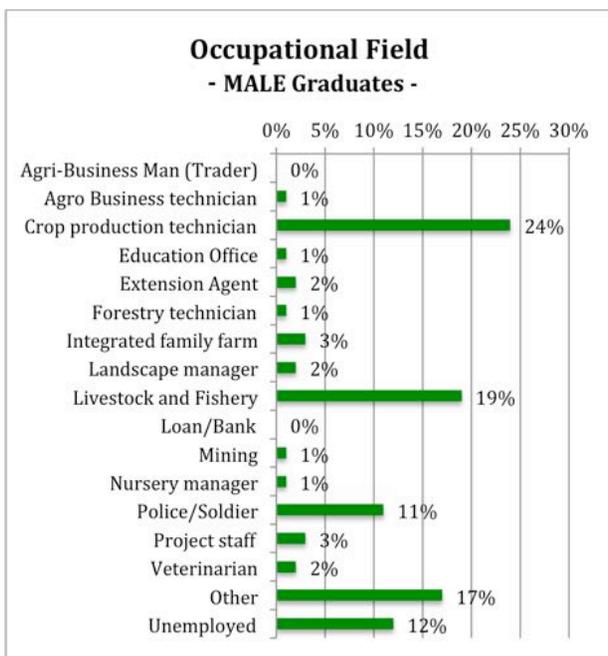
In total 17% of the graduates are employed in other professions. Those occupations include mainly non-agriculture related family businesses, sales of household products or work in the tourism sector.

**Figure 23: Occupational Field – all Graduates**



This focus on the employment fields by all graduates shows a similar orientation among male and female graduates (Figures 24). No major gender disparity arises related to the employment fields. However as mentioned above, a striking gender difference related to unemployment can be stated.

**Figure 24: Occupational Field – by Gender**



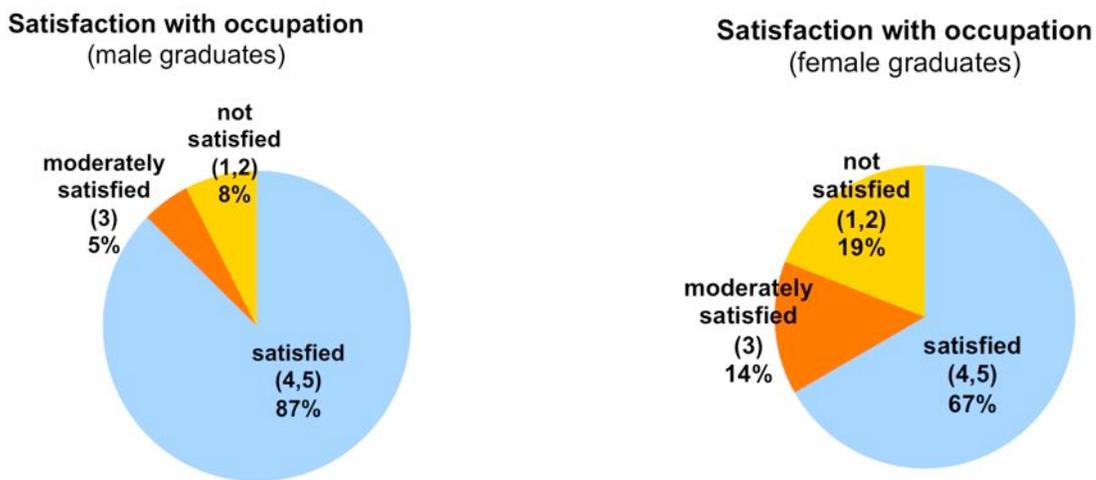
#### 4.4.3. Satisfaction of graduates with present work

Most of the graduates – a percentage of overall 83% - are satisfied with their present work. 7% mentioned to be moderately satisfied and 10 % were not satisfied. The satisfaction level for women is again much lower than for men, 67% for female compared to 87% for male (Figure 25). 19% of the female graduates are not satisfied with their present work situation.

Reasons mentioned for not being satisfied are a) low salary, b) not employed according to their educational field (women only), c) not enough funding for the own business, d) cannot apply the knowledge gained at NAFC (women only) and e) want to work with the government rather than self employed.

**Figure 25: Satisfaction with Occupation by Gender**

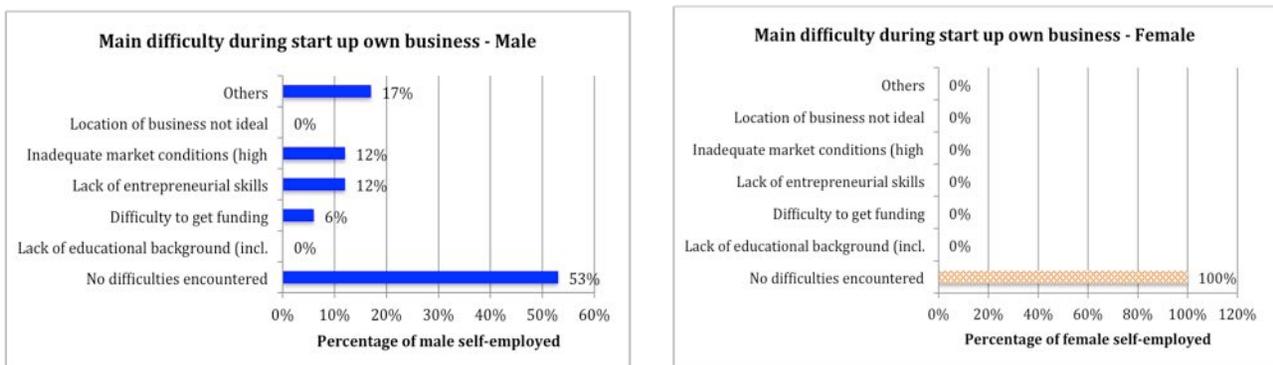
(Rating: 1 = not at all satisfied to 5 = very satisfied)



#### 4.4.4. Self Employed

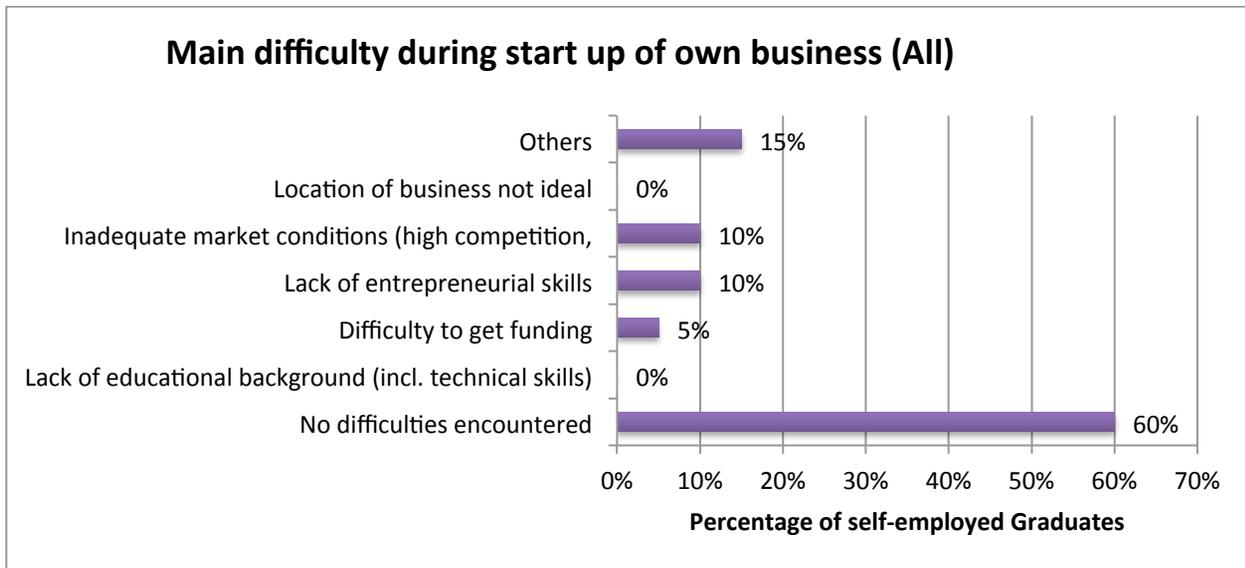
Nearly all self-employed graduates entered the self-employment **within an existing family business**, thus it is not surprising that 60% (and even 100% of the women) stated that they did not encounter any problems with self-employment as they entered into existing businesses (Figure 26).

**Figure 26: Difficulties for Start-up own Business by Gender**



Inadequate market conditions and lack of entrepreneurial skills were the main problems encountered for business start-up, which ranked equal with each 10% and difficulties with funding, was mentioned by 5% only (Figure 27).

**Figure 27: Difficulties for Start-up own Business**



However during the qualitative interviews and focal groups discussions the obstacle for setting up an **own business on their own** became quite obvious. Major constraints are related to a) access to financial start up possibilities for young people without any collaterals, b) financial insecurity of agriculture production in general, c) high risk in the agriculture sector and d) small and medium private sector is not yet enough developed in Laos.

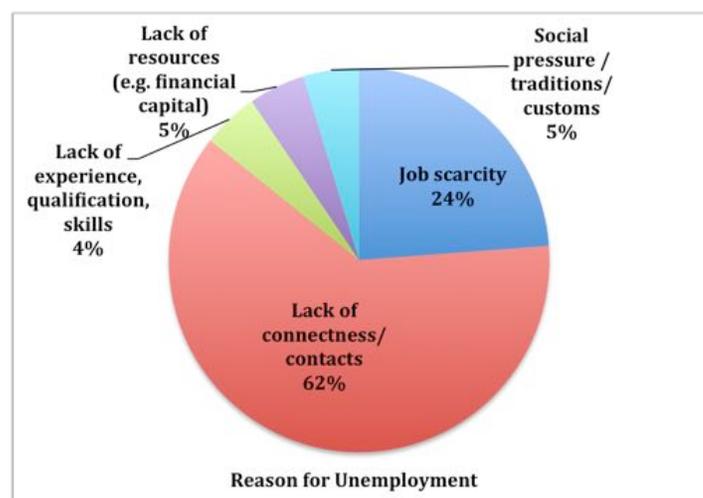
The interviews with private sector employers and self-employers confirmed these problems and suggested that students should be exposed to private sector work during their studies to gain better insights on coping with those challenges and gain experience for developing an own business.

#### 4.4.5. Unemployed

Looking into the reason for unemployment among all graduates “lack of connections” was mentioned by 62% with the highest importance (Figure 28). This shows that a) available jobs are often not openly announced and b) a transparent selection mechanism of suitable candidates is not yet widely applied.

Lack of adequate jobs in general ranked second with 24%. This is mainly related to the desire gaining a position in the civil service. The information given during the personal and focus group discussions confirmed that unemployment often results from the unfulfilled hope, to get a position in

**Figure 28: Reason for Unemployment**

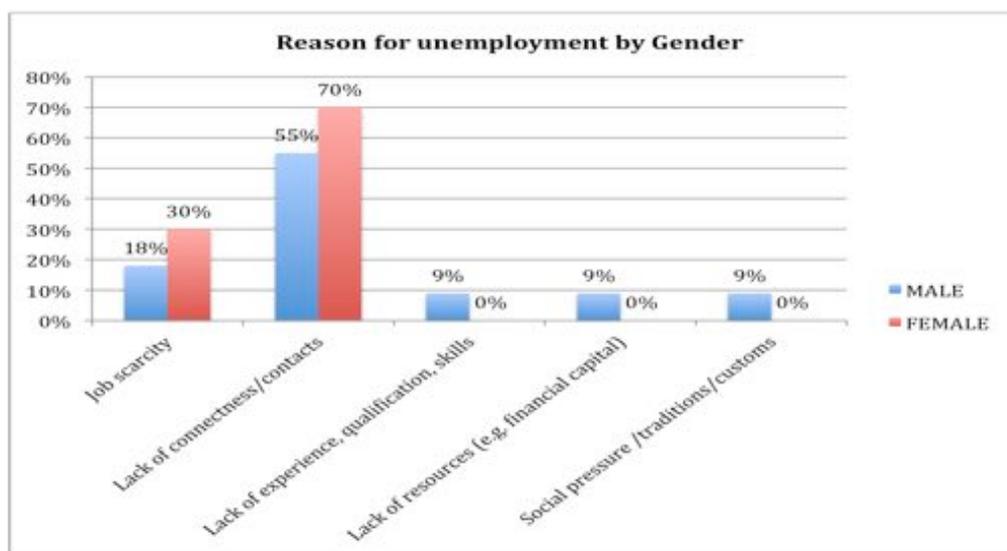


the government sector and the unwillingness of graduates to work in the business sector. The Lao German TVET & IVET study confirmed this finding specifically for the agricultural graduates.

“Social pressure and traditions” is still an obstacle for 5% of the graduates and “lack of financial resources” (also 5%) was mentioned by those graduates intending to set up their own business.

Considering the high range of unemployment among women, it is interesting that none of them mentioned a lack of qualification, experience or skills (Figure 29). Even women are generally more restricted by traditional believes and roles (e.g. in terms of contribution to household labor), those traditional believes seem not to play a role related to unemployment. None of the unemployed female graduates identified “traditional believes and roles” as a reason for not being in work. For 70% of the women “missing contacts and connections” is the main burden for not yet finding employment.

**Figure 29: Main reason for Unemployment by Gender**



**→ Recommendation – related to employment challenges:**

- Increase the cooperation with private sector employers and self-employed (with measures suggested above – job-fair, involvement in teaching, field-visits, practical term, database of private sector stakeholders, etc.)
- Follow up recommendations of the study on assessment of credit possibilities for graduates to support graduates wishing to start up their own business, especially the contact to the ACLEDA bank, one of the promising options to access funding
- Organize a young entrepreneur contest for graduates and grant a prize for start-up capital and counseling by a professional to the winners, considering women in particular.
- Consider the creation of cooperatives by graduates as an option to start small agri-businesses - in cooperation with German Cooperative and Raiffeisen Confederation (DGRV)
- Discuss with DAFOs and PAFOs the placement of female graduates in government positions and make clear that also women shall be employed according to their technical education and competence, and not placed in a position unrelated to their skills
- Discuss what other special support NAFC and CCU could provide to increase female graduates’ placement in the labor market

## 4.5 INCOME

### 4.5.1 Economic Background (before and after)

Only 22% of the graduates had an income or contributed to the family income before their studies (Figure 30). This changed to 75% at the time of the interviews, leaving still 25% without any present income.

Figure 30: Economic Situation – before & after

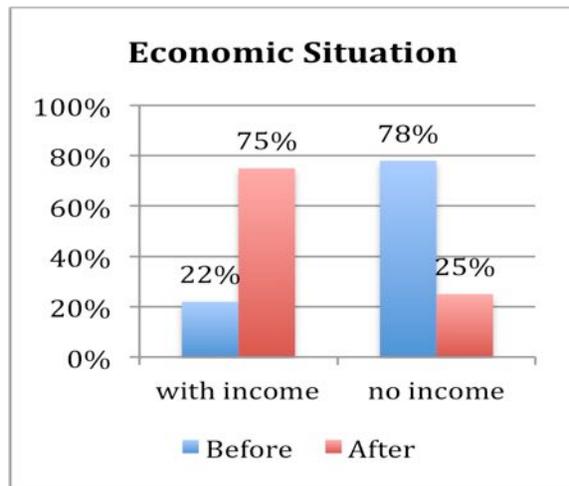
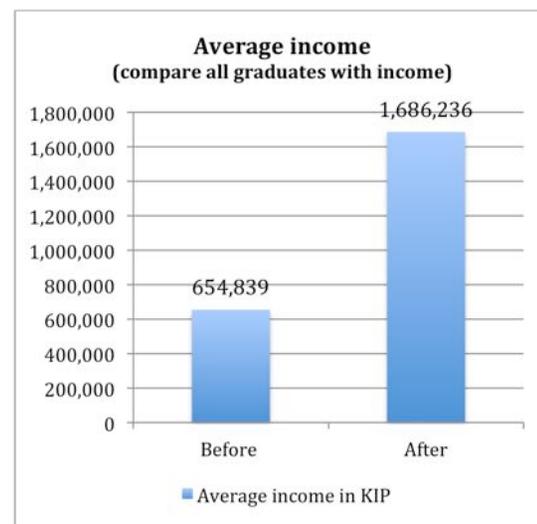


Figure 31: Average Income/month – before & after



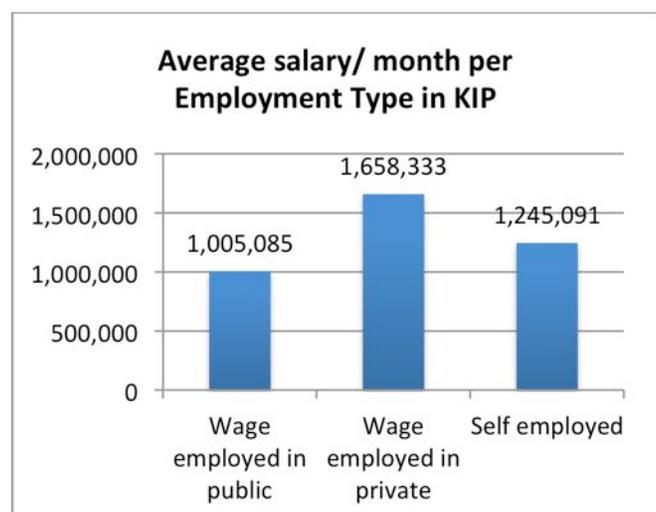
The average income of those with income before the training arose to about 655.000 Kip<sup>14</sup> and at present stage 1.686.000 Kip

(Figure 31). The highest income before starting the training amounts to 1.5 Mill Kip – compared with the highest income of 21 Mill, 15 Mill and 8 Mill Kip for graduates abroad and 3.6 Mill and 2.3 Mill Kip in Laos at the time of the assessment.

Comparing the salaries by employment type, the average monthly income is **highest in the private sector** with 1.658.000 Kip, followed by graduates in self-employment with 1.245.000 Kip (Figure 32). The government service is paid lowest with an average of 1.005.000 Kip per month.

Within the public sector those graduates working with the police or military service ear more (in average 1.055.000 Kip) compared to those working at PAFO or DAFO offices (994.800 Kip). Out of 53 graduates working with PAFO or DAFO, 5 do not receive any salary, arising to 9% of the graduates unpaid in this category, including 15% among female and 8% among male.

Figure 32: Average Income per employment type



<sup>14</sup> Exchange rate US\$ / KIP is around 1 / 8.000 (April 2015)

The average income rate differs a lot between the majors (Figure 33). Highest incomes are presently found among the agronomy graduates with 2.680.000 Kip per month without any major difference related to gender. This high amount is certainly related to the fact that most of the graduates abroad - with a comparably extremely high income - are agronomy graduates.

Figure 33: Average Income by Major

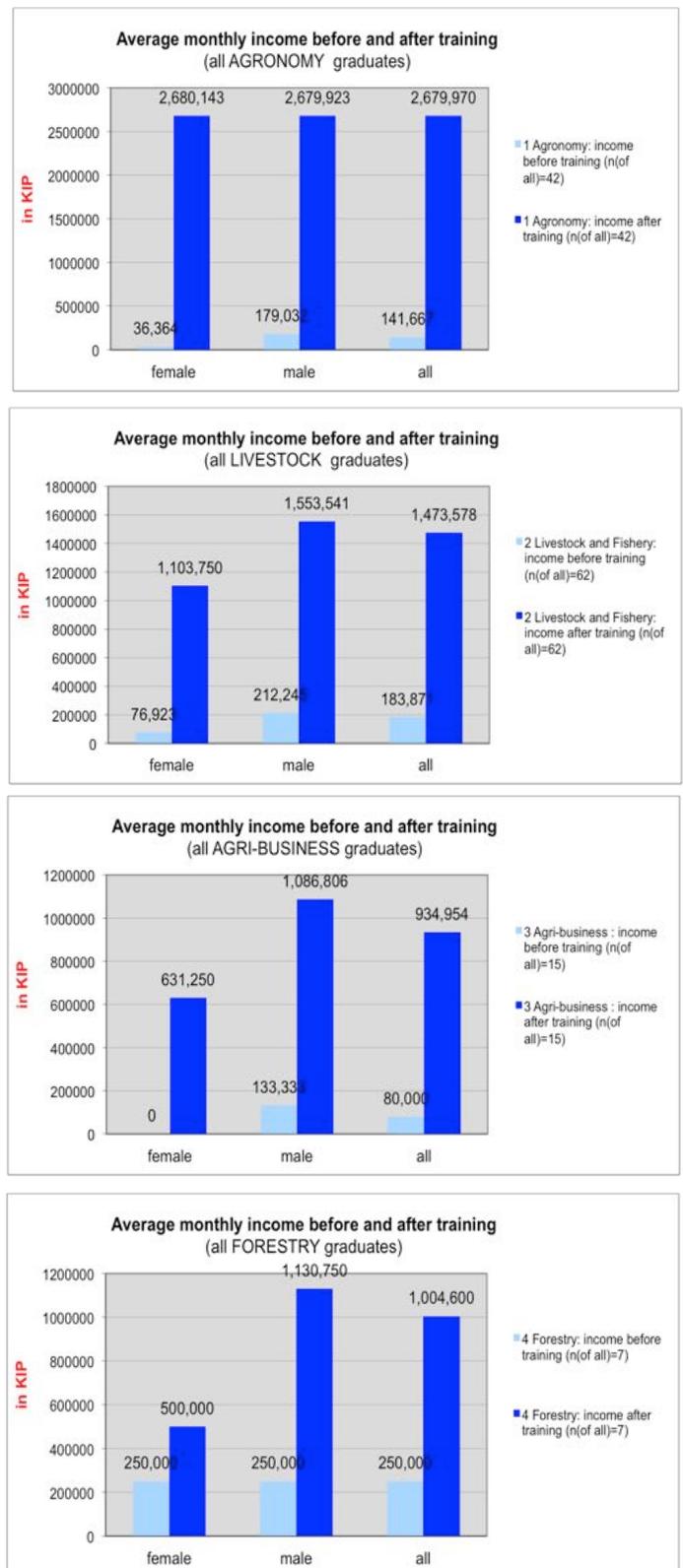
Livestock and fishery graduates earn on average about 1.474.000 Kip, with 1.104.000 Kip for female and 1.554.000 for male graduates. An even bigger gender difference is found among agri-business graduates with an income of 1.087.000 Kip for male and only 631.000 Kip for female graduates. The average income in forestry amounts to 1.005.000 Kip, with the only women in his field earning 500.000 Kip.

Even those figures indicate a difference of monthly average income between the majors, we can assume that **income is more depending on the type of employment** and the individual employer rather than the respective technical field. Thus the variations in the technical fields should not be taken as a worrying fact as they are quite special for these two batches and influenced by a) Graduates working abroad with high salaries and b) the low number of graduates in agri-business and forestry included in this assessment, which might not be fully representative.

However, a worrying outcome of these figures relates to the obvious **striking gender inequality**: Female Livestock graduates earn in average only 71% of their male colleagues, female Agro Business graduates 58% and female Forestry graduates only half of the male's income. Only average earnings in agronomy are gender balanced.

This significant gender difference in average income needs to be addressed. The reason might be related to the agricultural labor market. The FAO National Gender Profile of agriculture households states that a "very important source of gender inequality in the agriculture sector is livelihood diversification and **income**"<sup>15</sup>.

Worrying was also the response of one of the employers, who openly mentioned that he pays less to female than male.



<sup>15</sup> FAO/SIDA, 2010: National Gender Profile of agricultural households 2010, Page 53

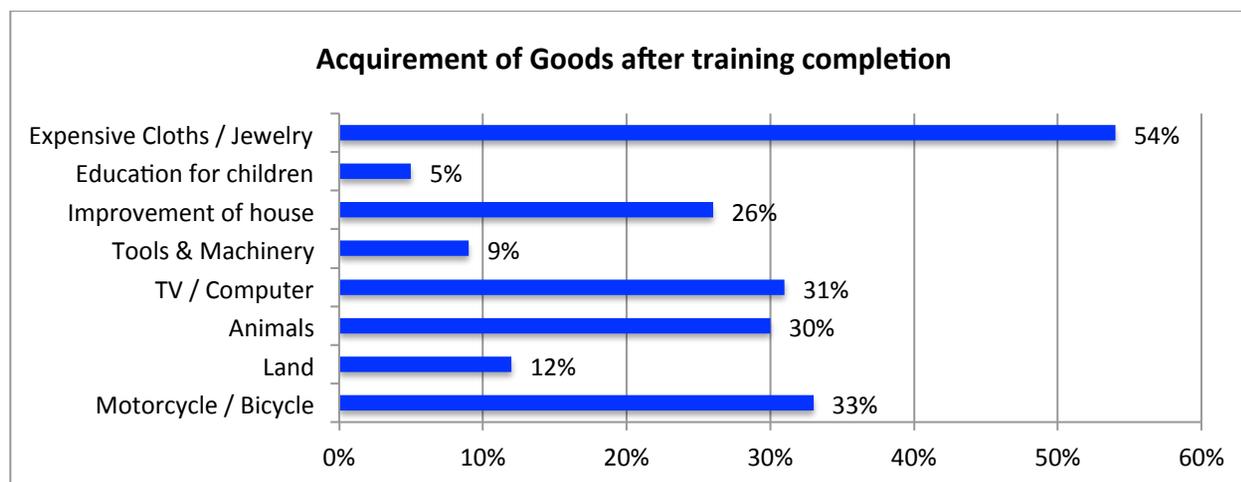
**→ Recommendation – related to income:**

- Conduct a research on salary levels of similar positions and identify the reason for the unequal payment of women and men.
- Discuss the issue of equal payment with potential employers and make clear that payment should be based on position and task and NOT related to gender.
- Inform MAF committee for Women advancement on the outcome related to the gender differences in average income and discuss their experiences, possible reasons and steps to be approached
- Inform the Ministry of Labour and Social Welfare (MoLS) on the outcome of the study and get their position on the gender differences in payment - and elaborate related steps to be taken
- Cooperate with the MoLS and provide support and information on income levels, conditions and legal regulations to graduates wishing to work abroad
- Strengthen the self-esteem of women and provide information about average entry salary so that they become more confident to request higher entry salaries

#### 4.5.2 Improvement in living conditions and contribution to household incomes

79% of all graduates mentioned a clear improvement in living conditions and additional belongings acquired after the training. The remaining 21% reported an unchanged situation and none of the graduates encountered a worsened situation. Graduates were able to purchase additional jewelry and expensive cloths (54%), motorbikes (33%) and IT equipment (31%) as shown in Figure 34. Related to agriculture productions 30% were able to purchase animals and 12% acquired new land.

**Figure 34: Acquirement of Goods – after the training**



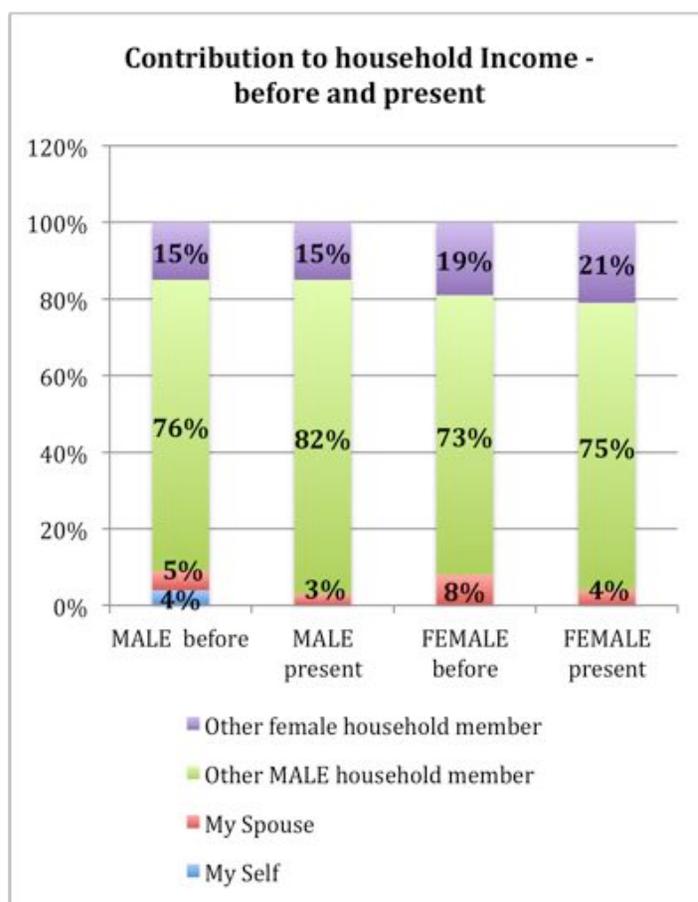
Comparing the main contribution to the household income before and after the studies no major difference can be quantified. About  $\frac{3}{4}$  of the interviewees mentioned a male household member as the main contributor and  $\frac{1}{4}$  a female household member.

Presently not one of all graduates mentioned their own contribution as core for the overall household income. This is not surprising as most of the graduates are still living within the parents' or sisters' & brothers' households and have not yet established a home on their own. It would be interesting to assess the major household contribution in 3-4 years after graduation.

Figure 35: Main Contributor Household Income

In total 6 male graduates mentioned an own contribution to household income before the studies, which changed to major contribution by parents (3), by other male (2) and by spouse (1) at the present stage. The reason for this change was not elaborated, but the figure is quite minor and can therefore be neglected (it might be a documentation or data entry problem).

Comparing the answers related to household contribution from male and female graduates (Figure 35), the following result could be obtained: Both, male as well as female graduates, mentioned a slight increase in “other male household member’s” contribution: from 76% before the studies to 82% presently for male graduates and from 73% to 75% for female graduates. In the households of female graduates also the percentage of women as the main household contributors increased from 19% to 21% after the studies.



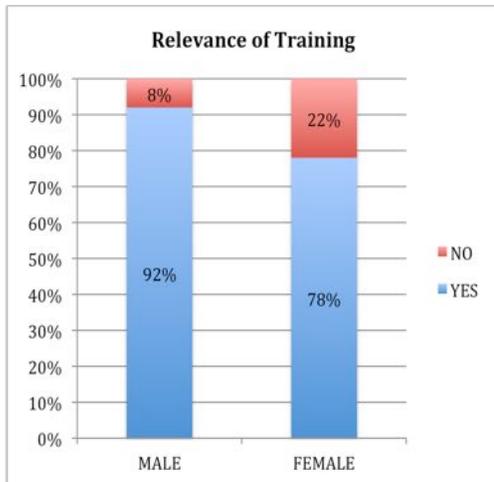
**→ Recommendation – related to household income and change in living conditions:**

- Assess the main contribution to household income from graduates 3-4 years after graduation and compare the difference to the present study

## 4.6 RELATIONSHIP between STUDY and WORK – relevance of studies

### 4.6.1 Application of acquired knowledge and skills

Figure 36: Overall relevance of Training

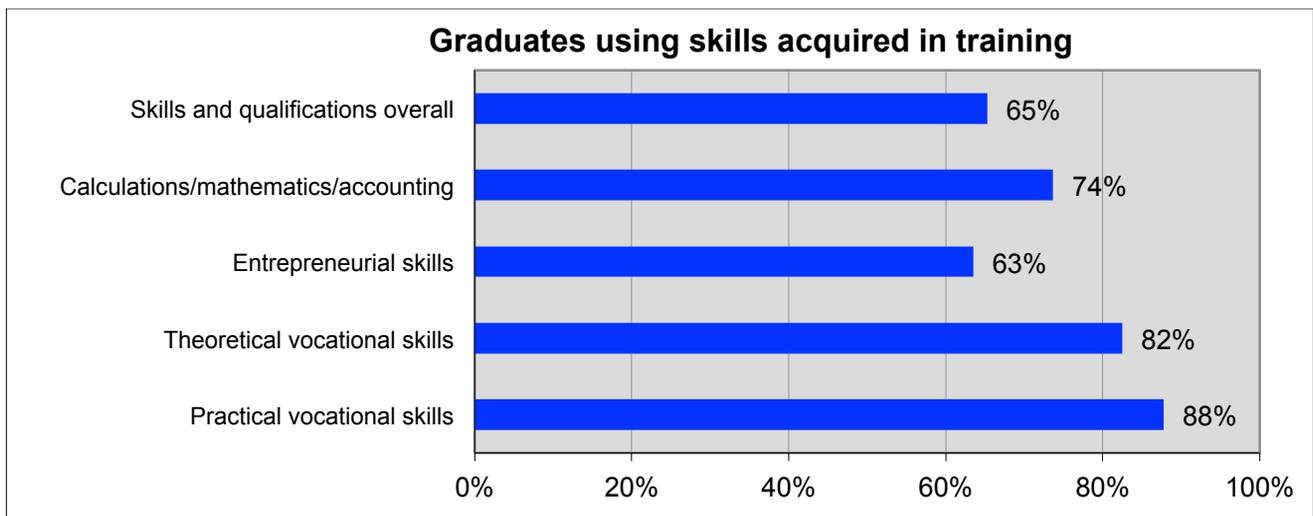


Assessing the figures on the relevance of the studies, 89% of all graduates made a clear statement on the importance of the education for their present occupation (Figure 36).

Again a gender difference can be found with the women stating a lower percentage of 78 %, related to the fact that some of the female graduates are posted in positions which do not primarily relate to the core educational field.

Looking into the skills and knowledge acquired during the training, the use of practical skills accomplished is ranked highest with 88% (Figure 37). Theoretical knowledge was mentioned by 82% of the graduates, followed by 74% mentioning knowledge in calculation & accounting.

Figure 37: Application of acquired knowledge and skills



Beyond applying the practical skills in their official working environment, 95 % of all graduates passed on their knowledge to colleagues and relatives or friends. This included mainly the practical introduction to new agriculture techniques, e.g. related to organic production or vaccination techniques, but also the provision of information on agriculture laws and regulations.

**→ Recommendation – related to application of acquired knowledge and skills:**

- Continue with the practical focus of the education – skills are very much appreciated by graduates as well as employers
- Improve the practical education towards better marketing skills (which was mentioned by many graduates)

#### 4.6.2 Relevance of specific content to graduates' present work

The following modules and subjects are considered as highly relevant for the education and need special attention:

##### **Computer:**

Basic computer skills are required in nearly all-relevant professional fields. Preparing small excel tables, writing requests or work reports and preparing power point presentations are an integral part of most of the job requirements. Even the remotest work places use computers.

##### **→ Recommendation –related to IT skills:**

- **Access to the computer room** should be assured **throughout the studies** and should not be limited to use during the computer classes only. A schedule should be set up, e.g. every day from 6 to 8 pm, including the appointment of responsible staff. This set up needs the involvement of a group of teachers and cannot be the single responsibility of the IT Teacher only.
- **Other modules** should **include assignments on the computer** to allow the students to train their skills. Those could contain preparation of excel sheets for farm productions, profit calculations or market prices; short power points on research, field visits, farm activities or assignments for presentation in the classes, and short reports, case studies or relevant essays in word. All theory modules should be assessed and NAFC shall define at least one assignment, homework or test per module in a digital version.
- Especially during the last semester, all students need full access to a computer for the **preparation of their thesis** and related Internet research. Moreover it will allow them to access the Internet for **searching job announcements** and help them to connect to the labor market. Job announcements are e.g. launched on the following websites:
  - ✓ <https://www.linkedin.com/groups/LaoFAB-ProDev-Professional-Development-Opportunities-4686782/about>
  - ✓ <http://www.108job.la/home>
  - ✓ <http://laojobsvacancy.com/>
  - ✓ <http://jobstoday.la/>
  - ✓ <http://www.findinlao.com/f/forums/jobs-laos/>
  - ✓ <http://www.directoryofngos.org/pub/jobs.php>and direct websites of INGOs and GOs, like GIZ, UNDP, etc.

##### **English:**

Similar to Computer skills, English skills become more and more important. This was mentioned not only by projects and international organizations, but also by the government employers from PAFO and DAFO. Basic English skills are e.g. required to access additional information for the studies. More and more websites in Lao are available, but no or low English skills limits a literature research.

Students without English skills will be excluded from labor market announcements. The majority of the job announcements in newspapers or on the web are nowadays launched in English language.

**→ Recommendation – related to English Skills:**

- In the first draft of the curriculum 2 English courses were offered: General English and English for Agriculture. Due to the required reduction of basic modules General English needed to be cut. However most of the students don't receive this Basic English knowledge during their secondary education. This fact needs to be taken into consideration; even the official curriculum does presently not allow the integration of more English classes. Thus **additional classes in the evenings** could be considered on an interim basis. The issue should be discussed with MAF and MoES for finding a solution to **reintegrate more English classes** in the curriculum.
- The level of English knowledge varies a lot. It should be considered to group the students along their knowledge, e.g. through tests at the beginning of the studies. **Classes** could then be **arranged based on existing knowledge** rather than on the class.
- The present teaching in **English for Agriculture is not sufficient**. English classes need to be held in English for at least 90 % of the time. Change in teacher, additional upgrading training or additional support should be considered.
- The library should provide more **self-learning material** for learning English in hard copy and digital form. Additionally short videos, newspapers, e.g. the Vientiane Times and newsletters, e.g. from NAFRI or international projects in English language should be exposed in the library for students' use.

**Rural and Community Development and Extension:**

A lot of students work on district or cluster (Kumban) level. Their knowledge and skills in community organization, rural development, communication, group establishment and training are very important. Those subjects are considered essential by most of the students as well as private and public employers.

**→ Recommendation – related to knowledge and skills in Community & rural development and extension:**

- Knowledgeable, experienced teachers with good communications skills need to be appointed for the teaching of those modules.
- Update learning material content on a regular basis. New publications, new regulations, strategies or guidelines like the law on cooperatives or release of the upcoming DAEC strategy should be included the curriculum.
- Other organizations, projects or initiatives working in the area should be regularly consulted on development of new research or materials.

**Agriculture Policy, Laws and Regulation:**

The framework for policies, laws, rules and regulations is very important for the graduates, especially in the light of economic and political in-country developments, but also the increased boarder trade, related international agreements and within the frame of ASEAN. Those policies and regulation underlie a permanent adjustment and improvement process to cope with new developments. A lot of new relevant guidelines have been released and need to be included in the curriculum content. Those include, e.g. rules and laws on establishment of cooperatives, land regulations, organic production, ASEAN regulations on cross boarder trade, new NSEDP, etc.

**→ Recommendation – related to agriculture policy, law and regulations:**

- Revise the module on “agriculture policy” and concentrate on most relevant policies
- Content development and provision of background material for “agriculture policy” should involve support from LURAS (e.g. related to agro-business development, farmer-group establishment) and DGRV (e.g. related to law on cooperatives), who already launched a first introduction workshop to all five colleges in April 2015 and others.
- Constantly update the module when new relevant regulations are released
- Include relevant policies in other modules
- Assess availability of existing materials, e.g. Climate change curriculum which was introduced in April 2015 to 5 Lao Universities with US embassy support

**Technical subjects:**

Some of the technical modules need to be revised or adapted to new developments. Without valuing the present quality of each technical subject, the following courses are of high importance for the constantly changing labor market, especially in the light of the orientation to international trade and ASEAN commitments: Disease prevention, plant protection, new agricultural technologies, agriculture politics, agriculture law and trade regulations.

**→ Recommendation – related to technical subjects:**

- Constantly update technical modules based on requirements of the labor market and when new developments occur. Modules and subjects of high importance which have been mentioned in this study are e.g. disease prevention, plant protection, new agricultural technologies, organic and compost production, marketing and agriculture politics, agriculture law and trade regulations

**Reporting:**

Report writing is essential for all job profiles: reports on field visits, meetings, conferences, study tours, research, monthly-quarterly-or-yearly activities, work performance, marketing, farm activities – the list could be continued endlessly. It was mentioned as highly important by 100% of the interviewees – graduates as well as employers.

**→ Recommendation – related to reporting skills:**

- The present module on “Seminar and report writing” was highly appreciated, but students need to take more time to practice and reporting skills should be addressed in other modules as well.

## 4.7 EMPLOYERS VIEW

Employers are in general quite satisfied with the graduates employed from NAFC. They value their practical skills and the hard working ability and therefore acknowledge NAFC's approach in practice-oriented and student-centered teaching.

Employers are interested in intensifying the cooperation with NAFC, especially related to practical term conduction and job-placement. They also suggest that students should be exposed to private sector work during their studies to gain better insights on coping with challenges and gain experience for developing an own business. Employers would like the college to focus on improved IT and English skills, communication and analyzing skills and some technical and methodological topics as specified below.

### **Improved practical skills under the new high-diploma curricula**

Employers – both from government and private sector - mention that there is a big difference (large improvement of skills) between graduates hired about 3-5 years ago and those recently. Graduates under the new skills-based curricula have much more relevant skills because they gain more practical experiences on the diverse NAFC farm units during their studies.

Compared to Soupanouvong University graduates with better theoretical skills, e.g. in documentation and report writing, NAFC graduates are willing to seek employment on farms, proved to have a “hard working” attitude and are not afraid of “get their hands dirty”.

### **Recruitment process**

Employers use different approaches for the recruitment process. Transparent recruitment process with open announcements in newspapers/posters/internet is the most common procedure of private sector employers. They are also looking for the direct contact with training institutions, which allows them to discuss the specific requirements of the open positions. In this light the job fair was valued as highly important. They moreover mentioned involvement of existing staff in the recruitment process as an advantage, to assess if new staff fits into the existing team.

Most of the positions with the civil service are still relying on suggestions through personal contacts and quota graduates selected by government services. However this procedure is changing through the new set up for contract staff and related qualification tests and interviews introduced.

### **Knowledge and skills needed**

Asked about the core knowledge and skills required, most of the employers mentioned various specific technical skills based on their business orientation or their focus on agriculture productions in the province, including the rising importance of marketing skills.

Mentioned by all employers interviewed, was the need of basic knowledge in English and IT – even stated as a requirement for those positions in remote districts. Other language capacities, like Chinese or Vietnamese, become more important in the cooperation with foreign companies investing in the agriculture sector. Basic reporting and documentation skills are necessary for most of the public and private positions.

For the government employers good communication skills and knowledge in extension and rural & community development is very important as a high number of the graduates are based in Kumban (sub-district) service centers working in agriculture extension and training.

Important for the private sector employers are a) analytical skills, b) ability to work independently, c) willingness to take over responsibility and d) basic organization skills. Employers suggested exposing students to private sector work during their studies to gain better insights for developing an own business and coping with challenges in the private sector businesses.

### **Certification**

All employers appreciate the practical focus and general orientation of the education offered by NAFC. However in times of competition of educational institutions the level of certificate becomes more and more important – this relevance of official certification was only mentioned by the public sector. Some employers from PAFOs and DAFOs mentioned that they preferably employ graduates with bachelor degrees, despite the fact of better practical orientation of college graduates.

MAF is very clear in their reform strategy on the need of well skilled staff with practical orientation to be posted in the districts and on Kumban level. If PAFOs and DAFOs employ bachelor graduates for those positions, the graduates from NAFC and other agricultural colleges will be left out and not considered – despite their competence. Thus MAF shall be consulted to a) provide guidelines for the requirement of government positions, especially in DAFO and on Kumban level and b) consider the possibility for bachelor and bachelor upgrading courses as a long-term perspective.

## 5 Other relevant Tracer Studies in Laos

### 5.1 Tracer Study on TVET & IVET Institutions

The Lao-German Development Consulting Group conducted a study in 2013 covering 922 graduates from 12 technical vocational schools and colleges throughout Laos. The study assessed all vocational trades, including the provision of significant figures for graduates in the agricultural sector.

The study concludes the following main results, which confirms related findings of this study:

- Achieving a position in the government sector is still more attractive than working in the private sector. Graduates are searching their employment perspective in civil service, accepting military service, contract or even unpaid work as volunteer in order to reach that goal.
- Labor market orientation, especially in the increasing business sectors of vocational training need to be improved. Best results in private sector employment were reached in cases where enterprises were already involved in the training.
- Self-employment and creation of a business is still a very uncommon option for graduates. Respective inputs on basic entrepreneurial training could help to create more interest for this livelihood option.

### 5.2 DED Tracer Studies at NAFC

The German Development Service supported two Tracer studies of NAFC graduates in 2004 and 2007. The first study involved 159 graduates, reaching only 20 % of the targeted graduates, including 95 % government employees. It focused on recommendation to improve study conditions at NAFC, including financial support to students. The study did not provide information on the labor market situation.

The second study reached 246 graduates with a return rate of only 30 %. Again the majority of the graduates replying to the questionnaire were already in occupation - involving a percentage of 79 % being employed in civil service. Sending out questionnaires by postal mail is not recommended for further studies, as the return rate showed an unbalanced sampling.

Even not being able to provide a credible indication on the job placement situation in general, the study showed a related gender inequality: about 85 % of the male graduates reached found a job directly after graduation compared to only 65 % of the female graduates. The study states that female graduates face more difficulties in finding satisfying and permanent jobs. This current study displays that not much has changed in this respect, despite the fact of launching many support measures for female students in the last 3 years.

### 5.3 Tracer Study at Soupanouvong University, Luang Prabang

The department of Agronomy at Soupanouvong University conducted a Tracer-study in 2013. This study was rather a follow up on government graduates, as most of interviews were conducted with government graduates in employment. The study included 98% government staff and only 2 % from army, police, bank and private. The study samples comprised 92 out of 604 graduates out of 6 batches, a percentage of 15 %. Samples were not selected on a randomized basis, but identified through PAFO offices of 8 northern provinces without any provision of selection criteria.

Even though an overall indication on job placement could not be provided, the following information related to content improvements and general impressions could be collected:

- Also this study confirmed that achieving a position in the government sector is most attractive: Despite the fact that the availability of government positions is dropping, most young people are opting for positions in the civil service. Reasons mentioned for the unattractiveness of the private sector are: a) the private labor market is dominated by foreign companies, especially Chinese companies, who are not willing to employ Lao people, b) the lack of big businesses in the agriculture sector in the northern provinces, c) small and medium businesses cannot cope with the market demand, e.g. provide a stable quantity and quality of products and d) attractiveness of gaining higher income in non-agriculture related jobs.
- The agriculture labor market needs skilled graduates, with practical capacities and Soupanouvong needs to improve their practical teaching at their faculty. This outcome proves the relevance of the skills-based curriculum at NAFC for most of the positions in the agricultural sector.
- Computer, English and report writing capacities are of high value for the job placement in both private and public sector.

#### **5.4 Tracer study at Pakpasak College, Vientiane**

Tracing of graduates at Pakpasak College is done within the respective departments and summarized by their CCU. The counseling unit does not prepare a formal report, but uses the graduates figures for a comparison in an excel database. They focus on a sampling of about 20% to 30% of the graduates for individual interviews. Last year they additionally organized a “cocktail meeting” to discuss employment challenges in a more informal way.

The outcome related to job placement differs from department to department. The CCU head could not give an exact figure on the present status, but mentioned an overall more than 90% to 95% of the graduates have regularly income, including about 80% to 85% in their respective educational field and about 10% in other occupational areas. Pakpasak graduates work only to a small extent in professions in the agricultural sector. The range of employment covers about 60% working with the private sector, 25% working self-employment and 15% working in the public sector.

They also keep a folder with graduates’ status sheets, where they update the present employment situation of those having been interviewed. Especially graduates without employment are encouraged to visit the CCU on a regular basis to report on their development and to receive additional advice. They furthermore keep contacts with graduates showing good and extraordinary working performance to use their experience as examples for present students.

## 6 Case Studies

The Case Studies in the Annex have been prepared for different categories

- Graduates working with private sector
- Graduates working with an international project
- Graduates working with the government
- Graduates working self-employed
- Graduates working abroad
- Graduates unemployed
- Female Graduates

Cases have been chosen to provide critical perspectives on the positive and/or negative effects of the present work situation, quality and relevance of training and practical term, institutional support, income situation and labor-market friendliness. They shall be used to provide examples and role modules for present and future students. The persons described could be involved as resource persons, invited for lectures to classes, visited during a field assignment, invited for presentations during the job fair or other CCU activities. Major appreciations and problems from the case studies can be summarized as follows:

### 6.1 Graduate working with the private sector

APPRECIATION	PROBLEMS
Better paid than public sector	Time-limited contract, no live-time job-security
Receive salary regularly every month & in full amount	Often no incentives, like accommodation, cloth or others
Short decision making ways	No pension scheme
Less bureaucracy	Private sector more vulnerable than government sector (companies might close down)
Payment based on performance	

### 6.2 Graduate working with an international project

APPRECIATION	PROBLEMS
Well paid	English language capacity is an essential
Able to take over responsibility	
Able to make own decisions	
Opportunity to learn on the job	
Opportunity to upgrading training, language or technical	
Work and operate in an international environment	
Performance counts and is valued	

### 6.3 Graduate working with the Government

APPRECIATION	PROBLEMS
Long term job security	Low salary
Opportunity to conduct additional private activities (some including the provision or use of state owned land)	Salary payment sometimes delayed and/or cut
Receive retirement money	Often no clear job description
Receive additional incentives (e.g. cloth, transportation, accommodation, food, medical care)	Enter in government jobs still often depend on connection or payment
Salary not depending on actual performance	Decision making takes time and needs many levels
	Social restrictions (e.g. not able to marry before enter in full government job)

## 6.4 Graduate working self-employed

APPRECIATION	PROBLEMS
Being the own boss	Access to financial start-up possibilities very difficult
Taking responsibility	Small and medium private sector in Laos not enough supported
Making own decisions	Not much positive role models
Using knowledge and skills gained during training	Financial insecurity
Able to try out new technologies	High financial risk in the agriculture sector

## 6.5 Graduate working abroad (interns in Israel)

APPRECIATION	PROBLEMS
Gain a work experience in a foreign country and environment	Posted on farms which did not match with technical background (e.g. livestock graduates on orange farm)
Experience a high-level technology	Not properly informed on the political situation and the possible consequences.
Work along an agreed time-schedule	Security was not assured
Combine work & upgrading knowledge	No Lao or representing Embassy is present in Israel, thus nobody was responsible in emergency situations.
Opportunity to visit other working places	Based in a living environment with Lao people, thus exchange with other cultures limited
Decent salary (net 1.500 \$)	No chance to improve English language skills
Gain additional and new knowledge	Some employers cut the salary without staff knowing why
Receive additional technical and practical training for 1 day in the week	High expenses for accommodation (500\$/month), food and travel occurred, thus the actual savings remained between 2.000\$ & 5.000\$ for the whole 11 months.

## 6.6 Graduate unemployed

APPRECIATION	PROBLEMS
	Lack of connections and personal contacts
	Available Jobs are not openly announced
	No full transparent selection process of suitable candidates in the government sector
	Lack of financial resources

## 6.7 Female Graduate

APPRECIATION	PROBLEMS
In modern thinking environment knowledge and skills are valued – gender does not play a role	Women less valued – conservative thinking – presumably women cannot work in the villages, cannot do certain work
Agricultural sector is now more divers and interesting to women – not only concentrate on heavy physical work in the fields	Put into admin or finance positions, where they are not skilled and educated for – unsatisfying situation
	Knowledge and skills not judged and assessed, but gender biased decision
	Social pressure and traditions mentioned as highest obstacle for enrolment
	Women are less paid than men for an equal position

## 7 Conclusions and Recommendations

### 7.1 Recommendations on specific Improvements

The following summary of detailed recommendation should be discussed with the NAFC management team, CCU and other concerned representatives from MAF. The recommendations need to be reviewed and priorities set. Responsible persons for the implementation need to be agreed as well as a tentative timeframe.

On a first look the list might seem quite long, however some of the recommendations do not need much time for the actual implementation and/or are a reminder on ongoing activities to be continued or intensified. A summary of the main conclusions is given in chapter 7.3.

#### 7.1.1 RECOMMENDATIONS to improve ENROLMENT

##### ***Related to gender and ethnicity:***

- Continue promotion for higher enrolment for female students and show potential career paths in the sector that are interesting for women.
- Continue with special support to female students during the studies, e.g. scholarships for female, female sport competitions, special study events or training for women.
- Special support to female graduates shall be provided, e.g. through a competition for female graduates to start up their own business (with a one-time start up fund)
- Spread information on improved infrastructure and safety conditions at NAFC
- Intensify strategic partnerships with key organizations operating on women empowerment, like Gender and Development Association (GDA), Lao Women's Union (LWU), MAF's committee for women advancement and other INGOs.
- Enrolment of students shall consider representation of ethnic groups in the respective province
- At least a small number of Sino-Tibetan ethnic students shall be approached and enrolled in the future, e.g. through special scholarships for those ethnics

##### ***Related to reason for entering the studies:***

- As "good employment outlook" is ranked as the most important enrolment reason, connection to potential employers shall be intensified. Opportunity to meet employers already during the studies shall be arranged, e.g. during the job-fair, during teaching through invitation of employers or self-employed farmers as resource person or guest lectures, or during practical teaching through field visits to established businesses and projects.
- "Income improvement" has a high priority for enrolment in the studies. Next to the improved opportunity to meet private sector employers during the studies, an additional focus shall be put on promoting self-employment. Experiences with self-employment shall become an integral part of the theoretical and practical teaching content.

##### ***Related to prior knowledge about NAFC:***

- Continue to organize information days in the provinces prior to the start of the new academic year (at secondary schools and for parents), including showing videos of successful graduates
- Adjust the Internet appearance of NAFC to better reflect the offered curriculum, study terms, professional profiles, potential career paths and other relevant up-to-date information
- Continue to distribute general promotion and information leaflets on NAFC on a regularly basis
- Improve information leaflets on the specific majors with more detailed information on teaching content, skills to be achieved and job opportunities and distribute on regularly basis
- Involve former graduates for the promotion of courses at NAFC
- Consider the establishment of an NAFC alumni organization

**Related to constraints for enrolment:**

- Discuss the issue of “too –long-study duration” with MAF and MoES and get their view on this issue
- Develop a background paper, which explains the necessity of a 3-year study duration and related knowledge and skills to be achieved during this time and potential employment fields – including the difference to the 4-years bachelor courses related to job perspectives and achievement of knowledge and skills.
- Intensify marketing strategies (sales of agriculture and processed products) with potential buyers in Luang Prabang town, as access to generate some income seems to be one reason for the enrolment.
- As “social pressure and traditional believes” are still an obstacle for the enrolment, promote benefits of college studies, especially for poor and female students. Role models, e.g. the story of successful graduates in newspapers or on radio can also influence attitudes of parents.
- Find more donors for scholarships, to ensure increased enrolment of vulnerable students (from poor and remote areas).
- Take up the previous discussions on offering bridging courses for students without complete secondary education, which increases access to education for poor young people, also from remote areas.

**Related to attractiveness of Majors:**

- Follow up the where-about and development of agri-business graduates on a regular basis to provide role models for present and future students in this major
- Prepare more case studies on agri-business graduates and communicate them widely
- Involve agri-business graduates as resource persons in practical and/or theoretical teaching
- Arrange field visits for students to agri-business graduates and the businesses they are working in
- Organize a special discussion forum with agri-business graduates during the job fair or other suitable events
- Further develop the organic pilot farm to provide “*real-context*” learning related to marketing, processing/value chain and income generation

## **7.1.2 RECOMMENDATIONS to improve EDUCATION QUALITY**

**Related to overall satisfaction with the studies:**

- Consult with MAF on the wish of graduates for attaining a bachelor degree rather than a high-diploma and discuss a) the provision of guidelines for the requirement of government positions, especially in DAFO and on Kumban level and b) the possibility for bachelor and bachelor upgrading courses as a long-term perspective.

**Related to overall quality of training:**

- Regularly assess the use of teaching material and produce up-to-date and relevant additional inputs
- Keep the focus on the practical teaching and constantly improve practical lessons
- Engage in strategic partnerships with organizations, projects and other educational institutions that can provide up-to-date technical information related to their respective technical field and be used during teaching

### **Related to study conditions:**

- Improve safety conditions, e.g. through the provision of health & safety guidelines for staff and students and overall fencing of the whole compound.
- Access additional funding for the construction of additional students' dormitories. MAF to take decisions about such investments and about sources for the financing.
- Regularly assess safety condition in the laboratories, especially related to the use of chemicals
- Regularly assess the availability of necessary basic farm tools for practical teaching

### **Related to practical term:**

- Adjust the guidelines and information on the practical term (for both students and practical term providers) and provide an additional orientation course to students to be clear on duties, roles, expectations and coordination mechanism.
- NAFC teachers shall more closely monitor the technical performance during the practical term and provide regular feed backs on the progress and background information to the students, especially those outside of NAFC.
- Regularly coordinate with outside supervisors on students' performance during the practical term, e.g. through phone calls or E-mail
- At least 1 coaching visit of NAFC teachers should be done after 3-4 month of the practical term
- Increase the number of private practical term providers, including projects and S&M enterprises (still more than 70% of the students conduct their practical term with government services)
- Make sure that technical topics are appropriate for the respective season.
- Make a public announcement, e.g. on the whiteboard, on all available practical places and ensure a posting based on the students' capacities and interest..

## **7.1.3 RECOMMENDATIONS to improve EMPLOYMENT SITUATION**

### **Related to employment strategies and job seeking time:**

- Continue to organize job fairs and constantly increase the number of potential employers
- Assure that all third year students have the chance to fully participate in the job fair and that no other events are organized during this period
- Organize special workshops for students on job-finding strategies, CV writing and application techniques, interview techniques, as well as options and approaches for self-employment on a regular basis (not during the time of the job fair to ensure students can engage with employers during that time!)
- Improve the announcement board for job offers with selected open job offers and especially with information that helps students do their own search (e.g. web links for online job platforms and other sources)
- Increase numbers of practical terms with those providers, who are intending to take over graduates
- Keep contacts with potential employers on regular basis, not only at the end of the studies, e.g. invite them to practical demonstrations and teaching at NAFC
- Provide addresses and contacts of potential employers to students/graduates for arranging individual meetings
- Provide information for the students about relevant websites or newspapers, which launch job announcements and make announcements public, which were received by CCU.
- Inform graduates that CCU can also be approached for support to discuss employment questions and challenges after graduating from the college
- Update the data base and map enterprises and farms for employment (and internships) with basic background and contact data

### **Related to employment challenges:**

- Increase the cooperation with private sector employers and self-employed (with measures suggested above – job-fair, involvement in teaching, field-visits, practical term, database of private sector stakeholders, etc.)
- Follow up recommendations of the study on assessment of credit possibilities for graduates to support graduates wishing to start up their own business, especially the contact to the ACLEDA bank, one of the promising options to access funding
- Organize a young entrepreneur contest for graduates and grant a prize for start-up capital and counseling by a professional to the winners, considering women in particular.
- Consider the creation of cooperatives by graduates as an option to start small agri-businesses - in cooperation with German Cooperative and Raiffeisen Confederation (DGRV)
- Discuss with DAFOs and PAFOs the placement of female graduates in government positions and make clear that also women shall be employed according to their technical education and competence, and not placed in a position unrelated to their skills
- Discuss what other special support NAFC and CCU could provide to increase female graduates' placement in the labor market

## **7.1.4 RECOMMENDATIONS to improve INCOME**

### **Related to income:**

- Conduct a research on salary levels of similar positions and identify the reason for the unequal payment of women and men.
- Discuss the issue of equal payment with potential employers and make clear that payment should be based on position and task and NOT related to gender.
- Inform MAF committee for Women advancement on the outcome related to the gender differences in average income and discuss their experiences, possible reasons and steps to be approached
- Inform the Ministry of Labour and Social Welfare (MoLS) on the outcome of the study and get their position on the gender differences in payment - and elaborate related steps to be taken
- Cooperate with the MoLS and provide support and information on income levels, conditions and legal regulations to graduates wishing to work abroad
- Strengthen the self-esteem of women and provide information about average entry salary so that they become more confident to request higher entry salaries

### **Related to household income and change in living conditions:**

- Assess the main contribution to household income from graduates 3-4 years after graduation and compare the difference to the present study

## **7.1.5 RECOMMENDATIONS to improve RELEVANCE of training**

### **Related to application of acquired knowledge and skills:**

- Continue with the practical focus of the education – skills are very much appreciated by graduates as well as employers
- Improve the practical education towards better marketing skills (which was mentioned by many graduates)

**Related to content improvement of specific modules:**

**IT skills:**

- Access to the computer room should be assured throughout the studies
- Include assignments on the computer in other modules
- Especially during the last semester, all students need full access to a computer for the preparation of their thesis and related Internet research.
- Train students in how to perform Literature research & assess labor market announcements on the web

**English Skills:**

- Arrange for additional English classes in the evenings or on weekends with competent teachers as one English module “English for Agriculture” is not sufficient.
- Discuss the lack of English skills with MAF and MoES for finding a solution to **reintegrate more English classes** in the curriculum.
- Arrange English training based on existing knowledge rather than on the class.
- Upgrade the library with additional self-learning material in hard copy and digital form.

**Community & rural development and extension:**

- Knowledgeable, experienced teachers with good communications skills need to be appointed for the teaching of those modules.
- Update learning material content on a regular basis. New publications, new regulations, strategies or guidelines like the law on cooperatives or release of the upcoming DAEC strategy should be included the curriculum.
- Other organizations, projects or initiatives working in the area should be regularly consulted on development of new research or materials

**Agriculture policy, law and regulations:**

- Revise the module on “agriculture policy” and concentrate on most relevant policies
- Content development and provision of background material for “agriculture policy” should involve support of LURAS (e.g. related to agro-business development, farmer-group establishment) and DRGV (e.g. related to law on cooperatives), who already launched a first introduction workshop to all five colleges in April 2015 and others.
- Constantly update the module when new regulations are released
- Include relevant policies in other modules
- Assess availability of existing materials, e.g. Climate change curriculum which was introduced in April 2015 to 5 Lao Universities with US embassy support

**Technical subjects:**

- Constantly update technical modules based on requirements of the labor market and when new developments occur. Modules and subjects of high importance which have been mentioned in this study are e.g. disease prevention, plant protection, new agricultural technologies, organic and compost production, marketing and agriculture politics, agriculture law and trade regulations.

**Reporting skills:**

- The present module on “Seminar and report writing” was highly appreciated, but students need to take more time to practice and reporting skills should be addressed in other modules as well.

## 7.2 Recommendations for future Tracer Studies

This tracer study provided relevant tools, training, and lessons learnt for the future conduction of similar studies. Recommendations to be considered based on the learning are:

- Reduce the number of interviewers and select only those who a) showed good interview ability, b) filled in all required data, c) proved capacities to decide on appropriate additional candidates for follow up interviews on specific topics and d) proved to be able to conduct additional open interviews for more qualitative information
- Check the database and update sections, which did not work properly, e.g. occupational fields. Make sure that the choice selection in the database is coherent with the questionnaire and avoid further changes.
- Data entry should be arranged by only one team and in only one data sheet. Copying of data to a final summary sheet lead to errors, as the data entry sheets were not fully consistent and changed by individual entry teams. Even small differences, e.g. in big and small letters or tap space are not recognized by the format. This caused a lot of additional work for the preparation of the final tables.
- After the final data entry perform a quality control check to detect possible inconsistencies or missing data. If external consultants are involved, assure enough time for a joint data validation. Only once the database entries are found correct, start with analysing the figures.
- Consider an addition in the database related to the analysis of income, which presently gives only an indication on average incomes per major/technical field. However as the results show, the calculation of average income related to the type of employment is much more important and the database might be modified to directly indicate these figures as well.
- Put a special focus on tracing self-employed graduates and those graduated in Agri-Business to gain more insights on their development and compare the results with graduates from other training institutions countrywide.
- Ensure an appropriate selection of related employers to be interviewed. Contact employers in advance and make sure that they can provide information on those graduates being assessed. Also assure a proper sampling of employers from small, medium and big companies, projects, government services, military service, police, etc – possibly in line with the graduates' samples.

### 7.3 Conclusions

Based on the above-mentioned findings and specific recommendations, this chapter concludes and summarizes the main adaptations suggested related to a) general orientation of the education, b) attractiveness of the Major Agri-Business, c) gender inequality and d) employment challenges.

#### General Orientation of the Education

Graduates and employers appreciate the **practical focus in teaching** and the general orientation of the education offered by NAFC. This shall be continued. Teaching material shall be assessed regularly and relevant additional and up-to-date inputs shall be produced - in cooperation with organizations, projects and other educational institutions that can provide new and innovative technical information related to their respective technical field.

The **practical term** is considered to be a very important part of the studies. To assure high quality outputs, guidelines on the practical term for students and practical term providers shall be improved and additional orientation course to students shall be provided to be clear on duties, roles, expectations and coordination mechanism. NAFC teachers shall more closely monitor the technical performance during the practical term, including regularly checks and feed backs on the progress to all students, regularly coordination with practical term providers and at least one coaching visit on the spot. Opportunities for practical terms with private companies, self-employed farm managers and projects shall be increased.

As “social pressure and traditional believes” are still an obstacle for the enrolment, the benefits of college studies, especially for poor and female students shall be promoted. Previous discussions on offering **bridging courses** for students without complete secondary education, which increases access to education for poor young people, shall be taken up again.

Even overall satisfied with the skills-based and student-centered curriculum, graduates and employers mentioned a rising importance of a **bachelor degree**. MAF shall be consulted to discuss a) the provision of guidelines for the requirement of government positions, especially in DAFO and on Kumban level and b) the possibility for bachelor and bachelor upgrading courses as a long-term perspective.

#### Attractiveness of the Majors Agri-Business

Agronomy, Livestock & Fishery and Forestry are long established study majors and related job profiles are well known. **Agri-Business**, however, is a very **new professional profile** and has been offered since 2010 only.

Thus there is a need of further promotion, provision of role models for present and future students and clarification on job profiles and opportunities. Initiatives to be taken involve a) follow up on where-about and development of agri-business graduates, b) preparation of additional case studies, c) involvement of agri-business graduates as resource persons in practical and/or theoretical teaching, d) field visits to agri-business graduates, e) organization of a special discussion forum with agri-business graduates during the job fair or other suitable events and f) further development of the organic pilot farm as a “real-context” learning opportunity.

## Gender Inequality

The survey findings broad up quite some **gender inequalities, related to enrolment rate, employment rate, relevance between study and work, job satisfaction and income levels.** Women score lower in all those areas. Thus measures to increase gender-sensitivity and additional support to female students and graduates need to be approached.

Enrolment of female students amounts to about 30%. To keep or slightly increase this percentage, special support to female students during the studies (e.g. scholarships or specific training for women to strengthen their self-esteem) shall be intensified and particular assistance shall be provided to female graduates (e.g. start-up fund for business establishment).

Discuss with leaders of provincial and district agriculture offices the placement of female graduates in government positions and make clear that also women shall be employed according to their technical education and competence, and not placed in a position unrelated to their skills.

Conduct a research on salary levels of similar positions and identify the reason for the unequal payment of women and men. Discuss gender differences in income, job positioning and unemployment rate with MAF committee for women advancement, Ministry of Labour and Social Welfare and other relevant organisations and elaborate related steps to be taken.

## Employment challenges

“Good employment outlook” is ranked the most important enrolment reason. The public sector – still the most attractive job perspective - does not need any promotion. However, measures **to support private sector job placement and self-employment** shall be intensified and NAFC’s capacities to understand and analyze the job market trends shall be strengthened.

Networking, partnerships and connections to potential private employers and self-employed business holders shall be increased, throughout the whole study period. Measures suggested involve a) invitation of employers or self-employed farmers as resource persons or guest lectures in theoretical and practical teaching, b) field visits to established businesses and projects, c) continuation of conduction of the job fair, including an increased number of private sector employers and the full participation of all third year students and d) establishment of an NAFC alumni organization.

Moreover NAFC shall arrange special workshops for students on job-finding strategies, CV writing and application techniques, interview techniques, as well as options and approaches for entering into self-employment. Information, which helps to find employment, shall be provided to the students and graduates, including a) information about relevant websites or newspapers, which launch job announcements b) addresses and contacts of potential employers for arranging individual meetings and c) open job announcements received by CCU.

In order to support graduates who wish to enter into self-employment a) a young entrepreneur contest for graduates shall be organized and a price for start-up capital and counseling by a professional shall be granted to the winners, b) the creation of graduates’ cooperatives as an option to start small agri-businesses shall be considered and c) the recommendations given in the “study on assessment of credit possibilities for graduates” shall be taken up again.

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## 8 Annexes

### Annex 1: Case Studies

#### Graduate working with private sector (Farmers' Cooperative)

### Opportunity for applying practical skills & learning on-the-job

An agronomy graduate of the second batch in 2014, Mr Chansee Yo, origins from a poor Hmong family in Houylo village, Pak Ou district, Luang Prabang. His father completed the primary school while his mother had no opportunity to go to school.

He presently works at the Luang Prabang Organic Agriculture Association in Luang Prabang district. The small-scale cooperative with 5 staff, including 2 female manages organic vegetable farm and is cooperating with farmers in the region. Mr Chanssee's task is to provide technical advice to farmers who contribute to the organic production.

He performed his practical term in Savannaketh at the SAFC – one of the five agriculture colleges under MAF - on the subject of mushroom fungus production. During this time he gained very good practical skills in mushroom production and appreciated the support given by his apprenticeship advisor. Vis-versa he performed quite well and could get a very good mark for his thesis presentation. He also appreciated the opportunity to see and work at a different place and experience the differences of the two colleges. However there was no open job opportunity at the SAFC for employment after the graduation and he also preferred to look for a job in his home province.

During the first NAFC Job Market - providing an opportunity for students to connect with the potential employers – the organic farm was among the booth presenters. He talked to the representatives, got information about the organic farm and the required work. He filled in an application form and was competing with 8 other graduates. The selection process took about three months. Finally he was selected for one of the 2 open positions and started his work.

He is very proud and happy that he found this job. He likes his work with the farmers' owned cooperative, because he can apply his



knowledge and skills gained at NAFC, especially all the practical skills. He is involved in trying out new techniques and methods. He also appreciates the support from his supervisors and has the opportunity to learn a lot of new things on-the-job. He has a clear task and a guaranteed fixed contract, which will be renewed every year.

Mr Chansee can use a lot of knowledge and skills, which he gained during his studies. For his practical performance he uses the lessons learnt in subjects like compost, plant protection, plant production, etc. and for his theoretical work lessons from report writing and basic accounting. He suggests that for his job additional knowledge about seed storage would be useful.

His monthly salary is 2 Mill. Kip. He does not get any other incentives, but is satisfied with his salary because he like his work very much and feels that he can develop himself further. He is now the main contributor to the family income, which consist of his parents, younger brother and his wife. Beside his job at the organic association he is supporting his parents on their rice farm and also transferring his knowledge on organic production to his relatives.

*Interview by Andrea Schroeter*

## Graduate working with private sector (Project)

### Work with rural farmers on agricultural extension in an INGO

Mr. Sengxong grew up in a Hmong family in Phonpao village close to the Phonexay district center, Luang Prabang Province. He graduated 2013 in the first batch of high diploma in the field of agronomy.

After his graduation he got a job as a project technical advisor with the GIZ project “Climate protection through avoided deforestation” (CLIPAD) in Xamnuea district, Houaphanh province. He is closely working on a day-to day basis with the Project manager. His main task is providing advice and training on new planting and animal raising techniques in the 3 target districts of the project and cooperate with the districts extension sections. The most enjoying part of his task is to work in the villages with the local farmers.

He performed his practical term at the Northern Agriculture and Forestry College on the vegetable farm. In cooperation and support with a private Korean company – he conducted a research on SALAEP vegetable. SALAEP is so far imported from neighboring countries and became very popular among Lao consumers. It is a new variety, not yet planted in Laos, but has high market potential – which made his research very valuable and interesting.

He gained a lot of additional knowledge, learnt new practical planting and maintenance techniques and improved his knowledge in research design, methodology and analysis.

As he performed his practical term on the NAFC compound, he used the NAFC library a lot. He examined different research documents e.g. on rice or animal raising techniques and assessed other thesis and research papers.

He also got a lot of professional advice by the NAFC leadership and SURAFCO advisors and appreciated their competence and technical knowledge. Moreover he was encouraged by them to apply for a position at GIZ CLIPAD, who participated in the first NAFC job fair and offered this position for a technical advisor.

After the interview and application he had to wait for about 2 weeks until he got the news that he has been selected.



Sengxong was very happy and proud that he got this job with an International project to develop and support local people by using the knowledge he gained at NAFC.

In the time between the graduation and the actual start of his work, he got support by SURAFCO for additional English classes. This was very important, because working with an international organization requires good English language skills.

Sengxong is very happy to work directly with villagers by using his technical knowledge on planting techniques, environment friendly technologies, climate adjustments, alternative to slash-and-burn approaches and soil nutrition. Also methodology related skills like extension approaches and rural development are very important for his job.

Even graduated as an agronomist he also needs basic skills in livestock production and marketing – which he gained in the first year of his education. This proves the importance of an overall general basic education in livestock, agronomy, forestry and agro-business, which is offered in the new high-diploma curriculum.

Beside his job with GIZ he launched his own farm on SALAEP vegetable production. His salary with GIZ is quite good, but he realized the opportunity of his knowledge gained during the practical term and could use his savings to create something for himself.

He was invited to share his experiences with present students at the market fair and technical sessions during the 25<sup>th</sup> NAFC anniversary. This was very interesting and helps students to connect to the labor market.

*Interview by Southida Mounghounsavath*

## Graduate working with public sector

### Combining his government job with private income

A livestock graduate of the first batch in 2013, Mr Kaosong originates from a remote Hmong village in Houm district, Xaysoumboun province. He is 24 years old, was already married before attending the study at NAFC and has 4 children.



He is presently working at the DAFO in Houm District as a livestock technician. His father is also a government employee and helped him to find this job. Agreed already before the studies, he was sent to NAFC as a quota student on a government scholarship.

He also operates a family farm next to his core profession at the DAFO office. He likes the combination of government and private engagement.

The advantages for the government employment are the long-term perspective and the incentives provided for social services and during retirement.

Salary-wise he prefers the private sector as the income is much higher and the payments are provided timely and to full amount.



He presently earns 950.000 Kip in his position at DAFO, but payments are often delayed and the salary does not cover the needs of the family.

He performed his practical term at the NAFC big livestock farm on research in cattle fattening. He chooses this practical place because he had access to the library during this time. He was also happy to have the responsible teachers on the compound and was able to discuss work and thesis related issue with them right on the spot. Another advantage was that accommodation was very favourable and provided by the college for free.

The only obstacle he felt during his practical term was the lack of feeding for the cattle. He suggests assessing the overall demand for feed of all animals and improve the overall feed plan.

He did not want to continue at NAFC after his graduation, because he wanted to stay with his family in his home region. Furthermore the opportunity to work with DAFO had already been arranged.



He has achieved a good knowledge and great practical skills at NAFC, which are very important in his present work. Furthermore knowledge in rural and community development is essential. His skills in this field needs still to be improved and he suggests that NAFC could intensify the teaching of those subjects.

*Interview by Andrea Schroeter*

## Graduate working with public sector

### A Woman organising vegetable supply for the Military Service

8 % of all graduates from the two first batches - have found work as agriculture and livestock staff with the Military Service. Ms Souk from Ban SamNaeg in Phoukoun District, Luang Prabang Province is the only female among them. She is 23 years old and graduated in 2014 in the major of Agronomy. She comes from a family with 4 children. Her father is Khamu and also working for the Military Service and her Hmong mother is running a small family farm.

Due to her fathers' good connection, she could join the Military Service in Phoukoun district, immediately after finishing the higher secondary school. Realising that her professional carrier will be very limited, if she does not have any professional education, she decided to apply at NAFC on her own funding.

Ms Souk gained a lot of useful knowledge and skills during her studies. Very special for her was the participation in the colleges' environment group (3S). She appreciated the good cooperation in the team, the learning on waste management and environment protection and was happy to contribute to the cleanness and "green-ness" in the college.

Furthermore she valued the teaching methodology at NAFC, especially the focus on practical learning and the direct and straightforward way of explaining the content by her teachers.

As she is very sportive, she also appreciated the sport activities offered, especially the sport competitions organized with other educational organisations.

Computer is quite important for her present job and she founds that the opportunities to practice computer skills were too little. She wished she had more time for individual practice and access to a computer throughout the whole study time.

Due to her fathers support Ms Souk found a place for the practical term at DAFO in Houn District, Oudomxay province. There, she was



based in a kumban service centre. She was conducting a research on Lychee production and gained valuable practical experiences. She would have liked to continue working there after her graduation, but the DAFO preferred to employ staff from their own province.

She is now back at the Military Service and is responsible for a vegetable and fruit garden. Beside this she was allowed to establish a private vegetable garden on the Army's compound to generate some additional income for herself. As a soldier she is also required to perform basic military duties.

In general she is very happy with her work and receives a decent salary of 1.141.000 Kip per month. The Army also provides free accommodation, food and cloth. Out of 159 soldiers based in this station, there are only 5 women, including 2 not yet married. Even still young and not married, she feels very comfortable in the team and is treated with high respect.

However on the long-term run she would like to join a full agriculture position, preferably with the government services. She would like to concentrate fully on agricultural work only. As the positions with the military and the positions with the government are on different planning and strategic levels – it is not possible to switch to a PAFO or DAFO. She would need to go through the common government procedures from the beginning.

*Interview by Andrea Schroeter*

## Graduate Self- Employed

### Using his knowledge gained during the practical term for improving and extending the family business

Mr. Phonekham is an agronomy graduate from the first batch in 2013. He comes from a big family in Ban Phonemane, Nambak District, Luang Prabang with 11 family members and is the second oldest son. His father is a primary school teacher. His mother is a farmer and never visited school.

He performed his practical term at the NAFC's nursery. He selected a research on new seedling techniques and got very interesting results also related to improved pest management. He found the nursery farm very suitable for his practical term and had access to required equipment. Even his teachers were very supportive, some of the questions he had, could not be answered timely.

After his graduation he joined the family farm business. Through his profound knowledge he improved the farming techniques in livestock raising, increased the stock to over 200 chicken and 6 pigs and approached an integrated farming system.

He is presently preparing for new farm activities on his own. He started already to dig two fishponds and cleared the area for the establishment of a dragon fruit nursery. He was firstly exposed to dragon fruit planting during his practical term and sees the high market potential for this fruit.

All the practical techniques he learnt at NAFC, especially during this practical term, are now very useful for his business. Most useful are: grafting and seeding techniques, plant care, pest management, plant protection and nursery management.

He is currently organizing a business deal with the owner of the dragon fruit garden on grafting dragon fruit trees. Once they are grown and matured, they share the siblings half each. He is happy that he can use his technical expertise to initiate his nursery business.



He is very happy that we can work on his own farm and that he was able to considerable expand the farm business after his graduation. He appreciates that he can organize himself, be creative in what he is doing and implement his business ideas. He also likes his time management and related working times, mainly in the early morning and in the later afternoon. This provides him a lot of flexibility.

The present income from the pig and chicken raising only is about 900.000 kip / month per each family person. With his own dragon fruit farm and the fishponds he will gain much more additional income in the next season.

Challenging for him is the funding of his various new ideas. For all new activities he needs to have a start up money. Credits are not accessible for him and thus he need to save money from his selling or find other innovative ways, like with the dragon nursery. Another challenge is the distance to the nearest market, as transportation costs are high and reduce his profit.

Nevertheless, if he would have the chance, he liked to work for the government. This would give him a long-term employment and a little but secure income – and at the same time he could continue his own farming business.

*Interview by Sisavath Phonthouvang*

## Female Graduate working with public sector

### Women in a conservative and modern working environment



Ms Phoukham, a 24 years-old Livestock Graduate is from the first batch in 2013. She is from a Lao Loum family in Ban Hadhien in Luang Prabang town and her parents run a medium-scale welding company.

She presently works at DAFO in Luang Prabang as a contract staff – waiting for her acknowledgement as government employee.

She conducted her practical term in the same DAFO in the livestock section and performed very well. Due to her confidence, communication and technical skills, the DAFO decided to offer her a job after the graduation.

Starting her assignment in the livestock section with only male colleagues for about 3 months, she was assigned by the DAFO head to the administration section. She is now responsible for secretary work and a male agronomy graduate was posted in the livestock section.

In general she is very happy to work for the government, because of the long-term job-security.

However presently, Ms Phoukham cannot use her knowledge and skills, which she gained during her studies, as she is assigned to a field she was not educated and is not skilled for. This is not a single case and not at all satisfying. Interestingly, during the pre-tracer study, she already mentioned “social pressure and traditions” as the highest obstacle for enrolment in her study, and is now confronted with the same problem.

Nevertheless she is confident that she will be reassigned to the livestock section after taken over as a full government employee. She already uses her knowledge for providing private services as a veterinarian and is sometimes allowed to join the technical team in work in the villages under the 3-sang approach.



Ms Manula, a 26 years-old Khamu from Namback district is a Livestock Graduate from the second batch in 2014. Her parents are farmers and completed primary school only.

She presently works at the Luang Prabang PAFO Extension Section and is posted in Namluang Center, Namback district. Similar to Ms Phoukham she is employed as a contract staff and is waiting for a government position.

She performed her practical term at NAFC on the frog farm. Her thesis on research in differences on feeding of small frogs was very much appreciated by her teacher. As there was no opportunity to continue working at NAFC, she approached the PAFO office in Luang Prabang and was taken in job right after her graduation.

She is very happy that she was able to find this job by her own. She can apply her knowledge and skills gained at NAFC, especially the knowledge in extension, training and communication as well as the practical skills in livestock production. She has clear tasks and can work independently on the center’s extension farm and with nearby farmers.

She is presently working in a mixed gender team consisting of 6 staff, including 2 women. Her supervisor is very supportive and open and treats all the staff in an equal manner. She does not feel any restriction in working in the villages and is allowed to use her knowledge.

Her technical livestock skills are very much appreciated as well as her communication skills and open attitude in cooperating with farmers

She is confident that she will be taken over in a full government position and hopes that she can continue in this field, has the chance to improve her knowledge on-the-job and takes over even more responsibility.

*Interview by Andrea Schroeter*

## Graduate working abroad

### New experiences in a foreign country and its challenges

A livestock graduate of the first batch in 2013, Mr Phinthong originates from the remote Tomlan village in Boten district, Sayaboury province. Both parents complete primary education and work as farmers.

He is presently supporting his parents on their farm, but is considering this as interim after his experience in Israel and is waiting for the entrance exam for a permanent government job.

He conducted his practical term at NAFC at the cattle and buffalo farm, because he knew that the responsible teacher could provide a good coaching and backing to him.

During the time of graduation and preparation for a job assignment, he was informed by the previous year graduates on the opportunity to go to Israel for a work-cum-study assignment of 11 months. He liked the feedback he got and thought it will be a good opportunity for gaining experience – especially as he had not yet gained any practical experience outside the college and his parents' farm.

Together with 10 other graduates from NAFC, he worked at a private orange farm for 4 days a week. 1 day per week he received theoretical training from teachers of Agro-studies University.

Retrospective – similar to his Lao colleagues – he appreciated the experiences and opportunity to work abroad for the following reasons:

- To gain a work experience in a foreign country and environment
- To experience a high-level technology
- To work along an agreed time-schedule
- To combine work & upgrading knowledge
- To have the opportunity to visit other working places
- To get a decent salary (net 1.500 \$)
- To gain additional and new knowledge
- To receive additional technical and practical training for 1 day in the week.



But there were also some negative issues, he realised. Those were:

- The graduates were posted on farms which did not match with their technical background (e.g. livestock graduates on orange farm)
- The graduates were not properly informed on the political situation and the possible consequences.
- Security was not assured (the country in a critical conflict situation did not provide any information on special security to the graduates)
- No Lao Embassy or representing Embassy is present in Israel, thus nobody was responsible in emergency situations.
- He was based in a living environment with Lao people, thus the exchange with other cultures was very limited
- Also the improvement on English language skills was very limited due to the same reason
- Some of the employers cut the salary without any reason (don't know why)
- High expenses for accommodation (500\$/month), food and travel occurred, thus the actual savings remained between 2.000\$ and 5.000\$ for the whole 11 months.

If he gets the chance, he would like to gain additional work experience in another foreign country, but would prefer to go to Thailand or Vietnam where the learning and technology is applicable to the Lao context.

*Interview by Andrea Schroeter*

## Annex 2: Questionnaire Students - Pre-Tracer Study

(adapted from Macchi et al., 2009)



### Pre-Tracer Study Questionnaire



Student's Name: \_\_\_\_\_

Student's Batch: \_\_\_\_\_

Student's Code: \_\_\_\_\_

#### A Information about training / studies

##### A 1 What academic field / major are you studying?

- Agronomy       Livestock       Agro Business       Forestry  
 Agronomy 1,5 y    Livestock 1,5 y    Forestry 1,5 y

##### A 3 What did you do before you started your studies at NAFC? *Please choose only one answer. In case the graduate had several different occupations, choose the most important category.*

- Wage employed/working  
 Self-employed (also in agriculture)  
 Graduate from High School  
 Without employment (including household work, raising children, unable to work, illness, etc.)

##### A 4 How important were the following reasons for your decision to study at NAFC? The scale of answers ranges between: 1 = not at all important; 2 = not important; 3 = moderately important; 4 = important; 5 = very important.

*Please read scale of answers out loud. For this type of question, a print out of the answer scale can be used as an auxiliary tool. If one of the reasons listed below does not apply to the respondent, please check "not at all important".*

- | not at all<br>important | 1                        | 2                        | 3                        | 4                        | 5                        | very<br>important |   |
|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------|---|
|                         | <input type="checkbox"/> |                   | NAFC is close to home of parents or other relatives |
|                         | <input type="checkbox"/> |                   | Low/no tuition fee                                  |
|                         | <input type="checkbox"/> |                   | Improve my chances to find (self-) employment       |
|                         | <input type="checkbox"/> |                   | Improve my trade know-how                           |
|                         | <input type="checkbox"/> |                   | Improve my income                                   |
|                         | <input type="checkbox"/> |                   | Reputation of NAFC                                  |
|                         | <input type="checkbox"/> |                   | Friends, relatives studying at NAFC                 |

Other important reason, please specify  \_\_\_\_\_

##### A 5a Did you face any difficulties in going to the NAFC?

*Give some examples from A 5b.*

- Yes                                       No

**A 5b If yes, which was the most important difficulty?** ☞ Please choose only **one** answer.

- Tuition costs were high                       Total training was too long  
 Family commitments                       The training centre was far away/not easy to access  
 Social pressure/traditional customs (gender, ethnicity, etc.)  
 Other, please specify ✎ \_\_\_\_\_

**A 6 How did you get to know about NAFC and this education programme?**

☞ Please choose only **one** answer.

- Through friends/family members or acquaintances  
 Through radio news/TV, newspaper, posters/leaflets  
 Through internet  
 Through former graduates  
 Through trainers/teachers of the training institution  
 Other \_\_\_\_\_

**E 0 If you worked before starting this course, what was your average monthly income?**

✎ \_\_\_\_\_ Monthly net income in KIP

**G Personal Details**

**G 1 What is date of birth and your age at the start of the studies at NAFC?**

☞ In case the interviewee has difficulties in answering this question, ask for the year of birth only.

Date of birth: \_\_\_\_/\_\_\_\_/\_\_\_\_                      Age \_\_\_\_\_

**G 2 What is your (permanent) contact address?**

Village ✎ \_\_\_\_\_  
District ✎ \_\_\_\_\_  
Province ✎ \_\_\_\_\_  
Country ✎ \_\_\_\_\_  
Phone ✎ \_\_\_\_\_ E-Mail ✎ \_\_\_\_\_

**G 3 Where did you live before you started your studies at NAFC?**

☞ The interviewer has to categorize the given answer into one of the three options below.

- Rural area                       Semi-urban/urban area                       Abroad

**G 4 Gender** ☞ Do not ask!

- Male                       Female

**G 5 What ethnic background do you have?** ☞ Please choose only **one** answer.

- Lao-Thai                       Khamu                       Hmong - Mieng                       Chine -Tibet

**G 6 What is the highest level of education you attained so far?**

*Please choose only one answer.*

- |   |  |
|---|--|
| <input type="checkbox"/> Never been to school                 | <input type="checkbox"/> Complete lower secondary education          |
| <input type="checkbox"/> Incomplete primary education         | <input type="checkbox"/> Incomplete higher secondary education       |
| <input type="checkbox"/> Complete primary education           | <input type="checkbox"/> Complete higher secondary education         |
| <input type="checkbox"/> Incomplete lower secondary education | <input type="checkbox"/> Vocational school or other higher education |

**G 7 What is the highest level of education attained by your father?** *Please choose only one answer.*

- |   |  |
|---|--|
| <input type="checkbox"/> Never been to school                 | <input type="checkbox"/> Complete lower secondary education          |
| <input type="checkbox"/> Incomplete primary education         | <input type="checkbox"/> Incomplete higher secondary education       |
| <input type="checkbox"/> Complete primary education           | <input type="checkbox"/> Complete higher secondary education         |
| <input type="checkbox"/> Incomplete lower secondary education | <input type="checkbox"/> Vocational school or other higher education |

**G 8 What is the highest level of education attained by your mother?** *Please choose only one answer.*

- |   |  |
|---|--|
| <input type="checkbox"/> Never been to school                 | <input type="checkbox"/> Complete lower secondary education          |
| <input type="checkbox"/> Incomplete primary education         | <input type="checkbox"/> Incomplete higher secondary education       |
| <input type="checkbox"/> Complete primary education           | <input type="checkbox"/> Complete higher secondary education         |
| <input type="checkbox"/> Incomplete lower secondary education | <input type="checkbox"/> Vocational school or other higher education |

**G 9 What is the main occupation of your father?** *Please choose only one answer.*

- |  |  |
|--|--|
| <input type="checkbox"/> Farmer                  | <input type="checkbox"/> Self-employed (excluding farmers) |
| <input type="checkbox"/> Employed private sector | <input type="checkbox"/> Unemployed                        |
| <input type="checkbox"/> Employed public sector  | <input type="checkbox"/> Other _____                       |

**G 9a What is the main occupation of your mother?** *Please choose only one answer.*

- |  |  |
|--|--|
| <input type="checkbox"/> Farmer                  | <input type="checkbox"/> Self-employed (excluding farmers) |
| <input type="checkbox"/> Employed private sector | <input type="checkbox"/> Unemployed                        |
| <input type="checkbox"/> Employed public sector  | <input type="checkbox"/> Other _____                       |

**Thank you!**

**Interviewer:** \_\_\_\_\_

**Place:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Comments by interviewer:**

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## Annex 3: Questionnaire Graduates - Tracer Study

(adapted from Macchi et al., 2009)



### Graduate Questionnaire



#### Introduction:

Before the actual interview starts, the interviewer should always introduce him/herself and explain the objectives and the purpose of the interview to the respondent. He/She should further clarify that the participation in the survey is voluntary but highly appreciated because a high participation rate in the survey is crucial for the quality of the survey and for the future development and improvement of the training programme under investigation. Finally, the participant should be informed about the total duration of the interview (about 40 to 45 minutes), the further use of the gathered data and be ensured that all the information will be treated confidentially.

Student's Name: \_\_\_\_\_

Student's Batch: \_\_\_\_\_

Student's Code: \_\_\_\_\_

#### A Training/Studies

**A 1 In which academic field did you receive training?** *Please choose only one answer.*

- Agronomy       Livestock       Agro Business       Forestry  
 Agronomy 1,5 y       Livestock 1,5 y       Forestry 1,5 y

#### A 2 Where do you currently live?

*The interviewer has to categorise the given answer into one of the three options below.*

- Rural area       Semi-urban/urban area       Abroad

## B Retrospective evaluation of quality and relevance of studies and apprenticeship

### B 1 Retrospective evaluation of studies/training

 *Interviewer reads: What do you think about your school/training centre?*

**B 1.1 Were you satisfied with your studies?** Scale of answers ranges between: 1 = not satisfied at all; 2 = not satisfied; 3 = moderately satisfied; 4 = satisfied; 5 = very satisfied.

 *Please read scale of answers out loud.*

not satisfied at all					very satisfied
					
1	2	3	4	5	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Level of satisfaction

In case you were not/moderately satisfied (scales 1, 2 and 3), please specify why:



**B 1.2 How do you rate the following statements on your studies?** Scale of answers ranges between: 1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; 5 = strongly agree.

 *Please read scale of answers out loud.*

strongly disagree					strongly agree
1	2	3	4	5	
<input type="checkbox"/>	The lessons at NAFC were interesting				
<input type="checkbox"/>	The supplied training material (manuals, handouts, illustrations) was relevant & useful				
<input type="checkbox"/>	My teachers/trainers were competent and committed				
<input type="checkbox"/>	My study included enough practical lessons				
<input type="checkbox"/>	My practical training/lessons was relevant and useful				

**B 1.3 How do you rate the study conditions you experienced at your training institution?** Scale of answers ranges between: 1 = very poor; 2 = poor; 3 = fair; 4 = good; 5 = very good.

 *Please read scale of answers out loud.*

very poor					very good
1	2	3	4	5	
<input type="checkbox"/>	Class rooms/training halls (size, light & noise condition, location, temperature)				
<input type="checkbox"/>	Equipment, tools, machinery for practical training				
<input type="checkbox"/>	Safety conditions during practical training (safety standards e.g. protection glasses, mouth protection, gloves, smog, shoes etc., where appropriate)				
<input type="checkbox"/>	Accommodation and food				
<input type="checkbox"/>	Hygiene and sanitation facilities				
<input type="checkbox"/>	Infrastructure of NAFC overall				

**B 1.4a When did you finish your training/studies?**

*Interviewer needs to calculate and fill in number of months between graduation and time of interview.*

\_\_\_ No. of months ago

**B 1.4b How long was the duration of your training/studies?**

\_\_\_ No. of months

**B 1.4c The total duration of the training/studies was...** *Please choose only one answer.*

too long                       too short                       ideal

If you found it too long or too short, please specify why:

*[Pencil icon]* \_\_\_\_\_

**B 1.5 Looking back, would you...**

1 ...choose the same study again?                       yes     no

2 ...choose NAFC again?                       yes     no

3 ...recommend NAFC to a friend or family member?                       yes     no

If you would not recommend this course and school to others, please specify why:

*[Pencil icon]* \_\_\_\_\_

**B 2 Retrospective evaluation of apprenticeship**

*Interviewer reads:*

Where did you do your practical term? \_\_\_\_\_

What do you think about your apprenticeship?

**B 2.1 Were you satisfied with your apprenticeship?** Scale of answers ranges between: 1 = not satisfied at all; 2 = not satisfied; 3 = moderately satisfied; 4 = satisfied; 5 = very satisfied.

*Please read scale of answers out loud.*

not satisfied at all                      very satisfied  
☹                      ☺  
1    2    3    4    5

Level of satisfaction

Please specify why:

*[Pencil icon]* \_\_\_\_\_

\_\_\_\_\_

**B 2.2 The total duration of the apprenticeship was....** *Please choose only one answer.*

too long                       too short                       ideal

If you found it too long or too short, please specify why:

*[Pencil icon]* \_\_\_\_\_

**B 2.3 To what extent do you agree with the following statements?** Scale of answers ranges between: 1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; 5 = strongly agree.

*Please read scale of answers out loud.*

strongly disagree					strongly agree	
1	2	3	4	5		
<input type="checkbox"/>		My work during the apprenticeship was interesting & diversified				
<input type="checkbox"/>		My instructors were committed and competent in their field				
<input type="checkbox"/>		I could take part in decision making about what I had to work on				
<input type="checkbox"/>		I received support and supervision by NAFC teachers				

**B 2.4 How would you rate the working conditions you experienced during your apprenticeship?** Scale of answers ranges between: 1 = very poor; 2 = poor; 3 = fair; 4 = good; 5 = very good.

*Please read scale of answers out loud.*

very poor ☹					very good ☺	
1	2	3	4	5		
<input type="checkbox"/>		Working conditions (safety at work, noise, dust, etc.)				
<input type="checkbox"/>		Tools, material & equipment				
<input type="checkbox"/>		Hygiene and sanitation facilities				
<input type="checkbox"/>		Number of working hours/day				
<input type="checkbox"/>		Accommodation/food				

**B 2.5 How long was the total duration of your apprenticeship?**

\_\_\_\_\_ No. of months

**B 3 Strengths and weaknesses/suggested improvements - overall**

**B 3.1 What did you like about your training/studies and what did you dislike?**

Strengths (what I liked):

1. ✎ \_\_\_\_\_
2. ✎ \_\_\_\_\_
3. ✎ \_\_\_\_\_

Weaknesses  
(what I disliked):

1. ✎ \_\_\_\_\_
2. ✎ \_\_\_\_\_
3. ✎ \_\_\_\_\_

### B 3.2 Which key improvements or changes do you suggest?

Suggested improvements or changes e.g. to training methods, courses offered, apprenticeship, etc.:

 \_\_\_\_\_  
 \_\_\_\_\_

### C Transition to employment

#### C 1a Please indicate your employment situation in the period following graduation.

 Please check only **one** appropriate category for each three-month period after graduation of the respondent. If the respondent's employment situation changed during a three-month period or if the respondent was involved in different activities (e.g. studying and working), please check the most important category only. If the completion of the interviewed graduate's course of studies took place more than two years ago, please ignore the remaining months.

#### C 1b Did you migrate abroad during the first two years after graduation?

 Please check the box if the graduate migrated abroad during the period indicated in the left column.

C 1a	Period after graduation	In (wage) employment	In self-employment	In training	Unemployed	C 1b	Migrated abroad
	1 <sup>st</sup> year						
	1-3 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	4-6 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	7-9 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	10-12 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	2 <sup>nd</sup> year						
	1-3 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	4-6 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	7-9 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	10-12 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

#### C 2 How did you try to find the first job after graduation? Please choose only **one** answer.

- I applied directly to an employer
- I was approached by an employer
- NAFC gave me assistance with finding a job
- I used personal connections/contacts (family/friends, acquaintances)
- I started or continued working in my own/parents' business or farm
- Other

**C 3 How long did it take for you to find your first employment/start your own business after completion of your training/studies?**

*Please take also weeks into consideration, but write e.g. 0.25 month, 1.5 months, etc. Please check whether this answer corresponds to the answer given in C 1a.*

\_\_\_\_\_ Duration of seeking (self-) employment (in months)

**C 4 In case you went to school/did a further training after graduation, what kind of training did you do and where did you study/do your training?**

*This question only needs to be answered if graduate answered that he/she was 'in training' in question C 1a.*

Type of training/studies ✎ \_\_\_\_\_

Name and place of training institution ✎ \_\_\_\_\_

**D Current activity**

**D 0 How do you characterize your current employment situation or activity? Are you...**

*Please choose only one answer. In case the graduate has several different occupations, choose the most important category.*

- wage employed? *Please go to Section D 1*
- self-employed (including working on own/family farm)? *Please go to Section D 1*
- in further professional training or academic studies? *Please go to Section D 3*
- without employment? *Please go to Section D 4*

**D 1 Wage employment & self-employment**

**D 1.1 Are you satisfied with your current occupation?** Scale of answers ranges between: 1 = not satisfied at all; 2 = not satisfied; 3 = moderately satisfied; 4 = satisfied; 5 = very satisfied.

*Please read scale of answers out loud.*

not satisfied at all                      very satisfied  
☹                      ☺  
1   2   3   4   5  
     Level of satisfaction

In case you are not/moderately satisfied (scales 1, 2 and 3) please specify why:

✎ \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**D 1.2 In which one of the following vocational fields are you currently employed/working?**

*Please choose only one answer.*

- |  |  |
|--|--|
| <input type="checkbox"/> 1. Crop production technician       | <input type="checkbox"/> 2. Livestock and fishery technician                   |
| <input type="checkbox"/> 3. Agro Business technician         | <input type="checkbox"/> 4. Project Staff                                      |
| <input type="checkbox"/> 5. Loan/ Bank                       | <input type="checkbox"/> 6. Nursery manager                                    |
| <input type="checkbox"/> 7. Forestry technician              | <input type="checkbox"/> 8. Policeman / Soldier                                |
| <input type="checkbox"/> 9. Integrated family farm manager   | <input type="checkbox"/> 10. Landscape manager                                 |
| <input type="checkbox"/> 11. Agri-businessman/women (Trader) | <input type="checkbox"/> 12. Environment technician                            |
| <input type="checkbox"/> 13. Extension Agent                 | <input type="checkbox"/> 14. Rural finance institution                         |
| <input type="checkbox"/> 15. Research Assistant              | <input type="checkbox"/> 16. Specialized large farm manager                    |
| <input type="checkbox"/> 17. Boarder Staff                   | <input type="checkbox"/> 18. Agro/Food-Processing Entrepreneur                 |
| <input type="checkbox"/> 19. Veterinarian                    | <input type="checkbox"/> 20. Teacher / Trainer / Lecturer                      |
| <input type="checkbox"/> 21. Agriculture Factory             | <input type="checkbox"/> 22. Certification Agent                               |
| <input type="checkbox"/> 23. Agro-Tourism                    | <input type="checkbox"/> 24. Mining  |
| <input type="checkbox"/> 25. Input supplier                  | <input type="checkbox"/> 26. Agriculture & forestry land allocation technician |
| <input type="checkbox"/> 27. Agro Forestry                   | <input type="checkbox"/> 28. Wood Trader / Wood Processing                     |
| <input type="checkbox"/> 29. NTFP Processor                  | <input type="checkbox"/> 29. Agriculture Journalist                            |
| <input type="checkbox"/> Other _____                         |  |

**D 1.3 Do you work full time?**

- Yes, I am working full-time       No, I am working part-time

**D 1.4 Do you have any further part-time wage or self-employment?**

- Yes       No

**D 1.5 How many hours per week are you working on average?**

*Ask for the average working hours per day and then ask how many days per week the graduate is working.*

*(Working hours per week = No. of working hours per day \* No. of working days per week)*

- 1 \_\_\_\_\_ No. of working hours per week for my primary occupation  
2 \_\_\_\_\_ No. of working hours per week for my secondary occupation (second occupation, side jobs, etc.)  
3 \_\_\_\_\_ **Total working hours/week** (incl. self-employment)

**D 1.6 If you live abroad, do you send any money home?**

*Please only ask if graduate currently lives abroad.*

- Yes       No

*Continue with section E if graduate is in wage-employment*

*Continue with section D 2 if graduate is self-employed or works on his/her own or family farm*

## D 2 Specific questions to self-employed graduates

 This section is only for graduates who are in self-employment or work on their own or family farm.

### D 2.1 How many people do you employ in your business/farm besides yourself?

\_\_\_\_ No. employees

### D 2.2a Did you start your business/farm independently or with a partner/your family?

Independently  With a partner/my family

### D 2.2b Did you receive credit to start your business and if yes, how much credit did you receive?

 Please indicate the amount that the graduate received. In case he/she did not get credit write 0.

\_\_\_\_\_ Credit in KIP      Repayment period \_\_\_\_\_ month

Credit-provider  Bank  Microfinance scheme  Local funding scheme

### D 2.3 Did you encounter any difficulties when starting your own business, farm and if yes, what was the main difficulty you encountered?

 Please choose the most appropriate answer (only **one** answer allowed).

- No difficulties encountered
- Lack of educational background (including technical skills)
- Difficulty to get funding
- Lack of entrepreneurial skills
- Inadequate market conditions (high competition, low demand)
- Location of business not ideal
- Other

 Continue with section E.

## D 3 Further education

### D 3.1 What are the (major) subject area(s) of your current studies/training?

 \_\_\_\_\_

### D 3.2 Name and place of training institution/college/university

 \_\_\_\_\_

### D 3.3 For what kind of degree are you currently studying? Please choose only **one** answer.

- High diploma  Bachelor
- Master  PHD
- Short Courses  Other, please specify  \_\_\_\_\_

### D 3.4 What do you plan on doing after completion of your studies/training?

 Please choose only **one** answer.

- Find a job in my home country
- Start my own business/farm in my home country
- Work for my parents' or relatives' farm/business
- Migrate abroad to find work
- Continue with my current job
- Family/household care
- Other

 Continue with section **E**.

## D 4 Unemployment

### D 4.1 What are the reasons for your current unemployment?

 Please select a **maximum of two** answers which are most appropriate.

- Job scarcity
- Lack of connectedness/contacts
- Lack of experience, qualifications, skills
- Lack of resources (e.g. financial input capital, tools) for self-employment
- Lack of confidence
- Engaged in child rearing or family/household care
- Social pressure/traditional customs
- Other

 Continue with section **E**.

## E Income from primary and secondary activities

### E 0 How high was your average monthly income before you started your training?

 If a pre-tracer study has been conducted, this question can be omitted and the answer can be taken from the pre-tracer study questionnaire.

 \_\_\_\_\_ Monthly net income (in KIP)

**E 1 How much is your current monthly income? Please take into account the income from your main occupation and your secondary occupation (if any) and, if necessary, average the value from the last six months.**

*If the graduate is wage-employed, he/she can tell or write down his/her net income to the interviewer. If the graduate is self-employed, the net income needs to be verified (a description how to verify the net income can be found in the instruction manual).*

*Do not ask this question if graduate is currently unemployed, but write 0 into the box below.*

For employed with salary \_\_\_\_\_ Monthly net income in KIP

For self-employed: calculate all activities of the own or family farm

1. Activity \_\_\_\_\_ income/year \_\_\_\_\_ 2. Activity \_\_\_\_\_ income/year \_\_\_\_\_

3. Activity \_\_\_\_\_ income/year \_\_\_\_\_ 4. Activity \_\_\_\_\_ income/year \_\_\_\_\_

Total income / year \_\_\_\_\_ Number of family labor \_\_\_\_\_

INCOME/ Month \_\_\_\_\_ KIP (= Total income / 12 month / family labor)

**E 2 Do you get any additional payments in kind? (Petrol, cloths, phone, food, etc)**

Yes  No Explain what \_\_\_\_\_

**E 3 Do you receive any additional benefits? (Accommodation, upgrading training, health care, education for children, etc.)**

Yes  No Explain what \_\_\_\_\_

**E 4a Have your living conditions improved, worsened or remained equal after completion of your studies/training?**

*Please choose only one answer. The interviewer should give examples to the graduate about how his/her living conditions may have been improved. For example, ask whether they have purchased a motorcycle, bicycle, land, animals, radio, television, jewellery, etc.*

Improved  Worsened  No difference

**E 4b If your living conditions improved, did you acquire any of the following items?**

*Multiple response possible, maximum 6 answers – set priority*

- Motorcycle/bicycle  Tools and machinery  
 Land  Improvement of your house (tin roof, furniture, household appliances, etc.)  
 Animals  Education for children  
 Television/computer  Clothing, jewellery

**E 5a Who is the current main contributor to your household income?**

*Please choose only one answer.*

- Myself  My spouse  Parents  
 Other male household member  Other female household member

**E 5b Who was the main contributor to your household income before your studies/training?**

*Please choose only one answer.*

- Myself  My spouse  Parents  
 Other male household member  Other female household member

*For those respondents who are self-employed or wage employed, please continue with Section F.*

*For those respondents who are in further training or unemployed, please continue with Section G.*

## F Relationship between study/training and work

 This section applies to both, employed and self-employed (including graduates working on their own, family farm).

### F 1 Is your present job related to your training/studies at NAFC?

Yes  No

### F 2a How important are the qualifications and skills you acquired during your studies at NAFC for your present job? Scale of answers ranges between: 1 = not at all important; 2 = not important; 3 = somewhat important; 4 = important; 5 = very important.

 Please read scale of answers out loud.

not important at all					very important	
1	2	3	4	5		
<input type="checkbox"/>		Practical vocational skills acquired during the training				
<input type="checkbox"/>		Theoretical vocational skills acquired during the training				
<input type="checkbox"/>		Entrepreneurial skills (how to run a business and to treat customers, marketing)				
<input type="checkbox"/>		Calculation/mathematics/accounting				
<input type="checkbox"/>		Reporting Skills				

### F 2b When you look at your current professional tasks as a whole, to what extent do you use the qualifications and skills acquired during your course of studies? Scale of answers ranges between: 1 = not at all; 2 = barely; 3 = to some extent; 4 = to a high extent; 5 = to a very high extent.

 Please read scale of answers out loud.

not at all					to a very high extent
1	2	3	4	5	
<input type="checkbox"/>					

### F 3 Have you passed on the knowledge and skills gained during your training/study course to family members, friends or other villagers?

Yes  No

## G Biographical data

### G 1 What was your present age?

 In case the interviewee has difficulties in answering this question, ask for the year of birth.

Date of birth: \_\_\_\_/\_\_\_\_/\_\_\_\_

Age \_\_\_\_\_

**G 2 What is your (permanent) contact address?**

Village ✎ \_\_\_\_\_

District ✎ \_\_\_\_\_

Province ✎ \_\_\_\_\_

Country ✎ \_\_\_\_\_

Phone ✎ \_\_\_\_\_

Email ✎ \_\_\_\_\_

**G 9 What is the main occupation of your father?** ✎ *Please choose only one answer.*

<input type="checkbox"/> Farmer	<input type="checkbox"/> Self-employed (excluding farmers)
<input type="checkbox"/> Employed private sector	<input type="checkbox"/> Unemployed
<input type="checkbox"/> Employed public sector	<input type="checkbox"/> Other _____

**G 9a What is the main occupation of your mother?** ✎ *Please choose only one answer.*

<input type="checkbox"/> Farmer	<input type="checkbox"/> Self-employed (excluding farmers)
<input type="checkbox"/> Employed private sector	<input type="checkbox"/> Unemployed
<input type="checkbox"/> Employed public sector	<input type="checkbox"/> Other _____

**G 10 Would you like to receive a summary report of the results gained through this tracer study?**

Yes  No

**H Any other comments**

\_\_\_\_\_

\_\_\_\_\_

Thank you!

Interviewer: \_\_\_\_\_

Place: \_\_\_\_\_

Date: \_\_\_\_\_

Comments by interviewer:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Annex 4: Questionnaire Employers - Tracer Study

(adapted from Macchi et al., 2009)



### Employer Questionnaire



#### Introduction

Before the actual interview starts, the interviewer should introduce him/herself and explain the objectives and the purpose of the interview to the respondent. He/She should further clarify that the participation in the survey is voluntary. Nevertheless, it should be highlighted that the participation in the survey is highly appreciated, as it will be beneficial for the future development and improvement of the study program under investigation, from which the respondents themselves will profit, as the training program can be further developed in order to serve the employers' needs. Finally, the participant should be informed about the total duration of the interview (approximately 15 minutes) and be ensured that all the information will be treated confidentially.

**Please note:** This interview should be conducted exclusively with the employer himself/herself and the employees/graduates should not be present during the interview!

#### A Identification

Employer's Name: \_\_\_\_\_

Employer's Address: \_\_\_\_\_

Phone number \_\_\_\_\_ E-mail: \_\_\_\_\_

#### B Information about business/company

##### B 1 How many employees work in your business/company?

\_\_\_\_\_ No. of employees

##### B 2 Please specify the vocational field in which your company/business/farm can be best classified. *Please choose only one answer.*

- |  |   |
|--|---|
| <input type="checkbox"/> Crop production                 | <input type="checkbox"/> Landscape management                     |
| <input type="checkbox"/> Agro Business                   | <input type="checkbox"/> Wood Trader / Wood Processing            |
| <input type="checkbox"/> Loan / Bank                     | <input type="checkbox"/> Nursery manager                          |
| <input type="checkbox"/> Input supply                    | <input type="checkbox"/> Police / Soldier                         |
| <input type="checkbox"/> Integrated family farm manager  | <input type="checkbox"/> Livestock and fishery                    |
| <input type="checkbox"/> Agri-businessman/women (Trader) | <input type="checkbox"/> Forestry                                 |
| <input type="checkbox"/> Extension                       | <input type="checkbox"/> Rural finance institution                |
| <input type="checkbox"/> Research                        | <input type="checkbox"/> Specialized large farm manager           |
| <input type="checkbox"/> Boarder Control                 | <input type="checkbox"/> Agro/Food-Processing                     |
| <input type="checkbox"/> Agriculture Journalism          | <input type="checkbox"/> Education / Training insitution          |
| <input type="checkbox"/> Agriculture Factory             | <input type="checkbox"/> Certification Agency                     |
| <input type="checkbox"/> Agro-Tourism                    | <input type="checkbox"/> Mining                                   |
| <input type="checkbox"/> Project                         | <input type="checkbox"/> Agriculture and forestry land allocation |
| <input type="checkbox"/> Agro Forestry                   | <input type="checkbox"/> Environment                              |
| <input type="checkbox"/> NTFP Processing                 | <input type="checkbox"/> Veterinary Service                       |
| <input type="checkbox"/> Other _____                     |   |

1

**B 3 To which of the following sectors does your business/company belong?**

*Please choose only one answer.*

- Private sector                       Informal sector  
 Public sector                          Other

**C Recruiting procedures**

**C 1 How many graduates from NAFC have you employed so far?**

\_\_\_\_\_ Number of graduates

**C 2 How do you/does your company/organization recruit new employees?**

*Multiple answers allowed!*

- Advertisement of vacancies in newspapers, internet, posters, etc.  
 Direct application by prospective employees  
 Employment agencies  
 Direct contact to training institutions  
 Personal contacts to prospective employees  
 Other, please specify  \_\_\_\_\_

**C 3 To what extent is/are your employee/s required to have knowledge and skills in the following fields? Scale of answers ranges between: 1 = not at all; 2 = barely; 3 = to some extent; 4 = to a high extent; 5 = to a very high extent.**

*Please read scale of answers out loud. For this type of question, a print out of the answer scale can be used as an auxiliary tool.*

- |                          |                          |                          |                          |                          |                          |  |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|
| not<br>at all            |                          |                          |                          |                          | to a very<br>high extent |  |
| 1                        | 2                        | 3                        | 4                        | 5                        |                          |  |
| <input type="checkbox"/> |                          | Practical vocational skills  |
| <input type="checkbox"/> |                          | Theoretical vocational skills  |
| <input type="checkbox"/> |                          | Entrepreneurial skills (how to run a business and to treat customers, marketing) |
| <input type="checkbox"/> |                          | Calculations, accounting   |
| <input type="checkbox"/> |                          | Soft skills/work ethic (communication, punctuality, team work, etc.)             |
| <input type="checkbox"/> |                          | Vocational skills overall  |

**C 4a Has your business/company hired female employees/graduates in the past?**

- Yes                                       No

**C 4b Would your business/company in the future employ female employees/graduates?**

- Yes                                       No

If not, please specify why  \_\_\_\_\_

## D Performance of graduates and reputation of NAFC

### D 1 How do you rate the following statements on graduates from NAFC?

Scale of answers ranges between: 1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; 5 = strongly agree.

 Please read scale of answers out loud.

strongly disagree	1	2	3	4	5	strongly agree
<input type="checkbox"/>	The graduates have thorough theoretical knowledge					
<input type="checkbox"/>	The graduates have highly developed practical trade skills					
<input type="checkbox"/>	The graduates are willing and eager to learn					
<input type="checkbox"/>	The graduates are hard-working and committed					
<input type="checkbox"/>	The graduates are able to work independently					
<input type="checkbox"/>	The overall performance of the graduates is satisfactory					

### D 2a Do you think that the graduates need additional training in their respective vocation in order to do a satisfactory job in your business/company/on your farm?

Yes  No

### D 2b If yes, please specify which additional skills and knowledge are needed.

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_

### D 3 Would you be interested in hiring more graduates from NAFC in the future?

Yes  No

If not, please specify why:

If yes, please specify the position and requirements

 \_\_\_\_\_

## E Income Structure

### E 1 What is the average monthly income you are paying to a graduate employed full-time?

 \_\_\_\_\_ Monthly income in KIP

Thank you!

Interviewer: \_\_\_\_\_

Place: \_\_\_\_\_

Date: \_\_\_\_\_

Comments by interviewer:

\_\_\_\_\_

\_\_\_\_\_

3

## Annex 5: Questionnaire additional questions

### TRACER Study 2015 - Additional Questions

The following questions were asked to at least 3 graduates per category, who showed specific interesting issues. Those answers are additionally summarized in short case studies, to be used as examples for spreading positive or negative experiences and innovative approaches. Additionally to the individual interviews, focal group discussions were arranged for female and self-employed graduates.

#### 1. Graduates working with the private sector

- How did you find this job?
- Do you like your job?
- What do you prefer in general: working self-employed or working wage-employed or working as a government employee? Why?
- 3 advantages and 3 disadvantages for working with the private sector compared to the government sector
- What teaching content was useful for your present job with the private sector?
- What teaching content was missing for your present work? How and where did you get this additional knowledge or skills required?

#### 2. Graduates working self-employed

- How did you set up your own business?
- Did you need a start-up capital? Where did this money come from?
- Did you encounter any legal problems for setting up your business? Did you receive any help in legal problems and from whom?
- What do you prefer in general: working self-employed or working wage-employed or working as a government employee? Why?
- 3 advantages and 3 disadvantages for working self-employed
- What teaching content was useful for setting up your own business?
- What teaching content is missing and could help people like you to set up their own business?

#### 3. Female Graduates

- Was this study your first choice? If not, what would you have like to study instead? And why did you finally study this subject?
- Do you think jobs in the agriculture sector are attractive for women? Which particular jobs? Explain why?
- Where do you work now? How many male and female at your work place?
- Are female treated equally to male? Explain why or why not.
- Was it more difficult for you as a woman to find a job? Explain why or why not.
- Name 3 issues of special support for women at NAFC, where you benefited from.
- Name 3 issues, which could be improved to increase attractiveness for women to enroll at NAFC?

#### 4. Graduates unemployed

- Have you tried to find a job?  
If yes:  
Where,  
How (information source, internet, social contacts, etc)  
Why were you rejected?  
If no:  
Why did you not try?
- What do you think are the reasons why you could not find a job?
- What does NAFC teach to help students to find a job?
- What could NAFC do & improve to help students to find a job?

#### 5. Graduates working with the public sector

- How did you find this job?
- Do you like your job?
- What do you prefer in general: working self-employed or working wage-employed or working as a government employee? Why?
- 3 advantages and 3 disadvantages for working with the government sector compared to the private sector
- What teaching content was useful for your present job with the public sector?
- What teaching content was missing for your present work? How and where did you get this additional knowledge or skills required?

#### 6. Graduates abroad

##### →Applies to students in Israel & Thailand

- Why and how did you decide to work abroad?
- Was this decision made by yourself, the teacher, a family member or another person?
- Was this your only option? If not, why did you select for this option?
- Name 3 issues why it is attractive to work abroad.
- Name 3 issues where you face difficulties in your present job.
- Do you have already a job after your return?
- Can you use your knowledge and experience abroad for working in Laos?
- Do you intent to work again abroad? Explain why or why not.

#### Practical term and link to labor market (as a second part to all categories)

##### →Preferable those who work in the same field, like during the practical term

- How was the selection for your practical term place done? (Identified by teacher, recommended by teacher, recommended by project, recommended by family or relatives, own selection, ...)
- Were you satisfied with this selection process? Explain why?
- Did you have different options for the practical term?
- Do you work at the same place, where you did your practical term?
- If yes, why do you think you were taken over? If no, why do you think you were not taken over?
- What would you recommend to make the practical term more effective?

## Annex 6: Terms of Reference



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### Terms of Reference

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#### Consultant name

Andrea Schroeter

#### Purpose

Conduct Tracer Study of NAFC graduates (1<sup>st</sup> and 2<sup>nd</sup> Batch)

#### Timeframe & Location

26 days

Home based and Field Mission to Luang Prabang and other provinces

#### 1.1 Key Role

Lead on the preparation and conduction of a tracer study for the Batch 1 High Diploma from 2013 (Student numbers 58 (07)) and Batch 2 High Diploma from 2014 (Student numbers 84 (28)) from the Northern Agriculture and Forestry College (NAFC). The consultant will ensure the smooth running of the preparation, data collection, and data entry phases and will be responsible for data analysis and reporting. She will provide coaching and build the capacity of the Career Counselling Unit, teachers and management of NAFC to understand the concept and the methods to carry out such studies.

The tracer study will provide important information about the rates of employment, self-employment, unemployment and further education after graduation, and the economic and social returns of the received education. It will also help to identify differences in labour market outcomes with respect to gender and socio-economic background and whether the provided education and skills base meet the demands on the job market.

#### 1.2 Specific Tasks

##### Preparation phase

- Provide detailed guidance to the CCU team on what action items need to be carried out
- Develop and regularly update schedule for all steps of preparation
- Conduct Skype conferences to follow up on preparation process with NAFC/CCU (and SURAFCO) as needed, and coordinate closely with the SURAFCO team to ensure smooth preparation phase
- Check pre-tracer data
- Review tracer study questionnaire (Helvetas tool) and develop a concise set of additional qualitative questions that reflect the specific situation of the college (e.g. addressing usefulness of curriculum, motivation of students for career choices), in collaboration with CTA
- Liaise with Technical Advisor Education (Bettina Jenny) on concept and methodology of Tracer Study as required
- Submit final questionnaire for translation to Phetsavart and review translation
- Contact graduates abroad and organize filling in of questionnaire

##### During Field Mission

- Conduct meeting with NAFC management to provide a briefing, and discuss planning & preparation for training
- Conduct training on data collection method and questionnaire to data collection teams (1 day)
- Lead the test run and the data collection of all graduates from Luang Prabang Province (at NAFC campus) and provide coaching to all data collection teams (2 days)
- Review of first testing and preparation of teams for further data collection in other provinces (2 days)
- Join one of the four data collection team of in other provinces and provide support and coaching where needed (8 days)
- Provide support as needed to other teams through regular checking of progress by phone and help overcome challenges and problems
- Conduct review of field visits, organization of data, and test data entry with all teams (2 days)
- Identify ways to fill data gaps (e.g. by phone) as required
- Provide feedback presentation to NAFC management and SURAFCO and to discuss next steps

## Reporting

- Analyze data and prepare report in English containing detailed results, relevant graphs and tables, interpretation of data, conclusions, lessons learnt, and recommendations
- Prepare Power Point Presentation with key results and recommendations

## 2.1 Specific Results & Outputs

- A. Training on data collection method and tracer study questionnaire
- B. Draft Tracer Study Report by 19 April 2015 (conditional to satisfactory data entry)
- C. Final Tracer Study Report by 26 April 2015 (conditional to satisfactory data entry)
- D. Power Point Presentation with key results by 26 April 2015

-

3 Original Copies (1 HELVETAS Laos / 1 Consultant/ 1 HELVETAS Swiss Intercooperation – if applicable)

- Any modifications to this Terms of Reference shall be mutually agreed in writing

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Vientiane, Lao PDR, on the 9th January, 2015

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Celestine KROESSCHELL  
Country Director  
HELVETAS Laos

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Consultant

## Annex 7: Recommendation by Graduates

Graduates provided the following recommendations on improvement of the studies  
[in brackets the number of repetitions]

### RECOMMENDATIONS to improve TEACHING METHODOLOGY

- Improve teaching techniques [6]
- Improve teaching technique related to student-centered teaching and learning-by-doing approaches [2]
- Some teachers need upgrading on content, especially Agri-Business [2]
- Some teachers should be more specific on teaching objective and in provision of explanation
- Teachers should start and end the classes on time and be in good condition for teaching
- Teaching material should be improved
- Teachers should be familiar in using teaching equipment, e.g. LCD

### RECOMMENDATIONS to improve PRACTICAL TEACHING

- Practical teaching should be connected to the theoretical classes and attendance of teachers during practice is essential [5]
- Organize study trips to other colleges where similar activities take place, e.g. in food processing [3]
- Assure sufficient and appropriate field equipment and tools [2]
- Improve and expand areas for pasture growing and ensure sufficient food for animals [2]
- NAFC should provide a time-table for farm practice module at each farm unit
- Module on Farm Practice should be improved, better organized, better equipped and more diverse topics/research should be offered
- Lab equipment and tools should be well prepared and in place
- Teachers should closely monitor disease prevention in poultry raising
- Fish ponds at colleges should be improved, also in terms of safety conditions
- Equipment for livestock and fishery subjects are not enough
- Improve fencing around farms

### RECOMMENDATIONS to improve PRACTICAL TERM

- More monitoring, follow-up sessions (2-3 times) and provision of background material is required during the students' practicum [18]
- Improve practical term arrangement [6]
- NAFC supervisor teachers should closely coordinate with responsible coach at practical place for technical issues and personal well-being of students [6]
- Prepare guidelines and orientation course for practical term to ensure that students are well aware of their duties, roles, expectations, coordination mechanism, etc. [5]
- Ensure sufficient tools and equipment during the practical terms [5]
- Ensure that funding is available for the conduction of research [3]
- More information and choices on practical term places should be made available to students [2]
- Practical term topic should be related to subject matter [2]
- Teachers should provide more assistance in finding practicum places
- Practicum should not start late, because this creates difficulties for students
- Practical term should be arrange according to season
- Practical term host office and areas for data collection should be close to avoid too much time on traveling

#### RECOMMENDATIONS to improve ENGLISH and IT SKILLS

- Access to computer room should be increased (more hours) [4]
- Computer rooms should be enlarged and more computers should be available
- English classes should be offered from the 1<sup>st</sup> to 3<sup>rd</sup> year

#### RECOMMENDATIONS to improve preparation of THESIS

- Prepare a manual for introduction on how to write the thesis
- During preparation of thesis assure access to computers for all students

#### RECOMMENDATIONS to improve WORKLOAD and HOLIDAYS

- Reduce non-teaching related labor assignments, especially on week-ends, which allows student to visit their families [4]
- Outsource security duties, e.g. to a security company to secure additional self-learning or recreating time
- Summer holiday should be extended to more than 4 weeks

#### RECOMMENDATIONS to improve WORKLOAD and HOLIDAYS

- Improve water supply and install a water reservoir to ensure sufficient water supply at the practical farms [4]
- Improve the old dormitory or build additional new ones
- Improve security at dormitories and establish night time monitoring system

#### OTHER RECOMMENDATIONS

- Reduce number of students in classes [4]
- NAFC should provide the Bachelor courses



## **SURAFCO**

**Support to the Reform of the Northern Agriculture and Forestry College in Laos**

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