

VIET NAM FORESTRY UNIVERSITY

SEANAFE – VNAFE

**THE REPORT ON AN ASSESSMENT OF TRAINING
DEMANDS IN THE FIELD OF AGROFORESTRY**

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1. INTRODUCTION

In training sectors, especially training in the new field such as the field of Agroforestry, the valuation of the result after training and the demand of training is essential. This is not only the way to find out the training direction in each training sector but also makes a contribution to establish a suitable training curriculum, objective, and methodology.

The objective of training in the field of Agroforestry currently requires the demand to train the engineer, whose knowledge, skills, and attitudes are suitable to the reality of the society, of the field of Agroforestry. Moreover, it also requires training what to meet the society requirements. The graduate in the field of Agroforestry can do a good job in the organization employed them.

Departing from such objectives, and under the fund and support of SENAFE and VNAFE, we carry out the project titled “Assessment of training demands in the field of Agroforestry”.

1.1. Objectives

- Investigate and evaluate the training demand of engineers in the field of Agroforestry in Northern provinces of Viet Nam.

- Analyze the training demand aiming to reinforce knowledge, skills, and attitudes of students in the field of Agroforestry.

- Find out the gap in training contents and improve the curriculum of the field of Agroforestry in The Viet Nam Forestry University and The Thai Nguyen Agricultural and Forestry University.

- Enhance the quality of training for students in the field of Agroforestry in The Viet Nam Forestry University and The Thai Nguyen Agricultural and Forestry University.

- Determine, and introduce the curriculum, training sessions of engineers in the field of Agroforestry to partners of VNAFE.

1.2. Expected results

- Results of the survey on evaluating the training demand of engineers in the field of Agroforestry in Northern provinces of Viet Nam.

- Results of the workshop on analyzing knowledge, skills, attitudes, and the gap in the training curriculum of engineers in the field of Agroforestry.

- The training curriculum of engineers in the field of Agroforestry after being revised on objectives, knowledge, skills, attitudes, and teaching methodologies.

- Improve, institutionalize, and apply in training engineers in the field of Agroforestry.

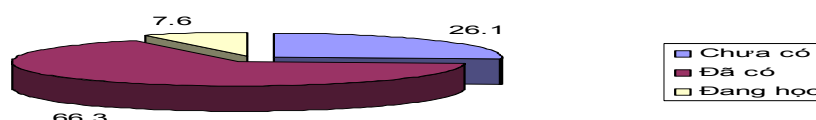
2. RESULTS OF THE SURVEY ON ASSESSMENT OF TRAINING DEMANDS FOR ENGINEERS IN THE FIELD OF AGROFORESTRY

2.1. Information about the job of the graduate in the field of Agroforestry

After three training sessions in the field of Agroforestry, namely, 48th, the 49th and 50th session, there have been 95 graduates since 2002. The result of the survey on jobs of students after graduating in the field of Agroforestry was shown in the table 01.

Session	48 th (2003- 2007)	49 th (2004 – 2008)	50 th (2005 – 2009)	Average
Employed	5.26	10.5	57.1	26.1
Unemployed	89.5	89.5	28.6	66.3
Further education	5.26	0	14.3	7.6

Table 01: The information about the job of the engineer in the field of Agroforestry



Pie chart 01: Information about the percentage of graduate's employment in the field of Agroforestry

As shown in the table 01, the percentage of graduates in the field of Agroforestry with employment was relatively high. In the whole three sessions, the percentage of graduate's employment was 66.3%, followed by unemployment with 26.1%, and the percentage of graduate with further education such as post graduate was 7.6%. Almost students of sessions after one year of graduating found a job, and the percentage of employment was 89.5%. With the students, who graduated in June 2008, of the 50th session, the percentage of those with employment only was 28.6% exclusively.

To evaluate the chance to find a job after graduating of the engineer in the field of Agroforestry, we conducted a survey on the time to gain a job, the suitability level of the job to the profession and the employer. The result of the survey was illustrated in the table 02 and 03.

Session	48th (2003- 2007)	49th (2004 – 2008)	50th (2005 – 2009)	Average
From 0 to 6 months	28.9	15.8	28.6	39.3
From 6 to 12 months	34.19	31.6	0	31.2
Over one year	26.3	42.1	0	29.5

Table 02: The time to gain a job of the graduate in the field of Agroforestry

Session	48th (2003- 2007)	49th (2004 – 2008)	50th (2005 – 2009)	Average
Suitable	26,3	10,5	17,1	29,5
Relatively suitable	36,8	42,1	11,4	42,6
Unsuitable	26,3	36,8	0	27,9

Table 03: The suitability level of the profession to the job

As seen in table 02 and 03, the percentage of the graduate found a job was high (39.3%). The reason for this is that the time of graduating is annually in June, when is also the time for employers to recruit new staff. Generally, there was about 70% of the students found a job after one year of graduating, and 27.9% of them found a job later. However, among of students finding a job, 29,5% of them found a job which was suitable with the profession. 42,6% of them considered that their jobs were relatively suitable with the profession, and up to 27,9% of students finding a job stated that the job they found was not suitable with the profession.

Organizations, which have demands to recruit and currently are using engineers in the field of Agroforestry, are mainly organizations under state management, accounting for 30,4%, 15,2% of enterprises, and other business units is 16,8%. Small number of graduates

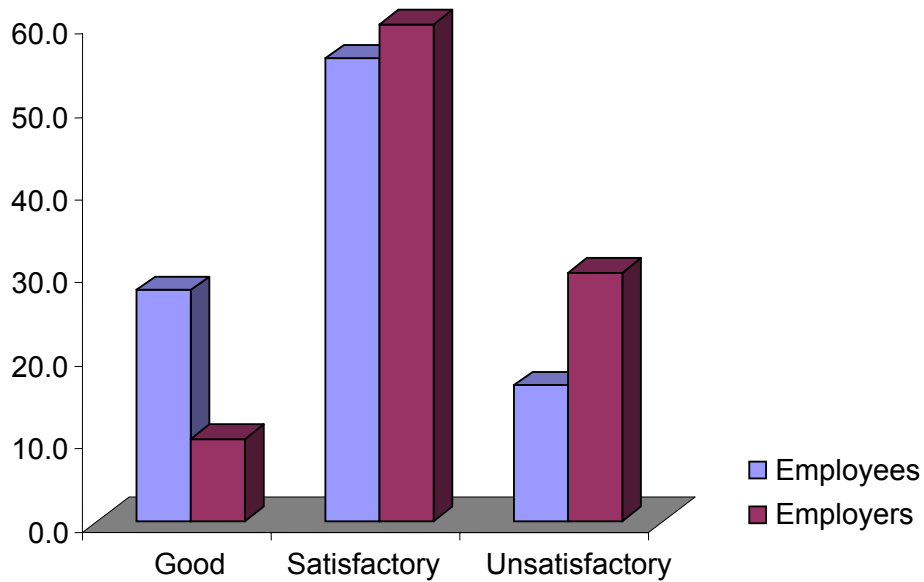
participated in teaching at universities, colleges, and professional secondary schools in the field of Agriculture and Forestry.

2.2. Results of assessment on knowledge, skills, and attitudes of engineers in the field of Agroforestry.

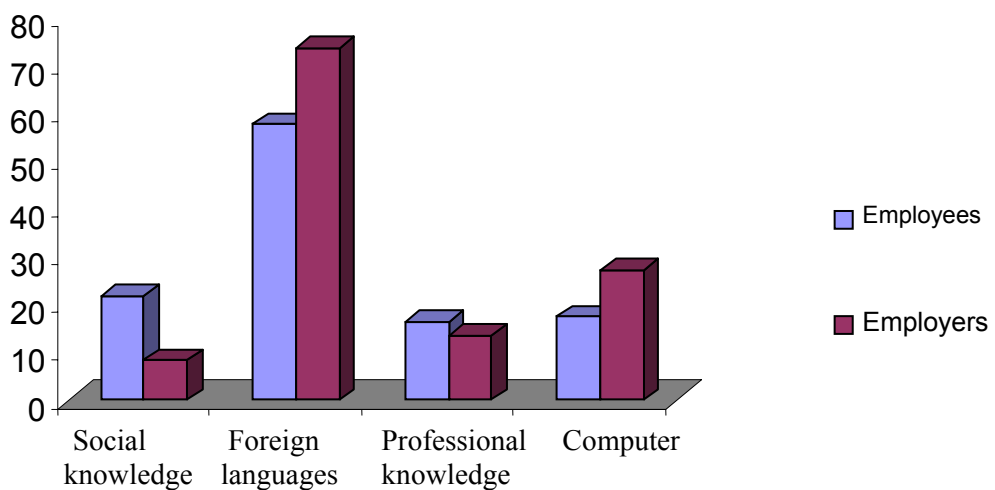
To assess abilities to satisfy the job's requirement, and the lack in knowledge and skills needed complementing of engineers in the field of Agroforestry, we conduct a survey by interviewing engineers in the field of Agroforestry and their employers. Results of the survey is presented in table 04.

Interviewees	Employees (%)	Employers (%)
Contents		
1/ The level of meeting the job's requirement of engineers in the field of Agroforestry		
Good	27,9	10,0
Satisfactory	55,7	60,0
Unsatisfactory	16,4	30,0
2/ Knowledge and skill deficiency		
Social knowledge	21,7	8,26
Foreign languages	57,6	73,7
Professional knowledge	16,3	13,5
Computers	17,4	27,1
3/ Further education before working		
Yes	44,3	20,0
No	52,3	50,0
Short courses	3,30	30,0

Table 04: Results of the survey on knowledge and skills of engineers in the field of Agroforestry



Bar chart 02: The level of meeting the job's requirement of engineers in the field of Agroforestry



Bar chart 03: Knowledge and skill deficiency of engineers in the field of Agroforestry

As presented in table 4, bar chart 02, and 03, most of engineers in the field of Agroforestry self evaluated to meet the job's requirement, and they also were assessed as satisfactory to the job by employers, accounting for 60%. However, the percentage of engineers being ranked as good level was only 10%, and there was still about 30% of them not meet requirements of employers.

The above results also reveal that deficiency in knowledge and skills was foreign languages and computer, which are highly evaluated by the employees and employers. However, the volume for foreign languages and computer in the training curriculum was relatively small and limited. Professional and social knowledge of engineers in the field of Agroforestry was evaluated as good level because deficiency in these kinds of knowledge was low. Deficiency in social and professional knowledge was only 8,26% and 13,5%, respectively.

To find a good job, consistent with engineer's capacity and profession, many graduates participated in further education of foreign languages, computer and other short courses. According to the graduate's assessment, 44,3% of engineers had to take further education before working, and 52,3% of them did not do so. Meanwhile, employers claimed that 20% of graduates had to take further education before working, and 50% of them did not have to do so. Employers also stated that 30% of graduates had to enroll in other short courses.

2.3. Results of assessment of the curriculum in the field of Agroforestry

To evaluate the level suitability level of the curriculum in the field of Agroforestry, we conducted an interview on the time of training, the volume and the suitability level of the curriculum in the field of Agroforestry. Results of this survey are shown in table 05.

Sessions	51st (2006 -2010)	52nd (2007 -2011)	Average
Contents			
<i>1.The training time of the field of Agroforestry</i>			
Long	10,81	9,76	10,28
Short	2,70	9,76	6,23
Reasonable	86,49	78	82,27
Extremely reasonable	0,00	2,44	1,22
<i>2. The volume of the curriculum in the field of Agroforestry</i>			
Hard	56,76	29,3	43,01
Medium	32,43	53,7	43,05
Easy	0,00	7,32	3,66
Other	10,81	7,32	9,06

3. The assignment of subjects in the field of Agroforestry			
Very reasonable	0,00	0	0,00
Reasonable	37,84	39	38,43
Unreasonable	59,46	53,7	56,56
Other	2,70	7,32	5,01

Table 05: The time of training and the volume of curriculum in the field of Agroforestry

As indicated in the table 05, 82,27% of the third and fourth-year students stated that the training time of the field of Agroforestry was reasonable, and only 10,28% of them claimed that the training time of the field of Agroforestry was long. According to the fourth-year students, 86,49% of them asserted that four year training course was reasonable, and that figure of the third-year students was 76%. For the volume of the curriculum, students of the 51st session insisted that it was hard, accounting for 56,76%, and 32,43% of them considered to be medium. Whereas, 53,7% of students of the 52nd session reported that the volume of the curriculum was medium, and 29,3% of them ranked it as hard. The other ideas about the volume of the curriculum made of 8,97% in total because it was hard for students to differentiate the volume to be hard, medium, or easy...

For the assignment of subjects in the curriculum, most of students claimed that it was not reasonable. In particular, 59,46% and 53,7% of the four-year and the third-year students, respectively, considered that the assignment of subjects in the curriculum was not reasonable. Only 37% to 39% of students insisted that such assignment was reasonable.

For the framework of teaching, we divided into smaller sections such as teaching theory, doing exercises, making discussions, and practising... Results are summarized in table 06 and 07.

Levels Components	Increase	Reduce	Keep unchanged
Component of the general education (90 units)	0,00	79,49	20,51
Component of the background education (29 units)	19,23	10,26	71,79
Component of the professional education (58 units)	75,64	0,0	24,36
Supplementary component (8 units)	33,33	8,97	57,69
Optional components (10 units)	43,59	7,69	48,72
Graduation components (15 units)	19,23	6,41	74,36

Table 06: Results of assessment of the framework of the curriculum in the field of Agroforestry

As seen in the table 06, components of the general education with 90 units were considered to be long, and 79,49% of interviewees stated that components of the general education needed reducing. Components of the background education, supplementary components, and graduation components were reported to be unchanged. For optional components, students were interested in these components; hence, 43,59% of learners claimed that these components needed increasing.

Level Components	Increase	Reduce	Keep unchanged
Time for teaching theory	4,71	48,82	45,29
Time for experiment and practice	74,12	5,88	20,00
Exercises and designs,	55,29	7,06	37,65
Time for subject's practice	75,29	1,76	22,94
Time for graduation practice	33,33	5,13	61,54

Table 07: Results of assessment of teaching framework in the field of Agroforestry

For allocation of the training time, most students reported that it needed increasing the time for experiment and practice, and subject's practice. Time for teaching theory had to either increase or maintain unchanged. Most graduates did not have enough experience in reality and working skills, especially for students in the field of Agroforestry.

Knowledge and skills needed improving	Undergraduates	Graduates
- Social communication	61,54	54,3
- Foreign languages	70,51	75
- Computer	56,41	53,3
- Knowledge of general education	6,41	17,4
- Knowledge of background education	35,90	21,7
- Professional knowledge	83,33	53,3
- Supplementary knowledge	15,38	
- Knowledge and skills of optional components	12,82	
- Professional skills		37
- Experience in reality		59,8

Table 08: Knowledge needed improving for engineers in the field of Agroforestry

Results in the table 08 again confirm that knowledge needed improving for an engineer in the field of Agroforestry was professional knowledge, accompany with foreign languages, computer, and social communication skills. For undergraduates, 80,33% of them claimed that The Viet Nam Forestry University had to increased the volume of professional knowledge; 70,51% of them agreed with the idea of increasing the time for training foreign languages; 61,54% of students claimed to increased social communication components. Meanwhile, 53,3%, 59,8%, and 75% of graduates reported to raise the volume of professional knowledge, experience in reality, and foreign languages, respectively.

Capacities needed focussing	Undergraduates	Graduates
- Social relationships	80,47	46,07
- Designing and planning	46,07	34,56
- Administrative management	34,56	25,10
- Willingness to perform duties	25,10	69,98
- Foreign languages	37,26	
- Group working	69,98	
- Research	30,73	
- Computer	35,75	

Table 09: Capacities needed focusing to train engineers in the field of Agroforestry

Besides of knowledge and skills needed improving for engineers in the field of Agroforestry, strengthening their skills and capacities is essential. Capacities required were communication, promotion, group working, and professional skills.

Accompany with assessing the training curriculum of the field of Agroforestry, we also evaluated the capacity of the training staff and manager of this field. Results is shown in table 10.

Contents	Good	Fair	Medium	Needed improving
Knowledge	55,13	39,74	5,13	0
Professional skills	47,44	46,15	6,41	0
Teaching methodology	23,08	50,00	21,79	5,13

Table 10: Summarization of the capacities of the training staff

For training staff, they were highly evaluated, especially in professional skills and knowledge. 55,13% of students suggested that training staff were knowledgeable and enthusiastic. For professional skills of training staff, good and fair assessment was equal. For teaching methodology, lecturers were mainly ranked as fair level, and medium level just accounting for 21,79%.

Assessment of employment of graduates, the training curriculum of the field of Agroforestry, training staff's capacity, and infrastructure of The Viet Nam Forestry University revealed that all such aspects could satisfy demands of training engineers in the field of Agroforestry. However, the training framework had to be modified so as to be consistent with the reality of production and the development of society. Limitations of engineers in the field of Agroforestry were foreign languages, and social communication skills. It was advised to focus on improving social communication skills, foreign languages, computer, and professional knowledge. For the training curriculum, most of students reported that it had to raise the time for experiment and practice of subject, and practice in reality of production so that students could acquire enough professional skills before working.

2.4. Proposals of short training courses for graduates in the field of Agroforestry

- Agroforestry in watershed.
- Land use planning in agroforestry.
- Designing short training courses on agroforestry.
- Communication and promotion skills for transferring technology on agroforestry.
- Biomass management on agroforestry systems.
- Techniques of nursery, exploitation, and procession for some of plants of non-timber forest products in agroforestry systems.
- Analysis of agroforestry landscape.
- Analysis of markets of agroforestry products.

3. RESULTS OF THE WORKSHOP ON TNA AND REVISION OF THE TRAINING CURRICULUM OF THE FIELD OF AGROFORESTRY AT THE VIET NAM FORESTRY UNIVERSITY

3.1. Objectives of the workshop

- Revise results of assessment of training demands for the field of Agroforestry.
- Proposals to improve the training curriculum of the field of Agroforestry from academic year training into credit training.

3.2. Participants

Participants include 8 teaching staff and managers in the field of Agroforestry of Viet Nam Forestry, and 2 lecturers of The Thai Nguyen Agricultural and Forestry University. The list of participants is shown in index B.

3.3. Place and date of the workshop

The workshop was organized on 20th August 2009 at The Viet Nam Forestry University, hosted by Department of Agroforestry.

3.4. Results of the workshop

3.4.1. Results of TNA

The old form (academic year training form) of the training curriculum in the field of Agroforestry had 210 units and 52 subjects. The general education component was long (90 units), but the professional knowledge was just 58 units. Therefore, the general education components had to be reduced (79,49%), and the professional knowledge had to be increased.(83,33%) Deficiency in knowledge and skills of engineers in the field of Agroforestry was foreign languages. Skills needed improving were professional skills. Foreign languages was assessed to be necessary (70%), and followed by social knowledge.

From such results, we conducted a workshop to propose improvements for the new training curriculum in the field of Agroforestry, namely, credit training.

3.4.2. Discussion on the training curriculum in the field of Agroforestry

Group 1: Discussed on the training objectives, fundamental knowledge and background knowledge for the field of Agroforestry.

Group 2: Discussed on the time for training, professional knowledge and graduation practice in the field of Agroforestry.

Some opinions are drawn from group discussion and general discussion as below.

- Working places: Engineers in the field of Agroforestry are able to work in organizations under state management, doing research and training on agriculture and forestry. Moreover, they can work for organizations, management boards of agricultural and forestry projects, local communities, and farms.
- The role of graduates in the field of Agroforestry: Planning, designing, doing research, organizing agricultural and forestry activities, implementing projects on agriculture and forestry, and rural development, training and transferring agricultural and forestry technologies.
- Time for training may last from 3,5 years to 5 years based on the learner's ability. Students must acquire 140 credits to complete the training program.

- Time for experiment and practice in laboratories and in the reality of production should be increased.

Participants agreed with the training curriculum, credit training curriculum, in the field of agroforestry as following.

The Ministry of Agriculture and Rural Development The Viet Nam Forestry University	The Social Republic of Viet Nam Independence – Freedom - Happiness
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The Tertiary Education Programme

The title: The training programme in the field of Agroforestry

Training level: Tertiary education

Training field: Vietnamese name: Nong Lam Ket Hop

English name: Agroforestry

Training type: Regular training

Code of the field: 305

Issued in accordance with the decision number day month year of the Director of The Viet Nam Forestry University

1. Training objectives

1.1. General objectives

Training engineers with interdisciplinary and complex science and technology in the fields of agriculture and forestry, and skills to organize and implement all the tasks related to extension, rural development, and community development.

1.2. Working places

- Organizations under state management in the fields of agriculture, forestry, and rural development
- Research and training institutions on agriculture and forestry
- Enterprises of agriculture and forestry production
- The Committee for Ethnic and Mountainous affairs, The Committee for Settled Agriculture and Residence, economic and social organizations at all levels.
- Co-operatives, committees/ villages, farms of agriculture and forestry production.
- Management boards of projects on agriculture, forestry, rural and committee development

1.3. Main responsibilities

- Plan, design, and organize production activities on agriculture and forestry
- Do experiment research, select and apply advances of science and technologies, and transfer science and technology.

- Establish and implement projects on agriculture and forestry development, and rural development.
- Participate in training and improving intermediate staff, workers in the field of agriculture and forestry, extension and rural development staff at community level.

1.4. Requirement

1.4.1. Knowledge

- Acquire fundamental and modern knowledge on natural and social science, and human civilization.
- Knowledgeable in science and technology in the fields of agriculture and forestry, rural development.
- Have good knowledge on social economics and human civilization.
- Have professional knowledge on natural resource management of households and communities.
- Have a thorough understanding of extension and rural development.

1.4.2. Skills

- Realize subjects of agriculture and forestry production.
- Select and apply techniques, economic solutions, and design and build up means of production and trading.
- To be aware of observing, analyzing, organizing and implementing technology procedures and their regulations, and implementing transfer technology to farmers.
- Have skills to consult, support services, and promote production activities of agriculture and forestry in households and communities.
- Have skills to design and implement projects on agriculture and forestry, rural development, and communities.

1.4.3. Attitudes

- Have a stable viewpoint and thinking, appreciate the field of working, to be self-motivated and creative in working, to be willing to work in rural, remote and mountainous areas.
- Have a good working ethics, and keep a serious relationship with households and partners.
- Respect manners and customs, and traditional cultures of ethnic communities, to be aware of sharing and learning from households.

2. Time of training: 4 years

3. The volume of the training curriculum in total: 136 credits

4. Subjects of enrollment

Pupils after graduating from high school met all requirements of the current entry enrollment regulations of The Ministry of Education and Training.

5. Training procedures and graduating requirements.

- Organized under credit training regulations and in accordance with The Regulation Number 43 on Tertiary and College Education for regular credit training.

Students after acquiring 134 credits and satisfying other conditions of the current regulation will be granted the graduation certificate.

6. Grade

All components in the training curriculum in the field of agriculture will be assessed via grades as shown below.

Grade	Grade to assess learning process	Final examination grade	Total
<i>Percentage</i>	40%	60%	100%
<i>Description</i>	All criteria to assess the learning procedures of students are regulated and instructed in each subject (It may be consist of: assiduity, regular tests, middle examinations, discussion, assignments, practices/ experiments...)	- Set of exam questions managed by The Training Department. - Types of examination depend on each subject (It may be oral examination, assignment, or multiple choice test...)	

7. Contents of the training programme

7.1. Components of general education

7.1.1. Politics: 10 credits

7.1.2. Social science

- Compulsory: (none)

- Optional; (none)

7.1.3. Arts and human civilization

- Compulsory: (none)

- Optional; (none)

7.1.4. Foreign languages: 7 credits

7.1.5. Mathematics, computer, natural science, technology, and environment

- Compulsory: 23 credits

- Optional; (none)

7.1.6. Physical education: 5 semesters (150 periods)

7.1.7. Military education: 5 weeks (165 periods)

7.2. Professional knowledge

7.2.1. Fundamental knowledge (group of fields of study and field of study):
19 credits

7.2.2. Knowledge of the main field (*the first field*)

7.2.2.1. General knowledge of the main field of study (compulsory) 51 credits

7.2.2.2. Professional knowledge of the main field of training (not compulsory, it is optional or selected according to each field of training) 12 credits

- Compulsory: (none)

- Optional:

12 credits

7.2.3. Free supplementary knowledge (not compulsory)

7.2.4. Graduation practice and thesis:

10 credits

Summary of contents in the training curriculum of the agroforestry (title and volume of components)

Order	Components	Credits in total	Learning time (periods)								Prerequisite credits			
			Theory		Exercise/discussion		Assignment		Practice/experiment			Practice in reality of production		
			TC	TT	TC	TT	TC	TT	TC	TT		TC	TT	
Credits in total		136												
I	Components of general education	39												
A	Compulsory components	17												
1	Basic principals of Marxism – Leninism	5												
2	The way of revolution of Vietnamese Party	3												
3	Ho Chi Minh’s thinking	2												
4	English 1	3												
5	English 2	2												
6	English 3	2												
7	Physical education													
8	Military education													
B	General compulsory knowledge for groups of fields of study	22												
9	General chemistry	3												
10	Chemical analysis	2												
11	Biology	3												
12	Probability and statistics	3												
13	General computer	3												
14	Physics 1	3												
15	Advanced mathematics	3												
16	Genetics 1	2												
II	Professional knowledge	97												
A	Fundamental knowledge	25												
17	Plant physiology	3	2	30					1	30				11
18	Meteorology and hydrography	2	1	15					1	30				
19	Geodesy	2	1	15							1	15		
20	Paedology 1	3	2	30					1	30				
21	Paedology 2	2	1	15							1	15		20
22	Biological statistics	2	1	15	1	30								12
23	Plant morphology and classification	2	1	15					1	30				
24	Entomology	3	2	30					1	30				
25	Plant pathology	3	2	30					1	30				
26	Forestry plants 1	3	1	15					1	30	1	15		23
B	Specific knowledge of the field (Compulsory)	47												
27	Agriculture and forestry seeds	2	1	15							1	15		16, 17
28	Agriculture systems	2	1	15	1	30								21
29	Agriculture cultivation	2	1	15	1	30								21
30	Crop - growing	4	2	30			1	30			1	15		29
31	Husbandry - Veterinary and Aquaculture	3	2	30							1	15		
32	Forestry techniques 1	4	2	30					1	30	1	15		21, 27
33	Agriculture and forestry investigation	3	2	30					1	30				

34	Agriculture and forestry planning	3	2	30							1	15	19
35	Extension	4	2	30			1	30			1	15	
36	Processing agriculture and forestry products	2	1	15			1	30					
37	Agroforestry 1	2	1	15	1	30							27, 29
38	Agroforestry 2	2	1	15							1	30	37
39	Social Forestry	2	1	15	1	30							
40	Forestry project management	3	2	30			1	30					
41	Rural Appraisal	2	1	15							1	15	35
42	Experiment methodology in the field	2	1	15			1	30					22
43	Indigenous knowledge in agriculture and forestry	2	2	30									
44	Ecomimics and farm management	3	1	15	1	30	1	30					
C	Optional specialization components for Agroforestry	12											A, B
C1	Agroforestry on lowland (optional, at least 12 credits)												
1	Seed production techniques	3	2	30			1	30					
2	Land improvement	3	2	30			1	30					
3	Organic agriculture	3	2	30			1	30					
4	Special animal raising	3	2	30			1	30					
5	Agroforestry in watershed areas	3	2	30			1	30					
6	Safe vegetable production techniques	3	2	30			1	30					
7	Gardening	3	2	30			1	30					
8	Agroforestry landscape analysis	2	1	15			1	30					
C2	Agroforestry on highland (optional, at least 12 credits)												
1	Pasture and food resources for animals	2	2	30									
2	Sustainable agriculture on slopeland	4	2	30	1	30	1	30					
3	Special animal raising	3	2	30			1	30					
4	Wildlife breeding	2	1	15			1	30					
5	Agroforestry landscape analysis	2	1	15			1	30					
6	Seeding techniques for some of plants of non-timbers forest products	3	2	30			1	30					
C3	Optional specialization components for Social Forestry	9											
1	Social Forestry	4	2	30	1	30	1	30					
2	Biomass	2	1	15	1	15							
3	Gender and development	2	1	15	1	15							
4	Participatory technique development	2	1	15			1	30					
5	Communication and promotion skills	2	1	15			1	30					
6	Teaching methods for trainees	2	1	15			1	30					
D	Practice in reality of production	3											
E	Graduation	10											

8. Teaching plans (applied for each semester)

Components	Proposed schedules
<p>General education, physical education, and military education (consist of credits from 1 to 16 credits)</p> <p><i>In the third semester, student can enroll further from 1 to 3 credits of the fundamental knowledge of the groups of fields of study</i></p>	<p>Semester 1, 2, and 3</p>

Professional knowledge	Semester 4, 5, 6, 7, and 8
- Credits in fundamental knowledge of groups of fields of studies (Credits from 17 to 24) - Practice in reality of production	Semester 4
- Credits in professional knowledge of the field of study (Credits from 25 to 43) - Credits in optional specialization knowledge	Semester 5, 6, 7 (1 to 2 credits may be moved to semester 8)
- Graduation <ul style="list-style-type: none"> o Special subject for graduation, examination or o Dissertation oral defense 	Semester 8

9. The list of lecturers implementing the training programme (Make the list of official lecturers and invited lecturers exclusively)

Order	Name	Date of birth	Highest degree, field of study	Subjects/ credits that lecturers will be in charge of teaching

10. Infrastructure and equipments for learning

10.1. Laboratories and main equipments

10.2. Library

10.3. Text books and lecture notes.

Order	The title of text books or lecture notes	Authors	Publisher	Year of publication

11. The instructor to perform training programme

Vice Dean of Faculty

Đỗ Anh Tuấn

INDEX

Index A: A questionnaire of TNA

Form 1
Year: 2009

Viet Nam Forestry University
Department of Agroforestry
Email: SFSF.XM@hn.vnn.vn
Hoặc bmnlkh@gmail.com

A QUESTIONNAIRE FOR UNDERGRADUATES IN THE FIELD OF AGROFORESTRY

Department of Agroforestry would like to send you the respectful greetings!
Please participate in a survey of training quality appraisal for undergraduates in the field of Agroforestry at Viet Nam Forestry University via providing information as shown below by filling in the box or tick "X" if suitable.

1. Student's information

1.1. Full name (optional):..... Telephone number:.....

Email.....

1.2. Studying in the field of Agroforestry. Academic year:Class.....Faculty:

1.3. The name of the field of study when you enrolled:

2. Your opinions about the curriculum of the field of Agroforestry at Viet Nam Forestry University which you are pursuing.

2.1. In your opinions, how is the time for agroforestry engineer training?

Long Short Reasonable Highly reasonable

2.2. In your opinions, how is the curriculum of the field of Agroforestry?

Hard Medium Easy Others

2.3. In your opinions, allocation of subjects in the curriculum of the field of Agroforestry?

Highly reasonable Reasonable Unreasonable Others.....

2.4. In your opinions, components of curriculum in the field of Agroforestry:

- Components of general education (90 units), should: Increase Reduce Keep unchanged

- Components of background education (29 units), should: Increase Reduce Keep unchanged

- Components of professional education (58 units), should: Increase Reduce Keep unchanged

- Supplementary components (8 units), should: Increase Reduce Keep unchanged

- Optional components (10 units), should: Increase Reduce Keep unchanged

- Graduation components (15 units), should Increase Reduce Keep unchanged

2.5. Which component should be increased or reduced?

.....

2.6. Training time allocation:

- Time for teaching theory, should: Increase Reduce Keep unchanged
- Time for experiment and practice, should: Increase Reduce Keep unchanged
- Exercises and plans, should: Increase Reduce Keep unchanged
- Production sightseeing, should: Increase Reduce Keep unchanged
- Time for graduation practice, should: Increase Reduce Keep unchanged

2.7. Which knowledge should be reinforced for students?

- Social knowledge Foreign languages Computer
- General education Background knowledge for the field of Agroforestry Professional knowledge
- Supplementary knowledge Optional Other opinions.....

2.8. In your opinions, which skills of students need to be strengthened:

- Communication Foreign languages Computer
- Design, planning Administrative management Working performance
- Group working Research Others:.....

3. Your opinions about training capacity of Viet Nam Forestry University.

3.1. Infrastructure

- Learning rooms Unsatisfied Good Fair Medium
- Library Unsatisfied Good Fair Medium
- Laboratories Unsatisfied Good Fair Medium
- Places for field-trip Unsatisfied Good Fair Medium

3.2. The capacity of teaching staff

- Knowledge: Good Fair Medium Should be improved

- Professional skills: Good Fair Medium Should be improved

- Teaching methodology: Good Fair Medium Should be improved

4. Your other opinions to Viet Nam Forestry University:

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.....

Thanks for your cooperation.

Ha Noi, day month year 2009

Signature (Optional)

Notes:

- Please send this questionnaire to address as below.

Department of Agroforestry, Faculty of Silviculture, Viet Nam Forestry University, Xuan Mai town Chuong My district, Ha Noi, Viet Nam

- Telephone number: 0433.840706; Fax: 0433.840063 - Email: SFSP.XM@hn.vnn.vn
Or bmlkh@gmail.com

- You can contact and provide us information via mobile phone numbers:

+ 0912294527 (Phạm Quang Vinh – Lecturer and chief of Agroforestry Department)

+ 0989151716 (Kiều Trí Đức – Lecturer of Agroforestry Department)

Viet Nam Forestry University
Department of Agroforestry
Email: Sfsp.xm@hn.vnn.vn
bmnkh@gmail.com

**A QUESTIONNAIRE FOR GRADUATES IN
THE FIELD OF AGROFORESTRY**

Department of Agroforestry would like to send you the respectful greetings!

Please participate in a survey of training quality appraisal for graduates in the field of Agroforestry at Viet Nam Forestry University via providing some information as shown below by filling in the box or tick "X" in suitable box.

1. Former student's information:

1.1. Full name.....Telephone number.....

Email:.....

Contact address.....

1.2. Year of graduation:Academic year:..... Class

1.3. Did you get the job yet? Yes No Further study Both working and studying

2. Your current status

2.1. Employment

- How long did you get a job after graduation?

Less than 6 months Between 6 months to 1 year After 1 year

- How do you feel about your current job?

Suitable to the field being trained A little suitable Unsuitable
Others.....

- The level of your satisfaction to the current job.

Satisfied Acceptable Unsatisfied Others.....

Why?.....

.....

.....

- Your current organization belongs to:

Company Government organization Research institute
 Education Community
Others:.....

- The level of your task accomplishment

Good Meet requirements Not meet requirements
Others:.....

- *Your monthly income (Optional):*

- Under 1 millions VND From 1 to 2 millions VND From 2 to 3 millions VND
 Over 3 millions VND

- *Knowledge you need to improve:*

- Social knowledge Foreign language s Technology Computer Others.....

- *Skills you need to improve:*

- Communication Group working Profession Computer Other.....

- *To apply for a job, Did you have further study?:*

- No Yes

- *What is the type of further study?*

- Master Tertiary education Short course Other.....

2.2. Unemployment?

Reasons why?

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.....
.....

2.3. Further study

Reasons why?

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- *The type of further study?*

- Master Tertiary education Short course Others.....

- *What is the field of further study?*

.....
.....

3. Proposals for the curriculum of the field of Agroforestry at Viet Nam Forestry University.

3.1. The time for training

- Long Short Suitable Highly suitable Others:.....

3.2. Volume of curriculum

- Hard Medium Easy Others:.....

3.3 Training management

- Highly suitable Suitable Unsuitable Others

3.4. Components of curriculum

- Components of general education, should: Increase Reduce Keep unchanged
 Others.....

- Components of background education, should: Increase Reduce Keep unchanged
 Others.....

- Components of professional education, should: Increase Reduce Keep unchanged
 Others.....

- Supplementary components, should: Increase Reduce Keep unchanged
 Others.....
- Optional components, should: Increase Reduce Keep unchanged
Others.....
- Graduation components, should : Increase Reduce Keep unchanged
Others.....

3.5. Which components should be increased or reduced?

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3.6. Training time allocation?

- Time for teaching theory, should: Increase Reduce Keep
unchanged
- Time for experiment and practice, should Increase Reduce Keep
unchanged
- Exercises and designs, should: Increase Reduce Keep
unchanged
- Time for subject's practice, should: Increase Reduce Keep
unchanged
- Time for graduation practice, should: Increase Reduce Keep
unchanged

3.7. In your opinions, what knowledge should be supplemented for students in the field of Agroforestry?

- Social knowledge Foreign languages Computer Background
knowledge
- Professional knowledge General education Supplementary components
- Optional components Others.....

3.8. In your opinions, which skills should be reinforced for students in the field of Agroforestry?

- Communication Foreign languages Computer Profession
- Research Group working Management
- Others.....

3.9. In your opinions, what short courses should be supplemented to raise the capacity of staff in the field of Agroforestry in the future?

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4. Your opinions about training capacity of Viet Nam Forestry University:

4.1. Infrastructure:

- Learning rooms: Good Fair Medium Unsatisfied
- Laboratories Good Fair Medium Unsatisfied
- Places for field-trip: Good Fair Medium Unsatisfied
- Library Good Fair Medium Unsatisfied

- *Social activities* Good Fair Medium Unsatisfied
- 4.2. The capacity of teaching staff
- *Knowledge:* Good Fair Medium Should be improved
- *Professional skills:* Good Fair Medium Should be improved
- *Teaching methodology:* Good Fair Medium Should be improved

5. Other opinions

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Thanks for your cooperation!

....., day month year

Signature

Notes:

- *Please send this questionnaire to the address:*
Department of Agroforestry, Faculty of Silviculture, Viet Nam Forestry University, Xuan Mai town, Chuong My district, Ha Noi, Viet Nam.
- *Email: : Sfsp.xm@hn.vnn.vn
bmnlkh@gmail.com*

Viet Nam Forestry University
Email: SFSP.XM@hn.vnn.vn
Hoặc bmnlkh@gmail.com

A QUESTIONNAIRE ON THE TRAINING DEMAND
APPRAISAL OF AGROFORESTRY

Viet Nam Forestry University would like to send you respectful greetings!
Warmly welcome you to participate in a survey of training demand appraisal and quality of human resource in the field of Agroforestry at Viet Nam Forestry University by providing information as shown in this questionnaire. We are committed to ensure secrecy of your information.

I. General information

1. Name of your organization:.....
2. Address:.....
3. Telephone number: Fax:
4. Email: Website:
5. The main tasks and functions of your organization

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II. Framework of your organization, human resource and its development

1. The main activity of your organization

Order	Activities related to agroforestry	Periods	
		Present	Next 10 years
1.			
2.			
3.			
....			

2. Please indicate factors influencing the efficiency of activities and the development of your organization (Tick X in selected box).

Order	Factors	Levels of influence			Levels of difficulty		
		Very much	Much	Normal	Very difficult	Moderate	Easy

1	<i>Development strategies</i>						
2	<i>Specific plans</i>						
3	<i>Management, supervision, evaluation of plan performance</i>						
4	<i>Original information</i>						
5	<i>Administrative staff with full of capacity and meet the work requirements</i>						
6	<i>Technical staff with full of capacity and meet the work requirements</i>						
7	<i>Administrative training</i>						
8	<i>Technical training</i>						
9	<i>Fund approaches</i>						
10	<i>Policy mechanism</i>						
11	<i>Others (please specify)</i>						

3. The framework of human resource in your organization.

<i>Numbers of staff assigned to qualifications</i>	<i>Total</i>		<i>Professors and Associate professors</i>		<i>Doctors</i>		<i>Masters</i>		<i>Engineers</i>		<i>Technicians</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
<i>Assigned gender</i>												
<i>Number of staff in total</i>												
<i>Staff in the field of Agroforestry</i>												

4. How do you evaluate the task accomplishment of staff in the field of Agroforestry in your organization?

- Excellent Good Fair
 Medium Ineffective Bad

5. Factors that are impeding the task accomplishment assigned or capacity promotion of staff in the field of Agroforestry in your organization (Tick X in suitable box).

Order	Obstacles	Levels of the obstacle		
		Very much	Much	Medium
1	Professional knowledge not appropriate to the requirement of current works			
2	Professional knowledge becomes backward but not retrained or improved yet			
3	Lack of practical experience			
4	Lack of technical and related information			
5	Do not meet foreign language requirements			
6	Do not keep one's mind on one's work or not enthusiastic in working			
7	Lack of experts			
8	Others (Please specify)			

6. Numbers of staff trained in some short courses on agroforestry inside the country and abroad.

Year	2005	2006	2007	2008	2009
Places of training					
Inside the country					
Abroad					
Total					

III. Training demands for staff in the field of Agroforestry up to 2020

1. Are there enough necessary staff in your organization to undertake programmes/ tasks related to agroforestry at present and in the future?

Enough at present and insufficient in the next 10 years:

Insufficient at present and the next 10 years:

Sufficient at present and the next 10 years:

2. If recruiting new staff in the field of Agroforestry, what are requirements of your organization for recruitment?

- Qualification:

- Age:
- Foreign languages:
- Level of computer:
- Communication skills:
- Others (Please specify).....

3. Long term training demands for staff in the field of Agroforestry in your organization.

Period \ Qualifications	2010- 2012	2012- 2014	2014-2016	2016-2018	2018-2020
Doctors					
Masters					
Engineers					
Technicians					
Total					

- Please indicate contents/ professional fields that take priority for training in your organization.

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- Please indicate the expected training places

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3. Please indicate short-term annual training demands for staff in the field of Agroforestry in your organization.

Types of training	Contents/ fields that take priority (Please specify)	Time for training	Numbers of staff to be trained annually	
			Inside the country	Abroad
Short term training	<i>Example: The methodology to transfer of technology on agroforestry</i>			
Research and training combination	<i>Example: Sustainable slope-land cultivation</i>			
Workshop participation, sightseeing	<i>Example: Participating in professional administration, policy analysis, and transfer of technologies.....</i>			

IV. Your petitions and proposals to Viet Nam Forestry University

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Thanks for your highly valuable cooperation in this survey.

....., daymonth year 2009

Answerer

Head of organization

Notes:

- Please return this questionnaire to following address:
Department of Agroforestry, Faculty of Silviculture, Viet Nam Forestry University, Xuan Mai Town, Chuong My district, Ha Noi, Viet Nam.
- Telephone number: 0433.840706; Fax: 0433.840063
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+ 0912294527 (Phạm Quang Vinh – Lecturer and chief of Agroforestry Department)

+ 0989151716 (Kiều Trí Đức – Lecturer of Agroforestry Department)

Index B. List of workshop’s participants

Order	Name	Position	Name of organization
1	Phạm Xuân Hoàn	Vice Dean	Viet Nam Forestry University
2	Phạm Quang Vinh	Chief of Agroforestry Department	Viet Nam Forestry University
3	Kiêu Trí Đức	Lecturer	Viet Nam Forestry University
4	Nguyễn Đình Hải	Vice Director of Faculty of Silviculture	Viet Nam Forestry University
5	Trần Bình Đà	Lecturer	Viet Nam Forestry University
6	Cần Văn Thắm	Lecturer	Viet Nam Forestry University
7	Phạm Thanh Tú	Lecturer	Viet Nam Forestry University
8	Trịnh Hải Vân	Lecturer	Viet Nam Forestry University
9	Lê Sỹ Hồng	Lecturer	Thai Nguyen Agricultural and Forestry University
10	Nguyễn Thị Thu Hoàn	Lecturer	Thai Nguyen Agricultural and Forestry University

Index C: Workshop schedule

Time	Contents	Methods and equipments	Responsibility	Participants
8.00 – 8.20	Opening ceremony and brief member introduction	Lecture	Mr Vinh	
8.20- 8.30	Workshop introduction		Mr Đức	
8.30 – 9.30	Report TNA’s results		Mr Đức	
9.30 – 9.45	Tea break			
9.45- 10.45	Discussion on TNA’s results			
10.45 – 11.30	Present the old form of the training curriculum of the field of Agroforestry		Mr Vinh	

11.30 – 13.30	Lunch time			
13.30 – 14.30	Group working to propose the improvements for the training curriculum			
14.30 – 15.15	Share the results of discussion among groups			
15.15 – 16.00	General discussion			
16.00 – 16.30	General conclusion			
16.30	Workshop closing			

Index D: The training curriculum of the field of Agroforestry in academic year training (old form)

Order	Name of subjects	Units	Periods	Theory (periods)	Experiment/ Practice	Theory/ Exercise	Discussion/ Exercise	Practice in reality of production
I	General education							
A	Compulsory credits (47 credits)							
1	Marxism – Leninism and Ho Chi Minh' thinking	22	330					
2	Social Science	5						
3	Arts and Human civilization	5						
4	Foreign languages	10						
5	Physical education	5						
6	Military education	5 weeks						
B	General compulsory for groups of fields of study (35 credits)							
	General chemistry	6						
	Chemical analysis	3						
	General biology	5						
	Probability and statistics	4						
	Computer introductory	3						

	General physics	4						
	Advanced mathematics B	4						
	Scientific approach methodology	3						
	Environmental ecology	3						
	Genetics	3						
	Chemical biology	2						
	Plant geography	3						
II	Professional knowledge (120 credits)							
A	<i>Fundamental knowledge</i>							
	Plant physiology	5						
17	Meteorology and hydrography	3						
18	Agriculture and forestry survey	3						
19	Paedology	5						
20	Mathematical statistics in forestry	3						
21	Plant morphology and classification	3						
22	Ecology	4						
23	Forestry Plants	3						
B	<i>Specialization knowledge of the field of study (compulsory)</i>							
27	Plant seeding in agriculture and forestry	4						1 week
28	Agriculture systems	3						
29	Agriculture cultivation	3						
30	Food crops	2						
31	Fruit trees	2						1 week
32	Industrial plants	2						
	Entomology	3						½ week
	Plant Diseases	3						½ week
	Husbandry	3						1 week
33	Forestry investigation	3						
34	Agriculture and forestry planning	3						1 week
35	Agriculture and forestry extension	3						1 week
36	Processing technology after harvesting and preliminary treatment of agriculture and forestry products	3						1 week

37	Agroforestry	4						2 week s
38	Forestry planting	3						1 week
39	Social Forestry	2						
40	Agriculture and forestry enterprise management	3						
41	Silviculture	3						1 week
42	Agriculture and forestry machines	2						
43	Veterinary Science	3						1 week
44	Economic management of households and farms in agriculture and forestry	2						
	Rural development economics	3						
	Aquaculture	2						
	Irrigation	2						
C	<i>Optional specialization knowledge</i>							
	Medicine plants	2						
	Speciality plants	2						
	Vegetable	2						
	Wildlife breeding	2						
	Biomass	2						
	Biological technology	2						
	Animal food	2						
	Biological diversity	2						
	Geological informatic systems	2						
	Communication and promotion skills	2						
	<i>Water and land conservation techniques</i>	2						
	Community Forestry	2						
	Salt-marsh forestry management	2						
	Land use management	2						
	Flowers and ornamental plants	2						
	Graduation thesis	15						