

# **EVALUATING THE IMPACT OF THE GRADUATE FELLOWSHIP PROGRAMME OF THE INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE**

## **A Tools and Process Report**

ILRI Impact Assessment Series 8

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## **Abstract**

Tools were designed to enable the first impact assessment of the graduate study programme at ILRI. Six questionnaires were designed. Others may use these freely, but appropriate acknowledgement of the source will be appreciated. Future users may modify these instruments for their own impact studies; and indeed are encouraged to do so. We recognise that many improvements could be made and request for advice on how others have accomplished this.

## **Introduction**

In recent years the impact of graduate degree training of students from sub-Saharan Africa (SSA) has been debated widely (Pires, Kassimir and Brhane, 1999). Mostly studies have focused on 'rates of return' i.e. the number of students returning to work in Africa following completion of their degrees. While these surveys of overseas study among trained African scientists are useful, there are many other important hypotheses to explore. Little is known, for instance, about either the direct or indirect outcomes of training programmes on long-term capacity building within developing countries.

In late 1998 an impact assessment of graduate training at the International Livestock Research Institute (ILRI) and at the founder institutes ILCA and ILRAD was undertaken<sup>1</sup>. The Impact Study covers (60) graduate fellows from Kenya and Ethiopia who undertook the research component of their degrees at ILRI between 1978 and 1997. Graduate fellows (GF) are staff members of national agricultural research systems (NARS) who are students registered for a graduate degree (e.g. MSc, DEA, MPhil or PhD) in their home countries or elsewhere. The GF undertake a major part (sometimes all) of the research component of their degree at ILRI, working in an ILRI research project and supervised by an ILRI staff member. Over 75% of the 307 graduate fellows over the 1978 – 1997 period were from African countries and almost without exception returned to, or entered into, the NARS after their degree training. It was to these students that the assessment was addressed.

Demand for graduate training at ILRI remains high as SSA NARS continue to develop capacity. The desired outcomes of this study were a) to be able to identify the contribution that ILRI had made to institutional development and building new capacity from NARS institutes, b) to ascertain the sustainability of that new capacity, and c) to determine whether changes were necessary in the current and future ILRI programmes.

This paper documents the tools, process and collected data of the impact assessment of graduate training at ILRI. It is published with the intention of making these instruments available to other international and national research institutes interested in evaluating their graduate study and capacity building programmes. Analysis and discussion of the results appear in a follow-up paper (Eley et al, 2000)

## **Assessing the Impact of the Degree Training: Insights from the Literature**

Currently the topic of the long-term impact of capacity building programmes is receiving attention in the literature, however this has not always been the case (Brown et al, 1999). Impact evaluation of training received little support from decision-makers and trainees who were not required to report on their long-term human resource development activities. By the mid-1980s this situation had changed a little due to tighter training budgets and emphasis in management studies on learning from past mistakes. However, based on her review of the limited number of evaluation-related articles published in refereed journals, Marsden (1991) still concluded that evaluation of training was given low priority in many educational and training institutions.

The focus of the impact assessment should be on the value of the overall learning experience and its contribution to individual and organisational development (Senge, 1995). However a major difficulty, as Foxon (1989) points out, is that assessment are made by training managers mostly on the basis of evaluating the training activity itself and not the important subsequent outcomes. Consequently less is

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<sup>1</sup> ILRI was formed in 1994 by combining the resources of both The International Laboratory for Animal Diseases and The International Livestock Centre for Africa. ILRI is a member of the Consultative Group on International Agricultural Research, with a mandate for global livestock research.

published about the impact of degree training than the evaluation of the effectiveness of training methods. Foxon (1989) and Marsden (1991) attributed the lack of studies to problems with available quantitative measurement techniques, lack of finances, time and expertise in evaluation by trainers, and the lack of encouragement from donors and managers to do impact studies

Distinguishing between regular evaluation and impact assessment is also advisable. In this regard it is useful to consider the analytical framework offered by one of the best-known evaluators of training and capacity building, Donald Kirkpatrick (1994). In his model, there are four levels of evaluation designated. These levels evaluate results in terms of change in *reaction, learning, performance* (behaviour) *and impact* (results). Impact assessment is the highest of these four levels and it is characterised by two main factors. Firstly, it takes into consideration the cumulative, long-term outcomes of a training programme and implicates both individuals and organisations in its analysis. Secondly, impact assessment is an extraordinary activity in research management, and is best conducted by a team external to the training institution. In other words for any one training programme impact assessment is an infrequent activity and it requires additional resources - both in terms of finance and external input.

Agricultural research organisations are often called upon to evaluate in a systematic and thorough manner the outcomes of their efforts in human resource development (Brush, 1993; Hambly, Franca and Obura, 1999). In part, this requirement is the result of donor interest in validating their investments in training, but it is also due to a wider need to identify and strengthen the process of capacity building in order to make agricultural research more effective. Yet, one problem facing managers of agricultural research training is a lack of proven tools and processes for evaluating capacity building. A further problem is that for those tools that do exist, emphasis has often been placed on the tools themselves, while paying little attention to setting out clear objectives and research questions or hypotheses for the evaluation. In other words the tools determine, rather than provide the service to, the outcome.

As Foxon (1989) and Taschereau (1998) note, the most common evaluation techniques range from simple questionnaires to complex statistical procedures. Review of evaluation methods in education and training programmes identifies three main techniques. Firstly direct interviews that can include interviewing the trainee, trainer or trainee's supervisor. A second method involves the use of questionnaires (without interviews), which generate qualitative or quantitative data or both. The third method involves statistical measures that tend to compare an evaluated group of participants with a control group. Some literature does however suggest that a mix of methods is preferable to the selection of one of these methods. It is advised for instance, to combine interviews with questionnaires, and to collect both qualitative and quantitative data (Brannen, 1992; Kirkpatrick, 1994).

In the course of this study evaluation reports were made available to us from other international research institutes. Unfortunately most have not been published and all have had limited dissemination. Consequently tools and process were not widely available. Moreover they have focused primarily on informal analysis of training impact and primarily on short-term training activities (e.g. for ICRISAT<sup>2</sup> the study by Nagur, 1993). As exception was in 1988 when ICARDA<sup>3</sup> followed 231 of their 1205 trainees from the 1984-1987 period and undertook a more methodologically rigorous approach. Unfortunately there were few (if any) graduate students followed up.

Perhaps the most extensive follow up to graduate training has been by The International Rice Research Institute (IRRI) published in 1998 (Rabb et al). Three associated questions were asked. What did IRRI's Training programme do in terms of a) advancement of rice science, b) dissemination of rice-related knowledge and technology and c) the development of national rice research systems? A questionnaire was developed and sent to all 612 MSc and PhD fellows who were at IRRI over the 1962 to 1995 period. Over 60% (374) responded. Although the methodology was not published, results indicated that questions were asked as to how IRRI contributed to scientific competence in terms of acquiring scientific and technical skills and scientific product (to answer question a above) and to teaching (question b). Development of NARS (question c) was based on numbers of ex-trainees working in the NARS, with the premise that the higher educational level of trainees over the years, the increase in disciplinary areas worked and ability for local universities to undertake their own course work rather than depend on overseas support, were indicators for development.

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<sup>2</sup> International Crops Research Institute for the Semi-Arid Tropics

<sup>3</sup> The International Center for Research on Dryland Areas

This IRRI report stands alone in assessing degree related training and despite interest expressed by the centres to strengthen the evaluation component of training and capacity building activities, achievements in this regard are few. For example in a recent survey of genetic resources training activities, all sixteen centres of the CGIAR indicated that they conduct first-level evaluation of training activities, which immediately follows the training event. However only four centres reported conducting long-term or impact evaluation of training, namely IPGRI<sup>4</sup>, ISNAR<sup>5</sup>, ICARDA and ILRI (ISNAR/SGRP, 1999).

As noted above for the most part the few tools and processes needed to undertake impact assessment have not focused on degree training, but rather short course training (Hambly, Franca and Obura, 1999). The first task of ILRI was therefore to set out its evaluation objectives and hypotheses and develop relevant tools and a process for assessing the impact of its graduate degree-training programme.

## **The Goals of Graduate Degree Training at ILRI**

The first graduate fellows started at ILRAD in 1978 and in ILCA in 1985. The major goal of those institutes was, and now ILRI's training programme is, to increase the research capacity within the NARS. In the graduate degree-training context, the training of existing or future NARS researchers increases this capacity. The NARS, as defined in this study, include not only government research organisations but also university departments of agriculture, veterinary medicine and science and non-governmental organisations. Over the period 1978 to 1997, ILRI hosted a total of 307 graduate fellows; 233 from 26 African countries and 74 from 15 developed countries.

ILRI has emphasised the importance of graduate study as part of its research programmes for several reasons. Firstly ILRI's mandate is to assist in sustainable development for poverty alleviation through the enhanced productivity of livestock. Such development must involve the NARS where skilled human resources are directly linked to research output and effectiveness in addressing the problems at hand. Graduate training contributes to a sustained human resource capacity increase among NARS. Consequently although the training benefits the career development of the graduate fellow as an individual, it is as part of the institutional strengthening that emphasis lies. Secondly ILRI benefits from graduate study programmes directly through the contribution of the student's research towards its own research outputs, and subsequently through the creation of partnerships with the ex-trainees and their NARS.

## **Objectives of the Impact Assessment of ILRI's Graduate Fellowship Programme**

The overall purpose of the review of ILRI's Graduate Fellowship Programme was to assess the impact of the programme over a 20-year period. The contribution that ILRI had made to build new capacity among NARS institutes and the sustainability of that new capacity provided the rationale for the study.

The specific objectives of the impact study were therefore identified as follows:

- To determine the impact of graduate training to capacity building in agricultural research in developing countries.
- To provide self-evaluation by the training programme to facilitate improvement in programme, including monitoring and evaluation.
- To systemise feedback on the programme.
- To provide information to interested donors and attract further funding.

The study set out six key hypotheses that would respond to the above objectives:

1. ILRI graduate fellows obtain new research knowledge, attitudes and skills during their fellowship programme.
2. ILRI graduate fellows return to their NARS to practise their newly attained abilities.
3. ILRI graduate fellows continue to use and sustain these new research tools.
4. ILRI graduate fellows continue to make useful contributions to their NARS.

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<sup>4</sup> The International Plant Genetic Resource Institute

<sup>5</sup> International Service for National Agricultural Research

5. ILRI graduate fellows contribute to ILRI's own research programme.
6. Universities, NARS and NARS employees perceive ILRI as a high quality location for graduate degree research.

## Tools and Process of the Impact Assessment of ILRI's Graduate Fellowship Programme

The immediate problem for implementing the study was that ILRI knew of no tools that would achieve the desired result. Furthermore the evaluation literature suggests that no single methodology exists for assessing the impact of graduate training and capacity building efforts.

ILRI addressed this challenge by designing a process that would allow for maximum data capture, with minimal cost, associated with tracking ex-graduate fellows. The tool developed consisted of six separate questionnaires that could be used alone or in combination to address the questions noted above. The respondents of the various questionnaires were a) the recipients of the training, i.e. the graduate students themselves, b) representatives from ILRI and universities who contributed to the training as supervisors and c) potential beneficiaries of the training, i.e. the users or clients of the graduate fellows knowledge and skills. The latter group consisted of people who were considered best able to assess performance of the trained personnel.

The list of questionnaires and the respondents are listed in Table 1.

Questionnaire	Completed by
1	Graduate fellow
2A	University supervisor
2B	ILRI supervisor
3A	Current NARS supervisor who was also the supervisor prior to the fellowship
3B	Current NARS supervisor who was not the supervisor prior to the fellowship
4	Team Leader/ Dean/ Department Chairman of the NARS employer

The following statement prefaced each questionnaire: *The purpose of this Review is to assess the value and impact of the ILRI Graduate Fellow programme as a whole over the past 20 years. It is not a review of any individual graduate student, nor of any supervisor, registering university or NARS institute, and details will remain confidential.*

### Steps in the process were:

1. A team of ILRI training specialists consisting of the Head of Training, the Education Officer and the Head of Training Resources, met during several brain-storming sessions and listed the often asked questions about impact. Between them the three officers had over 50 years of experience in post-graduate training through their employment in three NARS and nine international institutes. Over a number of years these questions had been posed by the specialists themselves and also had come from ILRI's donors, board members, observers and the NARS.
2. The often-asked questions were grouped and from these groups the six key hypotheses noted in the section above were formulated.
3. Questions to test each hypothesis were then developed and grouped. For each section indicators were developed to provide a measure of achieving the objectives for that section. Following discussion and iterations within the Training Programme, external input was sought and an independent consultant was recruited. Working with the ILRI team, the consultant transferred the broad questions to a recording form that was used to refine the questions. The questions were formulated to provide multiple choices and very few were open-ended. This was done to facilitate data processing and to avoid ambiguous responses. Finally the questions were divided in several separate questionnaires; each one to be answered by a different person associated with the same graduate fellow training activity (summarised in Table 1).
  - Questionnaire 1 for the graduate fellow is divided into sections covering biodata, fellowship, career, publications, ILRI environment, administration of training by ILRI, conceptualisation and development of research project, thesis development, university environment and NARS environment.
  - Questionnaire 2A is intended for university supervisors. It contains questions assessing the contribution of the supervisors in guiding students and their assessment of the environments in

- ILRI and NARS.
- ILRI supervisors complete Questionnaire 2B. They give information regarding their interaction with the student, their opinion on the student's abilities and assessed the training environment within ILRI.
- Current NARS supervisors complete Questionnaire 3A or 3B depending on whether they were the supervisor at the time of the award of the fellowship. The questionnaires focus on soliciting information on students' skills acquired at ILRI and university environments.
- Team leaders, deans and chairpersons of university departments complete Questionnaire 4. They provide information on career development and insight on training at ILRI versus non-ILRI and African versus outside Africa context.

The questionnaires were pre-tested in Ethiopia with a sub-sample of graduate fellows and supervisors.

### **Sample size**

To define the size of the sample, the team addressed the question "How many graduate fellows will be enough to provide meaningful results?" Following guidelines from the literature (Neuman, 1997) and the advice of the biometrician, it was realised that for a small population (under 100), a large sampling ratio (about 30 per cent) is needed for high degree of accuracy.

### **Application of the Questionnaires**

ILRI maintains a database of all trainees in all categories of technical and scientific training. This amounts to nearly 3500 training activities over the 1977 to 1997 period. All graduate fellows were extracted from this database and from this subset a list of Kenyan and Ethiopian graduate fellows developed. For each graduate fellow details available included their name, years at ILRI, degree, university of registration, supervisors' names, thesis area and employer.

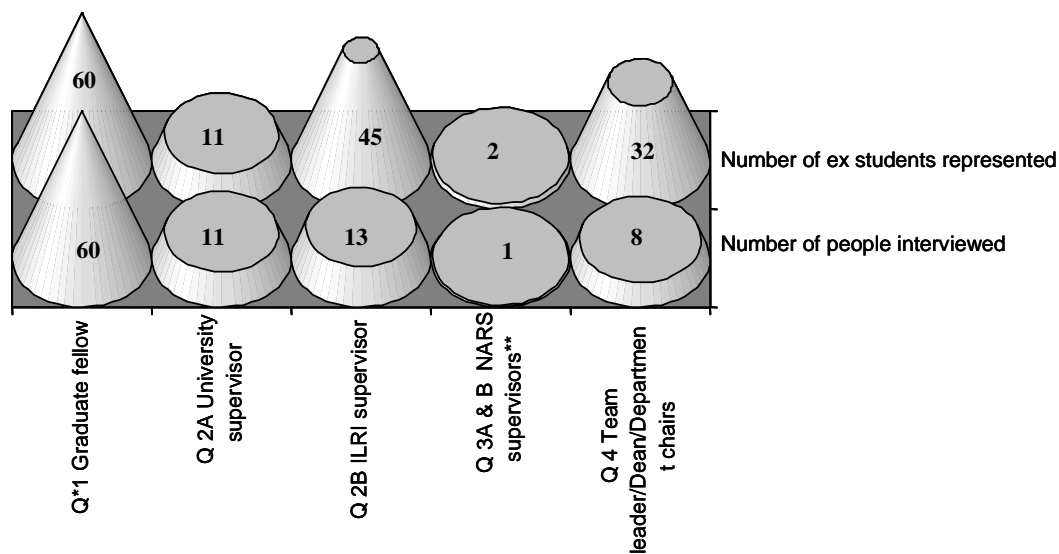
Both Kenya and Ethiopia had just over 60 graduate fellows and a 50% sample size of 30 graduate fellows from both was selected. No sample stratification was deemed necessary since there was little significant variation within the graduate fellow population in terms of educational background, age and employing institution. The variation that was found relating to, for example, the choice of registering university was random and considered having no direct bearing on the outcome of the study.

In both Kenya and Ethiopia outside consultants were hired to conduct the interviews. Both consultants were faculty members of university departments, were trained to doctoral level and neither had a vested interest in ILRI. They were each given the list of graduate fellows within their own country and asked to contact 30 at random. The consultants identified the whereabouts of the graduate fellows using the employer's address on the database as the first place for contact.

Almost without exception ILRI graduate fellows are NARS employees prior to their fellowship and are bonded to return to their employer. Consequently contact for the majority was not too difficult, although one or two individuals had left employment and others were not available as they were away on study leave. Eventually 30 who were available to interview were reached. Over a one-month period the consultants then interviewed in person all subjects.

The first part of the study stressed the graduate fellows themselves, however where they were available, their university, ILRI and NARS supervisors were also interviewed. The numbers of each are given in Figure 1 where as expected the number of respondents for each questionnaire reduced quite dramatically from Questionnaires 1 to 4. For example, as many of the registering universities were in Europe and North America, university supervisors were unlikely to be interviewed in person, thereby preventing exact comparisons. Also several ILRI and NARS supervisors were expected to have left and/or had more than one student. Finally as several trainees came from the same institutions, Questionnaires 3 and 4 would have the least number of respondents of all.

**Figure 1 Number of people interviewed and number of ex students represented using questionnaires**



\*Q = questionnaire

\*\*NARS supervisors= Q3A for current supervisor who was also the supervisor prior to the fellowship, Q3B is current supervisor who was not the supervisor prior to the fellowship

## Compilation and Reporting of Results

The raw data were coded, cleaned and entered into computers for subsequent analysis by SPSS (Statistical Package for Social Science) software.

Coding involved assigning numerical values to verbal answers to enable analysis. After all the coding was completed, a codebook was prepared with the objective of describing the coding procedures and the location of the data variables.

During data entry care was taken to detect errors and omissions. Data cleaning also involved checking the categories of all variables for impossible codes and entry errors. Analysis of data started with generation of basic frequency and descriptive tables. The frequency distributions and averages of all variables helped identify coding or entry errors and these were corrected. Outliers were checked against the original questionnaires.

A consultant independent of the ILRI training programme did all data coding, cleaning and analysis. This consultant was not involved with the data collection and like those who collected the data, had no vested interest in the outcome of the study.

Results were classified by nationality (Kenya and Ethiopia). Further classification by gender or other variables of interest was not attempted because of the small sample size. Results from the application of Questionnaire 1 are tabulated in Appendix 7 and analysed in *The ILRI Graduate Fellows Programme: A Case Study* (Eley et al 2000).

## Strengths and Weaknesses of the Approach

The tools used in this study combined both participant questionnaires and an interview process. This is the preferred methodology for impact assessment. The depth of the questions and the identity of the respondents allowed us to assess many aspects of impact as well as evaluate the training programme itself. While inclusion of the supervisors interview in the methodology was not as widely used as desired, recent work in the area of training impact assessment reinforces the need and importance of this feedback (Abernathy, 1999).

Our emphasis was ILRI's involvement in impact assessment and Questionnaires 1 and 2b were the principal components of the instrument that were used. Subsequent work will make more use the other



components in order to make a more thorough assessment.

Using retention of ex-Graduate Fellows within the NARS as the principal indicator of contribution to capacity building is not ideal. It is not a true indicator of impact although it is an indicator of capacity building or institutional strengthening. However it must be remembered that although ILRI has control over the capacity building success it has little control over the use of that increased capacity by the NARS. These are dependent upon many external factors.

The difficulty remains however as to what constitutes impact and to whom may it be attributed. The study does take into consideration the cumulative effect of training and the challenge is to separate the effect of ILRI's training with that obtained elsewhere. There appear to be no tools available to tease out these factors and attempts to do so will involve substantial trial and error.

Inevitably, the assessment of training impact will have to address the changing context of the national systems and the multiple actors involved in development. Collaboration with other IARCS (e.g. ISNAR), regional associations and the national agricultural research systems themselves will be essential.

### **PRINCIPAL LESSONS FROM THE STUDY**

Although preliminary in nature the assessment study has provided insight into the programme. Namely:

- ILRI provides a high quality environment
- The graduate training programme contributes to capacity building
- An assessment programme is useful to the institute

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## **APPENDIX 1: Questionnaire 1**

*To be completed by the Graduate Fellow*

## Questionnaire 1. To be completed by the Graduate Fellow

### Section A. Biodata

1. Name of graduate fellow.

Family name

First name

2. Nationality

3. Gender. 1) Male

2) Female

4. Date of birth (dd/mm/yy)

5. Give the details of all degrees (for example, BSc, MSc, DEA etc) awarded PRIOR to the ILRI fellowship. For each, name the degree and provide the awarding University and dates (start/end).

Name of University	Degree Awarded	Date of Registration (dd/mm/yy)	Date of Graduation (dd/mm/yy)
1.			
2.			
3.			

6. Give the details of any degrees (for example, PhD ) awarded SUBSEQUENT to the ILRI fellowship. Name the degree and provide the awarding University and dates (start/end).

Name of University	Degree Awarded	Date of Registration (dd/mm/yy)	Date of Graduation (dd/mm/yy)
1.			
2.			
3.			

### Section B. ILRI Graduate Fellowship

7. Give details of your University registration connected with your ILRI Graduate Fellowship

Name of registering University

Department

Date of registration (dd/mm/yy)

Date of submission of thesis (dd/mm/yy)

Date of degree award (dd/mm/yy)

Degree awarded. MSc/Mphil/PhD/Other

8. Were you registered at university prior to being awarded an ILRI graduate fellowship?  
1) Yes 2) No

If yes, explain who paid your registration fees (for example, home institute or a DAAD or British Council scholarship). \_\_\_\_\_

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If you registered after coming to ILRI what influenced your choice of university (for example, employment as a faculty member, ILRI made the choice). Please explain.

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9. Dates of graduate fellowship (month/year). Start \_\_\_\_\_  
Finish \_\_\_\_\_

10. Names of Degree Supervisors  
University supervisor \_\_\_\_\_

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ILRI supervisor \_\_\_\_\_

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Other Supervisor (specify) \_\_\_\_\_

11. Name your ILRI duty station for your degree research  
(Addis Ababa/Debra Zeit/Nairobi/Ibadan/Niamey/Other)

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12. Thesis title

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13. General area of research (e.g. economics, immunology, forages): \_\_\_\_\_

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14. Name the source of financial support for your personal costs (stipend, insurance's), ILRI or external donor (for example, DAAD, WHO, Rockefeller) \_\_\_\_\_

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15. How were you recruited into the ILRI graduate fellowship programme?

In response to an advertisement 1) Yes 2) No

Through a collaborative research project between either your Institute or University and ILRI?

1) Yes 2) No

(give details) \_\_\_\_\_

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Other (give details) \_\_\_\_\_

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### **Section C. Career**

16. Were you employed prior to the start of your fellowship? 1) Yes 2) No

If yes, for each period of employment please give

Most recent period

Name of employer \_\_\_\_\_

\_\_\_\_\_ City and country \_\_\_\_\_

\_\_\_\_\_ Your job title \_\_\_\_\_

\_\_\_\_\_

Salary (in USD) \_\_\_\_\_/month

Date of employment (month/year): start \_\_\_\_\_ end \_\_\_\_\_

\_\_\_\_\_  
Prior to the most recent period

Name of employer \_\_\_\_\_

\_\_\_\_\_  
City and country \_\_\_\_\_

\_\_\_\_\_  
Your job title \_\_\_\_\_

\_\_\_\_\_  
Salary (in USD) \_\_\_\_\_/month

Date of employment (month/year) start \_\_\_\_\_ end \_\_\_\_\_

17. Did you remain in employment during your graduate fellowship? 1)Yes 2)No

18. Were you employed six months after completion of your ILRI Graduate Fellowship?

1)Yes 2)No

If yes

Job Title 1) same as before fellowship 2) Senior position 3) Junior position

Employer 1) same as before fellowship 2) Different

Was your employer a Ministry/research institute/university/other (specify) \_\_\_\_\_

\_\_\_\_\_  
Date of employment (month/year) start \_\_\_\_\_ end \_\_\_\_\_

\_\_\_\_\_  
Was your degree necessary for this position? 1)Yes 2)No

Salary (in USD) \_\_\_\_\_/month

19. Subsequent employment history, for each position provide

First Employment

Employer \_\_\_\_\_

\_\_\_\_\_  
Position \_\_\_\_\_

\_\_\_\_\_  
Date of employment (month/year) start \_\_\_\_\_ end \_\_\_\_\_

\_\_\_\_\_  
Was your degree necessary for this position? 1)Yes 2)No

Second Employment

Employer \_\_\_\_\_

\_\_\_\_\_  
Position \_\_\_\_\_

\_\_\_\_\_  
Date of employment (month/year) start \_\_\_\_\_ end \_\_\_\_\_

Was your degree necessary for this position? 1)Yes 2)No

#### Section D. Publications

20. Give details of your publications (e.g. Journal Articles, conference papers/poster, internal reports etc) including the specific citation (please provide full citation details and use a separate page if necessary).

From research work undertaken prior to your ILRI Graduate Fellowship  
Refereed Journals

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

Conference Papers/poster

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

Internal Reports

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

From research work undertaken during your ILRI Graduate Fellowship  
Refereed Journals

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

Conference Papers/poster

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

Internal Reports

1. \_\_\_\_\_  
\_\_\_\_\_



2. \_\_\_\_\_  
\_\_\_\_\_

From research undertaken subsequent to your ILRI Graduate Fellowship  
Refereed Journals

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

Conference Papers/poster

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Internal Reports

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

**Section F. ILRI Environment**

21. In general, how often did you talk with your ILRI supervisor about your research?  
1) Daily 2) weekly 3) monthly 4) quarterly

22. What influenced the level of interaction?

Your location compared to that of your supervisor 1)Yes 2)No  
Your supervisor's travel or work schedule 1)Yes 2)No  
Mutual agreement 1)Yes 2)No  
Other (give details) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

23. In general, how were meetings with your ILRI supervisor arranged?

Had a formal appointment to meet with my supervisor? 1)Yes  
2)No  
Supervisor insisted on regular meetings? 1)Yes 2)No

24. How do you evaluate your ILRI supervisor's support as for the following (circle one)

(Rank as 1. Poor 2. Adequate 3. Good 4. Excellent)

Moral support	1 /2 /3 /4
Intellectual support	1 /2 /3 /4
Interest in your work	1 /2 /3 /4

25. Were you integrated into a research team or did you work independently?

1) Team 2) Independent

If independent, why?

Physical location 1)Yes 2)No  
Nature of project 1)Yes 2)No  
Excluded from team 1)Yes 2)No please explain \_\_\_\_\_

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Other (explain) \_\_\_\_\_

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26. As a result of your stay with ILRI, how much did you gain in terms of scientific knowledge outside the specific skills required by your research project? 1) None 2) Some 3) Many

If some or many, how was this knowledge acquired?

Participated in team meeting 1)Yes 2)No  
Participated in project meetings 1)Yes 2)No  
Participated in project development 1)Yes 2)No  
Teaching/demonstration 1)Yes 2)No  
Working with other Graduate Fellows/ILRI scientists 1)Yes 2)No  
Others (give details) \_\_\_\_\_

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If none, why not

Location of my project prevented interaction with others 1)Yes 2)No

Too busy with my own project 1)Yes 2)No

No opportunity given by others for interaction 1)Yes 2)No

My supervisor discouraged such interactions 1)Yes 2)No

27. How much time did you spend on your own research project compared to other ILRI research activities? 1) > 90% 2) 75 - 90% 3) 50 - 75% 4) < 50%

### **Section G. Administration of Training by ILRI**

28. Did ILRI provide your stipend. 1)Yes 2)No  
accommodation or housing allowance. 1)Yes 2)No

29. Rank the quality of the contribution by ILRI's Training Department to the following (Rank as 1. Poor 2.adequate 3. good 4.excellent)

Travel arrangements to and from ILRI 1 /2 /3 /4

Recruitment into your Graduate Fellowship. 1 /2 /3 /4

Response to and assistance with personal problems. 1 /2 /3 /4

Interactions with your registering university. 1 /2 /3 /4

30. Have you used the ILRI Training Policies and Procedures Manual? 1)Yes  
2)No

If yes, how useful was it for explaining procedures

(Rank as 1. Poor 2.adequate 3. good 4.excellent)

for recruitment 1 /2 /3 /4

for issues concerning proposal development, supervision/thesis preparation 1 /2 /3 /4

for interacting with your registering university 1 /2 /3 /4

related to your contract and support package 1 /2 /3 /4

### **Section H. Conceptualization and development of your research project**

31. Estimate the contribution to the conceptualization of your research project.

Yourself: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%

ILRI Supervisor: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%

University Supervisor: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%

32. Estimate the contribution to the expansion of the concept into a full proposal and work-plan?

Yourself: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%

ILRI Supervisor: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%

University Supervisor: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%

33. Estimate the contribution to methods of data collection and analysis of research project.

Yourself: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%  
 ILRI Supervisor: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%  
 University Supervisor: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%

34. Estimate the contribution to software selection for analysis of your research project.

Yourself: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%  
 ILRI Supervisor: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%  
 University Supervisor: 1) None 2) less than 25% 3) 25 – 50% 4) > 75%

35. Was your ILRI supervisor open to your suggestions for project proposal development or modifications? 1)Yes 2)No

36. Did you present you research proposal in written form to your  
 Registering University 1)Yes 2)No  
 Home NARS Institute 1)Yes 2)No

37. Did you present your research proposal as a seminar to  
 ILRI 1)Yes 2)No  
 University 1)Yes 2)No  
 Home NARS Institute 1)Yes 2)No

38. Were you required to provide regular quarterly reports to  
 ILRI supervisor 1)Yes 2)No  
 ILRI training department 1)Yes 2)No  
 University supervisor 1)Yes 2)No  
 Employer 1)Yes 2)No  
 Was this exercise helpful to you? 1)Yes 2)No

**Section I. Thesis Development**

39. Did you prepare an outline for your thesis? 1)Yes 2)No  
 If yes, did you prepare the outline (circle one)  
 1) alone  
 2) with your ILRI supervisor  
 3) with your University supervisor  
 4) with your ILRI and university supervisor

If no, was it presented to you by a supervisor? 1)Yes 2)No

40. In your opinion did your supervisors make a significant contribution to the thesis preparation?

ILRI supervisor 1)Yes 2)No  
 University supervisor 1)Yes 2)No

Did your supervisors return drafts of your thesis to you in reasonable time?

ILRI supervisor 1)Yes 2)No  
 University supervisor 1)Yes 2)No

41. What was the time from submission of thesis to University to date of examination?

\_\_\_\_\_ months  
 Comment if necessary \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

42. How much did the ILRI Training Department contribute to the development of your thesis?

- 1) None 2) Little 3) Some 4) Lot

43. How could ILRI's graduate fellowship programme be improved?

Comments? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Section J. University Environment**

44. Where was the location of your Registering University relative to your ILRI research location?

- 1) Same town 2) same country 3) same continent 4) different continent

45. How frequently did you meet with your University supervisor?

- 1) Weekly 2) monthly 3) annually 4) more than annually 5) only at thesis submission.

46. How would you rank your supervisor's contribution to your graduate study?

(Rank as 1. Poor 2.adequate 3. good 4.excellent)

University supervisor	1 /2 /3 /4
ILRI supervisor	1 /2 /3/4

47. What was the period of residence at your University, in months?

Prior to arrival at ILRI \_\_\_\_\_months

After departure from ILRI \_\_\_\_\_months

48. Did you receive course work at your University? 1)Yes 2)No

If yes, in general was it

Background material 1)Yes 2)No

Relevant to your research at ILRI 1)Yes 2)No

Relevant to your work in your home institution 1)Yes 2)No

**Section K. NARS ENVIRONMENT**

49. On completion of your degree did you return to the same research programme or university department in your home Institute you were in before you left? 1)Yes  
2)No

50. Are you still in the same programme? 1)Yes 2)No  
If no, are you still with the same NARS? 1)Yes 2)No  
have you been transferred to another research programme? 1)Yes 2)No  
have you been transferred out of research? 1)Yes 2)No  
are you still applying the technical skills gained at ILRI to other research topics? 1)Yes  
2)No

51. Are you currently working in the same research area as you did during your graduate programme? 1)Yes 2)No

52. How much contact did you have with your employer during the graduate fellowship?  
1) Weekly 2) monthly 3) annually 4) more than annually 5) not at all

53. Did your employer require you to formally report to them during your Graduate Fellowship?  
1)Yes 2)No

If yes, how often  
1) Weekly 2) monthly 3) annually 4) more than annually 5) not at all

54. Were your expected responsibilities following your degree studies discussed with you before your departure from ILRI? 1)Yes 2)No

55. What proportion of your time was/is spent in station or department management (as distinct from project management)?

Before your ILRI fellowship. 1) > 90% 2) 75 - 90% 3) 50 - 75% 4) < 50%  
Since your return. 1) > 90% 2) 75 - 90% 3) 50 - 75% 4) < 50%

56. Have you attended as a participant any training events since completion of your degree?  
1)Yes 2)No

If yes, please give description, location, date and donor for each \_\_\_\_\_

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57. Have you attended international meetings since completion of your degree? Yes/No

If yes, give name, location, date and donor for each meeting \_\_\_\_\_

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Did you present a paper?

1)Yes

2)No

If yes, please give details \_\_\_\_\_

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Did you present a poster

1)Yes

2)No

If yes, please give details \_\_\_\_\_

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58. Since leaving ILRI have you undertaken a further degree or post doctoral training?

1)Yes 2)No

If yes, give details \_\_\_\_\_

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59. In your current position are resources limiting the use of your skills and knowledge fully?

1)Yes

2)No

If yes, are these limiting resources any of the following;

your position description and responsibilities	1)Yes	2)No
project funding	1)Yes	2)No
non availability of e-mail	1)Yes	2)No
salary	1)Yes	2)No
number of support staff	1)Yes	2)No
quality of support staff	1)Yes	2)No
laboratory/field facilities	1)Yes	2)No
transport	1)Yes	2)No
other (please explain)		

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60. During your ILRI Graduate Fellowship what interaction do you have with ILRI Information Services?

Did you join ILRI's SDI service? 1)Yes 2)No

Do you still receive SDI outputs from ILRI? 1)Yes 2)No

Do you request literature searches from ILRI? 1)Yes 2)No

61. Have you submitted any project proposals to donors since your return? 1)Yes 2)No  
If yes, to which donor (List all donors)

Donors	Status (1- Approved, 2- Rejected, 3- still under review)
Proposal 1 1. 2. 3. 4. Proposal 2 1. 2. 3. 4. Proposal 3 1. 2. 3. 4.	

Repeat your answer on a separate page if you have written more than three project proposal

62. Were any of these joint proposals with ILRI scientists? 1)Yes 2)No

If yes, give details \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

63. Were any of these joint proposals with one of the NARS livestock Networks associated with ILRI?

1)Yes 2)No

If yes, give details \_\_\_\_\_

\_\_\_\_\_

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64. Have you trained people since returning to your position?

- 1)Yes                      2)No

If yes, how many?

	Number
Undergraduate Scientists – MSc - PhD Technicians Short Courses for Scientists	

65. Would this training have been possible without your graduate training? 1)Yes 2)No

66. Have you organised and run training courses?

- 1)Yes                      2)No

Would this training have been possible without your graduate training?

- 1)Yes                      2)No

67. Have you been a trainer for activities outside your institute/Department? 1)Yes 2)No

If yes, for whom? \_\_\_\_\_

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When? \_\_\_\_\_

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Would this training have been possible without your graduate training?

- 1)Yes                      2)No

68. Does your current position require you to provide scientific leadership? 1)Yes 2)No

If yes,

How many people do you supervise? \_\_\_\_\_

What operational budget do you manage? \_\_\_\_\_

How much project funding have you brought to your team? \_\_\_\_\_

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Would you have been able to do this before the ILRI training programme?

1)Yes

2)No

69. Which professional societies do you belong to?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

Does your employer pay for the membership? 1)Yes 2)No

70. Do you have access to?

Computer

1)Yes

2)No

If yes, please give details \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

E-mail

1)Yes

2)No

If yes provide address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Internet 1)Yes

2)No

Fax    1)Yes                    2)No

## **APPENDIX 2: Questionnaire 2A**

*To be completed by the University supervisor*

**Questionnaire 2A. To be completed by the University supervisor**

**According to our records you were the supervisor of the following student:**

**Name of the Student** \_\_\_\_\_

**Thesis Title** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Year of Graduation** \_\_\_\_\_

**Date of attachment to ILRI** \_\_\_\_\_

1. Estimate your contribution (in %) to the;  
Conceptualisation of the student's research project 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%  
Method of data collection/type of experiment 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%  
Method of analysis 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%  
Development of the full research proposal 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%  
Software selection for the analysis 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%  
development of a thesis outline 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%  
thesis preparation 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%
2. How frequently did you meet with the graduate fellow (physical or electronically)?  
1) Weekly 2) monthly 3) quarterly 4) annually
3. Did the student provide you with  
a completed written research proposal? 1) Yes 2) No  
seminar on the completed proposal 1) Yes 2) No  
regular progress reports 1) Yes 2) No
4. What contribution did you make to the selection of the student for an ILRI graduate fellowship?  
1) none 2) interviewed 3) correspondence with ILRI 4) correspondence with student 5) other
5. How do you rate the intellectual and analytical skills of the student?  
At start of graduate programme 1 / 2 / 3 / 4  
At completion of graduate programme 1 / 2 / 3 / 4  
( in order, poor/adequate/good/excellent)
6. Was the research undertaken by the student at ILRI part of a wider research project within your department?  
1) Yes 2) No

If yes, how important a contribution did the graduate fellow make to the success of your research project?

- 1) None 2) little 3) moderate 4) major

7. On completion, and in comparison to other students you have supervised, how do you rank the ability of the graduate fellow as a scientist?

- 1) top 10%  
2) top 25%  
3) top 50%  
4) lower 50%

8. How effective was ILRI in the graduate education of the student?

(Rank as, 1. Poor 2. Adequate 3. Good 4.Excellent 5.No information)

Providing research facilities	1 /2 /3 /4/5
Supervision	1 /2 /3 /4/5
Technical support	1 /2 /3 /4/5
Intellectual support	1 /2 /3 /4/5
Access to information services	1 /2 /3 /4/5
The overall research environment	1 /2 /3 /4/5

9. How effective was the University in providing the following components of a graduate education for

this student? (Rank as, 1. Poor 2. Adequate 3. Good 4.Excellent )

Appropriate course work	1 /2 /3 /4
Required technical skills	1 /2 /3 /4
Supervision	1 /2 /3 /4
Intellectual support	1 /2 /3 /4
Access to information services	1 /2 /3 /4
Administrative support	1 /2 /3 /4

10. How effective was ILRI Training Department in providing support for this fellowship?

(Rank as, 1. Poor 2. Adequate 3. Good 4.Excellent 5.No information)

Advertising the fellowship	1 /2 /3 /4/5
Recruitment to the fellowship	1 /2 /3 /4/5
Entry into ILRI	1 /2 /3 /4/5
Administrative support during graduate fellowship at ILRI	1 /2 /3 /4/5
Linkage to registering university	1 /2 /3 /4/5
Reporting process	1 /2 /3 /4/5
Examination process	1 /2 /3 /4/5
Departure from ILRI	1 /2 /3 /4/5
Dealing with personal problems of the student	1 /2 /3 /4/5

11. How do you believe ILRI can improve their graduate programme? \_\_\_\_\_

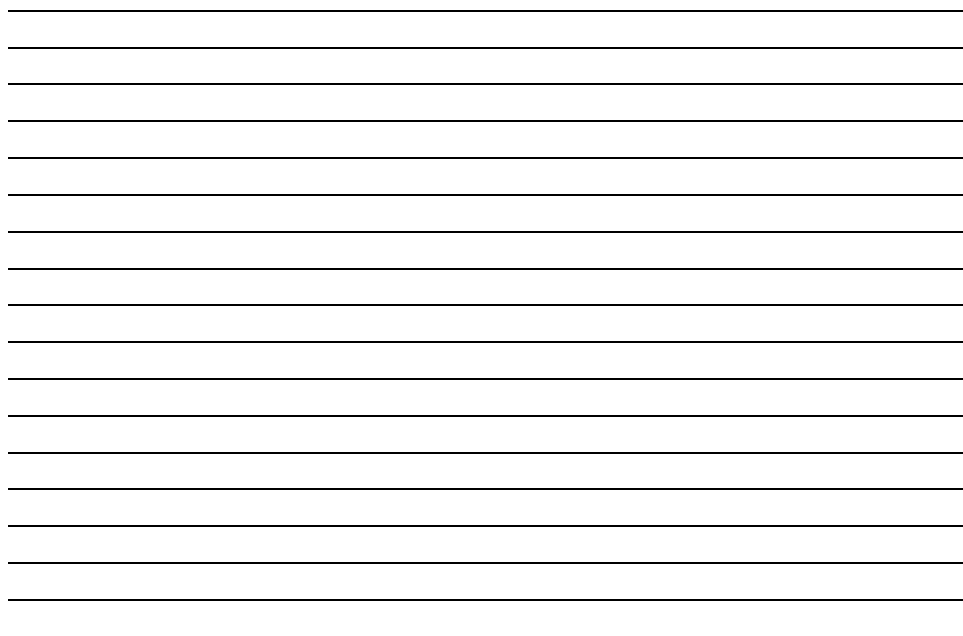
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## **APPENDIX 3: Questionnaire 2B**

*To be completed by the ILRI supervisor*

**Questionnaire 2B. To be completed by the ILRI supervisor**

**According to our records you were the supervisor of the following student:**

**Name of the Student** \_\_\_\_\_

**Thesis Title** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Year of Graduation** \_\_\_\_\_

**Date of attachment to ILRI** \_\_\_\_\_

**Registering University** \_\_\_\_\_

1. Estimate your contribution (in %) to the;
- conceptualisation of the student's research project 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%
- development of the full research proposal 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%
- development of a thesis outline 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%
- thesis preparation 1) >90% 2) 75 - 90% 3) 50 - 75% 4) <50%

2. How frequently did you meet with the graduate fellow (physical or electronically)
- 1) Daily 2) weekly 3) monthly 4) quarterly

3. What influenced the level of interaction?

Your location compared to that of the student 1)Yes 2)No

Your student's travel or work schedule 1)Yes 2)No

Mutual agreement 1)Yes 2)No

Other (give details) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. In general, how were meetings with your student arranged?

Did you make a formal arrangement to meet with the student? 1)Yes  
2)No

Did insist on regular meetings? 1)Yes 2)No

5. Did the student provide you with

a completed written research proposal? 1)Yes 2)No

seminar on the completed proposal 1)Yes 2)No

regular progress reports 1)Yes 2)No

6. What contribution did you make to the selection of the student?  
None / interviewed / correspondence with the student/ correspondence with university/ other

7. How do you rate the intellectual and analytical skills of the student?  
at start of graduate programme 1 /2 /3 /4  
at completion of graduate programme 1 /2 /3 /4  
(in order, poor/adequate/good/excellent)

8. On completion, and in comparison to other students you have supervised, how do you rank the ability of the graduate fellow as a scientist?

- 1) top 10%
- 2) top 25%
- 3) top 50%
- 4) lower 50%

9. Was the research undertaken by the student at ILRI part of a collaborative research programme with your department? 1)Yes 2)No

If yes, how important a contribution did the graduate fellow make to the success of your research project?

- 1) None 2) little 3) moderate 4) major

10. In hindsight would you have taken this student on a graduate fellow? 1)Yes 2)No

11. How effective was ILRI in providing a graduate education for the student?  
( Rank as 1.Poor 2. Adequate 3.Good 4.Excellent)

In providing research facilities 1 /2 /3 /4  
Supervision 1 /2 /3 /4  
Technical support 1 /2 /3 /4  
Intellectual support 1 /2 /3 /4  
Access to information services 1 /2 /3 /4

The overall research environment 1 /2 /3 /4

12. How effective was the University in providing a graduate education for this student?

( Rank as 1.Poor 2. Adequate 3.Good 4.Excellent)

Appropriate course work 1 /2 /3 /4  
Required technical skills 1 /2 /3 /4  
Supervision 1 /2 /3 /4  
Intellectual support 1 /2 /3 /4  
Access to information services 1 /2 /3 /4  
Administrative support 1 /2 /3 /4

13. How effective was ILRI Training Department in providing support for this fellowship?

( Rank as 1.Poor 2. Adequate 3.Good 4.Excellent 5. No Information)



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**APPENDIX 4: Questionnaire 3A**

*To be completed by the Current NARS supervisor*

**Questionnaire 3A. To be completed by the Current NARS supervisor**

**This questionnaire is for current supervisors who were also the supervisor PRIOR to the ILRI graduate fellowship.**

**Name of the Student** \_\_\_\_\_

**Thesis Title** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Year of Graduation** \_\_\_\_\_

**Date of attachment to ILRI** \_\_\_\_\_

1. As a result of the fellowship, has there been an improvement in the person's
- |      |                      |       |
|------|----------------------|-------|
|      | Technical skills     | 1)Yes |
| 2)No |                      |       |
|      | Scientific knowledge | 1)Yes |
| 2)No |                      |       |
|      | Conceptual skills    | 1)Yes |
| 2)No |                      |       |
|      | Project management   | 1)Yes |
| 2)No |                      |       |
|      | Supervising skills   | 1)Yes |
| 2)No |                      |       |
|      | As a team member     | 1)Yes |
| 2)No |                      |       |
|      | Communication skills | 1)Yes |
| 2)No |                      |       |

2. For those skills which have improved please rate ILRI's contribution to their development?

( Rank as 1.Poor 2. Adequate 3.Good 4.Excellent)

	Technical skills	1 /2 /3 /4
	Scientific knowledge	1 /2 /3 /4
	Conceptual skills	1 /2 /3 /4
	Project management	1 /2 /3 /4
	Supervising skills	1 /2 /3 /4
	Team member	1 /2 /3 /4
	Communication skills	1 /2 /3 /4

3. How would you compare this person's training to a comparable student who did the research elsewhere?

1) Better 2)same 3) worse

4. In what areas would you like to see improvement in ILRI's graduate fellow programme?

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5. How effective was ILRI in providing the following components of a graduate education for the student?

( Rank as 1.Poor 2. Adequate 3.Good 4.Excellent 5. No Information)

In providing research facilities	1 /2 /3 /4/5
Supervision	1 /2 /3 /4/5
Technical support	1 /2 /3 /4/5
Intellectual support	1 /2 /3 /4/5
Access to information services	1 /2 /3 /4/5
The overall research environment	1 /2 /3 /4/5

6. How effective was the University in providing a graduate education for this student?

( Rank as 1.Poor 2. Adequate 3.Good 4.Excellent 5. No Information)

Appropriate course work	1 /2 /3 /4/5
Required technical skills	1 /2 /3 /4/5
Supervision	1 /2 /3 /4/5
Intellectual support	1 /2 /3 /4/5
Access to information services	1 /2 /3 /4/5
Administrative support	1 /2 /3 /4/5

7. How effective was ILRI Training Department in providing support for this fellowship?

( Rank as 1.Poor 2. Adequate 3.Good 4.Excellent 5. No Information)

Advertising position	1 /2 /3 /4 /5
Recruitment	1 /2 /3 /4 /5
Entry into ILRI	1 /2 /3 /4 /5
Administrative support during graduate fellowship	1 /2 /3 /4 /5
Linkage to registering university	1 /2 /3 /4 /5
Reporting process,	1 /2 /3 /4 /5
Examination process,	1 /2 /3 /4 /5
Departure from ILRI	1 /2 /3 /4 /5
Personal problems,	1 /2 /3 /4 /5

## **APPENDIX 5: Questionnaire 3B**

*To be completed by the Current NARS supervisor*



**Questionnaire 3B. To be completed by the Current NARS supervisor**

**This questionnaire is for current supervisors who were NOT the supervisor PRIOR to the ILRI graduate fellowship.**

**Name of the Student** \_\_\_\_\_

**Thesis Title** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Year of Graduation** \_\_\_\_\_

**Date of attachment to ILRI** \_\_\_\_\_

1. ILRI provides research training within Africa. Compared to graduate fellows who did their research exclusively outside Africa? How do you rate the ILRI Graduate Fellow's abilities to:

- |                              |                            |
|------------------------------|----------------------------|
| Formulate relevant research. | 1) Better 2) same 3) worse |
| Implement research.          | 1) Better 2) same 3) worse |
| Write proposals              | 1) Better 2) same 3) worse |
| Use communication skills     | 1) Better 2) same 3) worse |

2. As a result of the graduate fellowships, has your staff member shown improved

- |    |                      |           |
|----|----------------------|-----------|
| No | Technical skills     | 1) Yes 2) |
| No | Scientific knowledge | 1) Yes 2) |
| No | Conceptual skills    | 1) Yes 2) |
| No | Project management   | 1) Yes 2) |
| No | Supervising skills   | 1) Yes 2) |
| No | Communication skills | 1) Yes 2) |

## **APPENDIX 6: Questionnaire 4**

*To be completed by Team Leader/ Dean/ Department Chairman*

**Questionnaire 4: To be completed by Team Leader/ Dean/ Department Chairman**

ILRI has contributed to training several graduates within your national system as part of its institutional development programme. We want to assess the value of this contribution by the following questionnaire.

Our records show the following Graduate fellow's as members of your team/faculty/department. The details of their names, degrees, dates, registering university, and ILRI supervisor are given below:

Name of Graduate Fellow	Degree Awarded	Start/end dates of Degree programme	Registering University	ILRI supervisor

1. How many of the above are still within your station/team/department/ programme/ faculty?

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2. For those who are not now within your station, what are reasons for their departure?  
 1) Promotion 2) Transfer 3) Resignation 4 ) Death 5) Other,  
 please state reason \_\_\_\_\_

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3. For those who are still with your team:

Do the ILRI trained graduates function as productive members of your team compared to those trained elsewhere?

1) Yes 2)No

Do they collectively bring skills and knowledge not available from other team members?

1) Yes 2)No

4. ILRI provides research training within Africa. Compared to graduate fellows who did their research exclusively outside Africa? How do you collectively rate the ILRI Graduate Fellow's abilities to:

	Formulate relevant research.	1) Better 2) same 3) worse
worse	Implement research.	1) Better 2) same 3) worse
worse	Write proposals	1) Better 2) same 3) worse
	Use communication skills	1) Better 2) same 3) worse

5. As a result of the graduate fellowships, has there been an improvement in your institution in

2)No	Technical skills	1) Yes
2)No	Scientific knowledge	1) Yes
2)No	Conceptual skills	1) Yes
2)No	Project management	1) Yes
2)No	Supervising skills	1) Yes
	Communication skills	1) Yes 2)No

## Appendix 7

### Results from Application of Questionnaire 1.

(Insert Figure 1)

Table 1: University Attended for First Degree Prior to ILRI Fellowship

Kenyan	No.	%
Nairobi Univ.	21	70.0
Kenyatta University.	3	10.0
Egerton University.	1	3.3
University outside Kenya	5	16.7
Total	30	100
Ethiopians		
Alemaya University of Agriculture	19	63.3
Addis Ababa University	10	33.3
University outside Ethiopia	1	3.3
Total	30	100

Table 2: University Attended in Connection with ILRI fellowship

Kenyan	No	%
Nairobi University	14	48.3
Kenyatta University	2	6.9
Egerton University	1	3.4
University outside Kenya	12	41.4
Total	29	100
Ethiopians		
Alemaya University of Agriculture	20	66.7
Addis Ababa University	-	-
University outside Ethiopia	10	33.3
Total	30	100

Table 3: Graduate Fellows Registered at University Prior to Award of the Fellowship

	Kenyan	Ethiopian	Total
Yes	21 (70%)	27 (93.1%)	48 (81.4%)
No	9 (30%)	2 (6.9%)	11 (18.6%)

Total	30	29	59
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(Insert Figure 2)

(Insert Figure 3)

Table 4: Means of Recruitment of Graduate Fellows

	Kenyan	Ethiopian	Total
Advertisement	5 (16.7%)	11 (40.7%)	16 (28.1%)
Collaborative Projects	18 (60.0%)	14 (51.9%)	32 (56.1%)
Other means (mainly applications)	7 (23.3%)	2 (7.4%)	9 (21.1%)
Total	30	27	57

Table 5 Duration of the graduate Fellowship

Average duration of fellowship (months)	Kenyan	Ethiopian	Total
MSc	13.00	16.43	15.40
Mean	9-17	3-26	3-26
Range	6	14	20
Number			
MPhil		26.00	26.00
Mean		-	-
Range		1	1
Number			
PhD	38.60	29.17	35.06
Mean	14-60	15-51	14-60
Range	10	6	16
Number			

Table 6 Financial Source for Personal Costs during the Fellowship

	Kenyan	Ethiopian	Total
ILRI	11 (39.3%)	13 (43.3%)	24 (41.4%)
DAAD & ILRI	3 (10.7%)	1 (3.3%)	4 (6.9%)
ILRI & Home Institution/University	5 (17.9%)	1 (3.3%)	6 (10.3%)
SAREC & ILRI		1 (3.3%)	1 (1.7%)
UNDP & ILRI		1 (3.3%)	1 (1.7%)
DAAD	2 (7.1%)	4 (13.3%)	6 (10.3%)
Home Institution/University	5 (17.9%)	5 (16.7%)	10 (17.2%)
Other Donors	2 (7.1%)	4 (13.3%)	6 (10.3%)
Total	28	30	58

Table 7 General Areas of Research

Research Area	Kenyan	Ethiopian	Total

Economics/ Agri. Economics	4 (13.3%)	4 (13.3%)	8 (13.3%)
Immunology	8 (26.7%)		8 (13.3%)
Forages	2 (6.7%)	5 (16.7%)	7 (11.7%)
Animal science (Production/breeding/nutrition)	3 (10%)	12 (40%)	15 (25%)
Biochemistry	5 (16.7%)	1 (3.3%)	6 (10%)
Demography	1 (3.3%)		1 (1.7%)
Animal Traction		1 (3.3%)	1 (1.7%)
Genetics	2 (6.7%)	3 (10%)	5 (8.3%)
Parasitology	2 (6.7%)	1 (3.3%)	3 (5%)
Soil Science		2 (6.7%)	2 (3.3%)
Dairy Science		1 (3.3%)	1 (1.7%)
Molecular Biology	2 (6.7%)		2 (3.3%)
Epidemiology	1 (3.3%)		1 (1.7%)
Total	30	30	60

Table 8 ILRI Station for undertaking research

	Kenyan	Ethiopian	Total
Addis Ababa (Ethiopia)	2 (6.7%)	13 (43.3%)	15 (25.0%)
Debre Zeit (Ethiopia)	1 (3.3%)	6 (20.0%)	7 (11.7%)
Nairobi (Kenya)	22 (73.3%)	2 (6.7%)	24 (40.0%)
Mombassa (Kenya)	2 (6.7%)		2 (3.3%)
Holetta (Ethiopia)		2 (6.7%)	2 (3.3%)
Abernessa ranch (Ethiopia)		1 (3.3%)	1 (1.7%)
Selale (Ethiopia)		1 (3.3%)	1 (1.7%)
Welaita Sodo (Ethiopia)		1 (3.3%)	1 (1.7%)
Debre Berhane (Ethiopia)	1 (3.3%)	2 (6.7%)	3 (5.0%)
Kari Muguga (Kenya)	1 (3.3%)		1 (1.7%)
Khuaga (Kenya)	1 (3.3%)		1 (1.7%)
Awassa (Ethiopia)		1 (3.3%)	1 (1.7%)
Other		1 (3.3%)	1 (1.7%)
Total	30	30	60

## CAREER

(Insert Figure 4)

Table 9 Employers of Graduate Fellows (most recent period) Prior to Fellowship

	Kenyan	Ethiopian	Total
Ministry/Gov't bureaus	1 (5.0%)	10 (33.3%)	11 (22.0%)
Research Institute	8 (40.0%)	4 (13.3%)	12 (24.0%)
University/College	10 (50.0%)	16 (53.3%)	26 (52.0%)
Companies/Organizations	1 (5.0%)		1 (2.0%)
Total	20	30	50

Table 10 Salary in USD per month

	Kenyan	Ethiopian	Total
Prior mean number	645.45 11	218.44 29	335.87 40
After completion mean number	676.92 22	262.53 24	461.05 46

Salary/month in USD of the graduate fellow by Degree after completion

Msc mean number	506.25 10	247.53 17	-
PhD mean number	950.00 12	375.00 6	-
Total mean number	676.92 22	262.53 23	-

(Insert Figure 5)

Table 11 Employer of Graduate Fellows Six Months After Completion

Employer of Graduate Fellow	Kenyans	Ethiopians	Total
Same as before fellowship	8 (66.7%)	12 (75.0%)	20 (71.4%)
Different	4 (33.3%)	4 (25%)	8 (28.6%)
Total	12	16	28
<b>Sector</b>			
Ministry	2 (9.1%)	8 (42.1%)	10 (24.4%)
Research Institute	12 (54.5%)	3 (15.8%)	15 (36.6%)
University/college	8 (36.4%)	8 (42.1%)	16 (39.0%)
Total	22	19	41



## PUBLICATIONS

Table 12 Mean number of publications produced by graduate fellows

		Kenya	Ethiopia	Total
Prior	Journal mean Number	3.18 (11)	1.75 (4)	2.80 (15)
	Conference papers mean Number	3.4 (10)	2.71 (7)	3.12 (17)
	Internal report mean Number	1.0 (2)	1.77 (13)	1.67 (15)
During	Journal mean Number	2.46 (13)	1.82 (11)	2.17 (24)
	Conference Papers mean Number	2.75 (16)	1.83 (12)	2.36 (28)
	Internal report mean Number	2.25 (4)	2.0 (3)	2.14 (7)
Subsequent	Journal mean Number	8.92 (13)	4.13 (8)	7.10 (21)
	Conference Papers mean Number	4.77 (13)	1.80 (10)	3.48 (23)
	Internal report mean Number	2.67 (3)	2.00 (8)	2.18 (11)

## ILRI ENVIRONMENT

(Insert Figure 6)

Table 13 Factors Influencing Interaction between the Graduate Fellow and Supervisor

	Kenyan	Ethiopian	Total
Location from supervisor	19 (82.6%)	14 (56.0%)	33 (68.8%)
Supervisor's work schedule	6 (33.3%)	9 (40.9%)	15 (37.5%)
Mutual agreement	23 (95.8%)	18 (75.0%)	41 (85.4%)

(Insert Figure 7)

Table 14 Evaluation of ILRI's Supervisor

	Moral support			Intellectual support			Interest in your work		
	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total
Poor	2 6.7%	2 7.1%	4 6.9%		2 7.1%	2 3.5%	1 3.4%	2 7.1%	3 5.3%

Adequate	1 3.3%	4 14.3%	5 8.6%	3 10.3%	2 7.1%	5 8.8%	1 3.4%	2 7.1%	3 5.3%
Good	8 26.7%	6 21.4%	14 24.1%	5 17.2%	8 28.6%	13 22.8%	6 20.7%	2 7.1%	8 14.0%
Excellent	19 63.3%	16 57.1%	35 60.3%	21 72.4%	16 57.1%	37 64.9%	21 72.4%	22 78.6%	43 75.4%
Total	30 100%	28 100%	58 100%	29 100%	28 100%	57 100%	29 100%	28 100%	57 100%

Table 15 Arrangements for Undertaking the Research

	Kenyan	Ethiopian	Total
Integrated (team)	16 (53.3%)	10 (34.5%)	26 (44.1%)
Independent	14 (46.7%)	19 (65.5%)	33 (55.9%)
Total	30	29	59
Factors for working Independently			
Physical location	3 (21.4%)	5 (26.3%)	8 (24.2%)
Nature of project	14 (100%)	17 (89.5%)	31 (93.9%)

Table 16 Scientific Knowledge Gained Outside the Project Area

	Kenyan	Ethiopian	Total
Some	15 (50.0%)	11 (39.3%)	26 (44.8%)
Much	15 (50.0%)	17 (60.7%)	32 (55.2%)
Total	30	28	58
Sources of scientific knowledge			
Team meeting	20 (80.8%)	10 (38.5%)	30 (58.8%)
Project meeting	20 (83.3%)	11 (44.0%)	31 (63.3%)
Project development	12 (54.5%)	9 (39.1%)	21 (46.7%)
Teaching/demonstration	13 (61.9%)	7 (30.4%)	20 (45.5%)
Working with others	26 (92.9%)	26 (96.3%)	52 (94.5%)

(Insert Figure 8)

## ADMINISTRATION AND TRAINING

Table 17 Provision of Stipend and Housing Allowance by ILRI

	Kenyan	Ethiopian	Total

Stipend	22 (75.9%)	19 (63.3%)	41 (69.5%)
Accommodation/Housing Allowance	7 (28.0%)	8 (30.8%)	15 (29.4%)

Table 18 Evaluation of ILRI's Training Department by Graduate Fellows

	Quality of Travel Arrangement from/to ILRI			Quality of Recruitment to Fellowship			Quality of Response to Personal Problems			Quality of Interactions with the University		
	Ken.	Ethio..	Total	Ken.	Ethio.	Total	Ken.	Ethio.	Total	Ken.	Ethio.	Total
Poor	4 16.7%	4 16.7%	8 16.7%	2 7.4%	5 20.8%	7 13.7%	5 20.0%	2 7.4%	7 13.5%	4 14.8%	8 29.6%	12 22.2%
Adequate	5 20.8%	2 8.3%	7 14.6%	2 7.4%	3 12.5%	5 9.8%	4 16.0%	5 18.5%	9 17.3%	6 22.2%	4 14.8%	10 18.5%
Good	8 33.3%	19 41.7%	27 37.5%	13 48.1%	6 25.0%	19 37.3%	6 24.0%	9 33.3%	15 28.8%	10 37.0%	9 33.3%	19 35.2%
Excellent	7 29.2%	8 33.3%	15 31.3%	10 37.0%	10 41.7%	20 39.2%	10 40.0%	11 40.7%	21 40.4%	7 25.9%	6 22.2%	13 24.1%
Total	24	24	48	27	24	51	25	27	52	27	27	54

(Insert Figure 9)

Table 19 Usefulness of the Training Manual

	recruitment			preparation of proposal & thesis			interaction with university			contract and support packa		
	Ken.	Eth.	Tot.	Ken.	Eth.	Tot.	Ken.	Eth.	Tot.	Ken.	Eth.	Total
Poor	1 16.7%		1 9.1%		2 28.6%	2 13.3%						
Adequate		1 20.0%	1 9.1%	4 50.0%	1 14.3%	5 33.3%	1 14.3%	2 33.3%	3 23.1%	1 14.3%	1 11.1%	2 12.5%
Good	2 33.3%	2 40.0%	4 36.4%	2 25.0%	3 42.9%	5 33.3%	4 57.1%	3 50.0%	7 53.8%	2 28.6%	5 55.6%	7 43.8%
Excellent	3 50.0%	2 40.0%	5 45.5%	2 25.0%	1 14.3%	3 20.0%	2 28.6%	1 16.7%	3 23.1%	4 57.1%	3 33.3%	7 43.8%
Total	6	5	11	8	7	15	7	6	13	7	9	16

## CONCEPTUALIZATION AND DEVELOPMENT OF THE RESEARCH PROJECT

Table 20 Contribution to conceptualisation

	Yourself			ILRI supervisor			University supervisor		
	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total
none	1 3.3%	3 10.3%	4 6.8%		3 10.7%	3 5.3%	9 31.0%	5 17.9%	14 24.6%

<25%	4 13.3%	3 10.3%	7 11.9%	4 13.8%	8 28.6%	12 21.1%	7 24.1%	8 28.6%	15 26.3%
25-50%	11 36.7%	7 24.1%	18 30.5%	9 31.0%	9 32.1%	18 31.6%	8 27.6%	12 42.9%	20 35.1%
>75%	14 46.7%	16 55.2%	30 50.8%	16 55.2%	8 28.6%	24 42.1%	5 17.2%	3 10.7%	8 14.0%
Total	30	29	59	29	28	57	29	28	57

Table 21 Contribution to full proposal and work plan

	Yourself			ILRI Supervisor			University Supervisor		
	Kenyan	Ethiopia	Total	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total
none		2 6.9%	2 3.5%				8 33.3%	4 13.8%	12 22.6%
<25%	1 3.6%	2 6.9%	3 5.3%	3 13.0%	9 34.6%	12 24.5%	7 29.2%	11 37.9%	18 34.0%
25-50%	8 28.6%	8 27.6%	16 28.1%	9 39.1%	12 46.2%	21 42.9%	6 25.0%	11 37.9%	17 32.1%
>75%	19 67.9%	17 58.6%	36 63.2%	11 47.8%	5 19.2%	16 32.7%	3 12.5%	3 10.3%	6 11.3%
Total	28	29	57	23	26	49	24	29	53

Table 22 Contribution to data collection and analysis

	Yourself			ILRI supervisor			University supervisor		
	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total
none				3 11.5%		3 5.5%	9 34.6%	5 17.2%	14 25.5%
<25%		2 6.7%	2 3.6%	4 15.4%	7 24.1%	11 20.0%	9 34.6%	14 48.3%	23 41.8%
25-50%	7 26.9%	9 30.0%	16 28.6%	13 50.0%	15 51.7%	28 50.9%	6 23.1%	8 27.6%	14 25.5%
>75%	19 73.1%	19 63.3%	38 67.9%	6 23.1%	7 24.1%	13 23.6%	2 7.7%	2 6.9%	4 7.3%
Total	26	30	56	26	29	55	26	29	55

Table 23 Contribution to Software Selection

	Yourself			ILRI supervisor			University supervisor		
	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total
none	2 8.3%	2 6.9%	4 7.5%	1 4.0%	5 17.9%	6 11.3%	12 54.5%	15 51.7%	27 52.9%
<25%	5	2	7	5	4	9	5	10	15

	20.8%	6.9%	13.2%	20.0%	14.3%	17.0%	22.7%	34.5%	29.4%
25-50%	6 25.0%	9 31.0%	15 28.3%	9 36.0%	9 32.1%	18 34.0%	3 13.6%	2 6.9%	5 9.8%
>75%	11 45.8%	16 55.2%	27 50.9%	10 40.0%	10 35.7%	20 37.7%	2 9.1%	2 6.9%	4 7.8%
Total	24	29	53	25	28	53	22	29	51

Table 24 Graduate fellows who submitted proposals in written form and presented the proposal as a seminar

	Kenyan	Ethiopian	Total
Presented in written form			
To university	26 (89.7%)	24 (82.8%)	50 (86.2%)
To NARS institute	10 (62.5%)	10 (41.7%)	20 (50.0%)
Presented as a seminar			
To ILRI	10 (34.5%)	9 (33.3%)	19 (33.9%)
To University	19 (65.5%)	20 (69.0%)	39 (67.2%)
To NARS Institute	6 (37.5%)	5 (20.8%)	11 (27.5%)

Table 25 Were the Quarterly Reports Helpful?

	Kenyan	Ethiopian	Total
Yes	23 (85.2%)	22 (81.5%)	45 (83.3%)
No	4 (14.8%)	5 (18.5%)	9 (16.7%)
Total	27	27	54

Table 26 Submission of Quarterly Reports

	To ILRI supervisor	To ILRI training department	To university supervisor	To Employer
Kenyan	19 (63.3%)	15 (51.7%)	23 (76.7%)	6 (50.0%)
Ethiopian	18 (69.2%)	15 (60.0%)	15 (55.6%)	5 (21.7%)
Total	37 (66.1%)	30 (55.6%)	38 (66.7%)	11 (31.4%)

## THESIS DEVELOPMENT

Table 27 Preparation of the Outline of the Thesis

	Kenyan	Ethiopian	Total

Alone	6 (21.4%)	5 (18.5%)	11 (20.0%)
With ILRI supervisor	8 (28.6%)	7 (25.9%)	15 (27.3%)
With university supervisor	3 (10.7%)	5 (18.5%)	8 (14.5%)
With university and ILRI supervisor	11 (39.3%)	10 (37.0%)	21 (38.2%)
Total	28	27	55

(Insert Figure 10)

Table 28 Suggestions for improving the graduate fellowship programme

Suggestions	Nationality		Total
	Kenya	Ethiopia	
<b>1. Academic</b>			
1.1 Give seminars, workshops, training on computer use, proposal writing & presentation	5 (15.2%)	-	5 (8.1%)
1.2 Assign more than one supervisor- the experienced ones as principal	2 (6.1%)		2 (3.2%)
1.3 Better academic support, smooth & formal interaction between students, supervisors and training department	8 (24.2%)	7 (24.1%)	15 (24.2%)
1.4 GF should focus on technical & scientific works (not on data entry)		1 (3.4%)	1 (1.6%)
<b>2. Administrative</b>			
2.1 Improve the process and procedures of recruitment- more transparent criteria of admission	6 (18.2%)	4 (13.8%)	10 (16.1%)
2.2 Provide and standardize stipend that would cover until final submission of thesis	1 (3.0%)	2 (6.9%)	3 (4.8%)
2.3 Equal treatment of local graduate fellows and expatriates on provision of housing, stipend & support from assistants	3 (9.1%)	8 (27.6%)	11 (17.7%)
2.4 Replace highly paid foreign staff with local ones		1 (3.4%)	1 (1.6%)
2.5 Invite national university supervisors		2 (6.9%)	2 (3.2%)
2.6 The programmes should be more open to NARs	1 (3.0%)	2 (6.9%)	3 (4.8%)
2.7 Keep linkage after completion	1 (3.0%)		1 (1.6%)
<b>3. General</b>			
3.1 More focussed goal oriented programmes	1 (3.0%)	1 (3.4%)	2 (3.2%)
3.2 Broaden mandate of the fellowship programme	1 (3.0%)	-	1 (1.6%)
<b>4. Satisfied</b>			
Satisfied with the current programme)	4 (12.1%)	1 (3.4%)	5 (8.1%)
Total	37	29	62

## UNIVERSITY ENVIRONMENT

Table 29 Location of university from ILRI

	Kenyan	Ethiopian	Total
Same town	12 (41.4%)	1 (3.4%)	13 (22.4%)
Same country	4 (13.8%)	18 (62.1%)	22 (37.9%)
Same continent	1 (3.4%)		1 (1.7%)
Different continent	12 (41.4%)	10 (34.5%)	22 (37.9%)
Total	29	29	58

Table 30 Frequency of meeting with university supervisor

	Kenyan	Ethiopian	Total
Weekly	3 (11.5%)	3 (10.7%)	6 (11.1%)
Monthly	12 (46.2%)	6 (21.4%)	18 (33.3%)
Annually	6 (23.1%)	7 (25.0%)	13 (24.1%)
>Annually	2 (7.7%)	2 (7.1%)	4 (7.4%)
Only at thesis submission	1 (3.8%)	3 (10.7%)	4 (7.4%)
Bi-annually		3 (10.7%)	3 (5.6%)
As needed	1 (3.8%)	4 (14.3%)	5 (9.3%)
Never	1 (3.8%)		1 (1.9%)
Total	26	28	54

Table 31 Graduate Fellows who received course work at university and type of course received

	Kenyan	Ethiopian	Total
Have you taken courses?			
Yes	19 65.5%)	21 72.4%)	40 69.0%)
No	10 34.5%)	8 27.6%)	18 31.0%)
Total	29 100%)	20 100%)	58 100%)
Type of course received			
Background material	14	21	35

	87.5%)	100%)	94.6%)
Relevant to ILRI research	13 76.5%)	17 85.0%)	30 81.1%)
Relevant to Home institution	7 77.8%)	19 95.0%)	26 89.7%)

## NARS ENVIRONMENT

Table 32 Frequency of contact with employer during the fellowship programme

	Kenyan	Ethiopian	Total
Daily		1 3.8%)	1 2.4%)
Weekly	5 31.3%)	1 3.8%)	6 14.3%)
Monthly	2 12.5%)	11 42.3%)	13 31.0%)
Annually	6 37.5%)	4 15.4%)	10 23.8%)
>Annually	1 6.3%)	3 11.5%)	4 9.5%)
Not at all	2 12.5%)	6 23.1%)	8 19.0%)
Total	16 100%)	26 100%)	42 100%)

Table 34 Graduate fellows formally reporting and discussing responsibilities

	Kenyan	Ethiopian	Total
Required to formally report to employer	8 47.1%)	9 33.3%)	17 38.6%)
Discuss your expected responsibilities	4 20.0%)	8 32.0%)	12 26.7%)

Table 35 Career after completion of the fellowship programme

	Kenyan	Ethiopian	Total
Same programme after completion	15 62.5%)	19 76.0%)	34 69.4%)
Still in the same programme	8 33.3%)	13 52.0%)	21 42.9%)
?Transferred to another research programme	5	7	12



	55.6%)	53.8%)	54.5%)
?transferred out of research	1 9.1%)	2 16.7%)	3 13.0%)
?Still applying skills gained at ILRI	13 100%)	10 76.9%)	23 88.5%)

Table 36 Time spent in station or department management

	Prior to fellowship			After fellowship		
	Kenyan	Ethiopian	Total	Kenyan	Ethiopian	Total
>90.0%)	3 23.1%)	1 4.0%)	4 10.5%)	5 35.7%)	1 4.5%)	6 16.7%)
75-90.0%)	2 15.4%)	1 4.0%)	3 7.9%)	3 21.4%)	6 27.3%)	9 25.0%)
50-75.0%)	3 23.1%)	5 20.0%)	8 21.1%)	1 7.1%)	6 27.3%)	7 19.4%)
<50.0%)	5 38.5%)	17 68.0%)	22 57.9%)	5 35.7%)	8 36.4%)	13 36.1%)
Not at all		1 4.0%)	1 2.6%)		1 4.5%)	1 2.8%)
Total	13 100%)	25 100%)	38 100%)	14 100%)	22 100%)	36 100%)

Table 37 Training and International meetings after completion

	Kenyan	Ethiopian	Total
Attended training after completion	11 50.0%)	15 60.0%)	26 55.3%)
Attended International meeting after completion	15 62.5%)	13 56.5%)	28 59.6%)
Present a paper	11 61.1%)	10 50.0%)	21 55.3%)
Present a poster	5 31.3%)	3 18.8%)	8 20.0%)

Table 38 Graduate Fellows who undertook degree or post-doctoral training

	Kenyan	Ethiopian	Total
Yes	13 52.0%)	4 16.0%)	17 34.0%)
No	12 48.0%)	21 84.0%)	33 66.0%)

Total	25 100%)	25 100%)	50 100%)
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Table 39 Access to information and technology

Interaction with ILRI information service	Kenyan	Ethiopian	Total
Joined ILRI's SDI service	11 42.3%)	13 68.4%)	24 53.3%)
Still receive ILRI's SDI outputs	7 29.2%)	9 42.9%)	16 35.6%)
Requested literature searches from ILRI	23 85.2%)	23 88.5%)	46 86.8%)
No. of professional Societies to which graduate fellow belongs			
0	8 27.6%)	5 16.7%)	13 22.0%)
1	13 44.8%)	20 66.7%)	33 55.9%)
2	4 13.8%	4 13.3%)	8 13.6%)
3	4 13.8%)	1 3.3%)	5 8.5%)
Total	29 100%)	30 100%)	59 100%)
Does employer pay membership fee?			
Yes	2 10.5%)		2 4.8%)
No	17 89.5%)	23 100%)	40 95.2%)
Total	19 100%)	23 100%)	42 100%)
Access to modern facilities			
Access to computer	25 96.2%)	22 88.0%)	47 92.2%)
Access to E-mail	21 80.8%)	13 52.0%)	34 66.7%)
Access to internet	15 57.7%)	4 17.4%)	19 38.8%)
Access to fax	18 78.3%)	17 73.9%)	35 76.1%)

Table 40 Limitation of resources in the current position

	Kenyan	Ethiopian	Total
Yes	15 (62.5%)	21 (84.0%)	36 (73.5%)
No	9 (37.5%)	4 (16.0%)	13 (26.5%)
Total	24 (100%)	25 (100%)	49 (100%)

Table 41 Areas in which resources are limiting factors

	Kenyan	Ethiopian	Total
Position description & responsibilities	4 (30.8%)	4 (28.6%)	8 (29.6%)
Project funding	11 (84.6%)	17 (89.5%)	28 (87.5%)
Unavailability of e-mail	6 (46.2%)	10 (58.8%)	16 (53.3%)
Salary	12 (80.0%)	8 (53.3%)	20 (66.7%)
No. of supporting staff	3 (25.0%)	9 (50.0%)	12 (40.0%)
Quality of support staff	7 (50.0%)	11 (68.8%)	18 (60.0%)
Laboratory/field facilities	11 (84.6%)	18 (94.7%)	29 (90.6%)
Transport	9 (69.2%)	15 (88.2%)	24 (80.0%)

Table 42 Proposals submitted to donors after completion

Did you submit proposals	Kenyan	Ethiopian	Total
Yes	12 (50.0%)	14 (56.0%)	26 (53.1%)
No	12 (50.0%)	11 (44.0%)	23 (46.9%)
Total	24 (100%)	25 (100%)	49 (100%)
Share of joint effort out of the total submissions			
Joint proposals with ILRI scientists	5	2	7

	41.7%)	14.3%)	26.9%)
Joint proposals associated with ILRI	2 16.7%)	5 35.7%)	7 26.9%)

Table 43 Training and scientific leadership offered by graduate fellows after completion

On training	Kenyan	Ethiopian	Total
Trained people after return	17 73.9%)	15 60.0%)	32 66.7%)
organized & run training courses	9 39.1%)	5 20.8%)	14 29.8%)
Trainer outside the institute/dep't	11 45.8%)	6 26.1%)	17 36.2%)
<b>On scientific leadership</b>			
provide scientific leadership at current position	16 69.6%)	16 72.7%)	32 71.1%)
were able to be scientific leaders before the programme	2 20.0%)	3 33.3%)	5 26.3%)

Table 44 First and Second Degrees Awarded Prior to ILRI Fellowship

	First Degree								Second Degree					
	BSc/BA/BE		DVM		BVM/BVSc		Total		MSc/MVM		No 2nd degree		Total	
	No	%)	No	%)	No	%)	No	%)	No	%)	No	%)	No	%)
Ken.	22	71	1	3.2	8	25.8	31	100	17	56.7	13	43.3	30	100
Eth.	27	90	3	10			30	100	8	26.7	22	73.3	30	100
Total	49	80.3	4	6.6	8	13.1	61	100	25	41.7	35	58.3	60	100

Table 45 Job title of graduate fellow Prior to fellowship (most recent period)

	Kenyan	Ethiopian	Total
Civil servant		2 6.7%)	2 4.1%)
Researcher/co-ordinator	8 42.1%)	4 13.3%)	12 24.5%)

Lecturer	10 52.6%)	16 53.3%)	26 53.1%)
Company/organization employee	1 5.3%)		1 2.0%)
Expert		5 16.7%)	5 10.2%)
Economist		3 10.0%)	3 6.1%)
Total	19 100%)	30 100%)	49 100%)

Table 46 Contribution of ILRI training department to thesis development

	Kenyan	Ethiopian	Total
none	10 35.7%)	6 25.0%)	16 30.8%)
little	4 14.3%)	6 25.0%)	10 19.2%)
some	11 39.3%)	9 37.5%)	20 38.5%)
lot	3 10.7%)	3 12.5%)	6 11.5%)
Total	28 100%)	24 100%)	52 100%)

Table 47 Number of months of residence at university prior to and after fellowship

	Kenyan	Ethiopian	Total
Prior	12 (19)	16 (26)	14 (45)
After	9 (18)	11 (17)	10 (35)